WIS

PROJECT ID: 1053-07-77

WITH: N/A

COUNTY: MARATHON

MARCH 2025

ORDER OF SHEETS

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

TOTAL SHEETS = 372



N

DESIGN DESIGNATION

A.A.D.T.	2027	=	11,660
A.A.D.T.	2047	=	12,595
D.H.V.		=	1504
D.D.		=	60/40
T.		=	32.7%
DESIGN SPEED		=	70 MPH
ESALS		=	12,630,000

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 (95.36)
- CULVERT (Profile View)

UTILITIES

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

ABBOTSFORD - WAUSAU

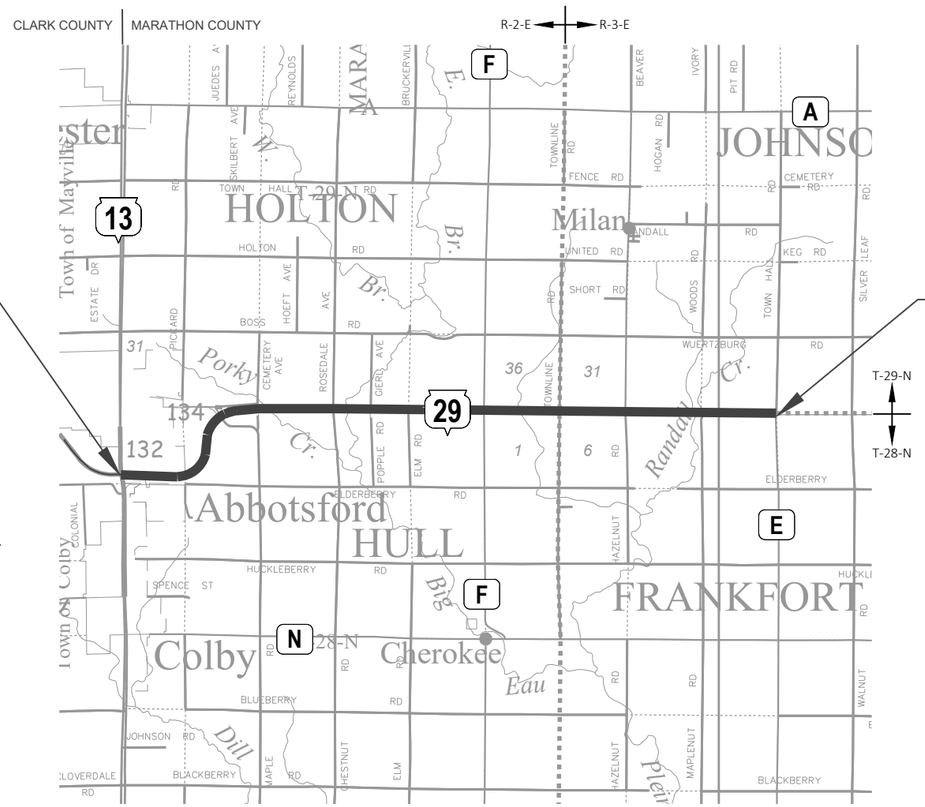
CLARK CO LINE TO CTH E SOUTH, WB

STH 29

MARATHON COUNTY

STATE PROJECT NUMBER
1053-07-77

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1053-07-77		



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 9.147 MI

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

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

ORIGINAL PLANS PREPARED BY

DAAR ENGINEERING, INC.
www.daarcorp.com
Johnson Creek, WI 53038
414-225-9817

WISCONSIN PROFESSIONAL ENGINEER
TERESA A. SCHOPP
E-35843
JOHNSON CREEK
WISCONSIN

DATE: 10/15/2024 (DATE) Teresa Schopp (SIGNATURE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT/DAAR
Designer	DAAR ENGINEERING, INC.
Project Manager	KOREY BOEHM, P.E.
Regional Examiner	FRED SCHUNKE, P.E.
Regional Supervisor	ELIZABETH NEMEC, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 10/21/24 Korey Boehm (Signature)

E

UTILITIES CONTACTS

BUG TUSSEL WIRELESS, LLC
COMMUNICATION LINE
DUSTIN TEAFF
1262 CAMBER CT
DE PERE, WI 54115
PHONE: (920) 254-3539
EMAIL: dustin.teaff@btussel.com

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

CLARK ELECTRIC COOPERATIVE
ELECTRICITY
JOSH BURNS
1209 W DAL-BERG ST
GREENWOOD, WI 54437
PHONE: (715) 456-3364
EMAIL: jburns@cecoop.com

CITY OF ABBOTSFORD
WATER
CRAIG STUTTGEN
PO BOX 589
ABBOTSFORD, WI 54405
PHONE: (715) 613-9444
EMAIL: dpw@ci.abbotsford.wi.us

WE ENERGIES
GAS/PETROLEUM
SANDRA BEHLEN
1921 8TH ST SOUTH
WISCONSIN RAPIDS, WI 54494
PHONE: (715) 213-5189
EMAIL: We-Utility-relocations@we-energies.com

XCEL ENERGY
ELECTRICTY
JOHN KELSER
1414 W HAMILTON AVENUE, PO BOX 8
EAU CLAIRE, WI 54702
PHONE: (715) 737-6020
EMAIL: john.kelser@xcelenergy.com

FRONTIER COMMUNICATIONS OF WI LLC
COMMUNICATION LINE
CHRISTOPHER POLLACK
521 N 4TH ST
WAUSAU, WI 54403
PHONE: (715) 847-1240
EMAIL: christopher.pollack@ftr.com

EVERSTREAM
COMMUNICATION LINE
SHAD GARCIA
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
PHONE: (414) 522-6685
EMAIL: sgarcia@everstream.net

WISCONSIN DNR LIAISON

JAY SCHIEFELBEIN
DNR REGION HQ
2984 SHAWANO AVE
GREEN BAY, WI 54313
PHONE: 920-360-3784
EMAIL: JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE.

HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LBS/SY/IN.

RIGHT OF WAY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE.

STATIONING OF CONCRETE PAVEMENT REPAIR & REPLACEMENT LOCATIONS ARE APPROXIMATE. VERIFY LOCATIONS WITH ENGINEER.

PLAN REMOVAL AREAS ARE APPROXIMATE. EXACT LIMITS SHALL BE DETERMINED IN THE FIELD.

SAWING CONCRETE WILL BE MEASURED AND PAID FOR ONLY ONCE WHEN REPAIR AREAS ARE ADJACENT ALONG THE C/L OF THE NB LANE (IN BOTH OUTSIDE AND MEDIAN LANES).

OVERSAWING INTO PAVEMENT THAT IS TO REMAIN TO FACILITATE REMOVAL OF REPAIR AREAS SHALL BE SEALED WITH AN APPROVED EPOXY. THE OVERSAWING AND EPOXY ARE INCIDENTAL TO BID ITEMS 416.1710, 416.1715, 416.1720, & 416.1725.

IN CONCRETE PAVEMENT REPLACEMENT SECTIONS, THE NEW JOINTS SHOULD MATCH ADJACENT CONCRETE JOINT. THE NEW TINING SHOULD MATCH THE ADJACENT PAVEMENT PATTERN.

DO NOT DRIVE OR STORE EQUIPMENT, OR STORE CONSTRUCTION MATERIALS IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

PRIOR TO THE PLACEMENT OF MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.

ALIGNMENT IDENTIFIERS	
'WB'	STH 29 WB
'EB'	STH 29 EB
'NB'	STH 13 NB
'RA'	STH 13 TO STH 29 WB RAMP
'RB'	STH 29 WB TO STH 13 RAMP
'RC'	STH 29 WB TO SPRUCE ST/MAPLE RD RAMP
'RD'	STH 29 EB TO STH 13 RAMP
'RE'	STH 13 TO STH 29 EB RAMP
'RF'	SPRUCE ST/MAPLE RD TO STH 29 EB RAMP
'CR'	TRAFFIC CONTROL CROSSOVER

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 52.68 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.14 ACRES

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
GUARDRAIL DETAILS
DIAMOND GRINDING DETAILS
INTERSECTION DETAILS
CROSSOVER DETAILS
CURB RAMP DETAILS
EROSION CONTROL DETAILS
PEDESTRIAN PUSH BUTTON DETAILS
PAVEMENT MARKING DETAILS
TRAFFIC CONTROL
ALIGNMENT DETAILS

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

2

HOLTON

CLARK COUNTY

MARATHON COUNTY

ABBOTSFORD CITY LIMITS

PICKARD AVE

OLD HWY 29

CEMETARY AVE

STH 29 WB TO SPRUCE ST/MAPLE RD

5+00 'RC'

9200+00 'WB'

200+00 'EB'

SPRUCE ST/MAPLE RD TO STH 29 EB

SYCAMORE LN

PORKY CREEK

STH 29 WB

9250+00 'WB'

250+00 'EB'

STH 29 EB

ROSEDALE AVE

GIERL AVE

9300+00 'WB'

300+00 'EB'

TOWNSHIP LIMITS

350+00 'E

N

BIG EAU PLEINE RIVER

HULL

BEGIN PROJECT
STA 9094+60.67 'WB'
Y= 192,780.939
X= 103,578.888

STH 13

105+00 'RB'

STH 29 WB TO STH 13

STH 13 TO STH 29 WB

110+00 'WA'

9100+00 'WB'

120+00 'RB'

STH 29 WB

TEMPORARY CROSSOVER
STA 9123+85 'WB'

9150+00 'WB'

150+00 'EB'

SILVER MAPLE LN

CHESTNUT HILL LN

POPPLE LN

ROCK ELM LN

100+00

90+00

STH 29 EB

ABBOTSFORD CITY LIMITS

90+00

80+00

STH 13 TO STH 29 EB

STH 29 EB TO STH 13

ELDERBERRY RD

COLBY CITY LIMITS

N

JOHNSON

CTH F

TOWNLINE RD

CTH E

CORINTH RD

9350+00 'WB'

'EB'

9400+00 'WB'

400+00 'EB'

STH 29 WB

9450+00 'WB'

450+00 'EB'

STH 29 EB

9500+00 'WB'

500+00 'EB'

9550+00 'WB'

550+00 'EB'

MARSH CREEK

TOWNSHIP LIMITS

END PROJECT
STA 9577+56.11 'WB'

HAZELNUT RD

MAPLENUT RD

RANDALL CREEK

FRANKFORT

CTH F

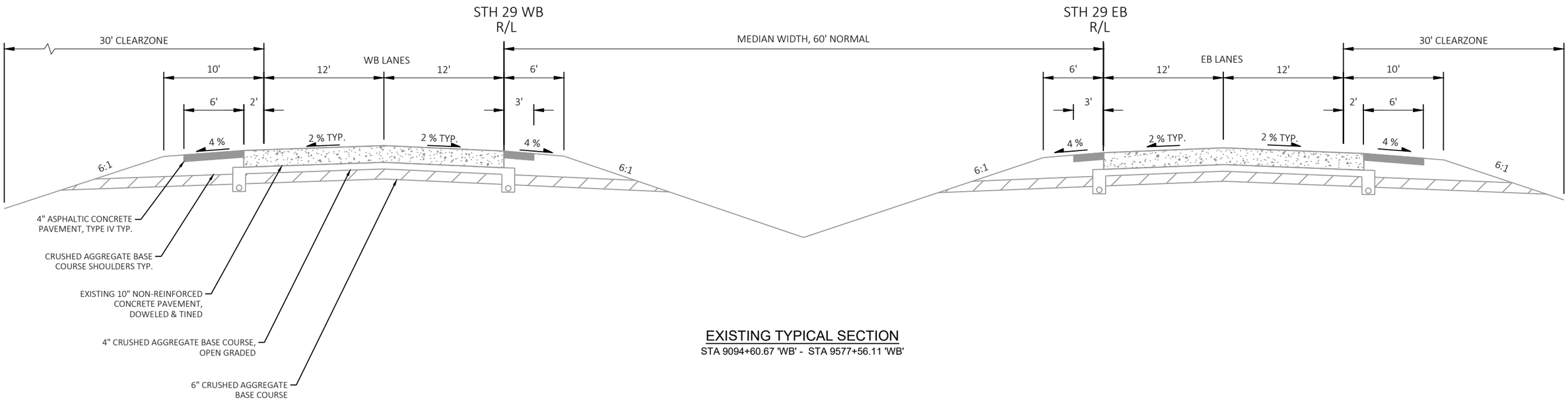
TOWNLINE RD

CTH E

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\020201-PO.DWG
LAYOUT NAME - 01
PLOT DATE : 10/16/2024 3:26 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:1500 FT
WISDOT/CADDS SHEET 42

2



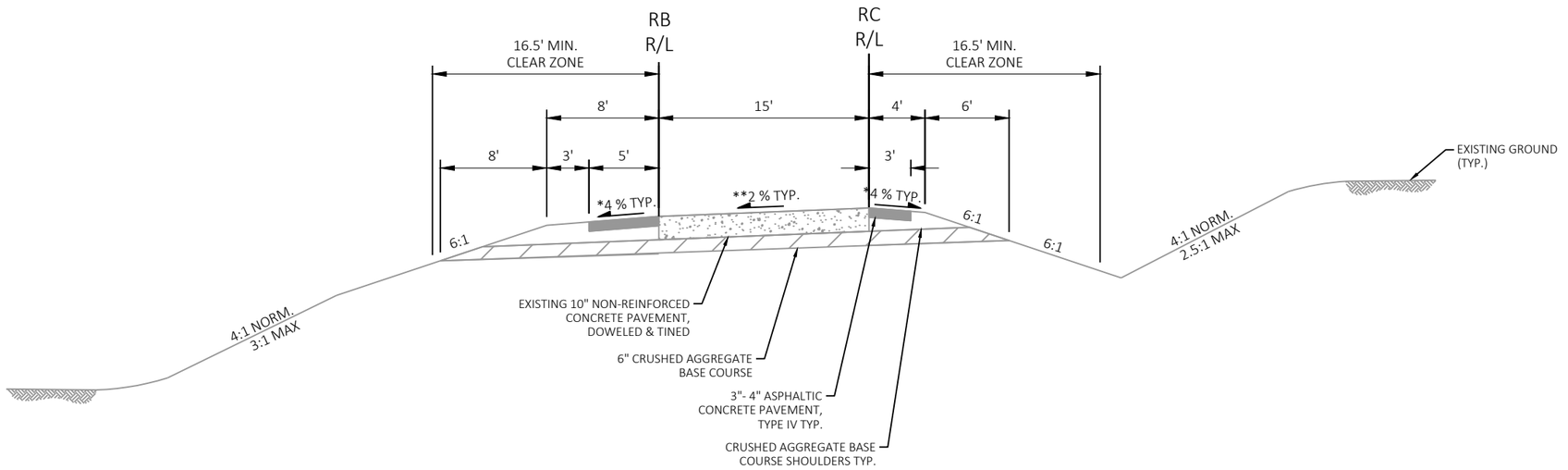
EXISTING TYPICAL SECTION

STA 9094+60.67 'WB' - STA 9577+56.11 'WB'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 4	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\020301A-TS.DWG
LAYOUT NAME - 01-10ft
PLOT DATE : 10/8/2024 10:45 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

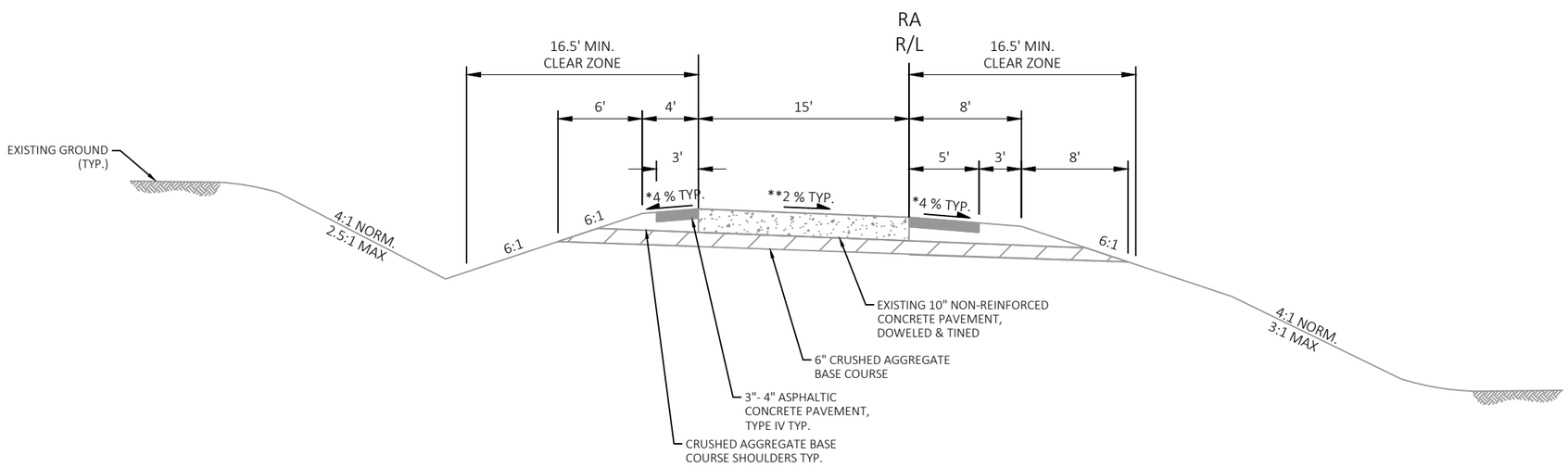


EXISTING TYPICAL SECTION

STH 29 WB TO STH 13 EXIT RAMP
STA 100+00.00 'RB' - STA 127+56.00 'RB'

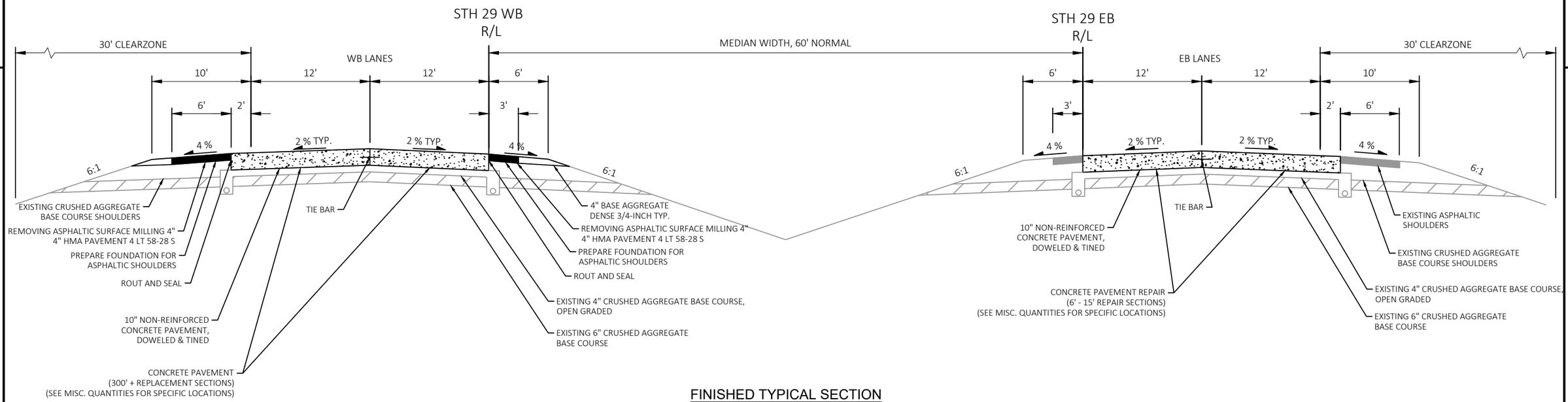
STH 29 WB TO SPRUCE ST/MAPLE RD EXIT RAMP
STA 0+00 'RC' - STA 19+62.83 'RC'

NOTES:
*SHOULDER SLOPE VARIES
**CROSS SLOPE VARIES



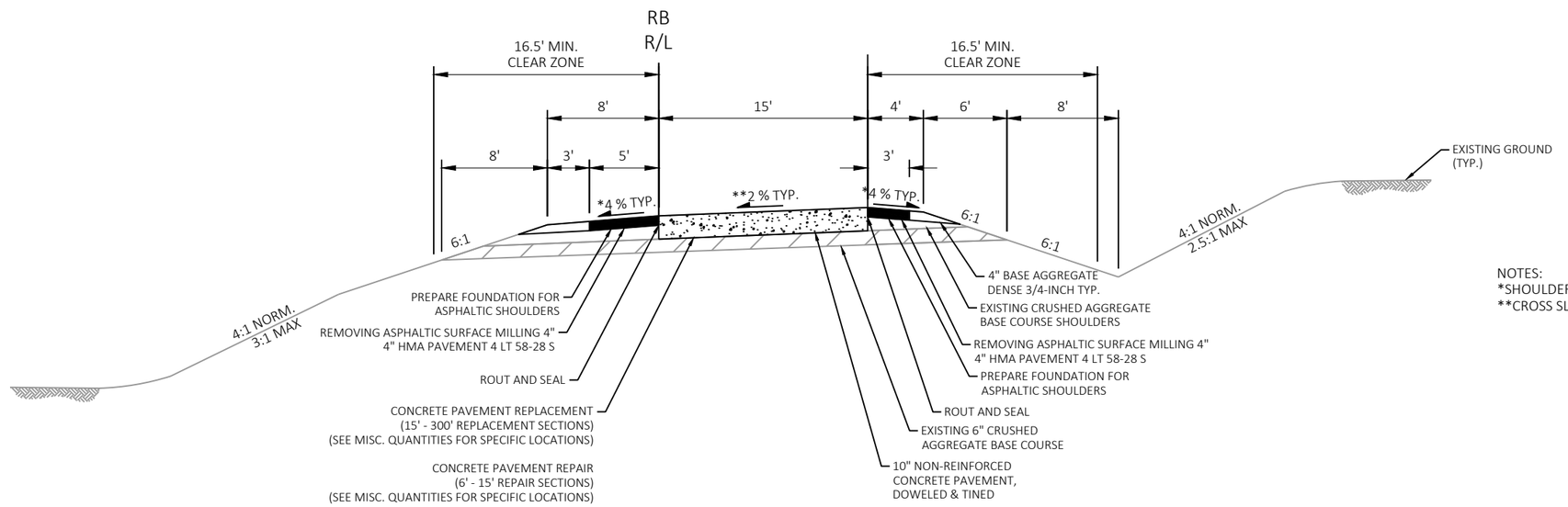
EXISTING TYPICAL SECTION

STH 13 TO STH 29 WB ENTRANCE RAMP
STA 90+00.00 'RA' - STA 112+88.85 'RA'



FINISHED TYPICAL SECTION

STA 9094+60.67 'WB' - STA 9577+56.11 'WB'

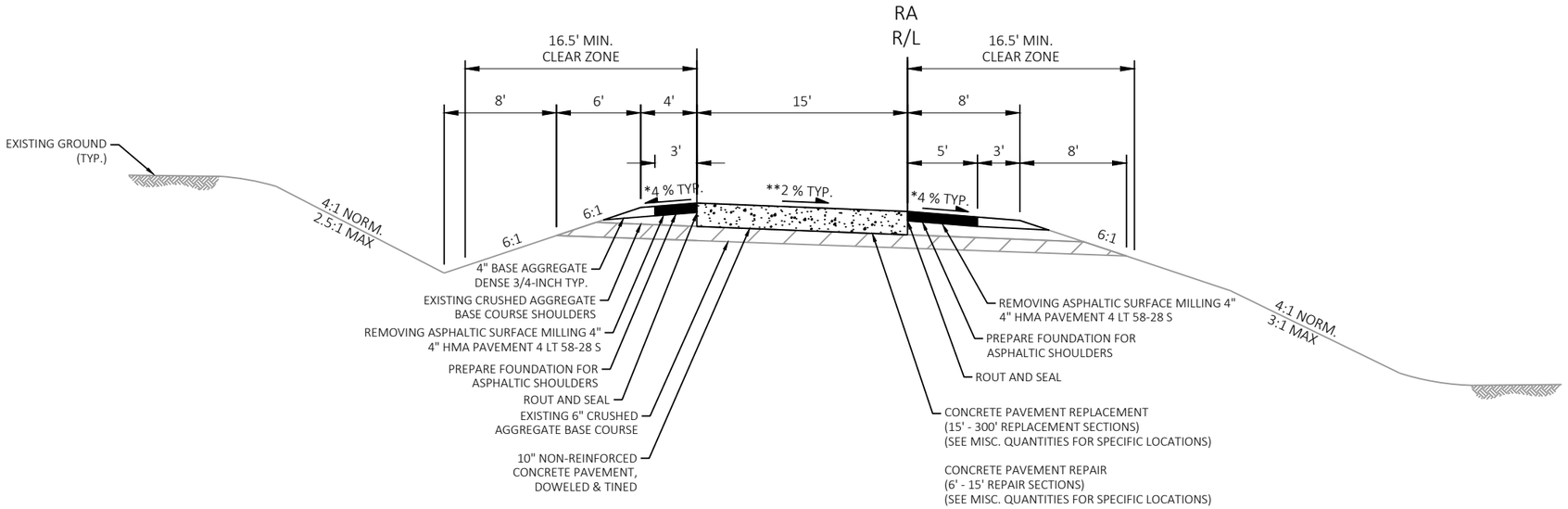


NOTES:
*SHOULDER SLOPE VARIES
**CROSS SLOPE VARIES

FINISHED TYPICAL SECTION

STH 29 WB TO STH 13 EXIT RAMP
STA 100+00.00 'RB' - STA 127+56.00 'RB'

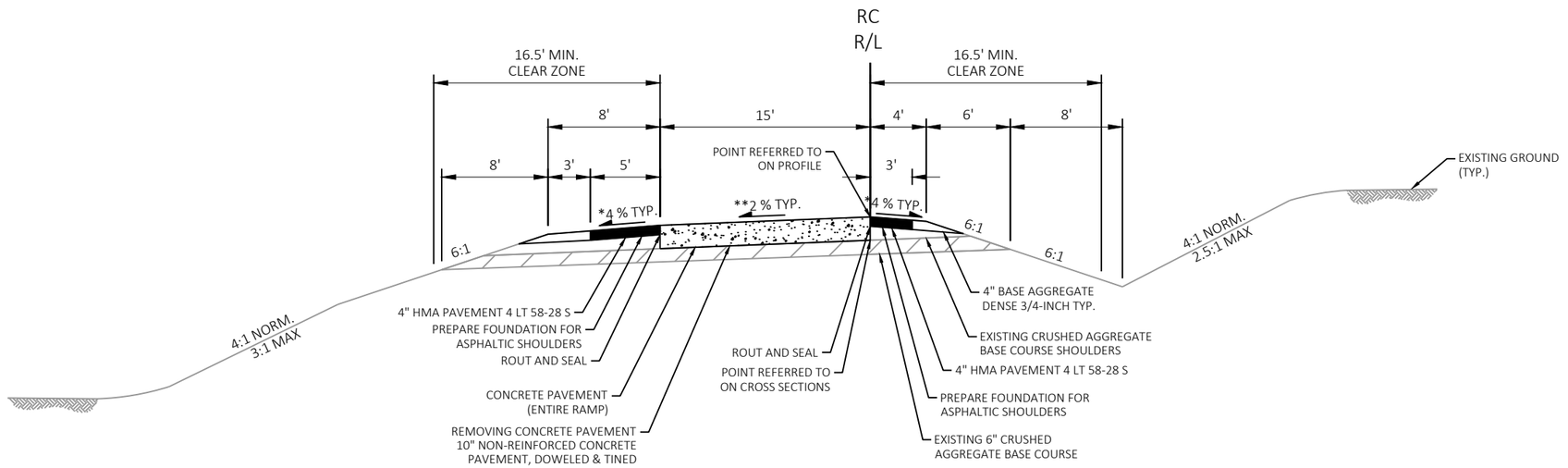
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 6	E



FINISHED TYPICAL SECTION

STH 13 TO STH 29 WB ENTRANCE RAMP
STA 90+00.00 'RA' - STA 112+88.85 'RA'

NOTES:
*SHOULDER SLOPE VARIES
**CROSS SLOPE VARIES

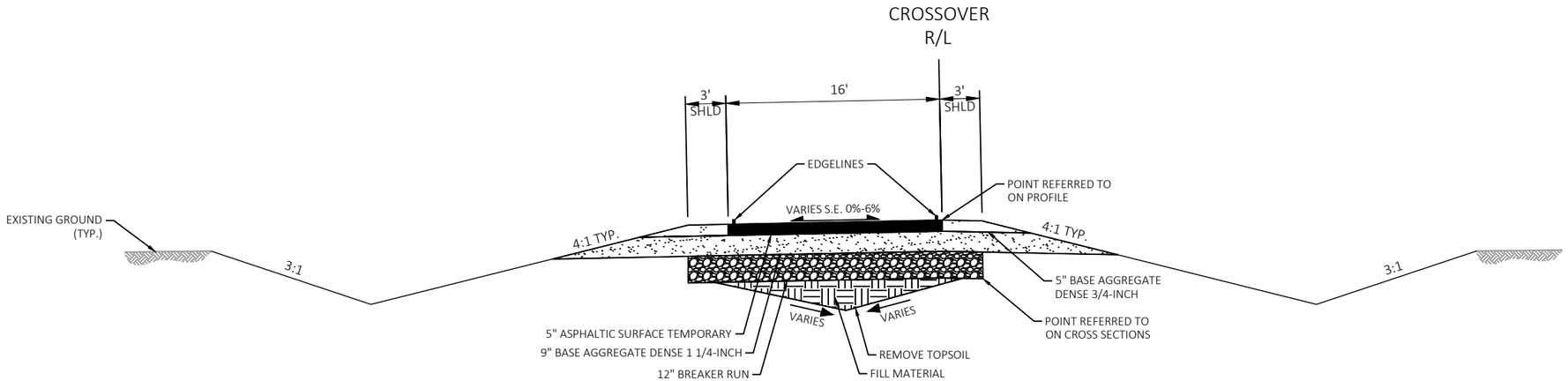


FINISHED TYPICAL SECTION

STH 29 WB TO SPRUCE ST/MAPLE RD EXIT RAMP
STA 0+00 'RC' - STA 19+62.83 'RC'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 7	E

2



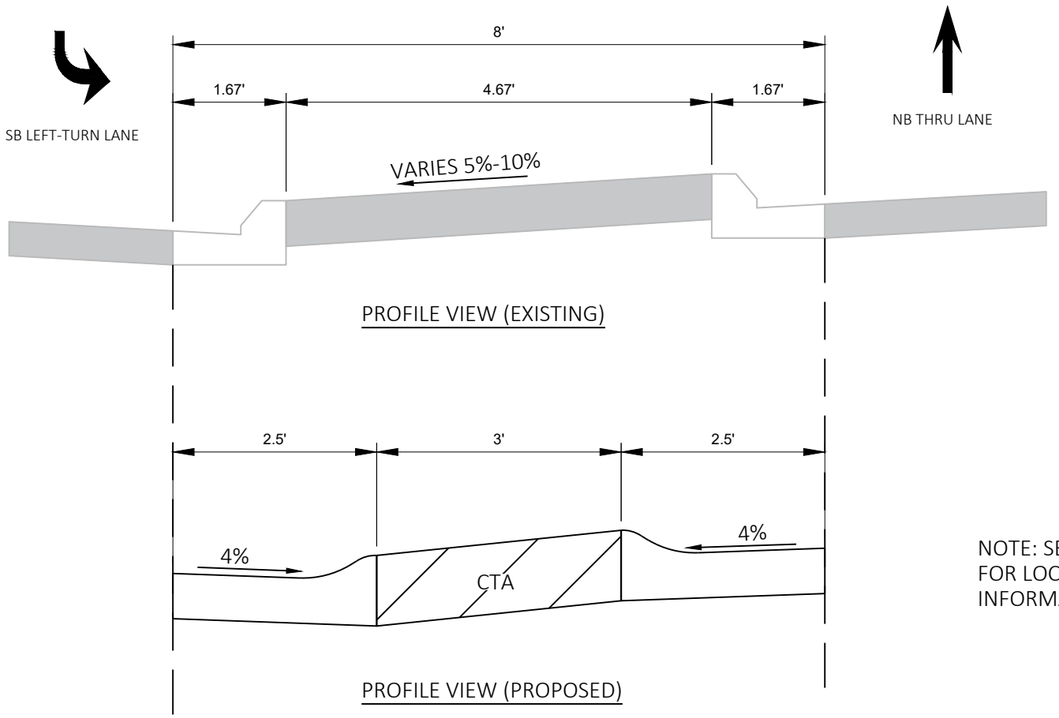
FINISHED TEMPORARY CROSSOVER TYPICAL SECTION

STA 0+00 'CR' - 15+92 'CR'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TYPICAL SECTIONS	SHEET 8	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\020301A-TS.DWG
LAYOUT NAME - 05-10ft
PLOT DATE : 10/8/2024 10:45 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

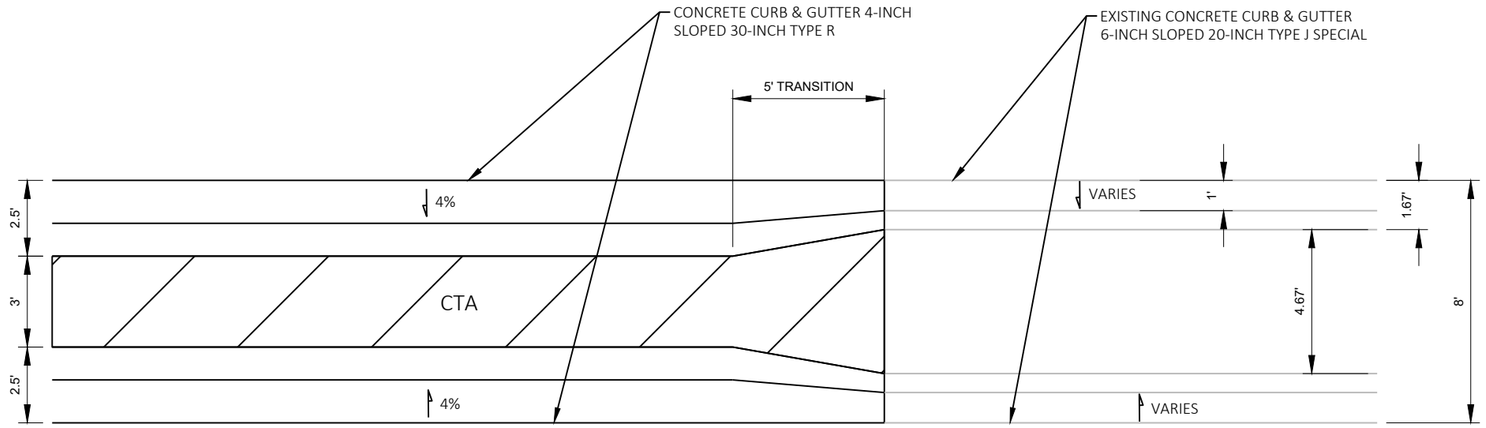
CTA: CONCRETE TRUCK APRON 12-INCH,
COLORING CONCRETE WISDOT RED



PROFILE VIEW (EXISTING)

PROFILE VIEW (PROPOSED)

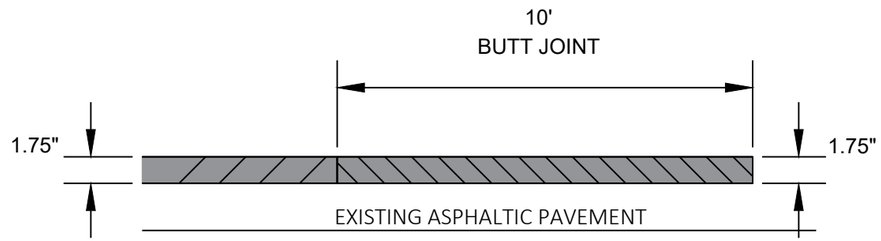
NOTE: SEE INTERSECTION DETAILS FOR LOCATION AND ADDITIONAL INFORMATION



CONCRETE CURB & GUTTER TRANSITION - TRUCK APRON
STA. 1139+96.64 'NB' - STA. 1140+76.37 'NB'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET 9	E

2



HMA PAVEMENT

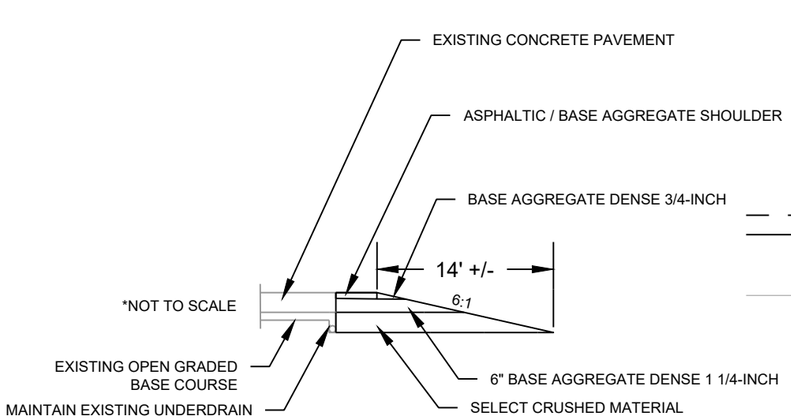
REMOVING ASPHALTIC SURFACE MILLING

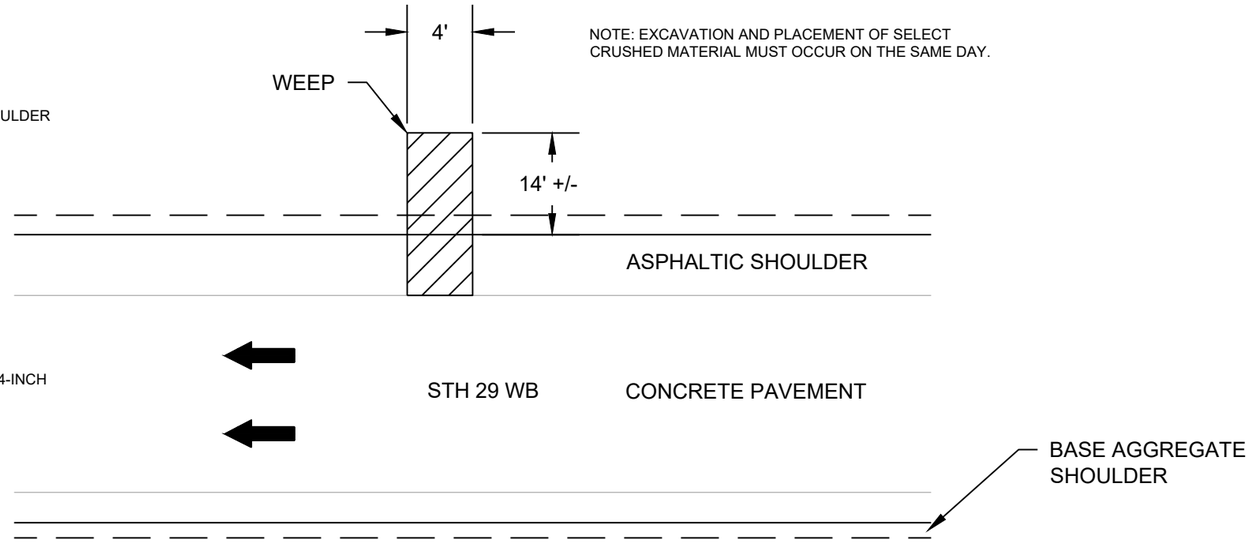
REMOVING ASPHALTIC SURFACE BUTT JOINT

BUTT JOINT

SIDEROADS AND MEDIAN CROSSOVERS

2



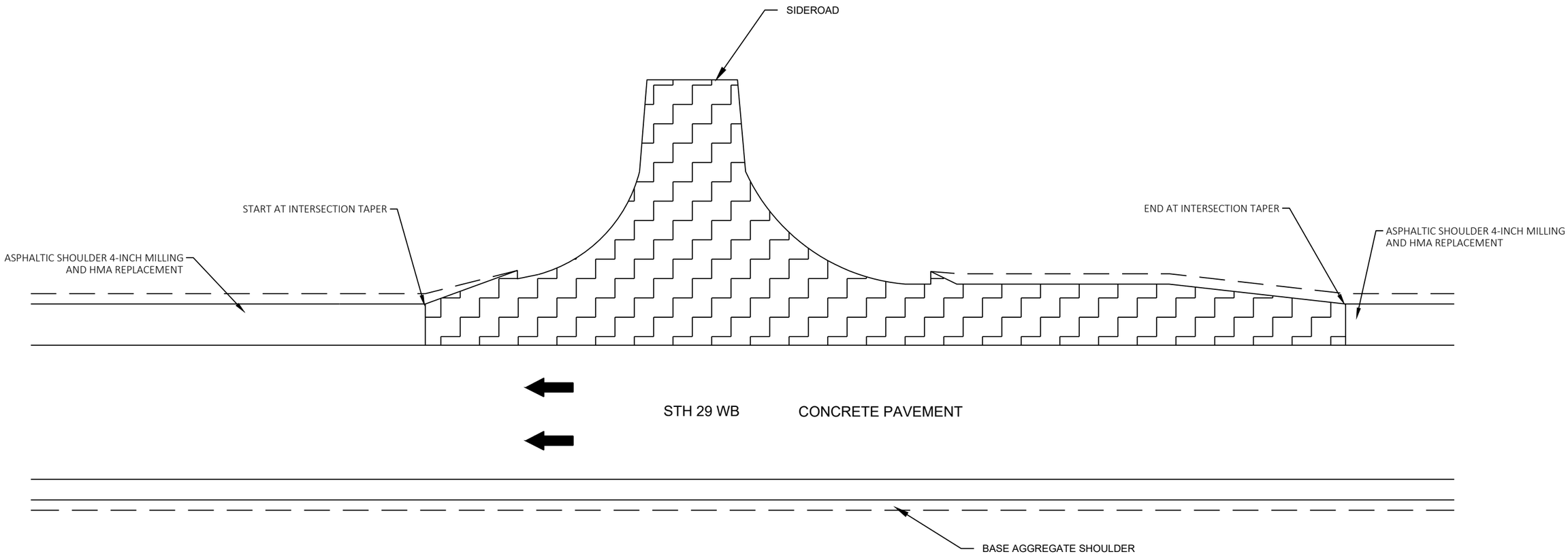


NOTE: EXCAVATION AND PLACEMENT OF SELECT CRUSHED MATERIAL MUST OCCUR ON THE SAME DAY.

RELIEF TRENCH DETAIL

APPROXIMATE LOCATIONS
STA 9128+80
STA 9150+83
STA 9169+44
STA 9178+84

2



REMOVING ASPHALTIC SURFACE MILLING 1.75"
1.75" HMA PAVEMENT 4 LT 58-28 S

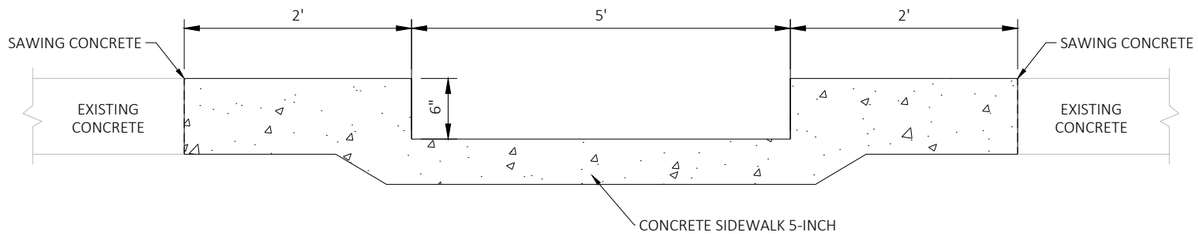
SIDEROAD PAVING

SEE PLAN FOR LOCATION AND LIMITS

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET 12	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021001-CD.DWG PLOT DATE : 10/22/2024 12:27 PM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - 04
WISDOT/CADDS SHEET 42

2



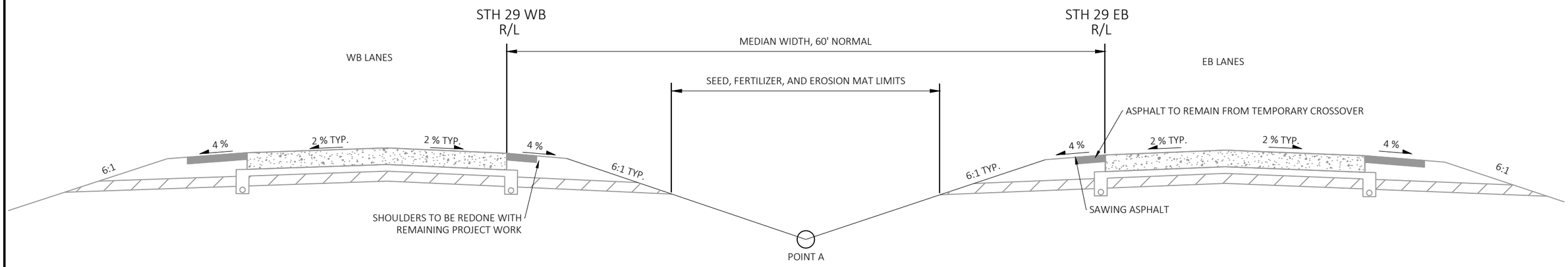
MEDIAN SIDEWALK DETAIL

SEE CURB RAMP DETAILS FOR LOCATIONS

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CONSTRUCTION DETAILS	SHEET 13	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021001-CD.DWG
LAYOUT NAME - 05
PLOT DATE : 10/22/2024 12:27 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



TEMPORARY CROSSOVER RESTORATION

COMPLETED AFTER REMOVAL OF CROSSOVER

NOTE: VERIFY POSITIVE DRAINAGE TO EXISTING INLET AND 24" CPRC

POINT A			
STATION	ELEVATION	STATION	ELEVATION
9123+50	1372.69	9132+00	1368.06
9124+00	1372.00	9132+50	1368.21
9124+50	1371.20	9133+00	1368.36
9125+00	1370.38	9133+50	1368.51
9125+50	1369.84	9134+00	1368.68
9126+00	1369.13	9134+50	1369.16
9126+50	1368.50	9135+00	1369.59
9127+00	1368.61	9135+50	1369.84
9127+50	1368.02	9136+00	1370.33
9128+00	1367.65	9136+50	1370.46
9128+50	1367.55	9137+00	1370.83
9129+00	1367.50	9137+50	1370.93
9129+50	1367.41	9138+00	1371.05
9130+00	1367.21	9138+50	1371.12
9130+50	1367.37	9139+00	1371.42
9131+00	1367.70	9139+50	1371.91
9131+50	1367.91		

2

2

N

FRONTIER COMMUNICATIONS

INSTALL NEW MGS GUARDRAIL:

MGS GUARDRAIL THRIE BEAM TRANSITION: STA 9094+71.0 'WB' - STA 9095+10.3 'WB'
MGS GUARDRAIL 3: STA 9095+10.3 'WB' - STA 9097+35.3 'WB'
MGS GUARDRAIL TERMINAL EAT: STA 9097+35.3 'WB' - STA 9097+88.4 'WB'

EAT POST #9
STA 9097+38.4 'WB'
51.2' LT

REMOVE EXISTING BEAM GUARD
STA 9094+71 'WB' - STA 9097+68 'WB'

SLOPE INTERCEPT

EAT POST #5
STA 9097+63.4 'WB'
52.7' LT

EAT POST #1
STA 9097+88.4 'WB'
54.2' LT

EXISTING CONCRETE SHOULDER
AND INLET TO REMAIN

15:1 APPROACH TAPER
STA 9098+66.6 'WB'
51.7' LT

STH 13 TO STH 29 WB

B-37-290

9095+00 'WB'

9096+00 'WB'

STH 29 WB

9097+00 'WB'

STH 29 WB R/L

9098+00 'WB'

9099+00 'WB'

9100+0

STH 13

SLOPE INTERCEPT

REMOVE EXISTING BEAM GUARD
STA 9094+79 'WB' - STA 9098+40 'WB'

EXISTING CABLE GUARD TO REMAIN

EAT POST #1
STA 9098+46.6 'WB'
8.0' RT

15:1 APPROACH TAPER
STA 9099+21.6 'WB'
3.0' RT

EAT POST #9
STA 9097+96.6 'WB'
6.0' RT

EAT POST #5
STA 9098+21.6 'WB'
7.0' RT

101+00 'EB'

102+00 'EB'

STH 29 EB R/L

103+00 'EB'

104+00 'EB'

105+00 'EB'

B-37-289

STH 29 EB

INSTALL NEW MGS GUARDRAIL:

MGS GUARDRAIL THRIE BEAM TRANSITION: STA 9094+79.1 'WB' - STA 9095+18.5 'WB'
MGS GUARDRAIL 3: STA 9095+18.5 'WB' - STA 9097+93.5 'WB'
MGS GUARDRAIL TERMINAL EAT: STA 9097+93.5 'WB' - STA 9098+46.6 'WB'

CONCRETE CURB & GUTTER 4-INCH
SLOPED 30-INCH TYPE TBT

STA 100+65.9 'EB'

CONCRETE PAVEMENT
SHOULDER 10-INCH

POST 8

POST 7

REMOVING SURFACE DRAINS

CONCRETE SURFACE DRAIN

RIPRAP MEDIUM
6' X 8'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	GUARDRAIL DETAILS	SHEET 15	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 02
PLOT DATE : 10/22/2024 9:30 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

2

N

EXISTING BEAM GUARD TO REMAIN

CITY OF ABBOTSFORD - WATER

CLARK ELECTRIC COOPERATIVE

BUG TUSSEL

EXISTING THRIE BEAM TO REMAIN

REPLACING GUARDRAIL RAIL AND HARDWARE
25': STA 9223+62.4 'WB' - STA 9223+87.4 'WB'

DRIVEWAY

B-37-201

FRONTIER COMMUNICATIONS

STH 29 WB R/L

STH 29 WB

9223+00 'WB'

9224+00 'WB'

9225+00 'WB'

9226+00 'WB'

9227+00 'WB'

9228+00 'WB'

EXISTING BEAM GUARD TO REMAIN

EAT POST #5
STA 231+64.1 'EB'
7.0' LT

EAT POST #1
STA 231+89.1 'EB'
8.0' LT

EAT POST #9
STA 231+39.1 'EB'
6.0' LT

INSTALL TEMPORARY MGS GUARDRAIL:

MGS GUARDRAIL TEMPORARY THRIE BEAM TRANSITION: STA 229+34.1 'EB' - STA 229+73.5 'EB'
MGS GUARDRAIL TEMPORARY: STA 229+73.5 'EB' - STA 231+36.0 'EB'
MGS GUARDRAIL TEMPORARY TERMINAL EAT: STA 231+36.0 'EB' - STA 231+89.1 'EB'

229+00 'EB'

230+00 'EB'

231+00 'EB'

STH 29 EB

232+00 'EB'

233+00 'EB'

234+00 'EB'

STH 29 EB R/L

B-37-284

EAT POST #9
STA 230+78.6 'EB'
34.0' RT

EAT POST #5
STA 231+03.6 'EB'
35.0' RT

EAT POST #1
STA 231+28.6 'EB'
36.0' RT

INSTALL TEMPORARY MGS GUARDRAIL:

MGS GUARDRAIL TEMPORARY THRIE BEAM TRANSITION: STA 229+61.1 'EB' - STA 230+00.5 'EB'
MGS GUARDRAIL TEMPORARY: STA 230+00.5 'EB' - STA 230+75.5 'EB'
MGS GUARDRAIL TEMPORARY TERMINAL EAT: STA 230+75.5 'EB' - STA 231+28.6 'EB'

PORKY CREEK

CLARK ELECTRIC COOPERATIVE

FRONTIER COMMUNICATIONS

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	GUARDRAIL DETAILS	SHEET 16	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 04

PLOT DATE : 10/22/2024 9:30 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 44

2

2

N

INSTALL NEW MGS GUARDRAIL:

MGS GUARDRAIL THRIE BEAM TRANSITION: STA 9279+69.2 'WB' - STA 9280+08.6 'WB'
MGS GUARDRAIL 3: STA 9280+08.6 'WB' - STA 9282+71.1 'WB'
MGS GUARDRAIL TERMINAL EAT: STA 9282+71.1 'WB' - STA 9283+24.2 'WB'

EXISTING CONCRETE FLUME TO REMAIN

REMOVE EXISTING BEAM GUARD
STA 9279+69 'WB' - 9282+52 'WB'

SLOPE INTERCEPT

EAT POST #9
STA 9282+74.2 'WB'
32.0' LT

EAT POST #5
STA 9282+99.2 'WB'
33.0' LT

EAT POST #1
STA 9283+24.2 'WB'
34.0' LT

15:1 APPROACH TAPER
STA 9283+60.9 'WB'
32.0' LT

BUG TUSSEL

FO

B-37-202

EXISTING BEAM GUARD TO REMAIN

9280+00 'WB' 9281+00 'WB' 9282+00 'WB' 9283+00 'WB' 9284+00 'WB' 9285+00 'WB'

STH 29 WB

STH 29 WB R/L

EXISTING CONCRETE FLUME TO REMAIN

EAT POST #5
STA 287+51.6 'EB'
8.0' LT

EAT POST #9
STA 287+26.6 'EB'
7.0' LT

EAT POST #1
STA 287+76.6 'EB'
9.0' LT

INSTALL TEMPORARY MGS GUARDRAIL:

MGS GUARDRAIL TEMPORARY THRIE BEAM TRANSITION: STA 285+34.1 'EB' - STA 285+73.5 'EB'
MGS GUARDRAIL TEMPORARY: STA 285+73.5 'EB' - STA 287+23.5 'EB'
MGS GUARDRAIL TEMPORARY TERMINAL EAT: STA 287+23.5 'EB' - STA 287+76.6 'EB'

285+00 'EB' 286+00 'EB' 287+00 'EB' 288+00 'EB' 289+00 'EB' 290+00 'EB' 291+00 'EB'

STH 29 EB R/L

B-37-285

STH 29 EB

EAT POST #1
STA 286+51.8 'EB'
34.0' RT

EAT POST #5
STA 286+76.8 'EB'
35.0' RT

EAT POST #1
STA 287+01.8 'EB'
36.0' RT

18.2

BIG EAU PLEINE RIVER

INSTALL TEMPORARY MGS GUARDRAIL:

MGS GUARDRAIL TEMPORARY THRIE BEAM TRANSITION: STA 285+34.3 'EB' - STA 285+73.7 'EB'
MGS GUARDRAIL TEMPORARY: STA 285+73.7 'EB' - STA 286+48.7 'EB'
MGS GUARDRAIL TEMPORARY TERMINAL EAT: STA 286+48.7 'EB' - STA 287+01.8 'EB'

CLARK ELECTRIC COOPERATIVE

OH

FRONTIER COMMUNICATIONS

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	GUARDRAIL DETAILS	SHEET 17	E

2

2

N

INSTALL NEW MGS GUARDRAIL:

MGS GUARDRAIL THRIE BEAM TRANSITION: STA 9524+79.2 'WB' - STA 9525+18.6 'WB'
MGS GUARDRAIL 3: STA 9525+18.6 'WB' - STA 9527+93.9 'WB'
MGS GUARDRAIL TERMINAL EAT: STA 9527+93.9 'WB' - STA 9528+46.9 'WB'

CLARK ELECTRIC COOPERATIVE

EAT POST #9
STA 9527+96.9 'WB'
34.0' LT

REMOVE EXISTING BEAM GUARD
STA 9524+79 'WB' - STA 9525+63 'WB'

SLOPE INTERCEPT

EAT POST #5
STA 9528+21.9 'WB'
35.0' LT

EAT POST #1
STA 9528+46.9 'WB'
36.0' LT

15:1 APPROACH TAPER
STA 9529+06.9 'WB'
32.0' LT

B-37-282

9524+00 'WB' 9525+00 'WB' 9526+00 'WB' STH 29 WB 9527+00 'WB' 9528+00 'WB' 9529+00 'WB' 9530+0

STH 29 WB R/L

BULLNOSE POST #1
STA 9526+10.5 'WB'
13.1' LT

BULLNOSE POST #5
STA 9525+97.7 'WB'
9.7' LT

REMOVE EXISTING BULLNOSE SYSTEM

FRONTIER COMMUNICATIONS

BULLNOSE POST #5
STA 9525+97.7 'WB'
26.9' LT

BULLNOSE POST #1
STA 9526+10.5 'WB'
22.4' LT

530+00 'EB' 531+00 'EB' 533+00 'EB' 534+00 'EB' 535+00 'EB'

STH 29 EB R/L

B-37-281

STH 29 EB

CRASH CUSHION TL-3
TO BE INSTALLED FOR BI-DIRECTIONAL TRAFFIC

CLARK ELECTRIC COOPERATIVE

RANDALL CREEK

INSTALL NEW STEEL THRIE BEAM BULL NOSE TERMINAL:

STEEL THRIE BEAM BULLNOSE TERMINAL: STA 9525+60.1 'WB' - STA 9526+13.5 'WB'
STEEL THRIE BEAM: STA 9524+79.0 'WB' - STA 9525+60.1 'WB'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	GUARDRAIL DETAILS	SHEET 18	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021002-CD.DWG
LAYOUT NAME - 06
PLOT DATE : 10/22/2024 9:30 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION

STRUCTURE B-37-290

FRONTIER COMMUNICATIONS

SLOPE INTERCEPT

+43

+86

+86

9095+00 'WB'

9100+00 'WB'

9105+00 'WB'

STH 29 WB

STH 13 TO STH 29 WB

STH 29 WB R/L

SLOPE INTERCEPT

+43

105+00 'EB'

110+00 'EB'

STH 29 EB

STH 29 EB R/L

BEGIN PROJECT
STA 9094+60.67 'WB'
Y= 192,780.939
X= 103,578.888

STRUCTURE B-37-289

STH 29 EB TO STH 13

N

MATCH LINE STA 9109+30 'WB'

STH 29 WB TO STH 13

+97

+13

+70

+86

+41

+59

+14

+30

+13

+48

+94

+10

9110+00 'WB'

9115+00 'WB'

STH 29 WB

9120+00 'WB'

STH 29 WB R/L

+00 'EB'

120+00 'EB'

125+00 'EB'

STH 29 EB

STH 29 EB R/L

STH 13 TO STH 29 EB

N

MATCH LINE STA 9109+30 'WB'

MATCH LINE STA 9124+00 'WB'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 19	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 01
PLOT DATE : 10/7/2024 1:31 PM
PLOT BY : MATHEW TARNOW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION

N

MATCH LINE STA 9124+00 'WB'

9125+00 'WB'

130+00 'EB'

9130+00 'WB'

135+00 'EB'

STH 29 WB

STH 29 WB R/L

9135+00 'WB'

140+00 'EB'

STH 29 EB

STH 29 EB R/L

TRAFFIC CONTROL CROSSOVER - SEE DETAILS

MATCH LINE STA 9138+70 'WB'

2

MATCH LINE STA 9138+70 'WB'

9140+00 'WB'

145+00 'EB'

+25

+41

9145+00 'WB'

STH 29 WB

STH 29 WB R/L

150+00 'EB'

155+00 'EB'

STH 29 EB

STH 29 EB R/L

+15

+77

+66

+82

9150+00 'WB'

ATC

MATCH LINE STA 9153+40 'WB'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 20	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG PLOT DATE : 10/7/2024 1:31 PM PLOT BY : MATHEW TARNOW PLOT NAME : PLOT SCALE : 1 IN:100 FT

LAYOUT NAME - 02

WISDOT/CADDS SHEET 44

2

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION

N

MATCH LINE STA 9153+40 'WB'

9155+00 'WB'

160+00 'EB'

+04

+81

STH 29 WB

9160+00 'WB'

9165+00 'WB'

STH 29 WB R/L

MATCH LINE STA 9168+10 'WB'

170+00 'EB'

165+00 'EB'

STH 29 EB

STH 29 EB R/L

N

MATCH LINE STA 9168+10 'WB'

+77 +93 9170+00 'WB' +70 +86 +61 +77 +20 +51 +20 +51

STH 29 WB

9175+00 'WB'

+54 +23 +98 +14 +46 +62 9180+00 'WB' +39 +69 +98 +14

STH 29 WB R/L

MATCH LINE STA 9182+80 'WB'

175+00 'EB'

180+00 'EB'

STH 29 EB

185+00 'EB'

STH 29 EB R/L

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 21	E

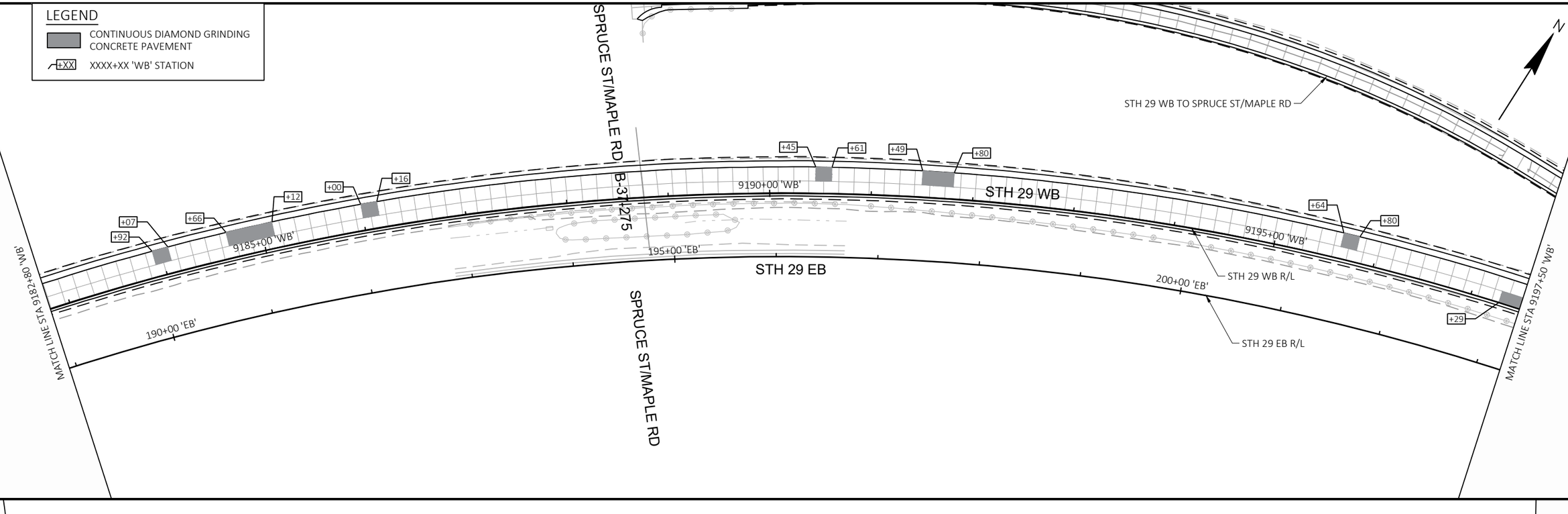
FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG PLOT DATE : 10/7/2024 1:32 PM PLOT BY : MATHEW TARNOW PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 03

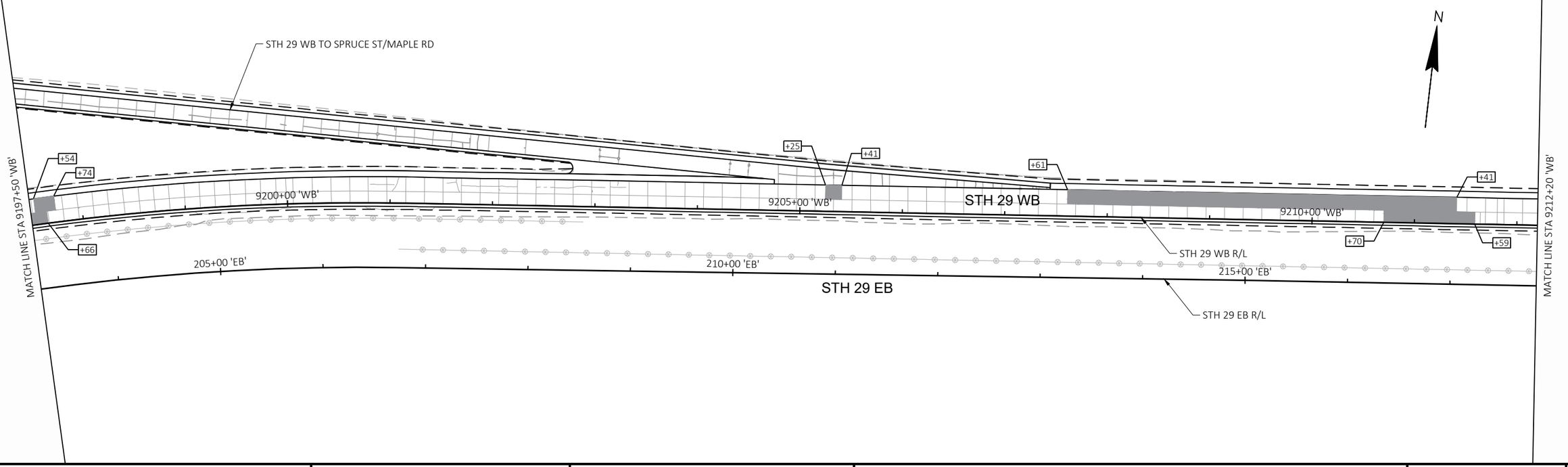
WISDOT/CADDS SHEET 44

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION



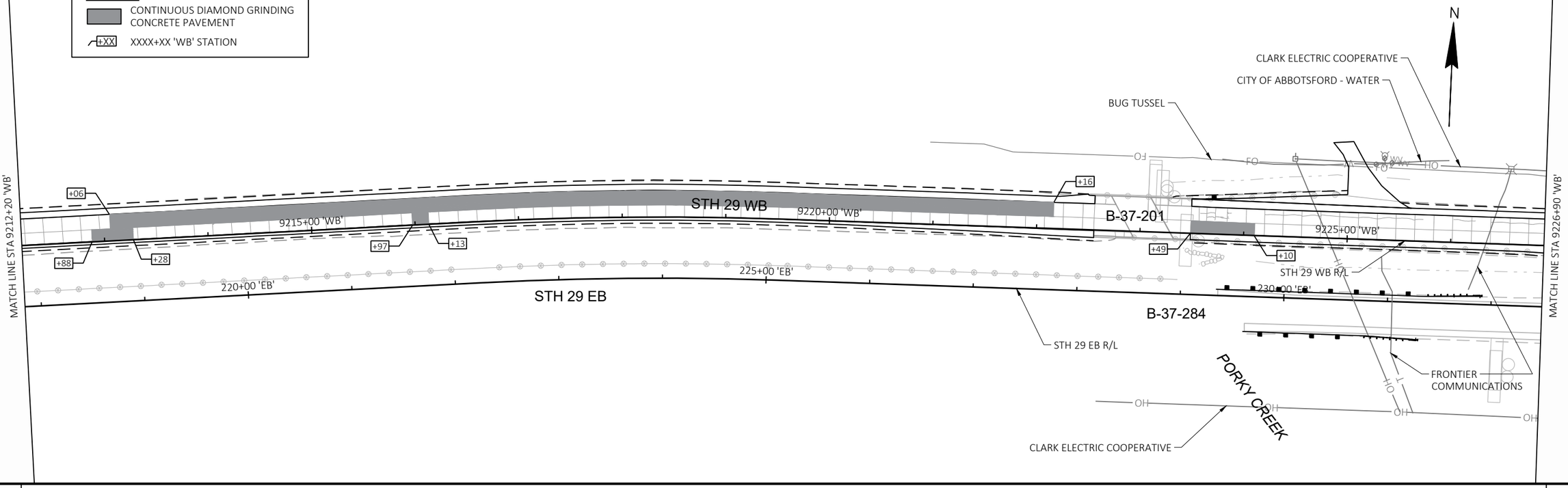


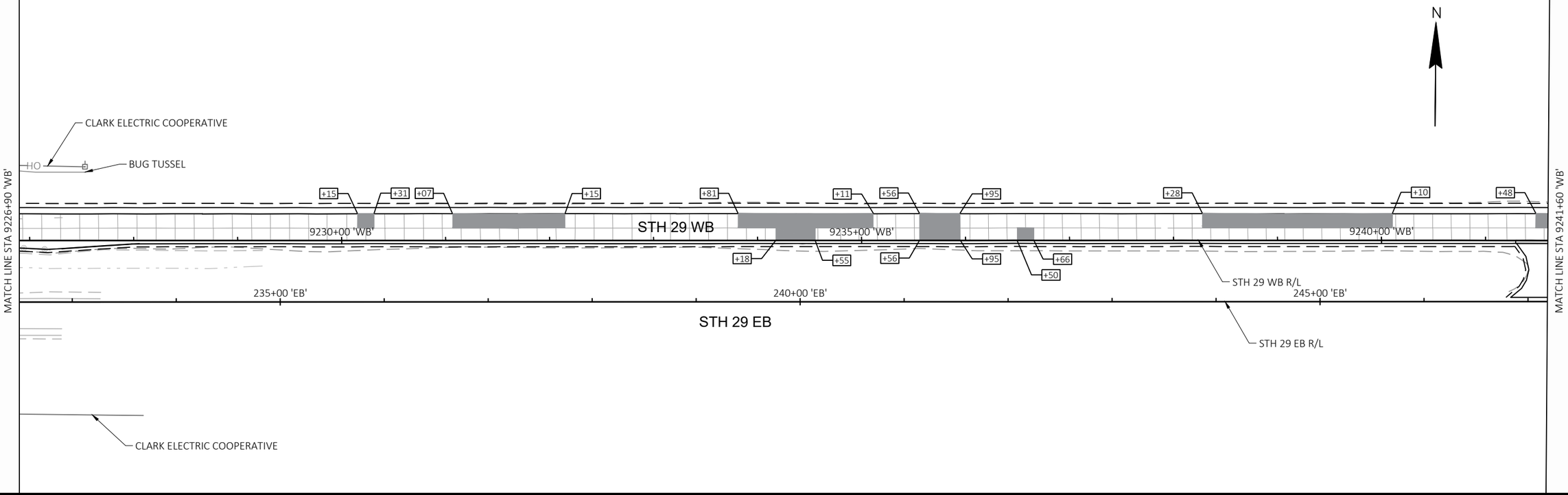
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 22	E

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION





PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 23	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 05
PLOT DATE : 10/7/2024 1:32 PM PLOT BY : MATHEW TARNOW PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION

N

MATCH LINE STA 9241+60 'WB'

MATCH LINE STA 9256+30 'WB'

+64

+70

+98

9245+00 'WB'

9250+00 'WB'

9255+00 'WB'

STH 29 WB

+22

+44

+89

+77

STH 29 WB R/L

250+00 'EB'

255+00 'EB'

260+00 'EB'

STH 29 EB

STH 29 EB R/L

N

MATCH LINE STA 9256+30 'WB'

MATCH LINE STA 9271+00 'WB'

FO

ROSEDALE AVE

EVERSTREAM

+10

+00

+42

+26

+79

+95

+04

+16

+08

+46

+07

+77

+31

+01

9260+00 'WB'

STH 29 WB

9265+00 'WB'

9270+00 'WB'

+79

+95

STH 29 WB R/L

+42

+77

265+00 'EB'

270+00 'EB'

275+00 'EB'

STH 29 EB

STH 29 EB R/L

EVERSTREAM

CHESTNUT HILL LN

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 24	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG PLOT DATE : 10/7/2024 1:32 PM PLOT BY : MATHEW TARNOW PLOT NAME : PLOT SCALE : 1 IN:100 FT

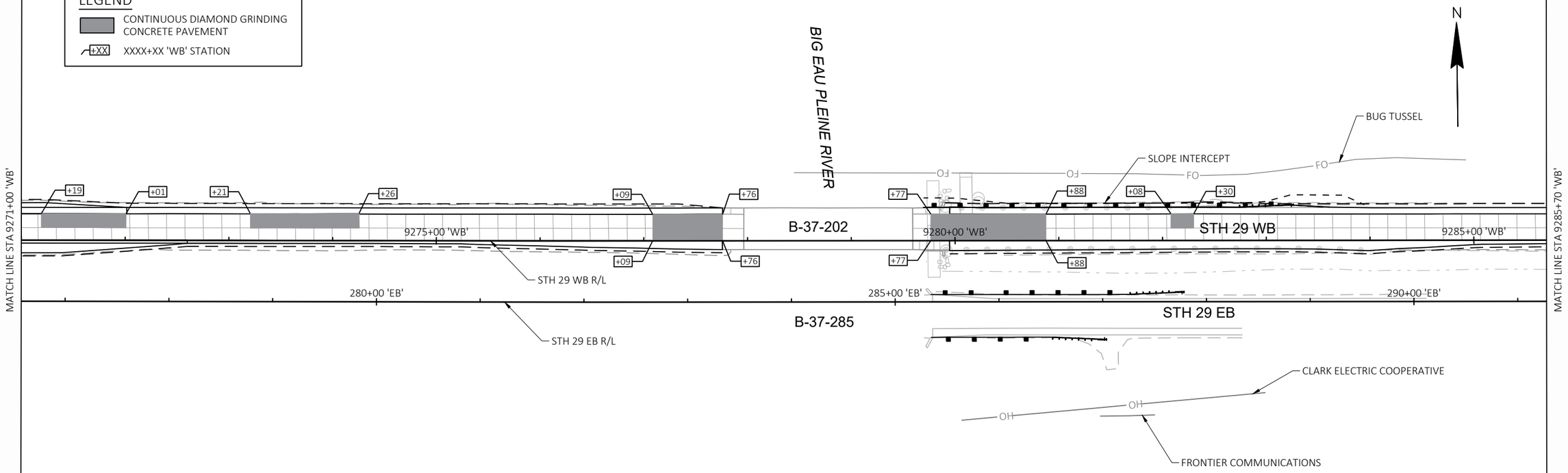
LAYOUT NAME - 06

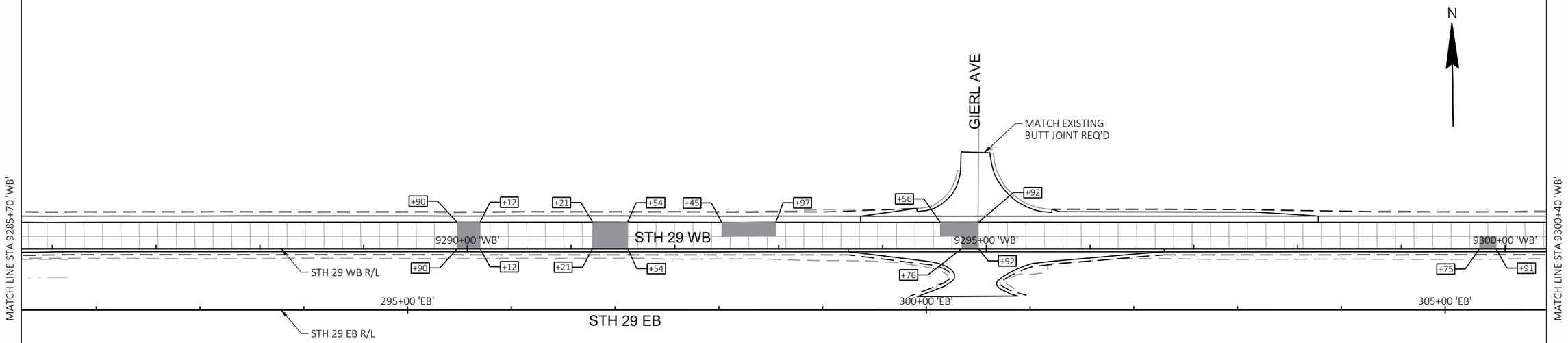
WISDOT/CADDS SHEET 44

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION





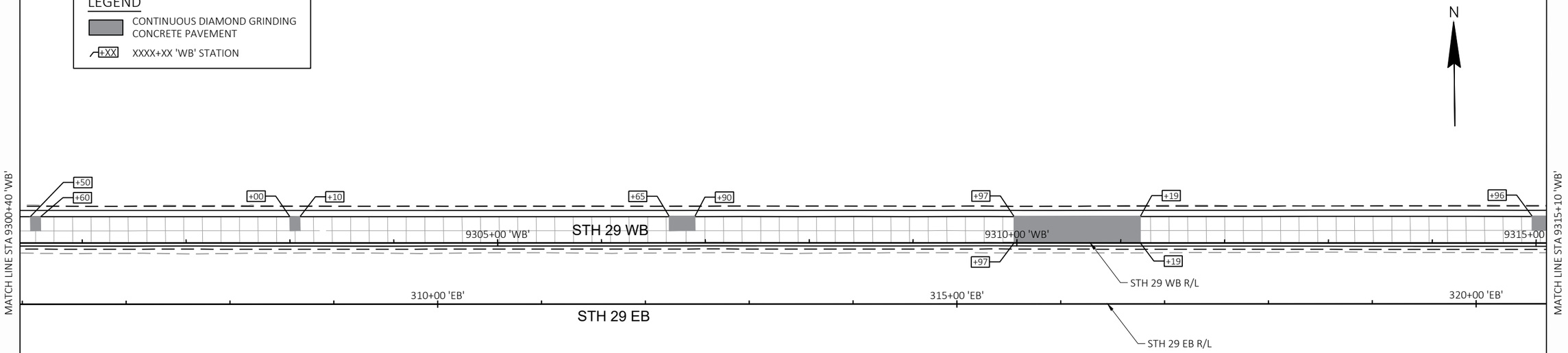
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 25	E

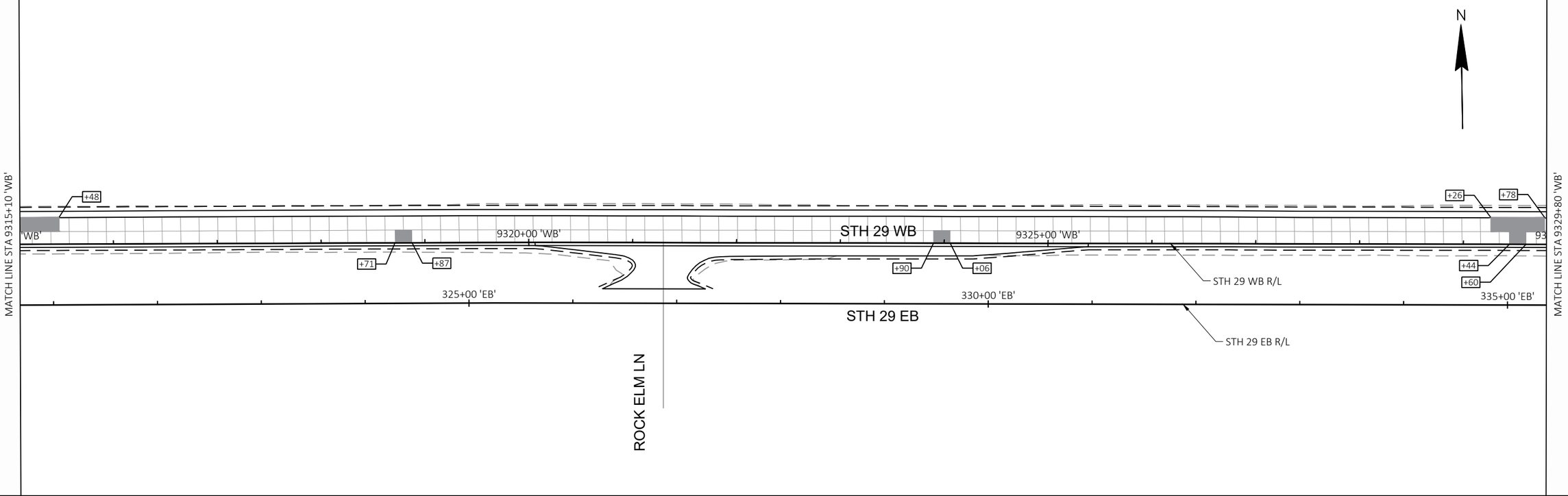
FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 07
PLOT DATE : 10/7/2024 1:32 PM
PLOT BY : MATHEW TARNOW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION





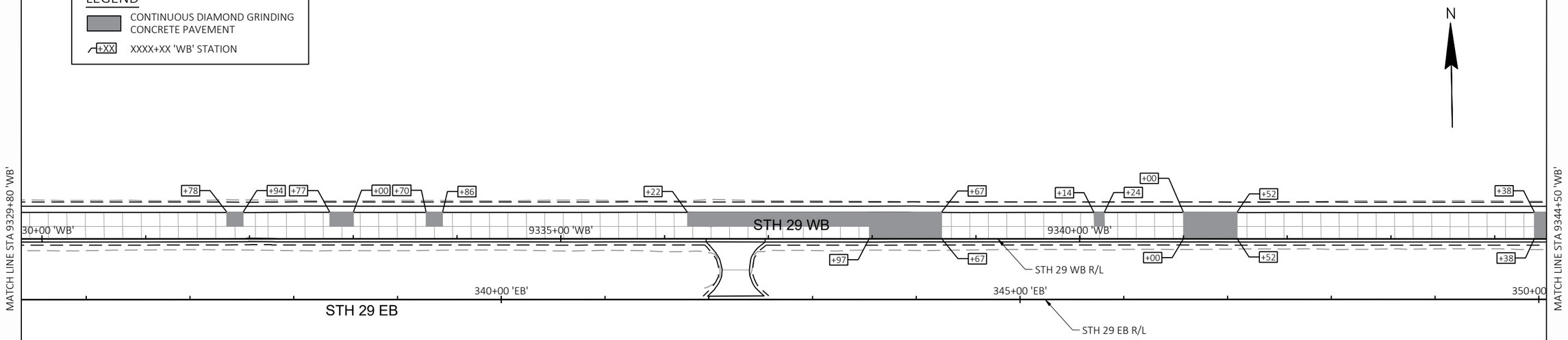
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 26	E

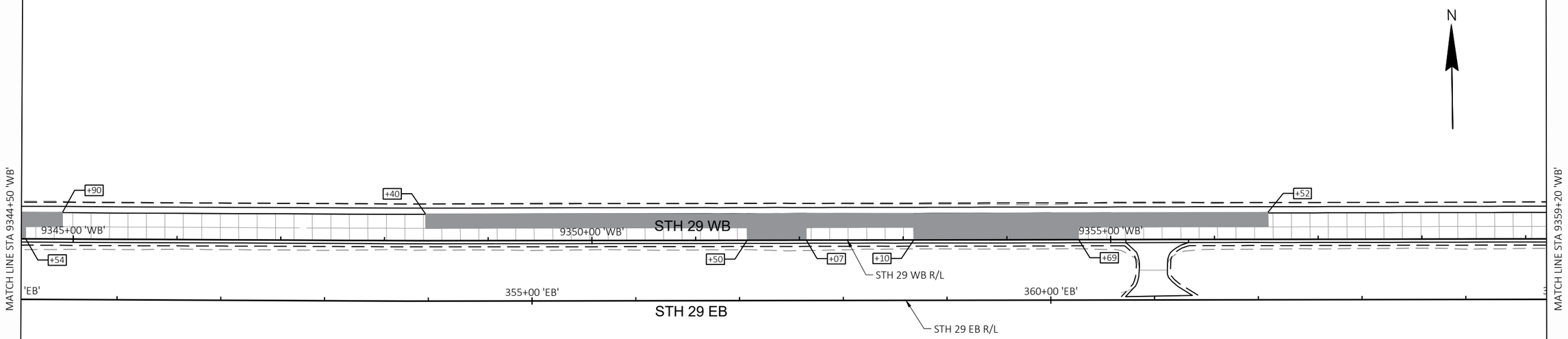
FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 08
PLOT DATE : 10/7/2024 1:32 PM
PLOT BY : MATHEW TARNOW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION





PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 27	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 09

PLOT DATE : 10/7/2024 1:32 PM PLOT BY : MATHEW TARNOW PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION

N

CTH F

MATCH LINE STA 9359+20 'WB'

9360+00 'WB'

9365+00 'WB'

STH 29 WB

9370+00 'WB'

+40 +87 +21 +44 +73 +60 +43

STH 29 WB R/L

365+00 'EB'

370+00 'EB'

375+00 'EB'

STH 29 EB

STH 29 EB R/L

CTH F

MATCH LINE STA 9373+90 'WB'

2

N

MATCH LINE STA 9373+90 'WB'

+06 +40 +22 +23 +33 +93 +19

9375+00 'WB'

STH 29 WB

9380+00 'WB'

9385+00 'WB'

+45 +29 +98 +82 +67 +83 +93 +19

STH 29 WB R/L

380+00 'EB'

385+00 'EB'

390+00 'EB'

STH 29 EB

STH 29 EB R/L

MATCH LINE STA 9388+60 'WB'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 28	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG PLOT DATE : 10/7/2024 1:32 PM PLOT BY : MATHEW TARNOW PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 10

WISDOT/CADDS SHEET 44

2

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION

N

MATCH LINE STA 9388+60 'WB'

+21 +39 +70 +59 +34 +94 +22 +21 +98 +88 +33 +58 +19 +08 +50

9390+00 'WB'

STH 29 WB

9395+00 'WB'

9400+00 'WB'

+21 +70 +78 +07 +63 +79 +77 +89 +50 +66 +33 +58 +23

STH 29 WB R/L

395+00 'EB'

400+00 'EB'

405+00 'EB'

STH 29 EB

STH 29 EB R/L

MATCH LINE STA 9403+30 'WB'

2

N

MATCH LINE STA 9403+30 'WB'

+87 +93

9405+00 'WB'

STH 29 WB

9410+00 'WB'

9415+00 'WB'

+39 +26 +42 +78 +88 +62 +46 +71 +87 +24 +62 +31 +47 +27 +48 +11 +01

STH 29 WB R/L

410+00 'EB'

415+00 'EB'

420+00 'EB'

STH 29 EB

STH 29 EB R/L

MATCH LINE STA 9418+00 'WB'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 29	E

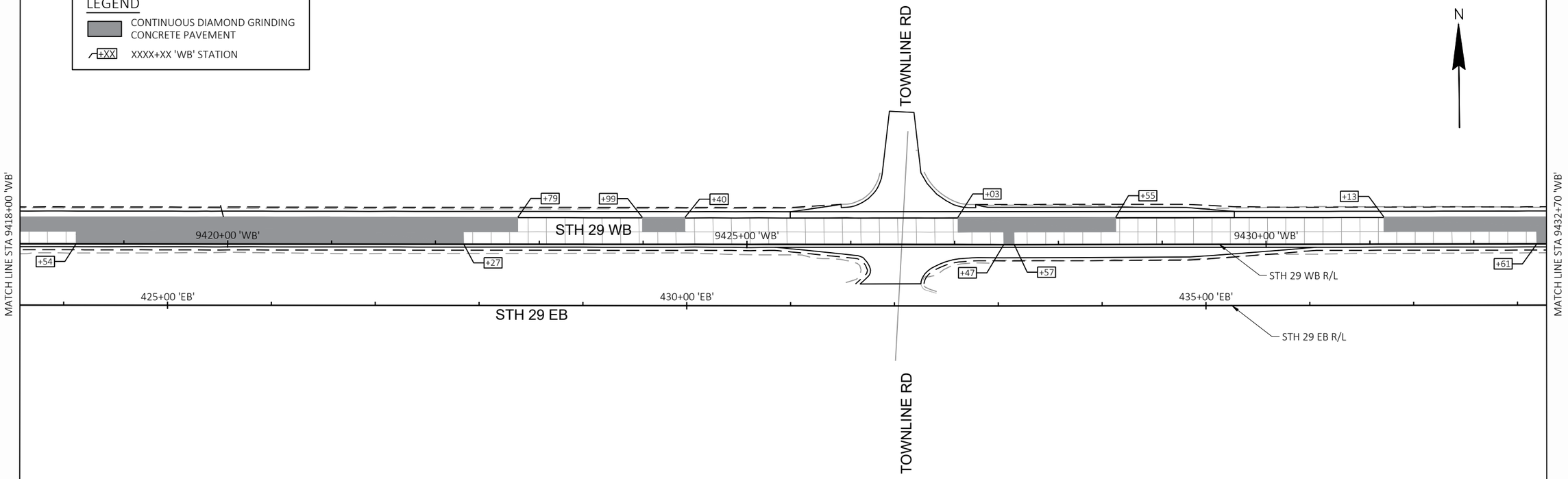
FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 11
PLOT DATE : 10/7/2024 1:32 PM
PLOT BY : MATHEW TARNOW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

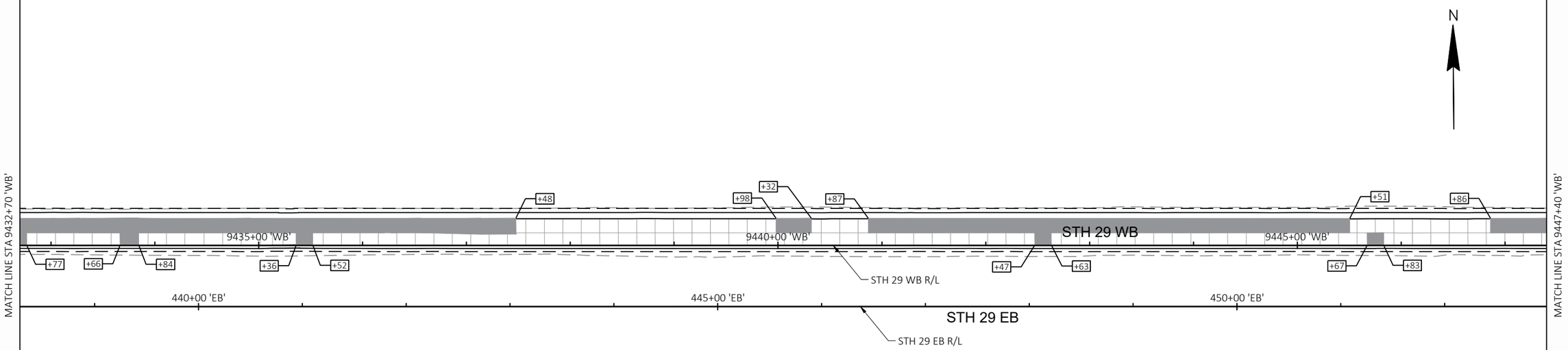
2

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION





2

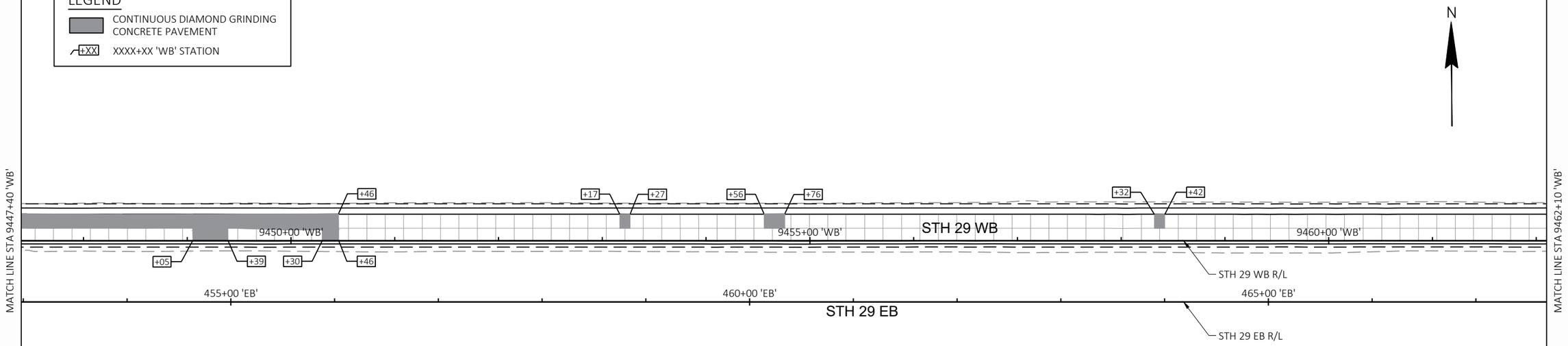
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 30	E

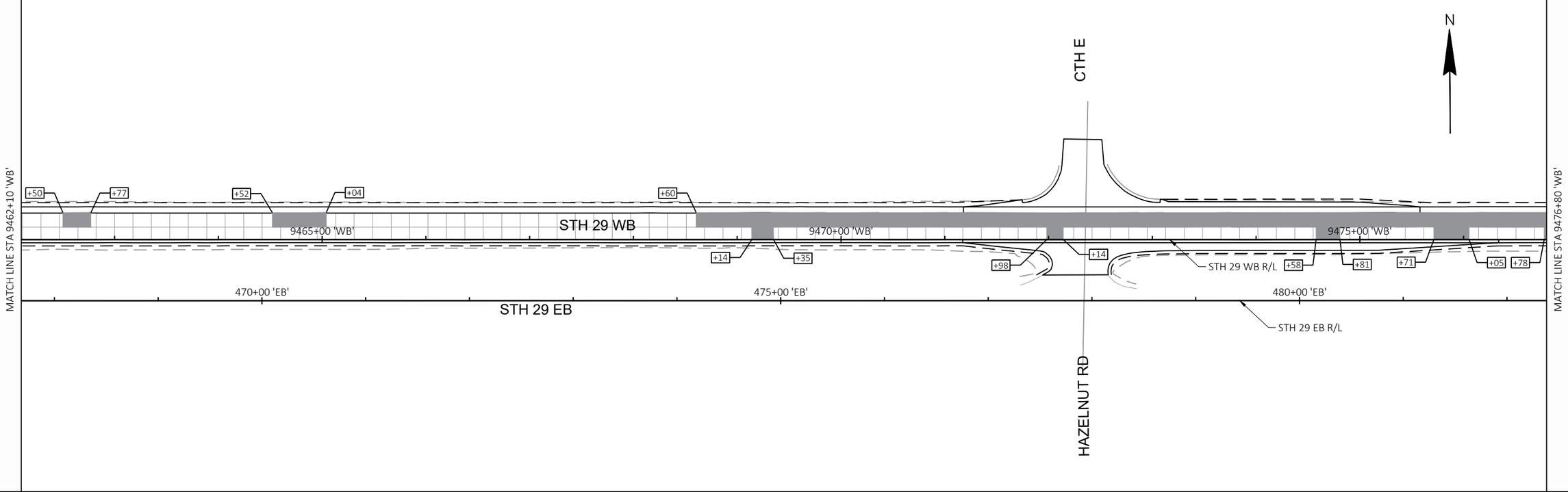
FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 12
PLOT DATE : 10/7/2024 1:33 PM
PLOT BY : MATHEW TARNOW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION





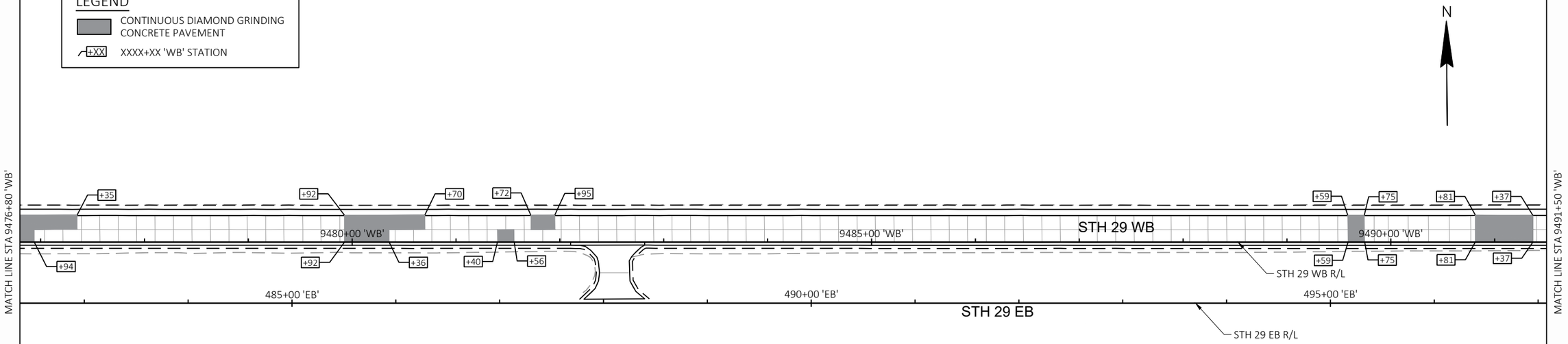
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 31	E

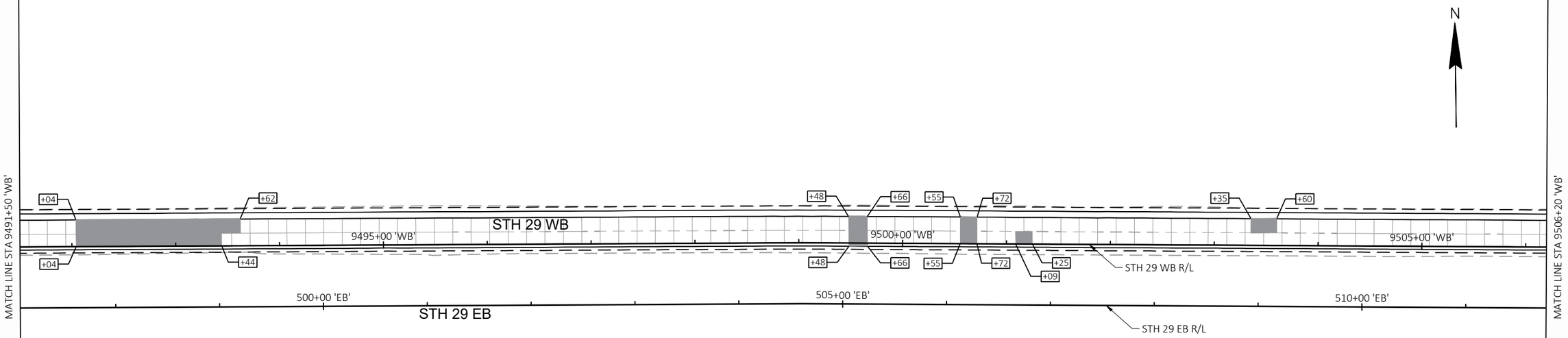
FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 13
PLOT DATE : 10/7/2024 1:33 PM
PLOT BY : MATHEW TARNOW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION

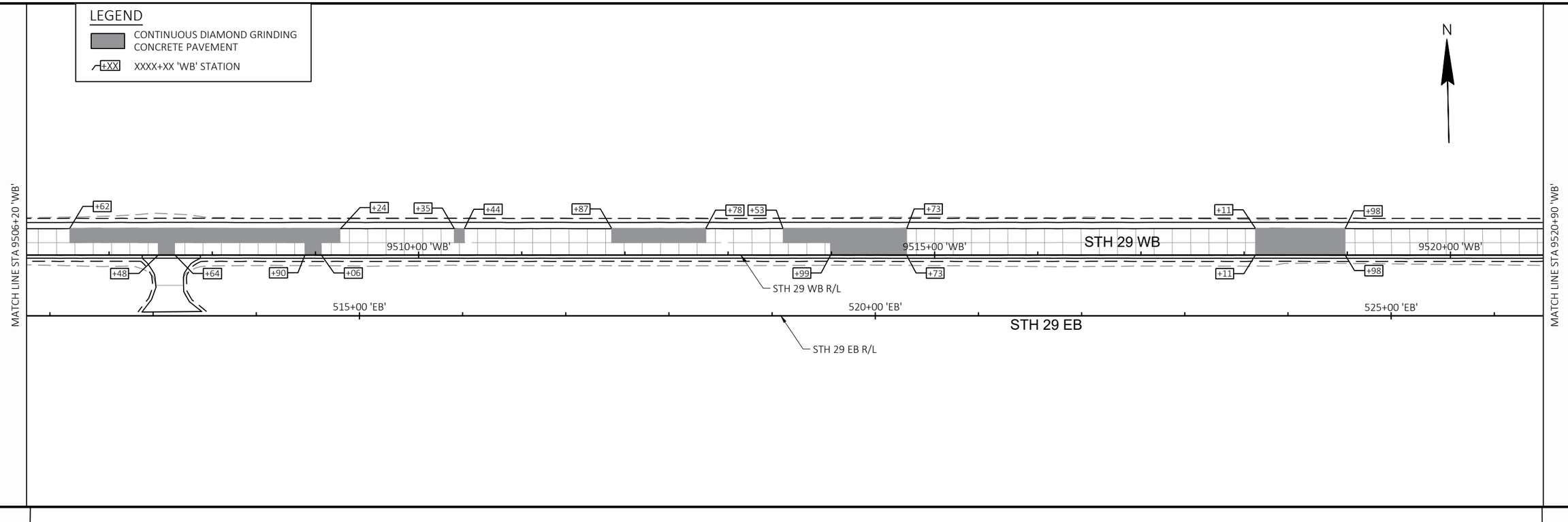


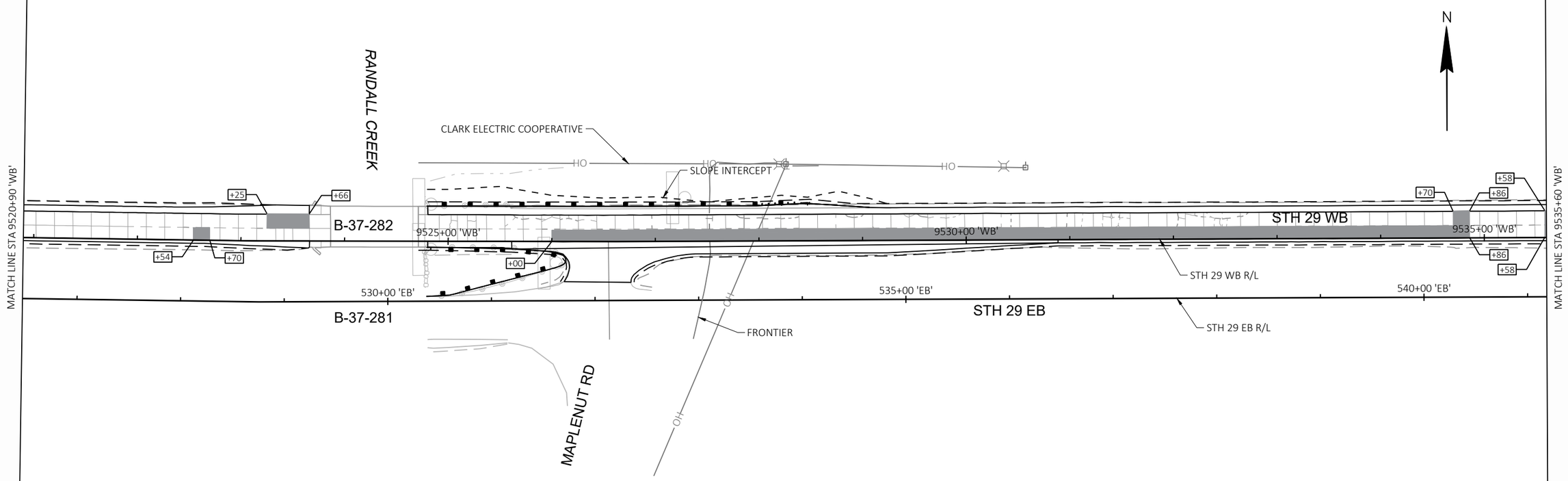


PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 32	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 14
PLOT DATE : 10/7/2024 1:33 PM
PLOT BY : MATHEW TARNOW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2





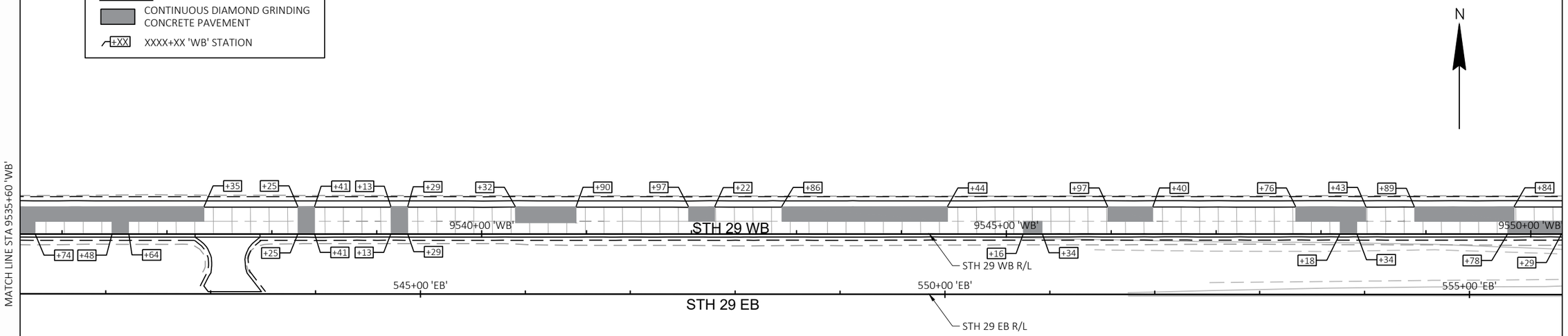
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 33	E

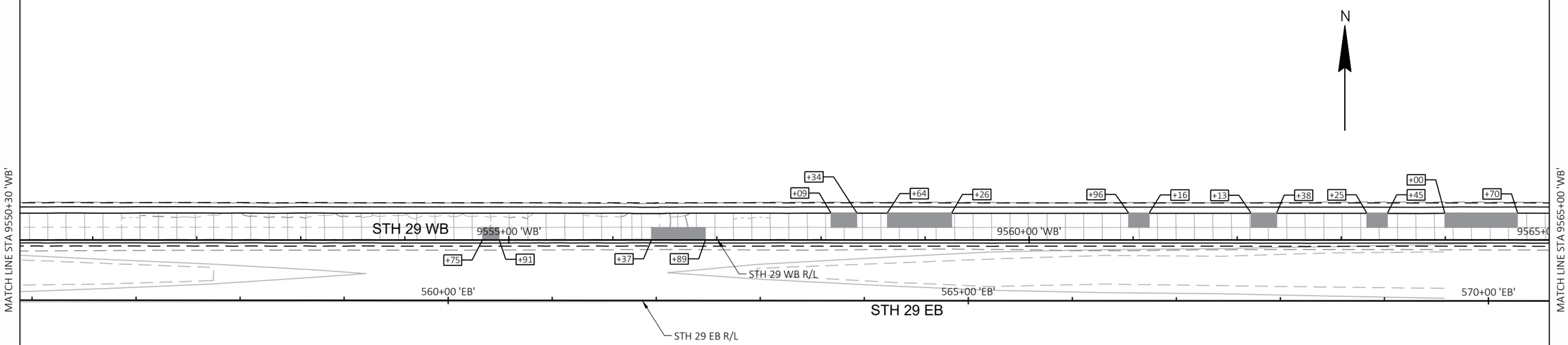
FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG PLOT DATE : 10/7/2024 1:33 PM PLOT BY : MATHEW TARNOW PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 15
WISDOT/CADDS SHEET 44

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION





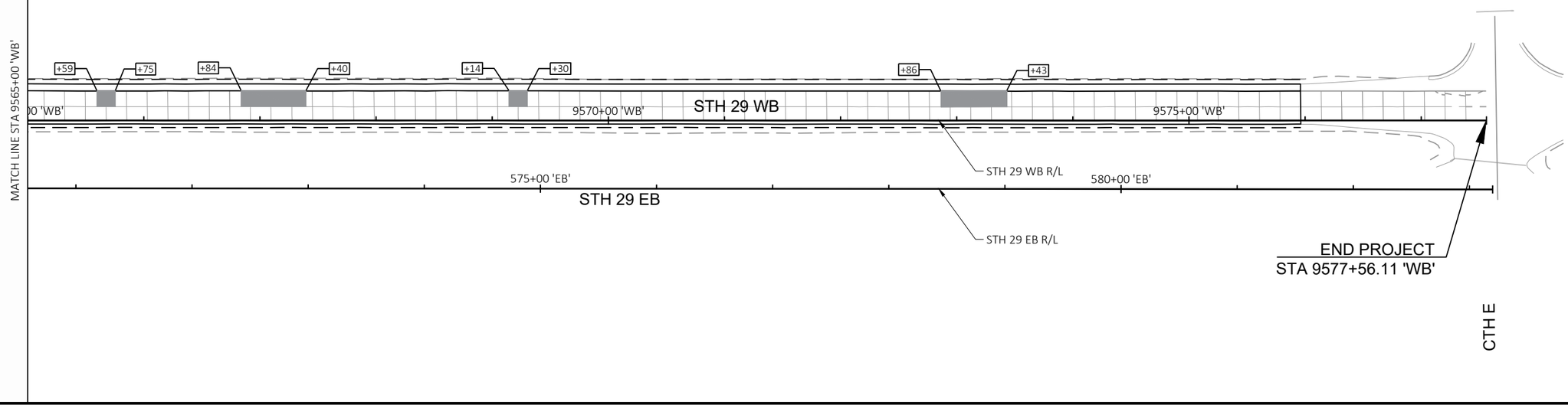
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	DIAMOND GRINDING DETAILS	SHEET 34	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021003-CD.DWG
LAYOUT NAME - 16
PLOT DATE : 10/7/2024 1:33 PM
PLOT BY : MATHEW TARNOW
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

LEGEND

CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT

+XX XXXX+XX 'WB' STATION



2

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2

STH 13 'NB'			
POINT NAME	STATION	OFFSET	ELEVATION
11	1138+51.95	6.01	1402.79
12	1138+51.67	0.30	1402.74
13	1138+33.97	0.09	1402.59
14	1138+34.82	12.35	1402.45
15	1139+96.66	8.05	1402.74
16	1140+76.37	7.66	1402.28
17	1140+76.37	0.13	1402.48
18	1139+96.63	0.04	1402.93

* MATCH EXISTING

STH 13 TO STH 29 WB 'RA'			
POINT NAME	STATION	OFFSET	ELEVATION
70	90+51.00	49.58	1402.29
71	90+50.80	40.21	1402.25
72	90+38.06	29.98	1402.17
73	90+39.49	31.02	1402.21
74	90+66.03	16.89	1402.01
75	90+88.69	15.10	1401.92
76	91+16.75	38.02	1401.77
77	91+46.97	37.02	1402.04
78	91+90.60	32.54	1402.21
79	91+99.22	14.76	1402.10
80	93+21.48	19.09	1402.47
81	93+25.23	14.59	1402.22
82	91+17.80	31.43	120' R
83	91+27.72	53.30	144' R

STH 29 WB TO STH 13 'RB'			
POINT NAME	STATION	OFFSET	ELEVATION
50	100+74.49	31.17	55' R
51	101+13.90	15.09	1401.82
52	101+02.81	19.99	1402.13
53	100+87.32	17.46	1401.89
54	100+74.46	34.89	1402.16
55	100+61.65	24.70	1402.08
56	100+29.86	43.22	1402.28
57	100+22.56	45.45	1402.39

N

LEGEND

30R	CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE R
CTA	CONCRETE TRUCK APRON 12-INCH AND COLORING CONCRETE WISDOT RED
SW12	CONCRETE SIDEWALK 12-INCH
YYYYYYY	SAWING CONCRETE
XXXXXXX	SAWING ASPHALT

NOTE: ALL RADII MEASURED FROM EDGE OF PAVEMENT

CONCRETE CURB & GUTTER TRANSITION - TRUCK APRON
SEE CONSTRUCTION DETAILS

ATC

XCEL ENERGY - ELECTRICITY

ADJUSTING PULL BOXES

MOVING SIGNS TYPE II
POSTS TUBULAR STEEL 2X2-INCH X 8-FT
V-LOC POST ANCHOR VS3

CITY OF ABBOTSFORD - WATER

WISDOT ELECTRIC

STH 29 WB TO STH 13

104+00 'RB'

102+00 'RB'

CONCRETE SURFACE DRAIN REQ'D

REMOVE SURFACE DRAIN REQ'D

SLOPE INTERCEPT

144' RAD

120' RAD

55' RAD. TO EOP

55' RAD

STH 13

CITY OF ABBOTSFORD - SEWER

CONCRETE MEDIAN SLOPED NOSE TYPE 2
MOVE BACK TO INLET

STH 13 TO STH 29 WB

94+00 'RA'

92+00 'RA

INLET PROTECTION TYPE C

SWALE IN CURB/TRUCK APRON

1138+00 'NB'

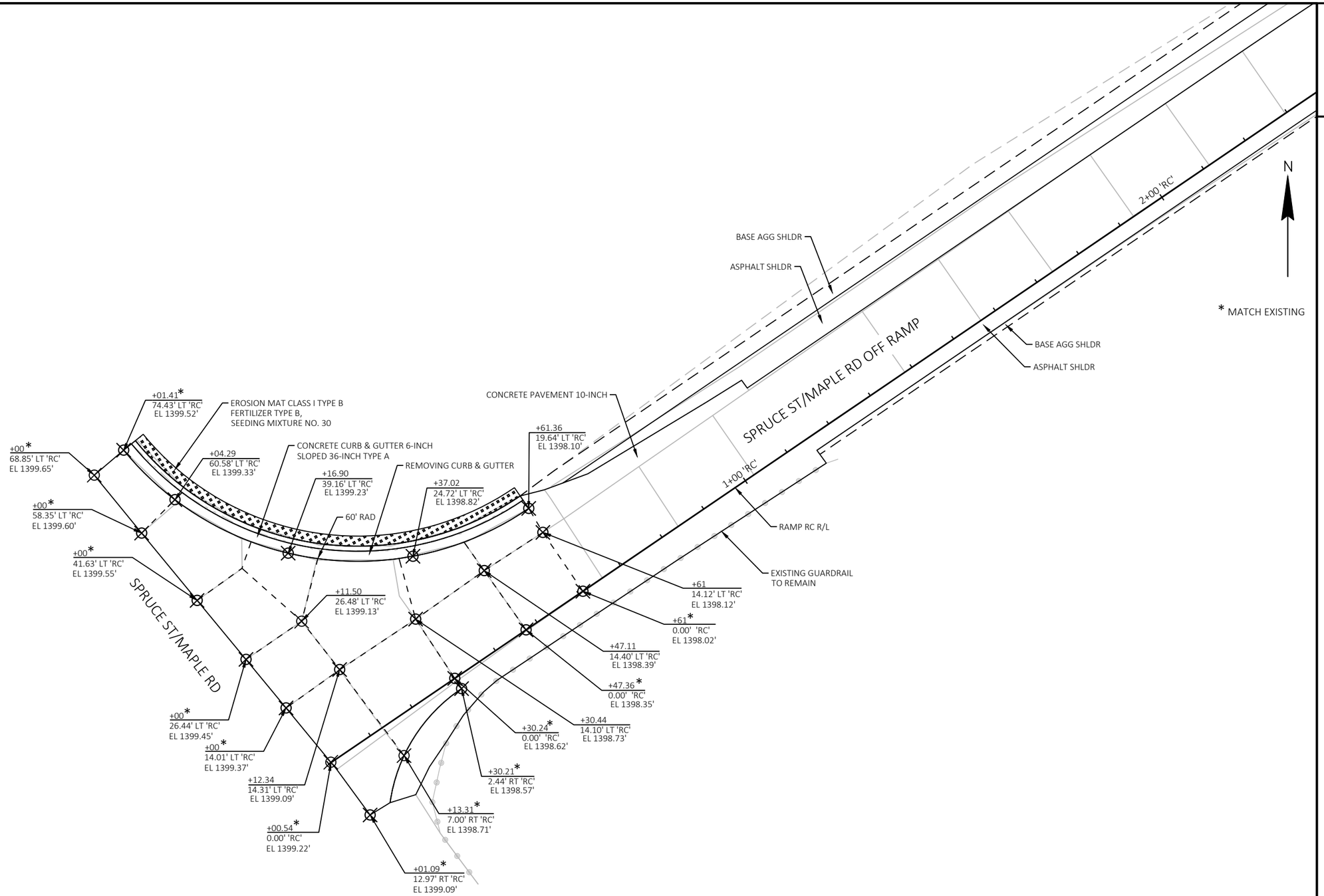
FRONTIER COMMUNICATIONS

WE ENERGIES

STH 13 & STH 29 WB On Ramp Swale Elevations			
POINT NO.	STATION	OFFSET	ELEVATION
1	90+77.44	39.326' LT	1402.004
2	90+81.44	39.194' LT	1401.628
3	90+85.45	39.061' LT	1401.979
4	90+76.73	18.022' LT	1402.217
5	90+80.69	16.416' LT	1401.856
6	90+84.74	17.552' LT	1402.194

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	INTERSECTION DETAIL - STH 13	SHEET 36	E

2



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	INTERSECTION DETAIL - SPRUCE ST/MAPLE RD	SHEET 37	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021102-ID.DWG PLOT DATE : 10/22/2024 12:05 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 01
WISDOT/CADDS SHEET 42

2

N

* MATCH EXISTING

SPRUCE ST/MAPLE RD OFF RAMP

STH 29 WB

RAMP RC R/L

BASE AGG SHLDR

ASPHALT SHLDR

CONCRETE PAVEMENT 10-INCH

BASE AGG SHLDR

ASPHALT SHLDR

SAWCUT REQ'D

SAWING CONCRETE

'RC'

15+00 'RC'

16+00 'RC'

17+00 'RC'

18+00 'RC'

19+00 'RC'

9205+00 'WB'

+00
15.00' LT 'RC'
EL 1363.13'

+50
15.00' LT 'RC'
EL 1362.64'

+00
15.00' LT 'RC'
EL 1362.17'

+50
15.00' LT 'RC'
EL 1361.70'

+92
15.00' LT 'RC'
EL 1361.32'

+50*
14.83' LT 'RC'
EL 1360.79'

+00*
11.77' LT 'RC'
EL 1360.43'

+50*
8.70' LT 'RC'
EL 1360.05'

+00*
5.63' LT 'RC'
EL 1359.91'

+50*
2.57' LT 'RC'
EL 1359.44'

+62.83*
0.00' LT 'RC'
EL 1359.27'

+00
0.00' 'RC'
EL 1363.43'

+50
0.00' 'RC'
EL 1362.94'

+00
0.00' 'RC'
EL 1362.47'

+50
0.00' 'RC'
EL 1362.00'

+92
0.00' 'RC'
EL 1361.62'

+50*
0.00' 'RC'
EL 1361.16

+00*
0.00' 'RC'
EL 1360.71'

+50*
0.00' 'RC'
EL 1360.31'

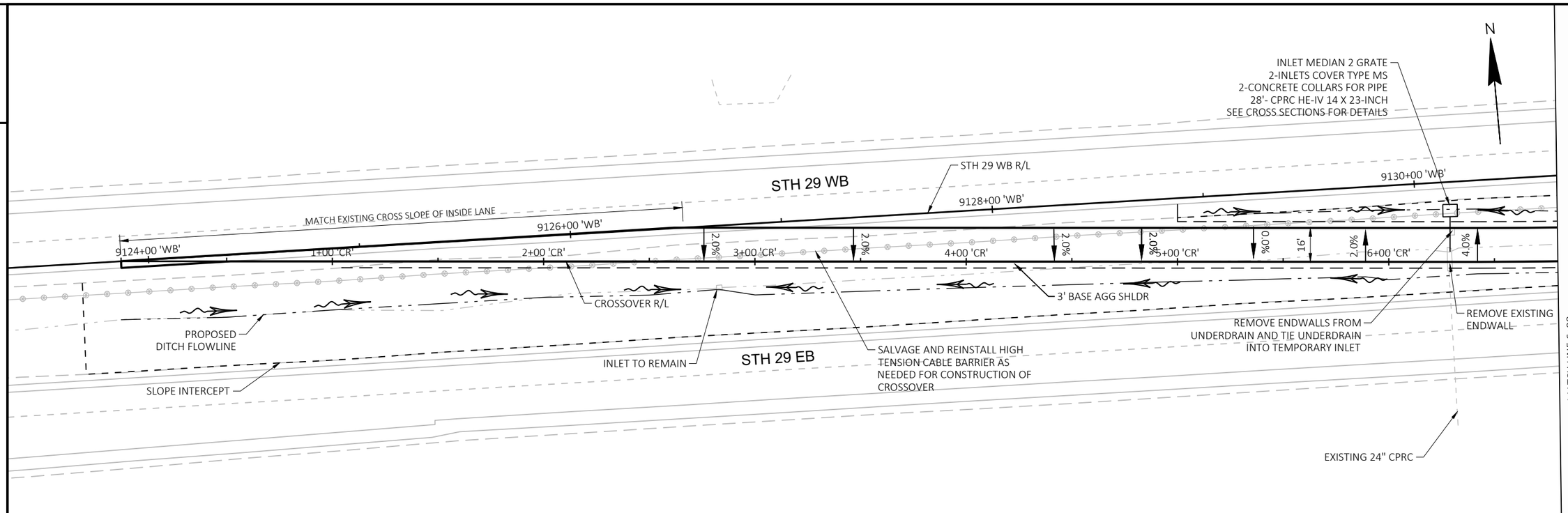
+00*
0.00' 'RC'
EL 1359.92'

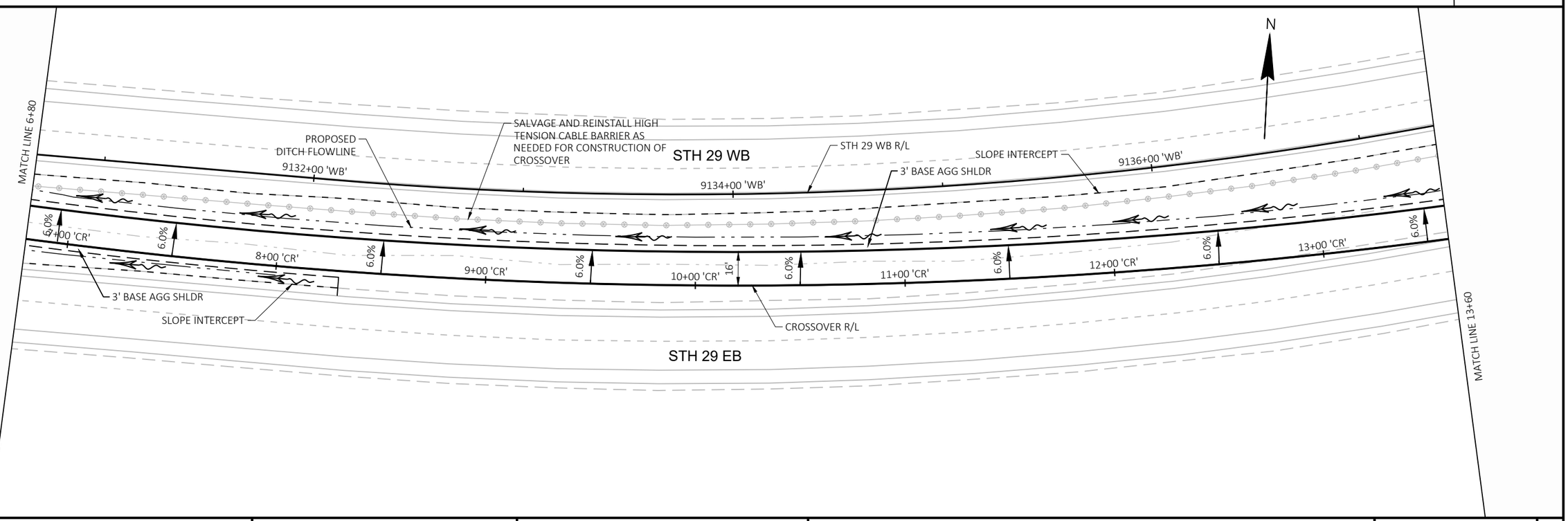
+50*
0.01' LT 'RC'
EL 1359.45'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	INTERSECTION DETAIL - SPRUCE ST/MAPLE RD	SHEET 38	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021102-ID.DWG PLOT DATE : 10/22/2024 12:05 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 02

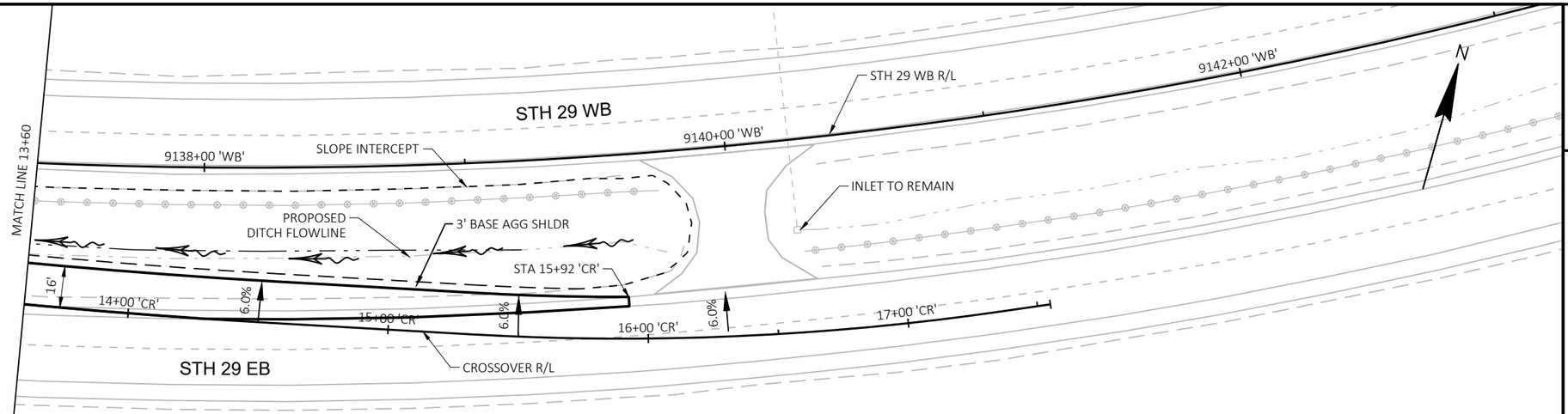
WISDOT/CADDS SHEET 42





PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN DETAILS - TEMPORARY CROSSOVER	SHEET 39	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 01
PLOT DATE : 10/21/2024 12:43 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44



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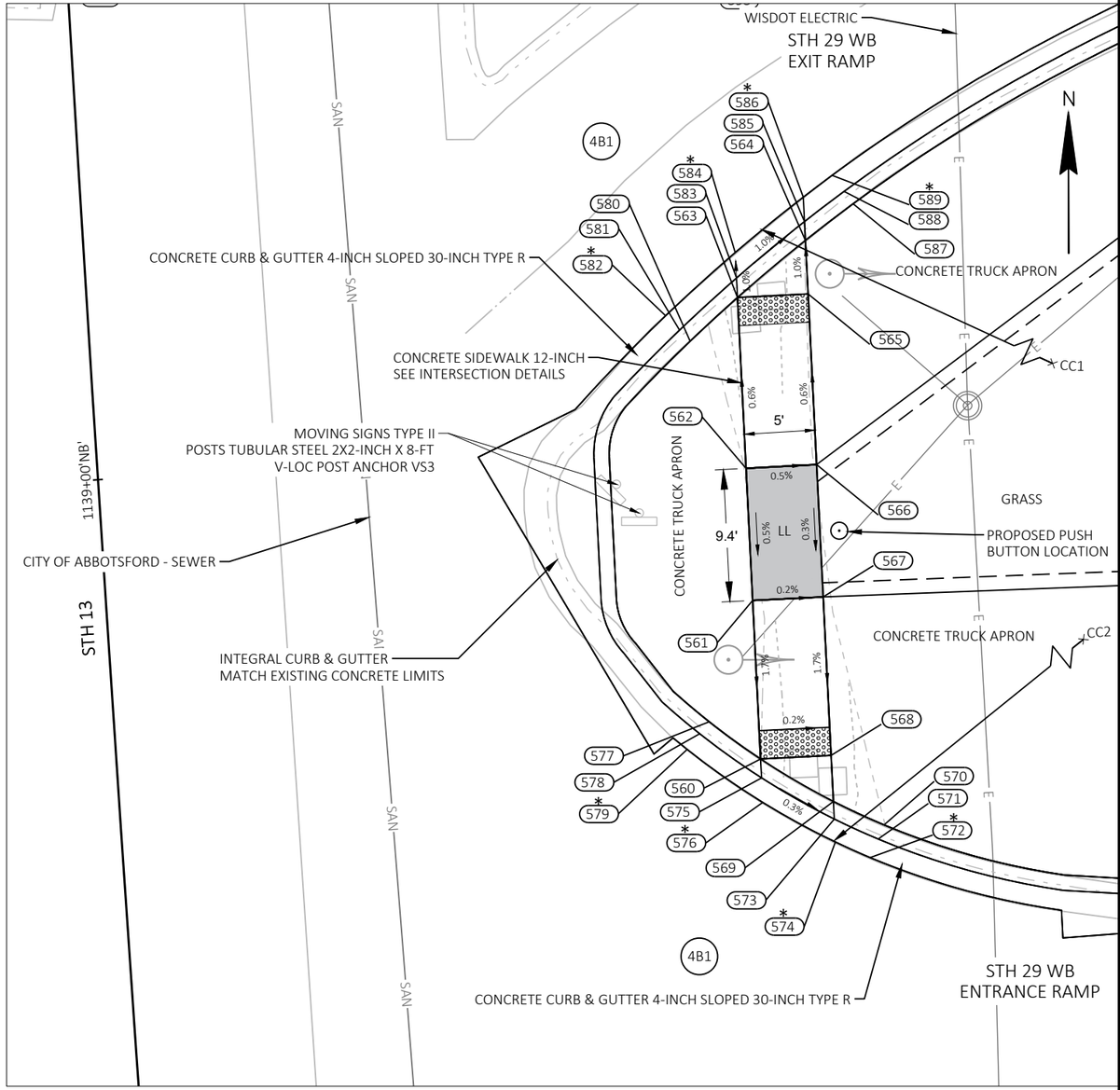
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN DETAILS - TEMPORARY CROSSOVER	SHEET 40	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021201-PD.DWG
LAYOUT NAME - 02
PLOT DATE : 10/21/2024 12:44 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 44

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC1	1138+15.96 'NB' 91+17.80 'RA'	117.8' RT 31.4' RT	120.0' R	Y = 193348.12 X = 103586.23
CC2	1139+19.29 'NB' 90+77.61 'RA'	77.3' RT 70.7' LT	55.0' R	Y = 193447.07 X = 103538.87

STH 13 & STH 29 WB On Ramp - NE Quad					
POINT NO.	STATION 'NB'	OFFSET	ELEVATION	NORTHING	EASTING
560	1138+77.14	45.49' R	1402.07	193403.32	103509.86
561	1138+88.44	45.68' R	1402.27	193414.54	103509.30
562	1138+97.86	45.81' R	1402.31	193423.89	103508.83
563	1139+10.04	45.98' R	1402.24	193435.98	103508.22
564	1139+13.80	51.03' R	1402.17	193440.02	103513.03
565	1139+09.97	50.98' R	1402.21	193436.23	103513.22
566	1138+97.80	50.82' R	1402.28	193424.15	103513.82
567	1138+88.36	50.67' R	1402.26	193414.79	103514.29
568	1138+77.05	50.49' R	1402.06	193403.69	103514.85
569	1138+73.77	50.43' R	1402.08	193400.32	103515.01
570	1138+71.86	53.90' R	1402.38	193398.65	103518.60
571	1138+70.88	53.41' R	1402.02	193397.65	103518.18
572	1138+69.61	52.78' R	1402.13	193396.35	103517.63
573	1138+72.84	49.88' R	1402.04	193399.35	103514.52
574	1138+70.89	50.38' R	1402.10	193397.46	103515.15

STH 13 & STH 29 WB On Ramp - NE Quad					
POINT NO.	STATION 'NB'	OFFSET	ELEVATION	NORTHING	EASTING
575	1138+76.27	44.84' R	1402.06	193402.42	103509.26
576	1138+74.06	45.44' R	1402.12	193400.26	103510.01
577	1138+80.03	42.04' R	1402.48	193405.96	103506.22
578	1138+79.22	41.31' R	1402.15	193405.10	103505.55
579	1138+78.18	40.38' R	1402.20	193404.00	103504.67
580	1139+07.15	42.44' R	1402.50	193432.89	103504.87
581	1139+07.98	41.74' R	1402.25	193433.67	103504.12
582	1139+09.07	40.83' R	1402.31	193434.69	103503.14
583	1139+10.90	45.31' R	1402.22	193436.79	103507.50
584	1139+12.02	44.44' R	1402.27	193437.85	103506.56
585	1139+14.69	50.41' R	1402.16	193440.87	103512.36
586	1139+16.68	51.07' R	1402.20	193443.08	103512.88
587	1139+16.19	54.56' R	1402.42	193442.61	103516.41
588	1139+17.11	53.97' R	1402.08	193443.48	103515.76
589	1139+18.31	53.20' R	1402.15	193444.62	103514.92



* MATCH EXISTING

LEGEND

XXX	CURB RAMP TYPE
SI	SLOPE INTERCEPT

STH 13 / STH 29 WB ON RAMP - NE QUADRANT

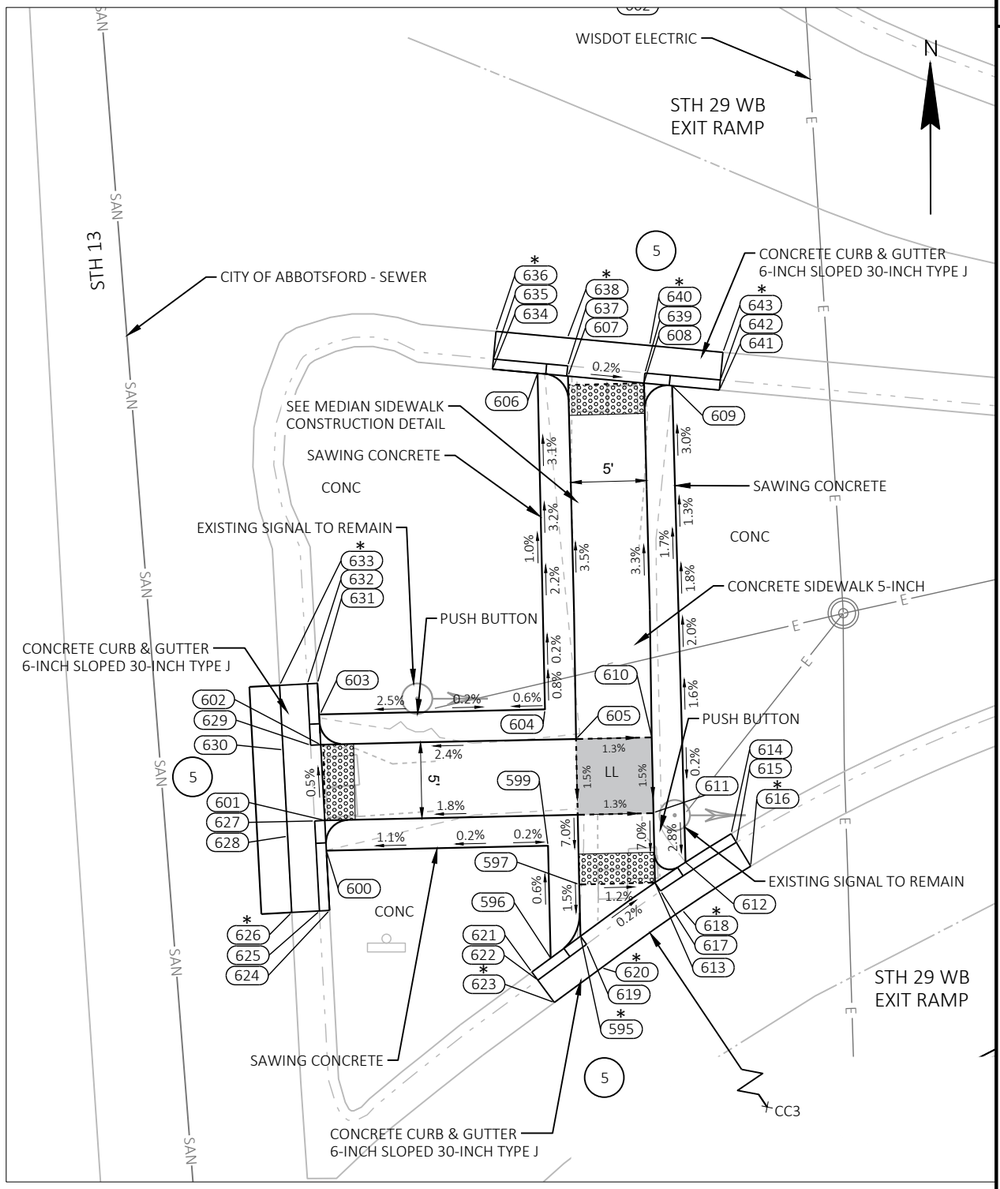
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CURB RAMP DETAIL	SHEET 41	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021302-CR_WB2.DWG PLOT DATE : 10/23/2024 7:45 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - STH 29 WB ON NE

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC3	1138+48.56 'NB' 100+94.73 'RB'	104.2' RT 103.3' RT	103.5' R	Y = 193379.15 X = 103570.36

STH 13 & STH 29 WB OFF MEDIAN					
POINT NO.	STATION 'NB'	OFFSET	ELEVATION	NORTHING	EASTING
595	1139+37.48	45.07' R	1402.38	193463.14	103505.66
596	1139+36.14	43.02' R	1402.88	193461.70	103503.69
597	1139+40.91	45.19' R	1402.43	193466.55	103505.58
598	1139+45.54	45.35' R	1402.75	193471.15	103505.48
599	1139+43.60	43.28' R	1402.94	193469.11	103503.52
600	1139+44.13	28.66' R	1402.96	193468.79	103488.89
601	1139+46.13	28.67' R	1402.45	193470.78	103488.79
602	1139+51.16	28.69' R	1402.42	193475.78	103488.52
603	1139+53.16	28.76' R	1402.82	193477.78	103488.48
604	1139+52.65	43.60' R	1402.97	193478.11	103503.32
605	1139+50.56	45.53' R	1402.83	193476.15	103505.37
606	1139+74.95	44.34' R	1402.50	193500.29	103502.83
607	1139+74.66	46.33' R	1402.00	193500.10	103504.83
608	1139+73.92	51.31' R	1401.99	193499.64	103509.85
609	1139+73.65	53.16' R	1402.48	193499.47	103511.71
610	1139+50.39	50.53' R	1402.76	193476.26	103510.36
611	1139+45.36	50.35' R	1402.69	193471.26	103510.47
612	1139+41.98	52.28' R	1402.85	193468.02	103512.59
613	1139+40.74	50.18' R	1402.37	193466.68	103510.57
614	1139+43.69	55.39' R	1402.83	193469.91	103515.60
615	1139+43.10	55.70' R	1402.33	193469.34	103515.94
616	1139+41.46	56.55' R	1402.41	193467.77	103516.89
617	1139+40.17	50.52' R	1402.37	193466.13	103510.94
618	1139+38.82	51.86' R	1402.44	193464.87	103512.37
619	1139+36.92	45.43' R	1402.38	193462.61	103506.06

STH 13 & STH 29 WB OFF MEDIAN					
POINT NO.	STATION 'NB'	OFFSET	ELEVATION	NORTHING	EASTING
620	1139+35.31	46.34' R	1402.45	193461.06	103507.05
621	1139+35.30	41.73' R	1402.87	193460.78	103502.45
622	1139+34.74	42.09' R	1402.37	193460.24	103502.85
623	1139+33.19	43.09' R	1402.45	193458.77	103503.94
624	1139+40.16	28.64' R	1402.98	193464.84	103489.10
625	1139+40.17	27.97' R	1402.48	193464.81	103488.44
626	1139+40.18	26.14' R	1402.55	193464.71	103486.61
627	1139+46.14	28.00' R	1402.44	193470.75	103488.12
628	1139+45.23	26.16' R	1402.52	193469.74	103486.34
629	1139+51.16	28.02' R	1402.42	193475.75	103487.85
630	1139+50.96	26.19' R	1402.49	193475.44	103486.03
631	1139+55.23	28.70' R	1402.90	193479.83	103488.30
632	1139+55.23	28.04' R	1402.40	193479.80	103487.64
633	1139+55.24	26.20' R	1402.47	193479.70	103485.81
634	1139+75.39	41.38' R	1402.51	193500.56	103499.85
635	1139+76.05	41.48' R	1402.01	193501.23	103499.91
636	1139+77.88	41.74' R	1402.08	193503.05	103500.08
637	1139+75.33	46.35' R	1402.00	193500.77	103504.82
638	1139+77.18	46.43' R	1402.07	193502.62	103504.80
639	1139+74.58	51.41' R	1401.99	193500.30	103509.91
640	1139+76.39	51.81' R	1402.06	193502.12	103510.22
641	1139+73.19	56.26' R	1402.48	193499.18	103514.83
642	1139+73.85	56.35' R	1401.98	193499.84	103514.89
643	1139+75.68	56.62' R	1402.05	193501.67	103515.06



* MATCH EXISTING

LEGEND

XXX	CURB RAMP TYPE
SI	SLOPE INTERCEPT

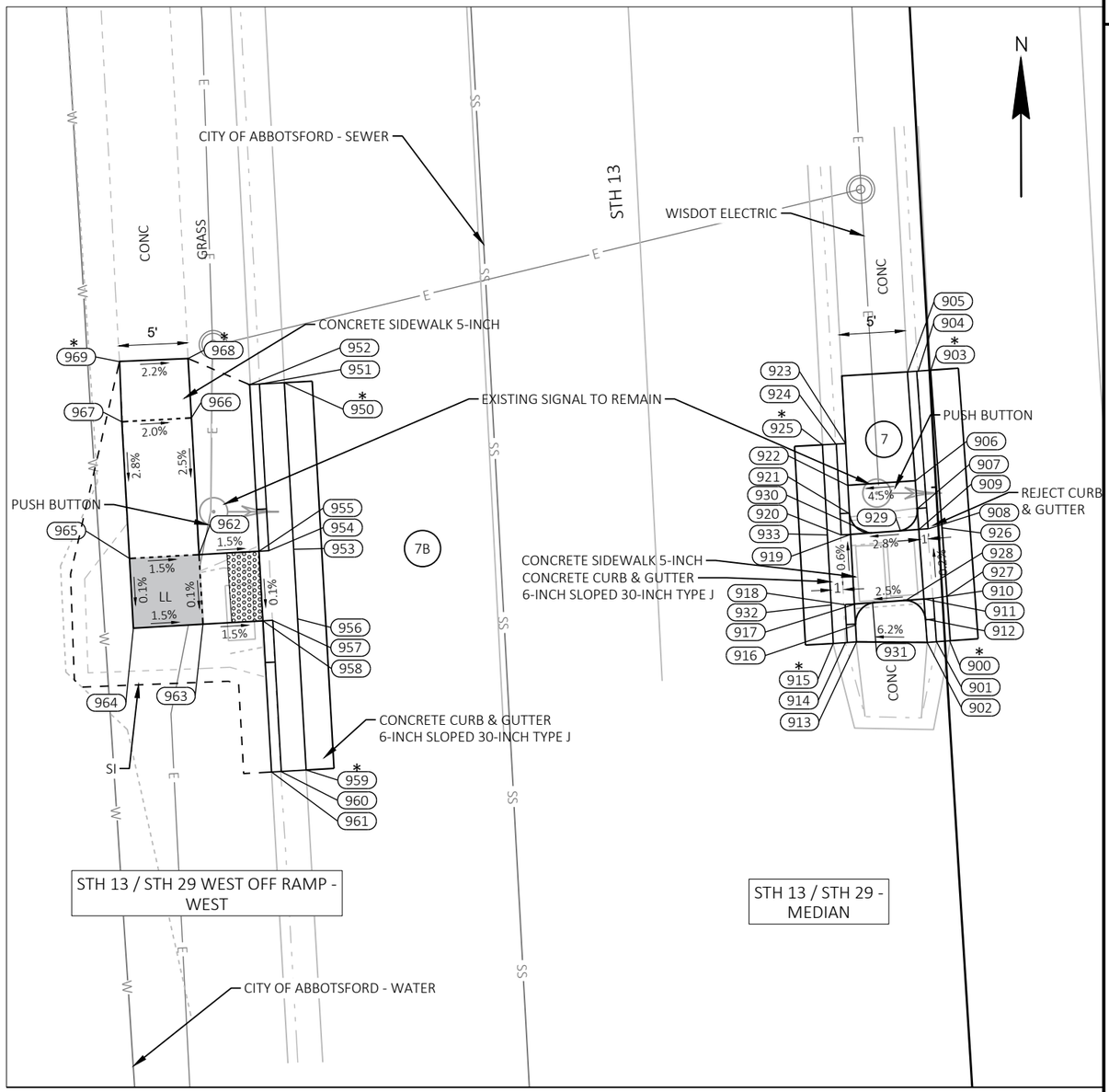
STH 13 / STH 29 WB OFF RAMP - MEDIAN

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CURB RAMP DETAILS	SHEET 42	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021302-CR_WB2PLDWG
LAYOUT NAME - STH 29 WB OFF Median
PLOT DATE : 10/23/2024 7:45 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:10 FT

STH 13 & STH 29 - WEST OFF RAMP - WEST					
POINT NO.	STATION 'NB'	OFFSET	ELEVATION	NORTHING	EASTING
950	1139+60.08	46.27' L	1403.45	193480.47	103413.18
951	1139+60.08	48.05' L	1403.34	193480.37	103411.40
952	1139+60.08	48.77' L	1403.84	193480.33	103410.68
953	1139+48.20	46.27' L	1403.44	193468.53	103413.85
954	1139+48.20	48.06' L	1403.33	193468.43	103412.07
955	1139+48.20	48.77' L	1403.38	193468.39	103411.36
956	1139+43.23	46.28' L	1403.43	193463.54	103414.13
957	1139+43.23	48.11' L	1403.36	193463.44	103412.30
958	1139+43.23	48.77' L	1403.37	193463.40	103411.64
959	1139+32.44	46.30' L	1403.42	193452.70	103414.75
960	1139+32.45	48.14' L	1403.31	193452.60	103412.91
961	1139+32.45	48.80' L	1403.80	193452.56	103412.26
962	1139+48.20	53.08' L	1403.44	193468.15	103407.06
963	1139+43.24	53.08' L	1403.44	193463.16	103407.34
964	1139+43.25	58.08' L	1403.51	193462.87	103402.35
965	1139+48.21	58.08' L	1403.52	193467.87	103402.07
966	1139+57.95	53.06' L	1403.69	193477.95	103406.51
967	1139+57.96	58.06' L	1403.79	193477.67	103401.52
968	1139+62.19	53.09' L	1403.80	193482.21	103406.25
969	1139+62.24	57.99' L	1403.91	193481.99	103401.35

STH 13 & STH 29 MEDIAN					
POINT NO.	STATION 'NB'	OFFSET	ELEVATION	NORTHING	EASTING
900	1139+38.94	0.34' R	1403.01	193461.97	103460.92
901	1139+38.92	0.61' L	1403.09	193461.90	103459.98
902	1139+38.91	1.28' L	1403.58	193461.85	103459.30
903	1139+58.34	0.08' R	1402.93	193481.32	103459.55
904	1139+58.33	0.82' L	1403.05	193481.26	103458.65
905	1139+58.33	1.57' L	1403.46	193481.22	103457.90
906	1139+50.53	1.46' L	1403.51	193473.44	103458.46
907	1139+48.53	1.43' L	1403.52	193471.44	103458.60
908	1139+47.04	0.73' L	1403.03	193470.00	103459.39
909	1139+47.03	1.40' L	1403.01	193469.94	103458.71
910	1139+42.05	0.66' L	1403.04	193465.01	103459.74
911	1139+42.04	1.33' L	1403.02	193464.97	103459.08
912	1139+40.59	1.31' L	1403.57	193463.52	103459.17
913	1139+39.26	6.33' L	1403.26	193461.89	103454.24
914	1139+39.25	7.14' L	1402.91	193461.84	103453.44
915	1139+39.25	8.01' L	1402.94	193461.79	103452.57
916	1139+40.45	6.35' L	1403.26	193463.09	103454.16
917	1139+41.95	6.31' L	1402.92	193464.59	103454.11
918	1139+41.96	7.01' L	1402.90	193464.56	103453.41
919	1139+46.97	6.31' L	1402.87	193469.60	103453.81
920	1139+46.97	6.99' L	1402.87	193469.56	103453.14
921	1139+48.46	6.31' L	1403.28	193471.09	103453.73
922	1139+50.48	6.30' L	1403.30	193473.11	103453.62
923	1139+53.48	6.31' L	1403.30	193476.11	103453.45
924	1139+53.48	6.99' L	1402.85	193476.06	103452.76
925	1139+53.48	7.93' L	1402.88	193476.01	103451.82
926	1139+47.06	0.24' R	1402.98	193470.07	103460.35
927	1139+42.13	0.29' R	1403.00	193465.15	103460.69
928	1139+42.01	2.65' L	1403.49	193464.86	103457.75
929	1139+47.03	2.73' L	1403.46	193469.87	103457.39
930	1139+47.00	4.96' L	1403.35	193469.71	103455.17
931	1139+41.98	5.03' L	1403.34	193464.69	103455.39
932	1139+42.00	7.99' L	1402.93	193464.54	103452.43
933	1139+47.02	7.97' L	1402.91	193469.56	103452.16



* MATCH EXISTING

LEGEND

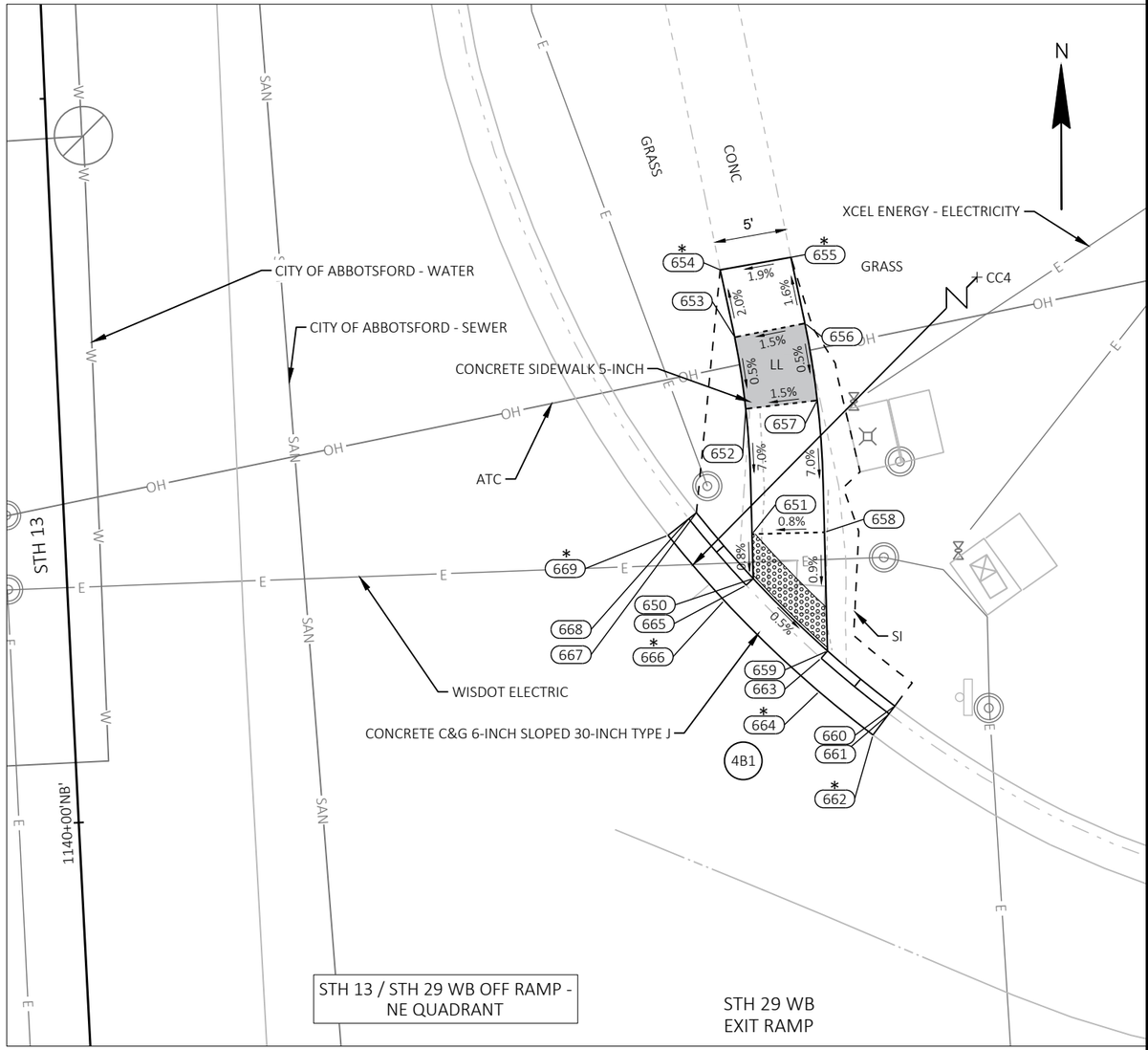
XXX	CURB RAMP TYPE
SI	SLOPE INTERCEPT

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CURB RAMP DETAILS	SHEET 43	E

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC4	1140+64.41 'NB' 101+17.81 'RB'	105.1' RT 108.3' LT	78.5' R	Y = 193591.64 X = 103559.34

STH 13 & STH 29 WB OFF RAMP - NE QUAD					
POINT NO.	STATION 'NB'	OFFSET	ELEVATION	NORTHING	EASTING
650	1140+14.56	47.33' R	1401.89	193539.75	103503.81
651	1140+17.65	47.40' R	1401.94	193542.82	103503.73
652	1140+26.36	47.38' R	1402.55	193551.46	103503.30
653	1140+31.36	46.85' R	1402.57	193556.41	103502.53
654	1140+36.08	46.06' R	1402.48	193561.05	103501.53
655	1140+36.73	50.97' R	1402.58	193561.92	103506.41
656	1140+32.10	51.73' R	1402.65	193557.36	103507.38
657	1140+26.71	52.33' R	1402.62	193552.04	103508.23
658	1140+17.54	52.40' R	1401.98	193542.95	103508.73
659	1140+09.29	52.21' R	1401.86	193534.76	103508.94
660	1140+05.23	56.66' R	1402.33	193530.96	103513.58
661	1140+04.71	56.23' R	1401.83	193530.42	103513.18
662	1140+03.30	55.06' R	1401.90	193528.97	103512.08
663	1140+08.80	51.75' R	1401.86	193534.25	103508.50
664	1140+06.49	51.49' R	1401.93	193531.95	103508.36
665	1140+14.13	46.82' R	1401.89	193539.30	103503.32
666	1140+13.14	45.26' R	1401.97	193538.24	103501.81
667	1140+19.32	43.63' R	1402.42	193544.30	103499.89
668	1140+18.93	43.09' R	1401.92	193543.88	103499.37
669	1140+17.85	41.61' R	1402.00	193542.74	103497.93

RADIAL DWF TABLE				
QUADRANT	BOC RADIUS	LANDING LENGTH 'XR'	DWF AREA	RADIAL CHORD LENGTH
NE	76.0'	8.2'	14.5 SF	7.2'



* MATCH EXISTING

LEGEND

(XXX)	CURB RAMP TYPE
SI	SLOPE INTERCEPT

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CURB RAMP DETAILS	SHEET 44	E

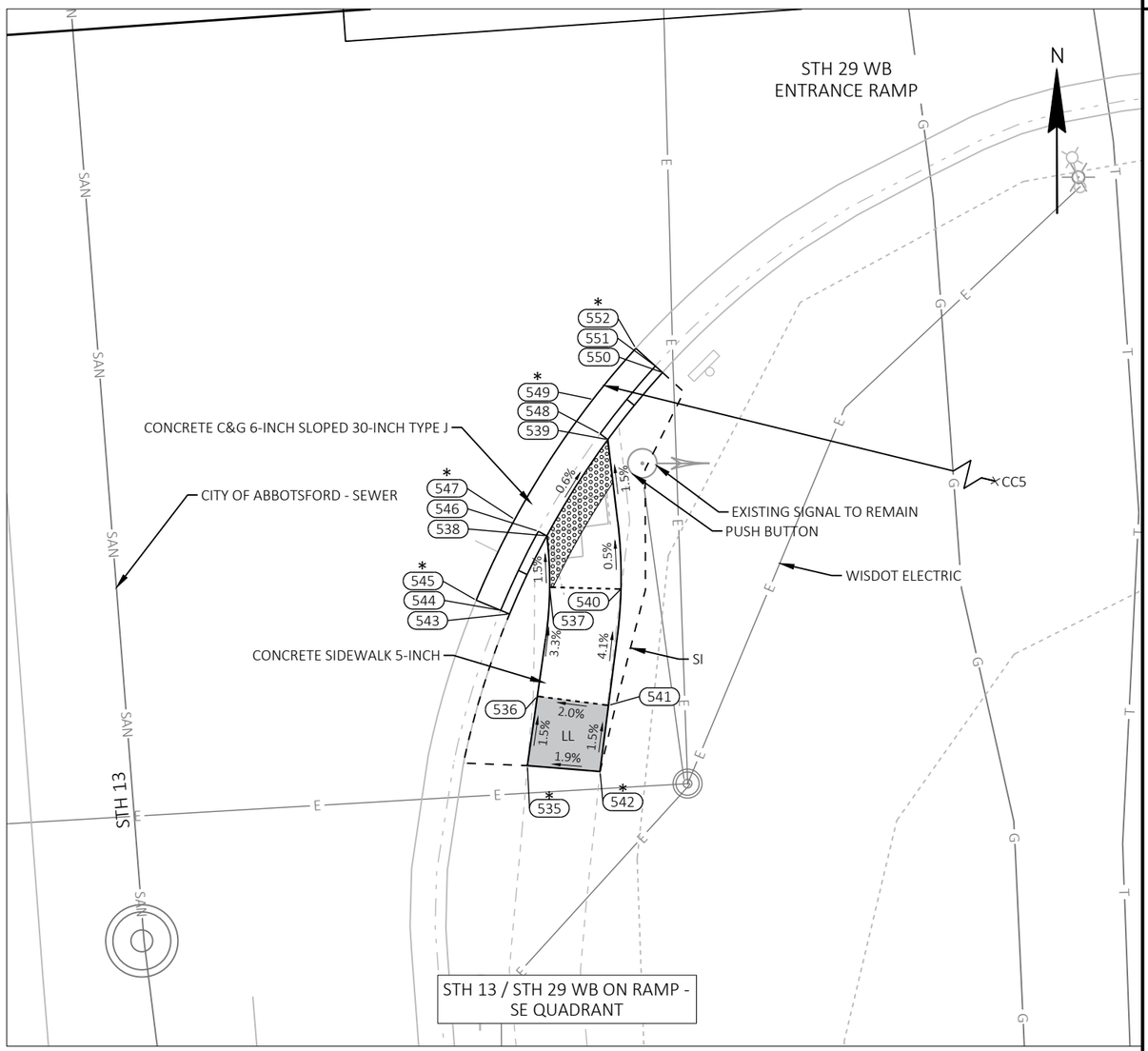
FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021302-CR_WB2.DWG PLOT DATE : 10/23/2024 7:46 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - STH 29 WB OFF NE

2

RADIUS POINT TABLE				
POINT	STATION	OFFSET	RADIUS	COORDINATES
CC5	1137+78.47 'NB' 90+98.64 'RA'	98.3' RT 68.5' RT	60.5' R	Y = 193309.78 X = 103569.76

STH 13 & STH 29 WB On Ramp - SE Quad					
POINT NO.	STATION 'NB'	OFFSET	ELEVATION	NORTHING	EASTING
535	1137+94.45	47.09' R	1401.99	193321.48	103517.42
536	1137+99.22	48.16' R	1401.92	193326.29	103518.11
537	1138+06.74	49.59' R	1401.67	193333.85	103518.96
538	1138+10.33	49.66' R	1401.63	193337.41	103518.77
539	1138+16.71	54.38' R	1401.58	193344.08	103522.99
540	1138+06.23	54.50' R	1401.69	193333.72	103523.90
541	1137+98.21	53.02' R	1402.02	193325.66	103523.04
542	1137+93.65	52.08' R	1402.09	193321.08	103522.46
543	1138+05.09	46.67' R	1402.11	193331.99	103516.19
544	1138+05.40	46.08' R	1401.61	193332.25	103515.57
545	1138+06.23	44.45' R	1401.69	193332.95	103513.88
546	1138+10.69	49.10' R	1401.63	193337.73	103518.18
547	1138+11.65	47.53' R	1401.70	193338.55	103516.54
548	1138+17.15	53.88' R	1401.58	193344.48	103522.46
549	1138+19.58	53.58' R	1401.64	193346.86	103521.98
550	1138+21.09	58.51' R	1402.05	193348.73	103526.79
551	1138+21.58	58.06' R	1401.55	193349.18	103526.29
552	1138+22.92	56.79' R	1401.62	193350.41	103524.94

RADIAL DWF TABLE				
QUADRANT	BOC RADIUS	LANDING LENGTH 'XR'	DWF AREA	RADIAL CHORD LENGTH
SE	58.0'	10.6'	16.7 SF	8.6'



* MATCH EXISTING

LEGEND

XXX	CURB RAMP TYPE
SI	SLOPE INTERCEPT

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CURB RAMP DETAILS	SHEET 45	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\021302-CR_WB2.DWG
LAYOUT NAME - STH 29 WB ON SE
PLOT DATE : 10/23/2024 7:46 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

2

FRONTIER COMMUNICATIONS

112+00 'RA'

111+00 'RA'

110+00 'RA'

109+00 'RA'

108+00 'RA'

STH 13 TO STH 29 WB

STH 29 WB

B-37-290

9095+00 'WB'

9100+00 'WB'

RIPRAP MEDIUM 6' X 8'

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE

N

CITY OF ABBOTSFORD - WATER

CLARK ELECTRIC COOPERATIVE

BUG TUSSEL

FO

HO

W

T

B-37-201

STH 29 WB

9225+00 'WB'

PORKY CREEK

FRONTIER COMMUNICATIONS

B-37-284

STH 29 EB

FRONTIER COMMUNICATIONS

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION	SHEET 46	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\022001-EC.DWG PLOT DATE : 10/22/2024 2:44 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 01

WISDOT/CADDS SHEET 44

2

BUG TUSSEL

FO

N

2

B-37-202

9280+00 'WB'

STH 29 WB

9285+00 'WB'

BIG EAU PLEINE RIVER

B-37-285

STH 29 EB

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE

CLARK ELECTRIC COOPERATIVE

HO

T

B-37-282

9525+00 'WB'

STH 29 WB

9530+00 'WB'

RANDALL CREEK

FRONTIER COMMUNICATIONS

N

B-37-281

STH 29 EB

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION	SHEET 47	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\022001-EC.DWG PLOT DATE : 10/22/2024 2:44 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 02

WISDOT/CADDS SHEET 44

2

2

N

9124+00 'WB'

1+00 'CR'

2+00 'CR'

9126+00 'WB'

3+00 'CR'

4+00 'CR'

9128+00 'WB'

5+00 'CR'

2.0%

2.0%

2.0%

1.0%

2.0%

2.0%

2.0%

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE

N

MATCH LINE 5+30

PC: 9134+07.47

9130+00 'WB'

9132+00 'WB'

9134+00 'WB'

%0'0

2.0%

6+00 'CR'

4.0%

6.0%

7+00 'CR'

6.0%

8+00 'CR'

6.0%

9+00 'CR'

6.0%

10+00 'CR'

6.0%

MATCH LINE 10+60

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION - CROSSOVER	SHEET 48	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - 07
PLOT DATE : 10/24/2024 6:16 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 44

2

2

MATCH LINE 10+60

9136+00 'WB'

9138+00 'WB'

11+00 'CR'

12+00 'CR'

13+00 'CR'

14+00 'CR'

15+00 'CR'

6.0%

6.0%

6.0%

6.0%

6.0%

MATCH LINE 15+90

N

9140+00 'WB'

9142+00 'WB'

MATCH LINE 15+90

16+00 'CR'

17+00 'CR'

6.0%

N

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION - CROSSOVER	SHEET 49	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\022002-EC.DWG
LAYOUT NAME - 08

PLOT DATE : 10/24/2024 6:16 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

WB CROSSOVER

9125+00 'WB'

STH 29 WB

5+00 'CR'

MATCH LINE 5+30

STH 29 EB

N

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE

MATCH LINE 5+30

9130+00 'WB'

STH 29 WB

10+00 'CR'

STH 29 EB

WB CROSSOVER

MATCH LINE 10+60

N

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION - CROSSOVER POST CONSTRUCTION	SHEET 50	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\022001-EC.DWG PLOT DATE : 10/22/2024 2:44 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 03

WISDOT/CADDS SHEET 44

2

MATCH LINE 10+60

9135+00 'WB'

STH 29 WB

15+00 'CR'

STH 29 EB

WB CROSSOVER

MATCH LINE 15+90

N

2

LEGEND

- ###### EROSION MAT CLASS I, TYPE B
- × × × × EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE

MATCH LINE 15+90

9140+00 'WB'

STH 29 WB

STH 29 EB

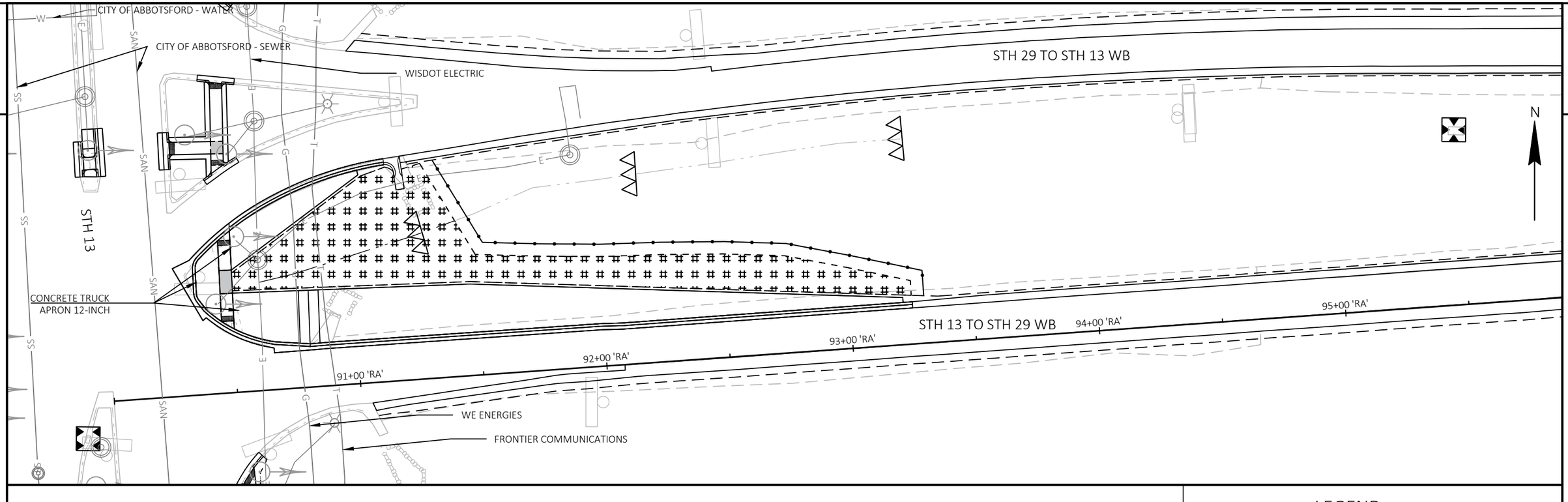
WB CROSSOVER

N

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION - CROSSOVER POST CONSTRUCTION	SHEET 51	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\022001-EC.DWG PLOT DATE : 10/22/2024 2:44 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 04

WISDOT/CADDS SHEET 44



2

2

FRAME INTENTIONALLY LEFT BLANK

LEGEND

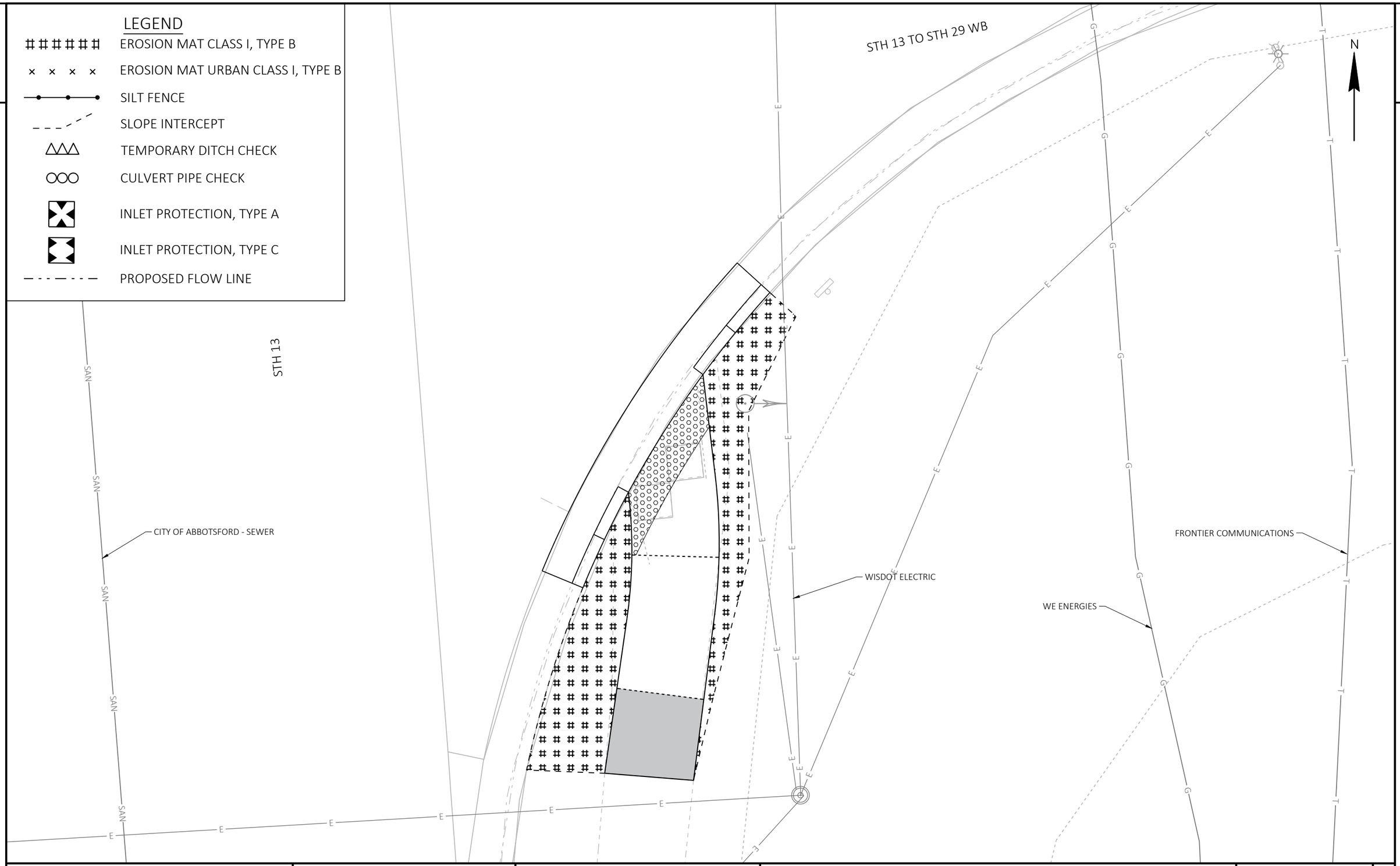
- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION	SHEET 52	E

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE



2

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION	SHEET 53	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\022003-EC.DWG PLOT DATE : 10/22/2024 2:49 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:5 FT
LAYOUT NAME - CR-FAR S

WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE

N

ATC

WE ENERGIES

XCEL ENERGY - ELECTRICITY

CITY OF ABBOTSFORD - SEWER

STH 13

WISDOT ELECTRIC

STH 29 TO STH 13 WB

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION	SHEET 54	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\022003-EC.DWG PLOT DATE : 10/22/2024 2:50 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:5 FT

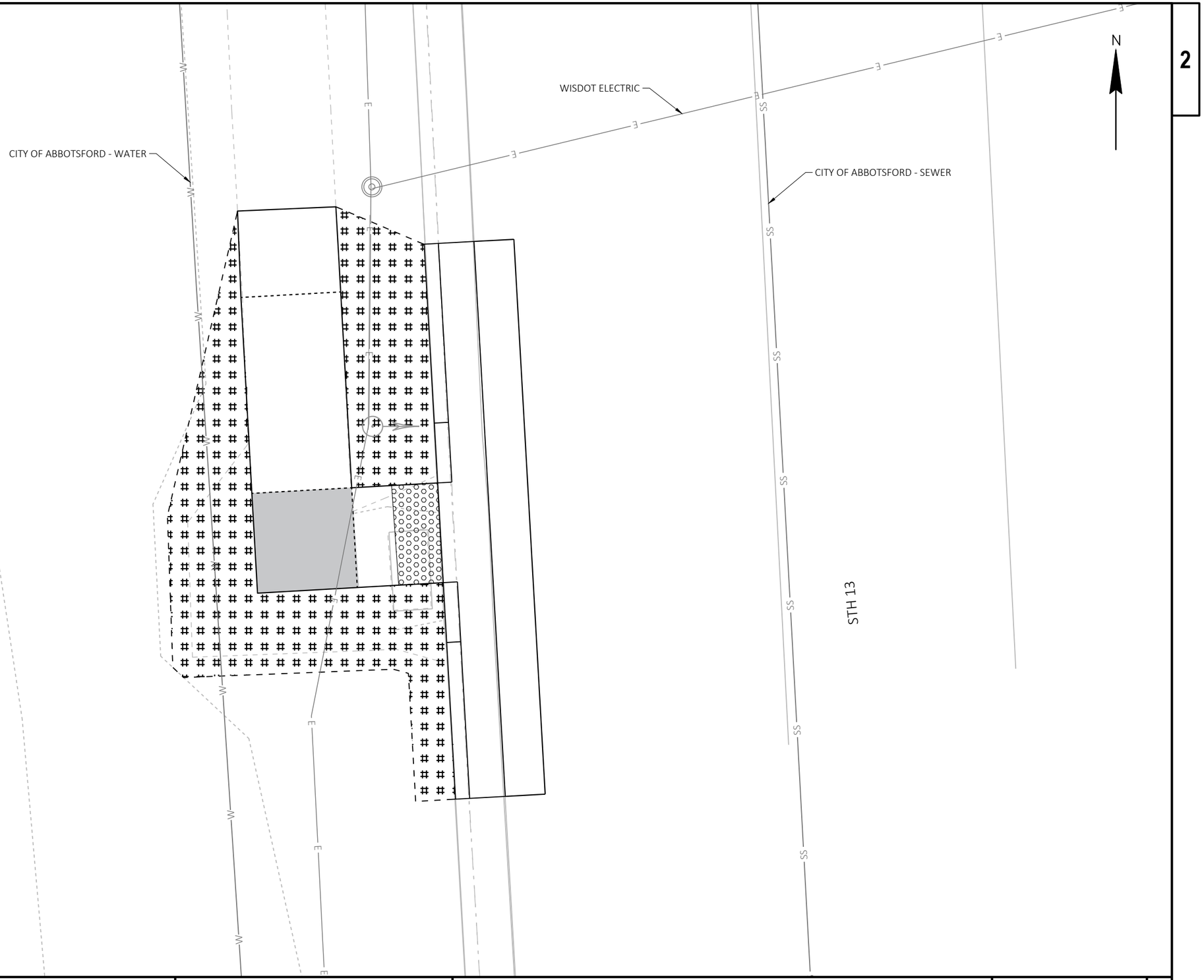
LAYOUT NAME - CR-FAR N

WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS I, TYPE B
- EROSION MAT URBAN CLASS I, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- INLET PROTECTION, TYPE A
- INLET PROTECTION, TYPE C
- PROPOSED FLOW LINE



2

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	EROSION CONTROL & RESTORATION	SHEET 55	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\022003-EC.DWG PLOT DATE : 10/22/2024 2:50 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:5 FT
LAYOUT NAME - CR-WEST

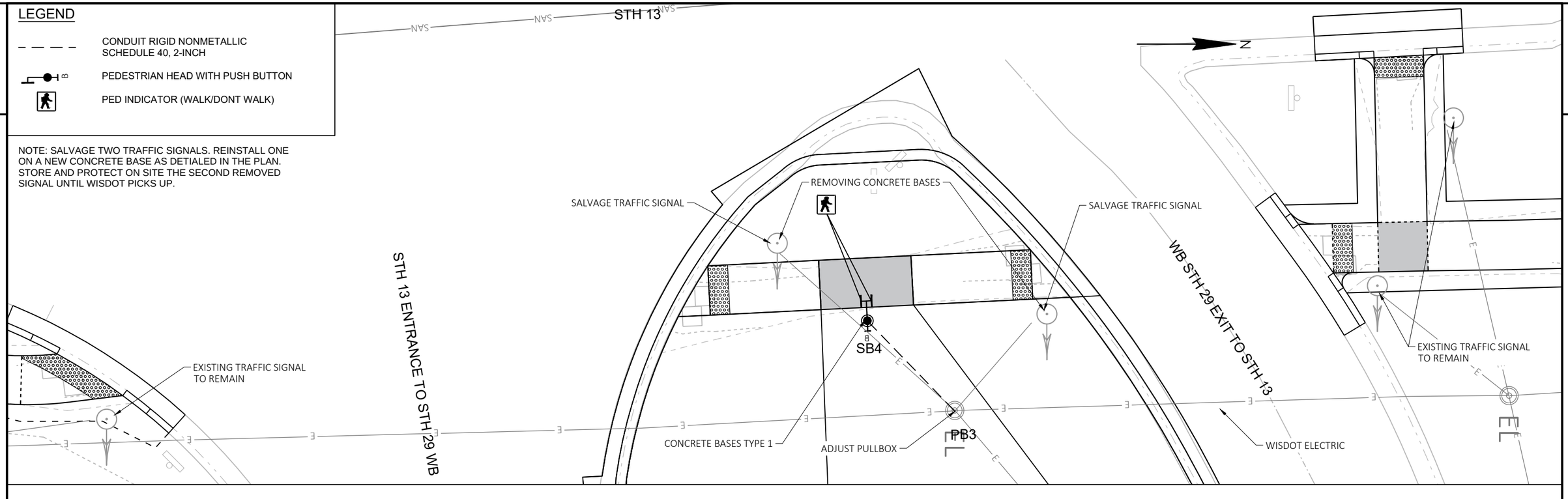
LEGEND

CONDUIT RIGID NONMETALLIC SCHEDULE 40, 2-INCH

PEDESTRIAN HEAD WITH PUSH BUTTON

PED INDICATOR (WALK/DONT WALK)

NOTE: SALVAGE TWO TRAFFIC SIGNALS. REINSTALL ONE ON A NEW CONCRETE BASE AS DETIALED IN THE PLAN. STORE AND PROTECT ON SITE THE SECOND REMOVED SIGNAL UNTIL WISDOT PICKS UP.



PB3 TO	AWG 14# OF COND.	PHASE	D/WALK	WALK	PED BUTTON
SB4	5	6P	RED	GRN	BLK

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PEDESTRIAN PUSH BUTTON DETAILS	SHEET 56	E

2

BEGIN PROJECT
STA 9094+60.67 'WB'
Y=192,780.939
X=103,578.888

+85.99 'WB'
+25.07 'WB'
+05.92 'WB'
+09.38 'WB'
+11.01 'WB'
STH 13 TO STH 29 WB
B-37-290
STH 29 WB
9095+00 'WB'
9100+00 'WB'
9105+00 'WB'
15'
50'
12'
12'

+25.46 'FB'
105+00 'EB'
110+00 'EB'
B-37-289
STH 29 EB
+20.60 'FB'
+20.60 'FB'
+20.60 'FB'
+16.08 'FB'
+31.52 'FB'
+31.65 'FB'
+30.47 'FB'
+67.24 'FB'
STH 29 EB TO STH 13

MATCH LINE 9109+00 'WB'

N

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E	MARKING CHEVRON EPOXY 24-INCH WHITE
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G	MARKING STOP LINE EPOXY 18-INCH
H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I	MARKING ISLAND NOSE EPOXY YELLOW
J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M	MARKING ARROW EPOXY WHITE
N	MARKING LINE EPOXY 4-INCH YELLOW

MATCH LINE 9109+00 'WB'

N

STH 29 WB TO STH 13
+36.86 'WB'
+87.92 'WB'
+54.86 'WB'
+20.33 'WB'
STH 29 WB
9110+00 'WB'
9115+00 'WB'
9120+00 'WB'
+36.03 'WB'
+87.92 'WB'
15'
50'
12'
12'

115+00 'EB'
120+00 'EB'
125+00 'EB'
STH 29 EB
+56.49 'FB'
+20.56 'FB'
+21.21 'FB'
+23.64 'FB'
STH 13 TO STH 29 EB

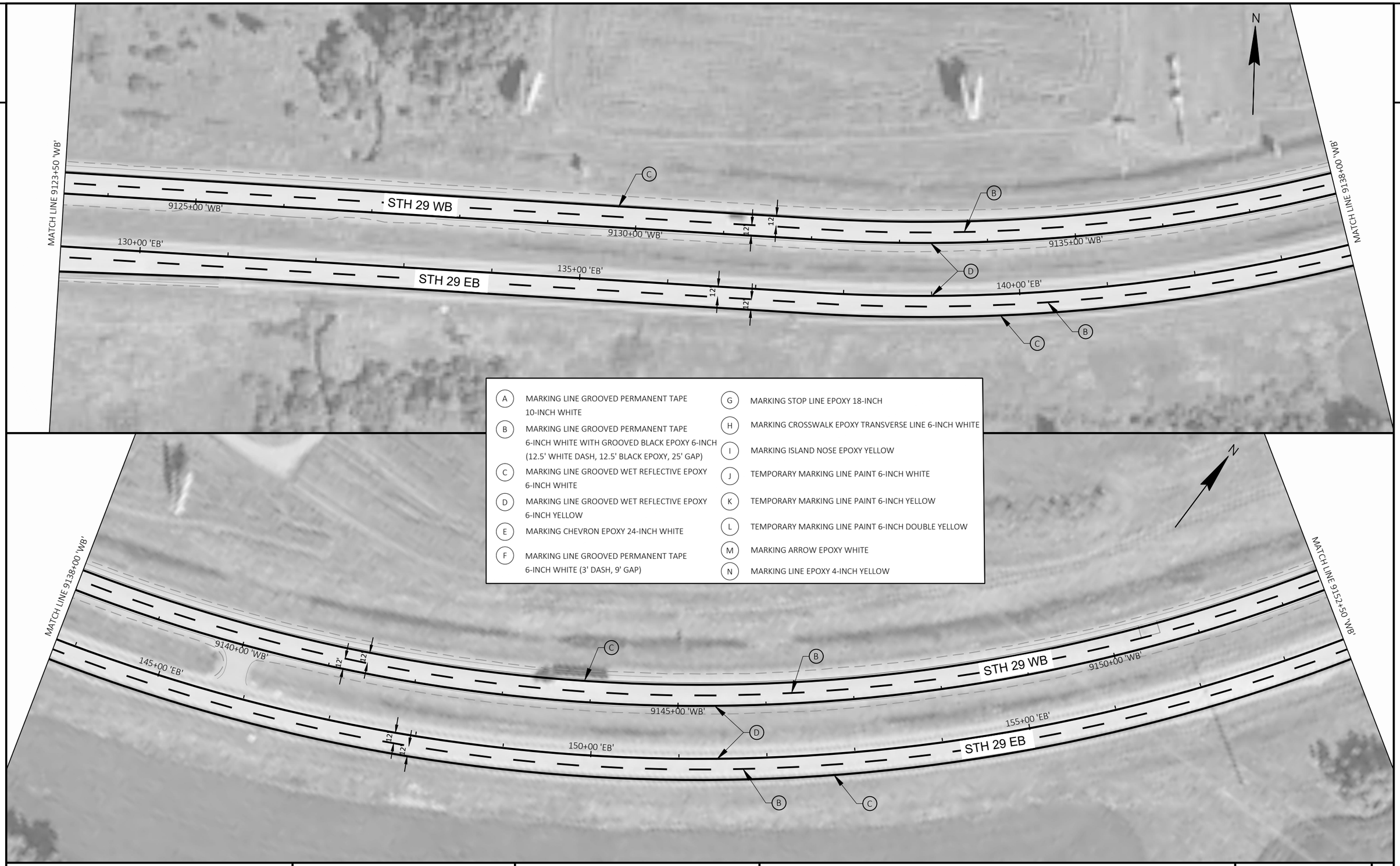
MATCH LINE 9123+50 'WB'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 57 E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:16 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 01

WISDOT/CADDS SHEET 44

2



A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E	MARKING CHEVRON EPOXY 24-INCH WHITE
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G	MARKING STOP LINE EPOXY 18-INCH
H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I	MARKING ISLAND NOSE EPOXY YELLOW
J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M	MARKING ARROW EPOXY WHITE
N	MARKING LINE EPOXY 4-INCH YELLOW

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 58 E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:16 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 02
WISDOT/CADDS SHEET 44

2

2

MATCH LINE 9152+50 'WB'

MATCH LINE 9167+00 'WB'

STH 29 WB

STH 29 EB

160+00 'EB'

165+00 'EB'

170+00 'EB'

9155+00 'WB'

9160+00 'WB'

9165+00 'WB'

12'

12'

12'

12'

N

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE	G	MARKING STOP LINE EPOXY 18-INCH
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)	H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE	I	MARKING ISLAND NOSE EPOXY YELLOW
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW	J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
E	MARKING CHEVRON EPOXY 24-INCH WHITE	K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)	L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
		M	MARKING ARROW EPOXY WHITE
		N	MARKING LINE EPOXY 4-INCH YELLOW

MATCH LINE 9167+00 'WB'

MATCH LINE 9181+50 'WB'

STH 29 WB

STH 29 EB

175+00 'EB'

180+00 'EB'

185+00 'EB'

9170+00 'WB'

9175+00 'WB'

9180+00 'WB'

12'

12'

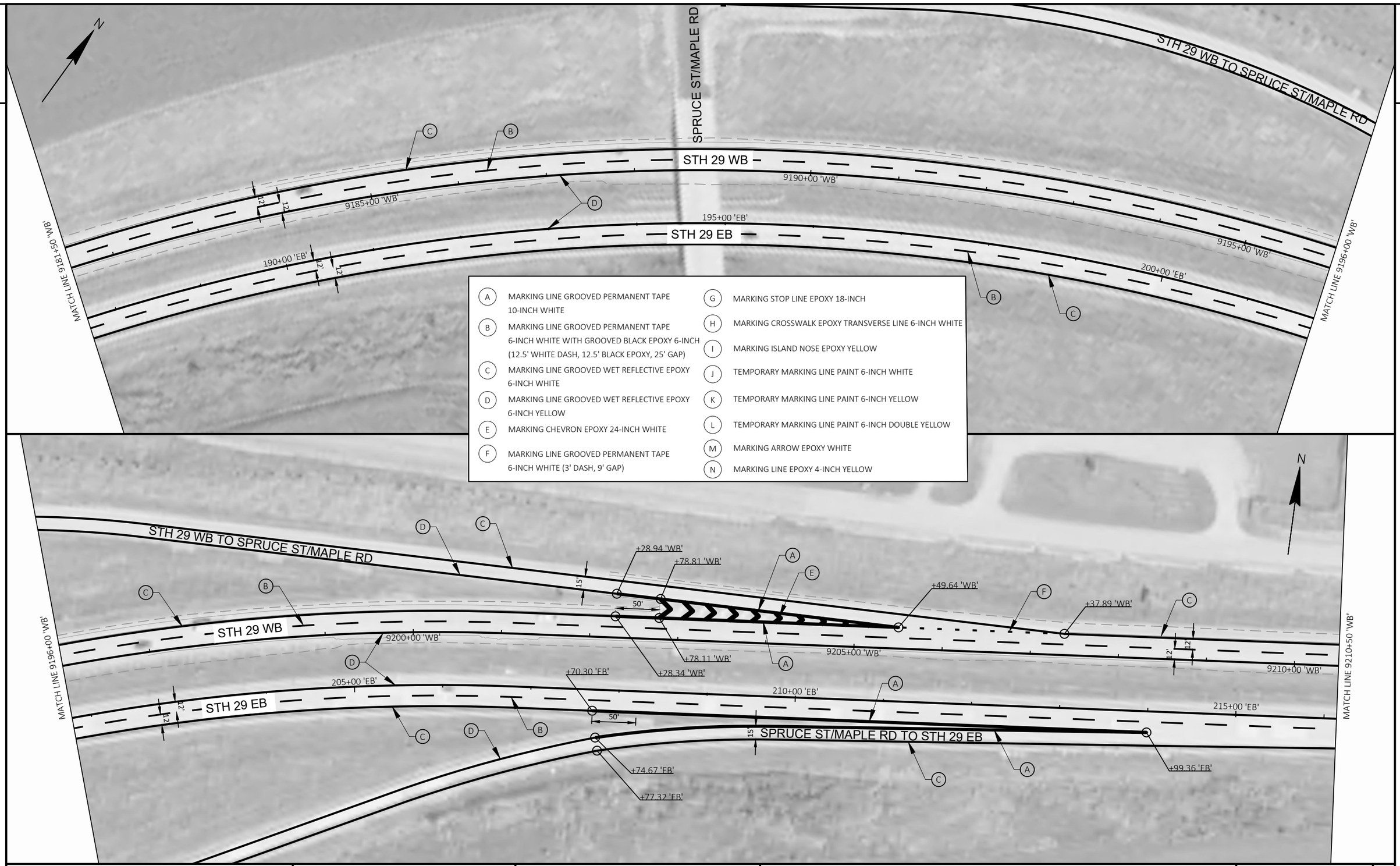
12'

12'

N

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 59	E

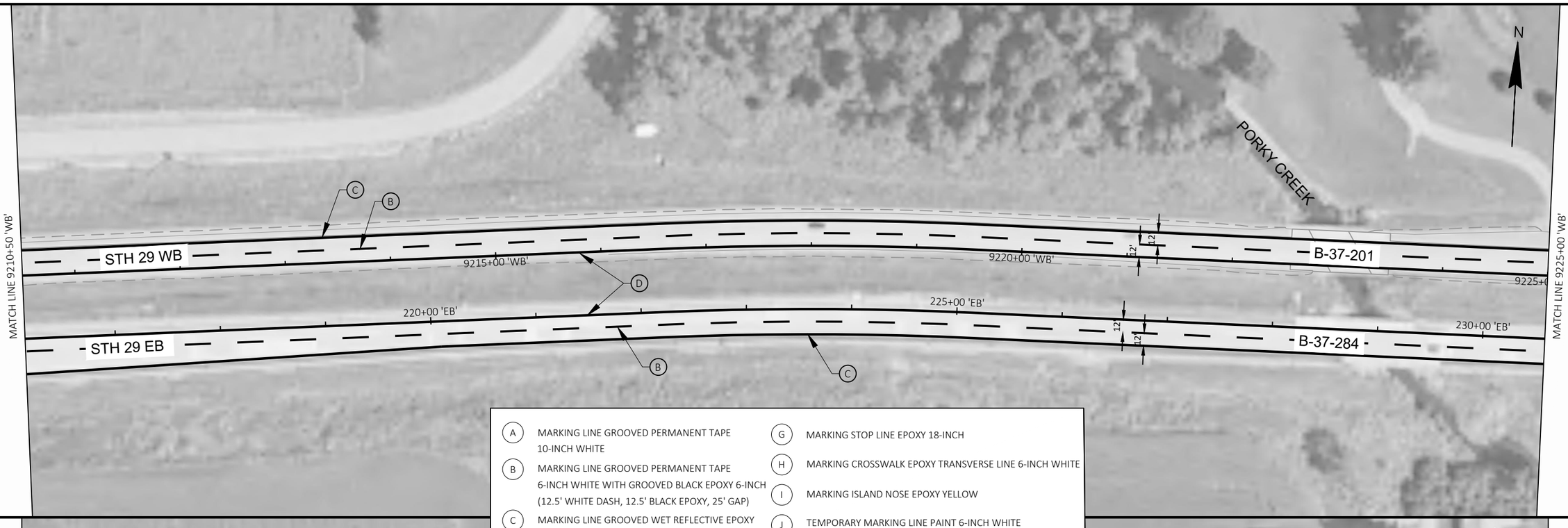
2



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 60	E

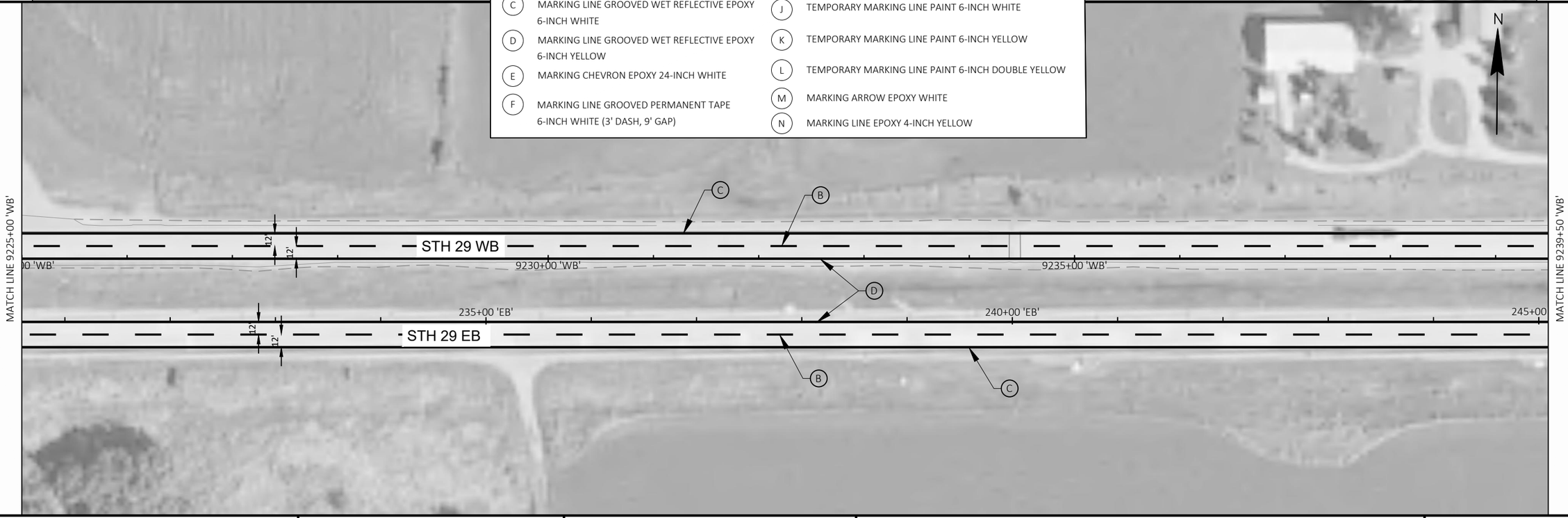
FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:17 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 04
WISDOT/CADDS SHEET 44

2



2

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E	MARKING CHEVRON EPOXY 24-INCH WHITE
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G	MARKING STOP LINE EPOXY 18-INCH
H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I	MARKING ISLAND NOSE EPOXY YELLOW
J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M	MARKING ARROW EPOXY WHITE
N	MARKING LINE EPOXY 4-INCH YELLOW



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 61 E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:17 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 05

WISDOT/CADDS SHEET 44

2

2

MATCH LINE 9239+50 'WB'

MATCH LINE 9254+00 'WB'

STH 29 WB

STH 29 EB

9240+00 'WB'

9245+00 'WB'

9250+00 'WB'

'EB'

250+00 'EB'

255+00 'EB'

12'

12'

12'

12'

N

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE	G	MARKING STOP LINE EPOXY 18-INCH
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)	H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE	I	MARKING ISLAND NOSE EPOXY YELLOW
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW	J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
E	MARKING CHEVRON EPOXY 24-INCH WHITE	K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)	L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
		M	MARKING ARROW EPOXY WHITE
		N	MARKING LINE EPOXY 4-INCH YELLOW

MATCH LINE 9254+00 'WB'

MATCH LINE 9268+50 'WB'

ROSEDALE AVE

CHESTNUT HILL LN

STH 29 WB

STH 29 EB

9255+00 'WB'

9260+00 'WB'

9265+00 'WB'

260+00 'EB'

265+00 'EB'

270+00 'EB'

+10.09 'WB'

+47.71 'WB'

+22 'WB'

+25.94 'WB'

+15.35 'EB'

+15.35 'EB'

+38.30 'EB'

+65.33 'EB'

+70.70 'EB'

+70.70 'EB'

+30.08 'EB'

+30.08 'EB'

+38.30 'EB'

+38.30 'EB'

12'

12'

12'

12'

12'

N

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 62 E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:17 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 06

2

ROSEDALE AVE

CHESTNUT HILL LN

BIG EAU PLEINE RIVER

GIERL AVE

N

MATCH LINE 9268+50 'WB'

MATCH LINE 9283+00 'WB'

MATCH LINE 9283+00 'WB'

MATCH LINE 9297+50 'WB'

B-37-202

STH 29 WB

B-37-285

STH 29 EB

9270+00 'WB'

9275+00 'WB'

9280+00 'WB'

9285+00 'WB'

9290+00 'WB'

9295+00 'WB'

280+00 'EB'

285+00 'EB'

290+00 'EB'

295+00 'EB'

300+00 'EB'

+87.24 'WB'

+37.86 'WB'

+37.86 'WB'

+23.15 'WB'

+23.15 'WB'

+22.05 'WB'

+38.98 'WB'

+45.10 'WB'

+07.79 'WB'

275+00 'EB'

+59.63 'FB'

+66.01 'FB'

+67.66 'FB'

+72.43 'FB'

+63.25 'WB'

+63.25 'WB'

+33.45 'WB'

+46.08 'WB'

+40.42 'WB'

+47.64 'WB'

+83.06 'FB'

+09.99 'WB'

+01.43 'FB'

+50.95 'FB'

+50.95 'FB'

+00.94 'FB'

+82.08 'FB'

+00.05 'FB'

12'

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E	MARKING CHEVRON EPOXY 24-INCH WHITE
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G	MARKING STOP LINE EPOXY 18-INCH
H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I	MARKING ISLAND NOSE EPOXY YELLOW
J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M	MARKING ARROW EPOXY WHITE
N	MARKING LINE EPOXY 4-INCH YELLOW

2

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 63	E

2

2

MATCH LINE 9297+50 'WB'

MATCH LINE 9312+00 'WB'

+59.30 'WB'

+59.30 'WB'

+22.33 'WB'

9300+00 'WB'

9305+00 'WB'

9310+00 'WB'

305+00 'EB'

310+00 'EB'

315+00 'EB'

STH 29 WB

STH 29 EB

12'

12'

12'

12'

N

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE	G	MARKING STOP LINE EPOXY 18-INCH
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)	H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE	I	MARKING ISLAND NOSE EPOXY YELLOW
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW	J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
E	MARKING CHEVRON EPOXY 24-INCH WHITE	K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)	L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
		M	MARKING ARROW EPOXY WHITE
		N	MARKING LINE EPOXY 4-INCH YELLOW

MATCH LINE 9312+00 'WB'

MATCH LINE 9326+50 'WB'

+52.77 'WB'

+60.89 'WB'

+27.93 'WB'

+76.61 'WB'

+81.33 'WB'

+02.64 'WB'

9315+00 'WB'

9320+00 'WB'

9325+00 'WB'

+27.93 'WB'

+39.11 'FB'

+35.63 'FB'

+22.13 'FB'

+36.55 'FB'

320+00 'EB'

325+00 'EB'

330+00 'EB'

STH 29 WB

STH 29 EB

12'

12'

12'

12'

+00.58 'FB'

+95.12 'FB'

+95.12 'FB'

+97.95 'FB'

+97.95 'FB'

+34.55 'FB'

+28.96 'FB'

ROCK ELM LN

N

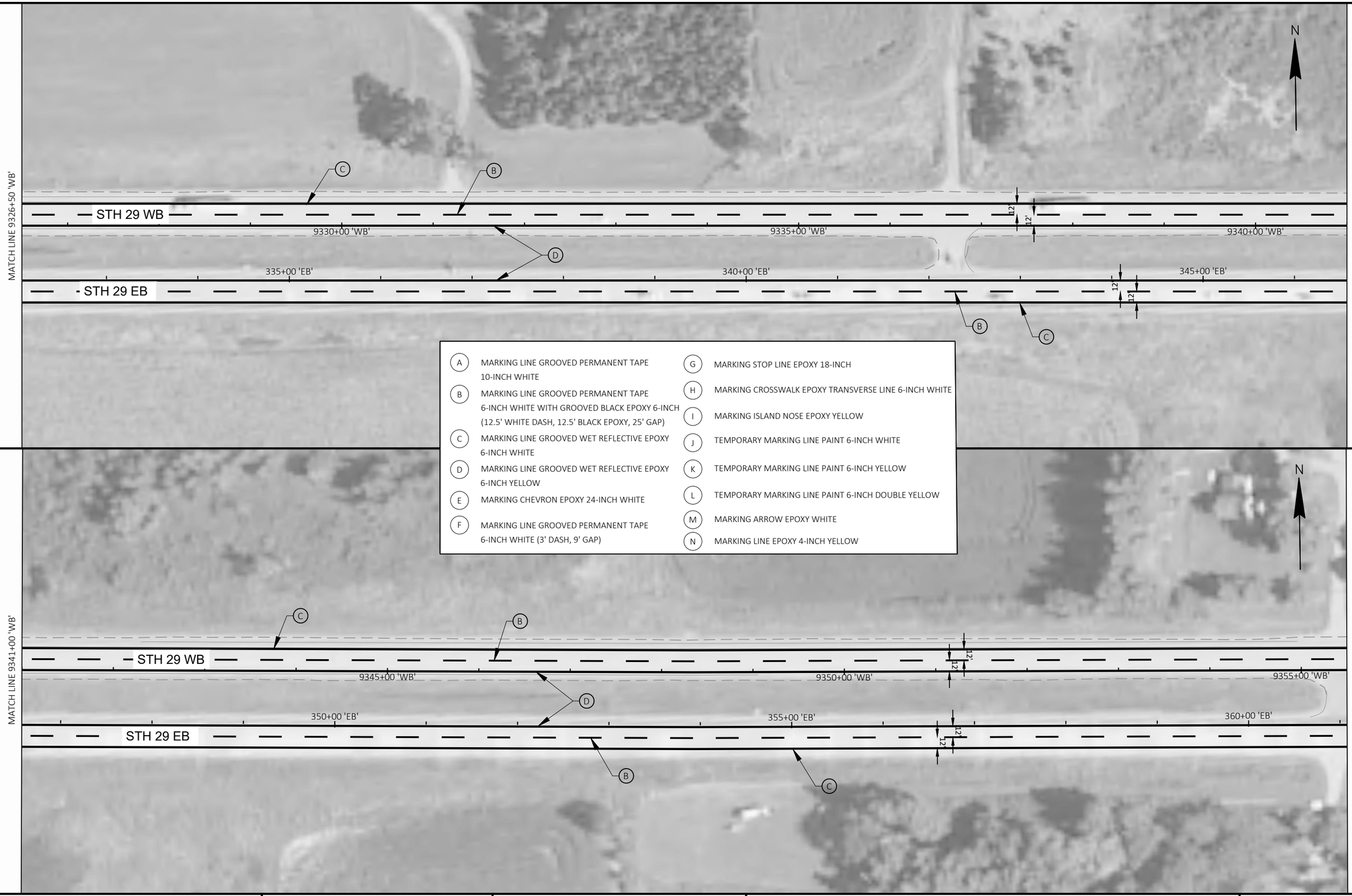
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 64	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:17 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT

LAYOUT NAME - 08

WISDOT/CADDS SHEET 44

2



A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E	MARKING CHEVRON EPOXY 24-INCH WHITE
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G	MARKING STOP LINE EPOXY 18-INCH
H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I	MARKING ISLAND NOSE EPOXY YELLOW
J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M	MARKING ARROW EPOXY WHITE
N	MARKING LINE EPOXY 4-INCH YELLOW

2

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 65	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:17 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 09

2

2

MATCH LINE 9355+50 'WB'

MATCH LINE 9370+00 'WB'

STH 29 WB

STH 29 EB

9360+00 'WB'

9365+00 'WB'

365+00 'EB'

370+00 'EB'

375+00 'EB'

+89.75 'FB'

+89.75 'FB'

12'

12'

12'

12'

N

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE	G	MARKING STOP LINE EPOXY 18-INCH
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)	H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE	I	MARKING ISLAND NOSE EPOXY YELLOW
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW	J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
E	MARKING CHEVRON EPOXY 24-INCH WHITE	K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)	L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
		M	MARKING ARROW EPOXY WHITE
		N	MARKING LINE EPOXY 4-INCH YELLOW

CTH F

CTH F

MATCH LINE 9370+00 'WB'

MATCH LINE 9384+50 'WB'

STH 29 WB

STH 29 EB

9375+00 'WB'

9380+00 'WB'

380+00 'EB'

385+00 'EB'

390+00

+29.57 'WB'

+52.47 'WB'

+66.10 'WB'

+66.10 'WB'

+68.10 'WB'

+68.10 'WB'

+96.33 'WB'

+44.35 'FB'

+44.35 'FB'

+42.77 'WB'

+41.67 'WB'

+44.35 'FB'

+90.44 'FB'

+44.35 'FB'

+44.35 'FB'

+44.35 'FB'

+44.35 'FB'

+45.16 'WB'

+25.10 'WB'

+75.10 'WB'

+75.10 'WB'

+42.81 'WB'

+00.62 'FB'

+00.90 'FB'

+95.96 'FB'

+99.34 'FB'

12'

12'

12'

12'

12'

12'

12'

12'

N

PROJECT NO:	1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET	66	E

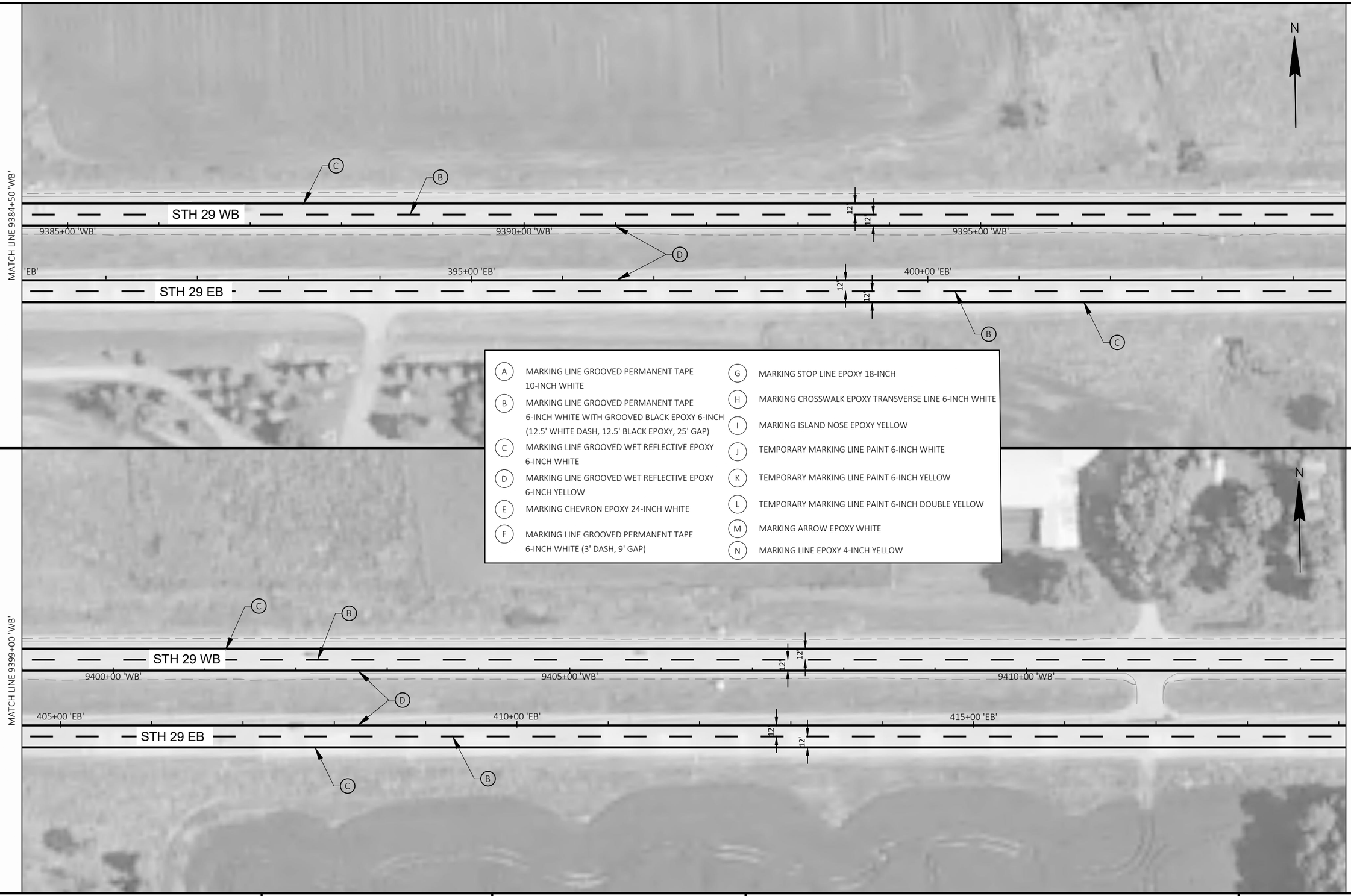
FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:17 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT

LAYOUT NAME - 10

WISDOT/CADDS SHEET 44

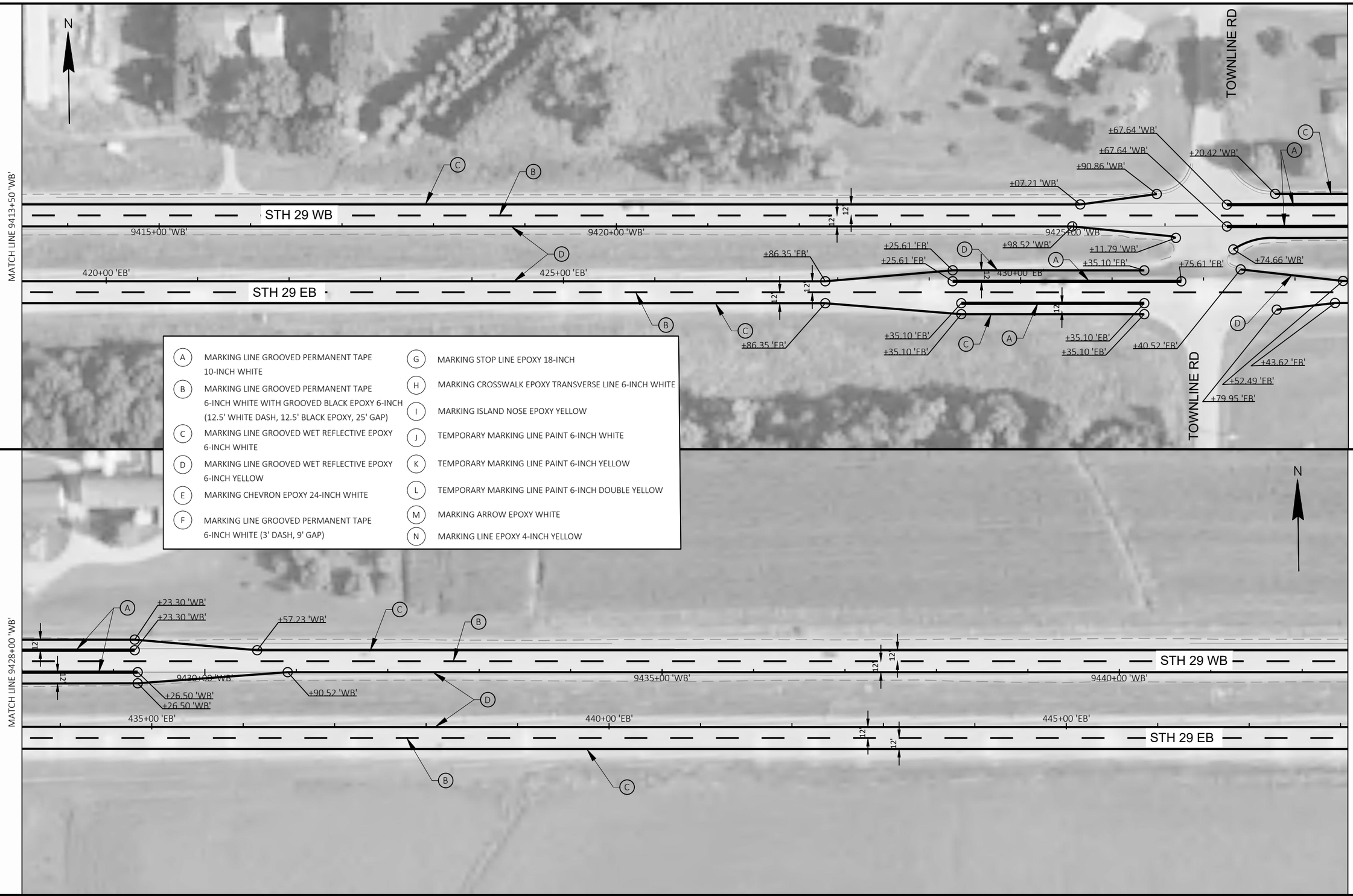
2

2



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 67	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:17 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 11
WISDOT/CADDS SHEET 44



2

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 68 E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:18 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 12
WISDOT/CADDS SHEET 44

2

2

MATCH LINE 9442+50 'WB'

MATCH LINE 9457+00 'WB'

STH 29 WB

9445+00 'WB'

9450+00 'WB'

9455+00 'WB'

450+00 'EB'

455+00 'EB'

460+00 'EB'

STH 29 EB

12'

12'

12'

12'

N

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE	G	MARKING STOP LINE EPOXY 18-INCH
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)	H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE	I	MARKING ISLAND NOSE EPOXY YELLOW
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW	J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
E	MARKING CHEVRON EPOXY 24-INCH WHITE	K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)	L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
		M	MARKING ARROW EPOXY WHITE
		N	MARKING LINE EPOXY 4-INCH YELLOW

MATCH LINE 9457+00 'WB'

MATCH LINE 9471+50 'WB'

STH 29 WB

9460+00 'WB'

9465+00 'WB'

9470+00 'WB'

465+00 'EB'

470+00 'EB'

STH 29 EB

+02.47 'WB'

+67.40 'WB'

+18.70 'EB'

+18.70 'EB'

+78.87 'EB'

+84.40 'EB'

+56.09 'EB'

+56.09 'EB'

12'

12'

12'

12'

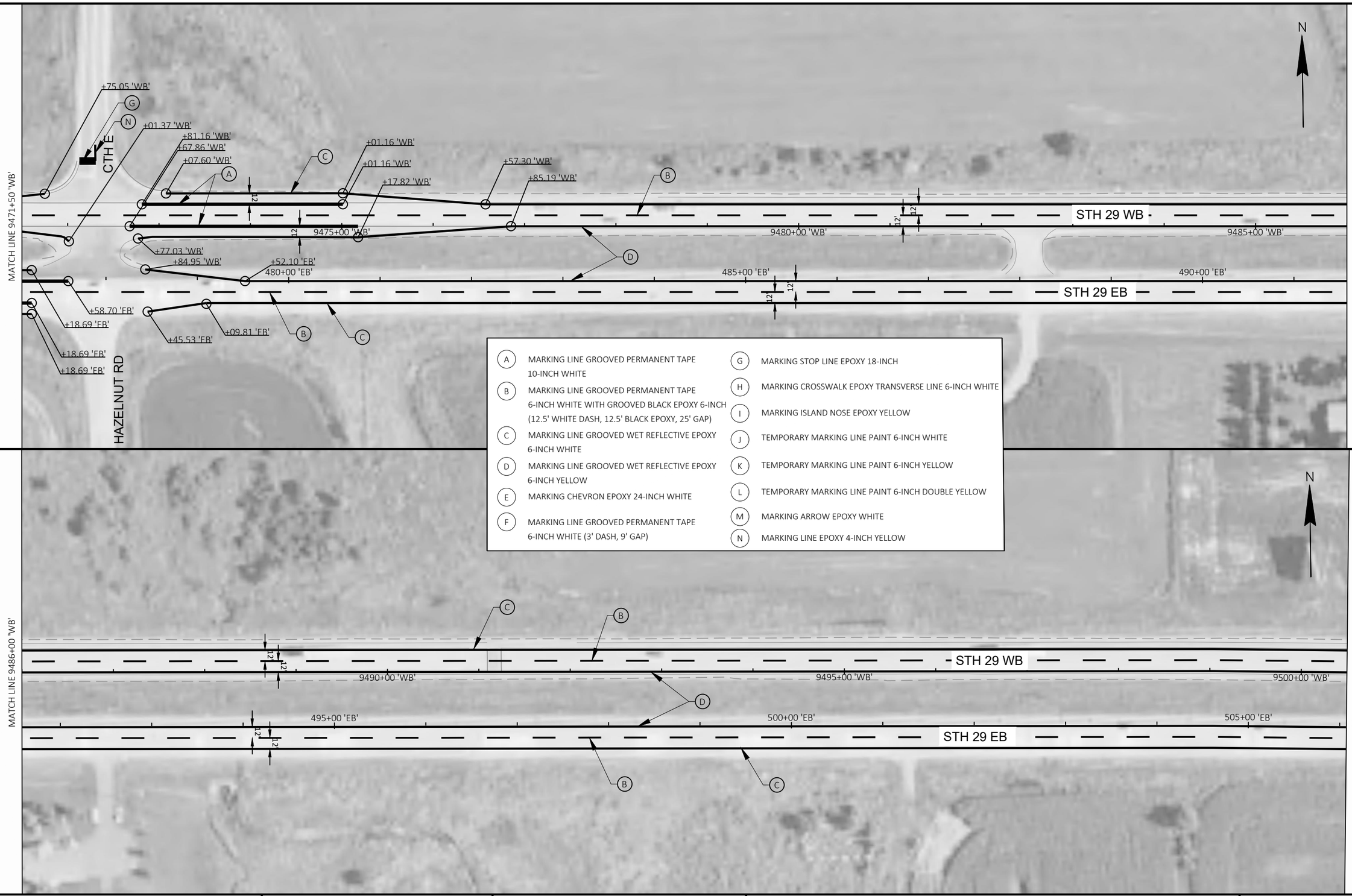
12'

N

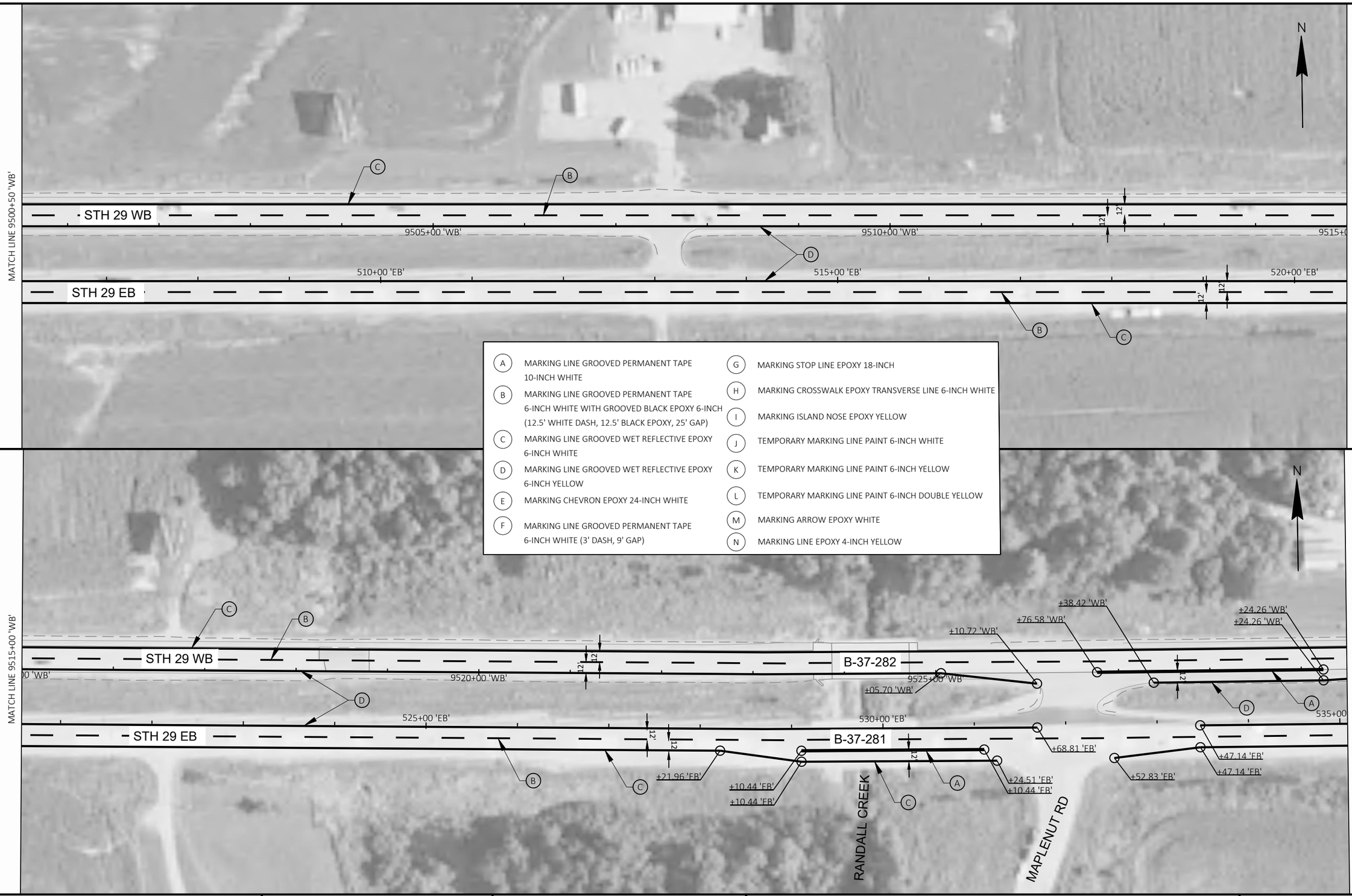
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 69	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:18 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT

LAYOUT NAME - 13


N
CTH E
HAZELNUT RD
MATCH LINE 9471+50 'WB'
MATCH LINE 9486+00 'WB'
+75.05 'WB'
+01.37 'WB'
+81.16 'WB'
+67.86 'WB'
+07.60 'WB'
+01.16 'WB'
+01.16 'WB'
+17.82 'WB'
+57.30 'WB'
+85.19 'WB'
9475+00 'WB'
9480+00 'WB'
9485+00 'WB'
STH 29 WB
+77.03 'WB'
+84.95 'WB'
+52.10 'EB'
480+00 'EB'
485+00 'EB'
490+00 'EB'
STH 29 EB
+58.70 'EB'
+18.69 'EB'
+18.69 'EB'
+18.69 'EB'
+45.53 'EB'
+09.81 'EB'
12'
A MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E MARKING CHEVRON EPOXY 24-INCH WHITE
F MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G MARKING STOP LINE EPOXY 18-INCH
H MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I MARKING ISLAND NOSE EPOXY YELLOW
J TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M MARKING ARROW EPOXY WHITE
N MARKING LINE EPOXY 4-INCH YELLOW
N
MATCH LINE 9486+00 'WB'
MATCH LINE 9500+50 'WB'
9490+00 'WB'
9495+00 'WB'
9500+00 'WB'
STH 29 WB
495+00 'EB'
500+00 'EB'
505+00 'EB'
STH 29 EB
12'

2



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 71	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:18 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 15
WISDOT/CADDS SHEET 44

2

2

MATCH LINE 9529+50 'WB'

MATCH LINE 9544+00 'WB'

+88.53 'WB'

9530+00 'WB'

9535+00 'WB'

9540+00 'WB'

- STH 29 WB

12'

12'

'EB'

540+00 'EB'

545+00 'EB'

STH 29 EB

12

12

N

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE	G	MARKING STOP LINE EPOXY 18-INCH
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)	H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE	I	MARKING ISLAND NOSE EPOXY YELLOW
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW	J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
E	MARKING CHEVRON EPOXY 24-INCH WHITE	K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)	L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
		M	MARKING ARROW EPOXY WHITE
		N	MARKING LINE EPOXY 4-INCH YELLOW

MATCH LINE 9544+00 'WB'

MATCH LINE 9558+50 'WB'

9545+00 'WB'

9550+00 'WB'

9555+00 'WB'

STH 29 WB

12

12

550+00 'EB'

555+00 'EB'

560+00 'EB'

STH 29 EB

12

12

N

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 72	E

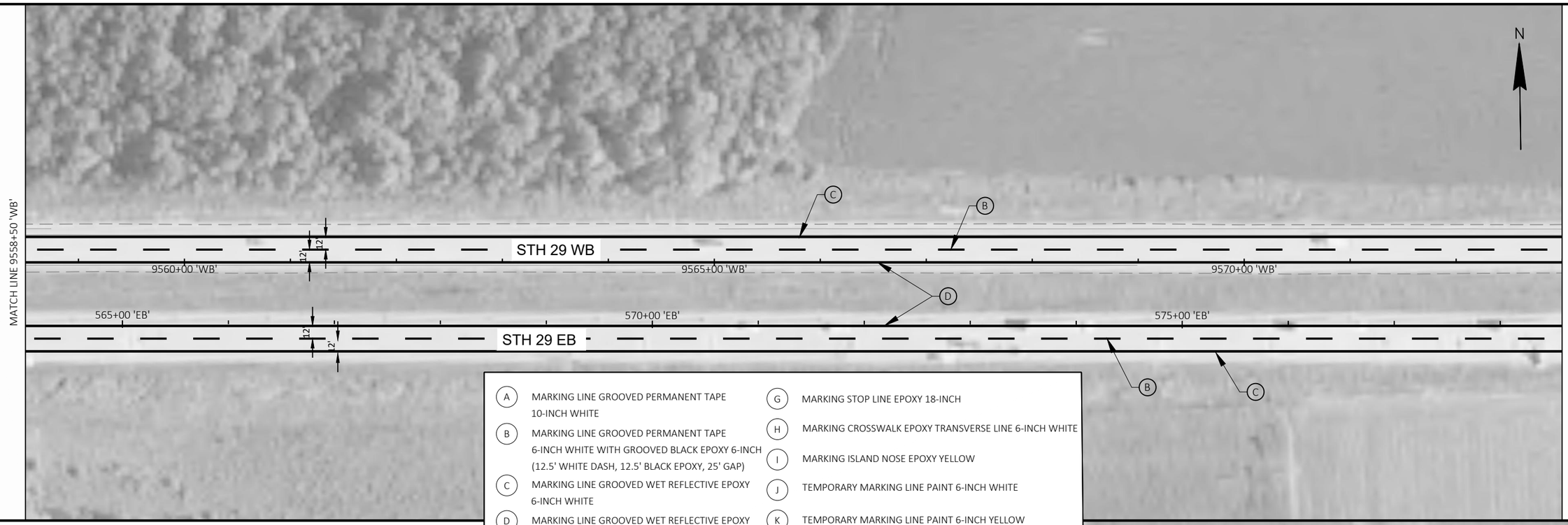
FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:18 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT

LAYOUT NAME - 16

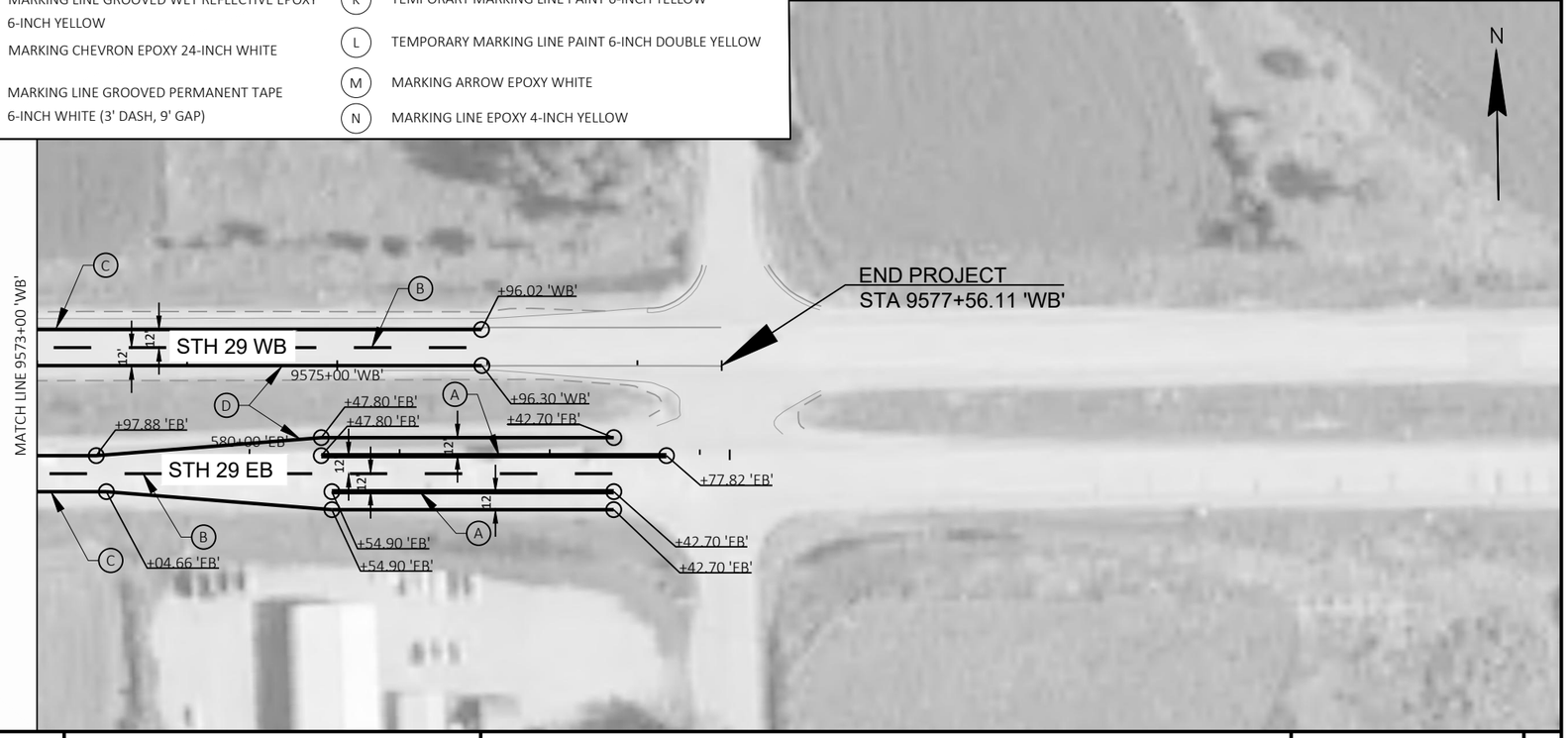
WISDOT/CADDS SHEET 44

2

2



A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E	MARKING CHEVRON EPOXY 24-INCH WHITE
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G	MARKING STOP LINE EPOXY 18-INCH
H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I	MARKING ISLAND NOSE EPOXY YELLOW
J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M	MARKING ARROW EPOXY WHITE
N	MARKING LINE EPOXY 4-INCH YELLOW



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING DETAILS	SHEET 73 E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/23/2024 9:18 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 17
WISDOT/CADDS SHEET 44

2

NOTE: SEE PAVEMENT MARKING STH 13
INTERSECTION FOR CROSSWALK DETAILS

BEGIN CONSTRUCTION
STA 100+00.00 'RB'
Y=193,465.936
X=103,460.350

+06.01 'RB'
+03.02 'RB'
+68.55 'RB'
+51.01 'RB'
105+00 'RB'
110+00 'RB'
115+00 'RB'
STH 29 WB TO STH 13
+22.42 'RB'
+02.80 'RB'
95+00 'RA'
100+00 'RA'
+88.75 'RA'
+07.36 'RA'
+04.41 'RA'

BEGIN CONSTRUCTION
STA 90+00.00 'RA'
Y=193,371.058
X=103,466.489

STH 13 TO STH 29 WB
105+00 'RA'
STH 13
110+00 'RA'
STH 29 WB
STH 29 EB

END CONSTRUCTION
STA 112+88.85 'RA'

N

2

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E	MARKING CHEVRON EPOXY 24-INCH WHITE
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G	MARKING STOP LINE EPOXY 18-INCH
H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I	MARKING ISLAND NOSE EPOXY YELLOW
J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M	MARKING ARROW EPOXY WHITE
N	MARKING LINE EPOXY 4-INCH YELLOW

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING RAMPS	SHEET 74	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 01 WB
PLOT DATE : 10/16/2024 10:50 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

STH 29 EB

N

100+00 'RD'

95+00 'RD'

90+00 'RD'

85+00 'RE'

80+00 'RE'

END CONSTRUCTION
STA 100+00.00 'RD'

STH 29 EB TO STH 13

STH 13 TO STH 29 EB

BEGIN CONSTRUCTION
STA 80+00.00 'RD'
Y=191,943.432
X=103,672.104

+93.58 'RD'
+89.33 'RD'
+62.65 'RD'
+28.57 'RD'
+87.61 'RD'
+59.11 'RD'

85+00 'RD'

STH 13

+77.64 'RE'
+04.26 'RE'
+14.39 'RE'

75+00 'RE'

BEGIN CONSTRUCTION
STA 70+00.00 'RE'
Y=191,811.794
X=103,687.513

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E	MARKING CHEVRON EPOXY 24-INCH WHITE
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G	MARKING STOP LINE EPOXY 18-INCH
H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I	MARKING ISLAND NOSE EPOXY YELLOW
J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M	MARKING ARROW EPOXY WHITE
N	MARKING LINE EPOXY 4-INCH YELLOW

2

- (A) MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
- (B) MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
- (E) MARKING CHEVRON EPOXY 24-INCH WHITE
- (F) MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
- (G) MARKING STOP LINE EPOXY 18-INCH
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
- (I) MARKING ISLAND NOSE EPOXY YELLOW
- (J) TEMPORARY MARKING LINE PAINT 6-INCH WHITE
- (K) TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
- (L) TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
- (M) MARKING ARROW EPOXY WHITE
- (N) MARKING LINE EPOXY 4-INCH YELLOW

2

N

STH 29 WB TO SPRUCE ST/MAPLE RD

5+00 'RC'

10+00 'RC'

15+00 'RC'

+46.90 'RC'

80+00 'RF'

75+00 'RF'

STH 29 WB

STH 29 EB

+61.36 'RC'

+27.10 'RC'

+30.24 'RC'

BEGIN CONSTRUCTION
STA 0+00.00 'RC'
Y=196,960.684
X=110,264.409

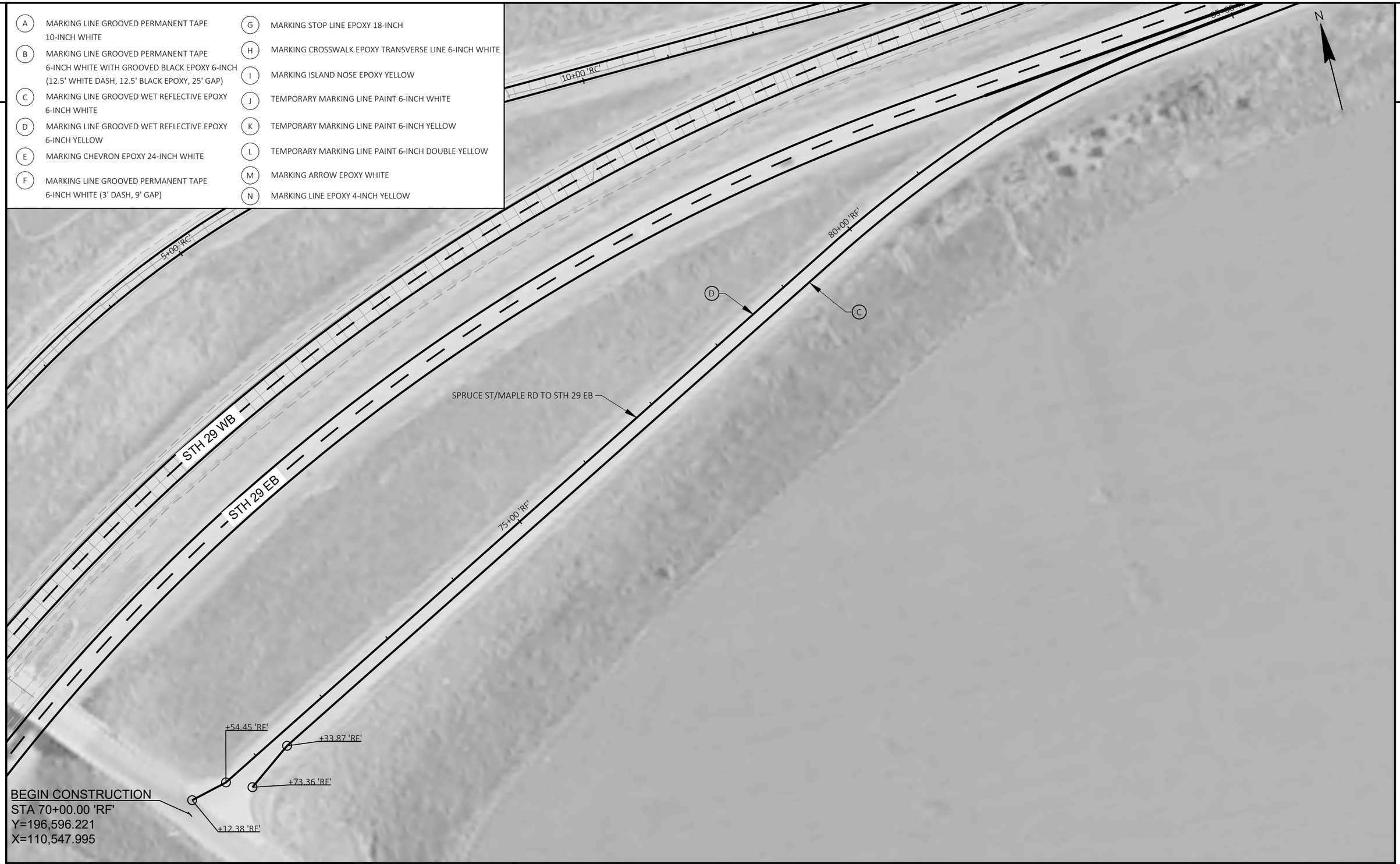
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING RAMPS	SHEET 76	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 02 WB

PLOT DATE : 10/16/2024 10:50 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100FT

2

- (A) MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
- (B) MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
- (C) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
- (D) MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
- (E) MARKING CHEVRON EPOXY 24-INCH WHITE
- (F) MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
- (G) MARKING STOP LINE EPOXY 18-INCH
- (H) MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
- (I) MARKING ISLAND NOSE EPOXY YELLOW
- (J) TEMPORARY MARKING LINE PAINT 6-INCH WHITE
- (K) TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
- (L) TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
- (M) MARKING ARROW EPOXY WHITE
- (N) MARKING LINE EPOXY 4-INCH YELLOW

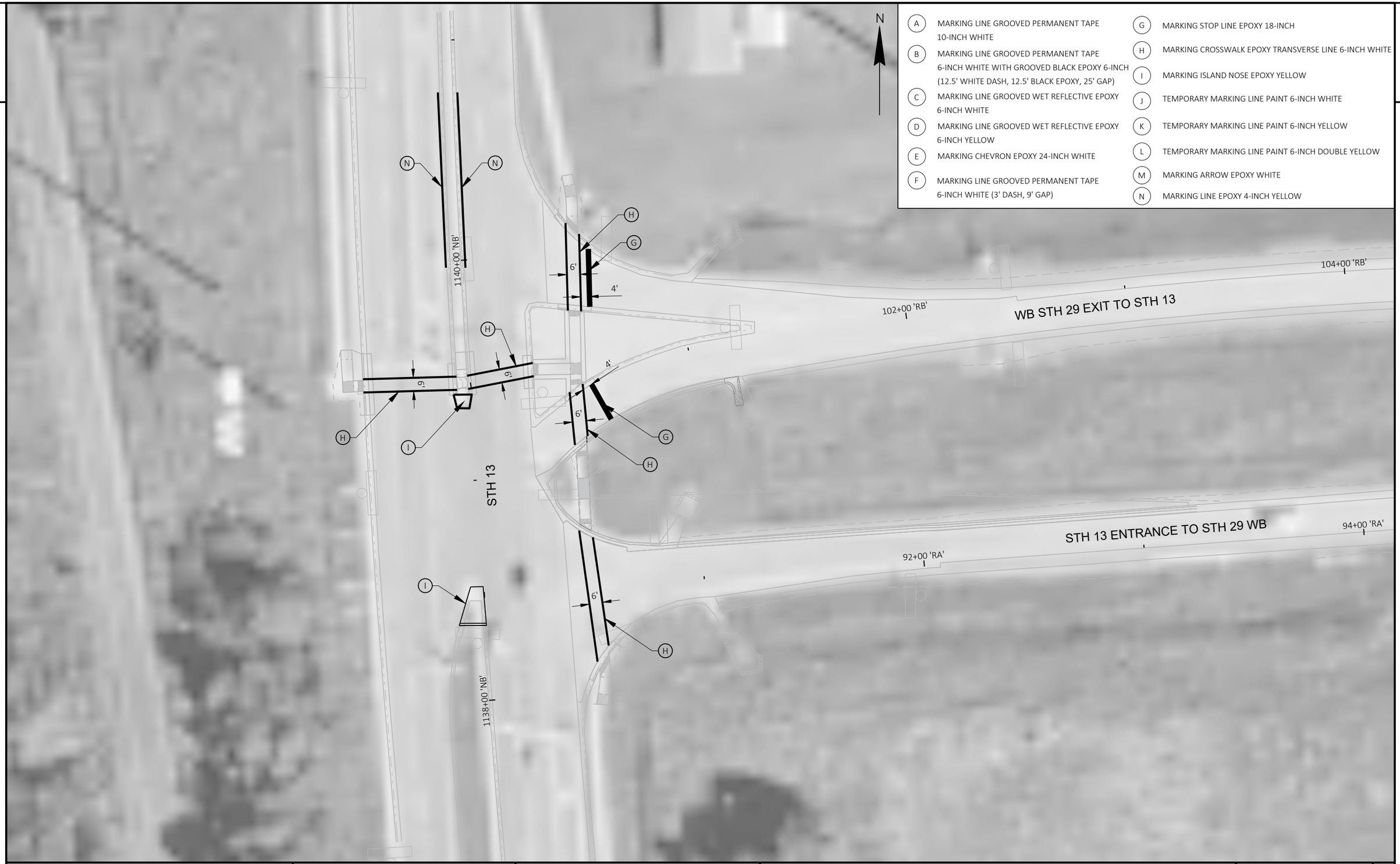


2

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING RAMPS	SHEET 77	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024502-PM.DWG
LAYOUT NAME - 02 EB
PLOT DATE : 10/16/2024 10:50 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING STH 13 INTERSECTION	SHEET 78	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024503-PM.DWG PLOT DATE : 10/15/2024 10:29 AM PLOT BY : MATHEW TARNOW PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 01
WISDOT/CADDS SHEET 42

2

2

STH 29 WB TO STH 13

BEGIN CONSTRUCTION
STA 0+00.00 'CR'
Y=192,682.249
X=106,503.473

+45.14 'WB'

+45.54 'WB'

9120+00 'WB'

STH 29 WB

+68.45 'CR'

2+00 'CR'

+00 'CR'

4+00 'CR'

6+00 'CR'

8+00

9130+00 'WB'

MARKING REMOVAL LINE
WATER BLASTING 4-INCH

125+00 'EB'

130+00 'EB'

135+00 'EB'

STH 29 EB

MATCH LINE 8+02.63

N

A	MARKING LINE GROOVED PERMANENT TAPE 10-INCH WHITE
B	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE WITH GROOVED BLACK EPOXY 6-INCH (12.5' WHITE DASH, 12.5' BLACK EPOXY, 25' GAP)
C	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH WHITE
D	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH YELLOW
E	MARKING CHEVRON EPOXY 24-INCH WHITE
F	MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE (3' DASH, 9' GAP)
G	MARKING STOP LINE EPOXY 18-INCH
H	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE
I	MARKING ISLAND NOSE EPOXY YELLOW
J	TEMPORARY MARKING LINE PAINT 6-INCH WHITE
K	TEMPORARY MARKING LINE PAINT 6-INCH YELLOW
L	TEMPORARY MARKING LINE PAINT 6-INCH DOUBLE YELLOW
M	MARKING ARROW EPOXY WHITE
N	MARKING LINE EPOXY 4-INCH YELLOW

MATCH LINE 8+02.63

'CR'

9135+00 'WB'

10+00 'CR'

140+00 'EB'

STH 29 WB

12+00 'CR'

14+00 'CR'

STH 29 EB

9140+00 'WB'

9145+00 'WB'

150+00 'EB'

+54.38 'CR'

16+00 'CR'

+54.93 'CR'

+54.98 'CR'

MARKING REMOVAL LINE
WATER BLASTING 4-INCH

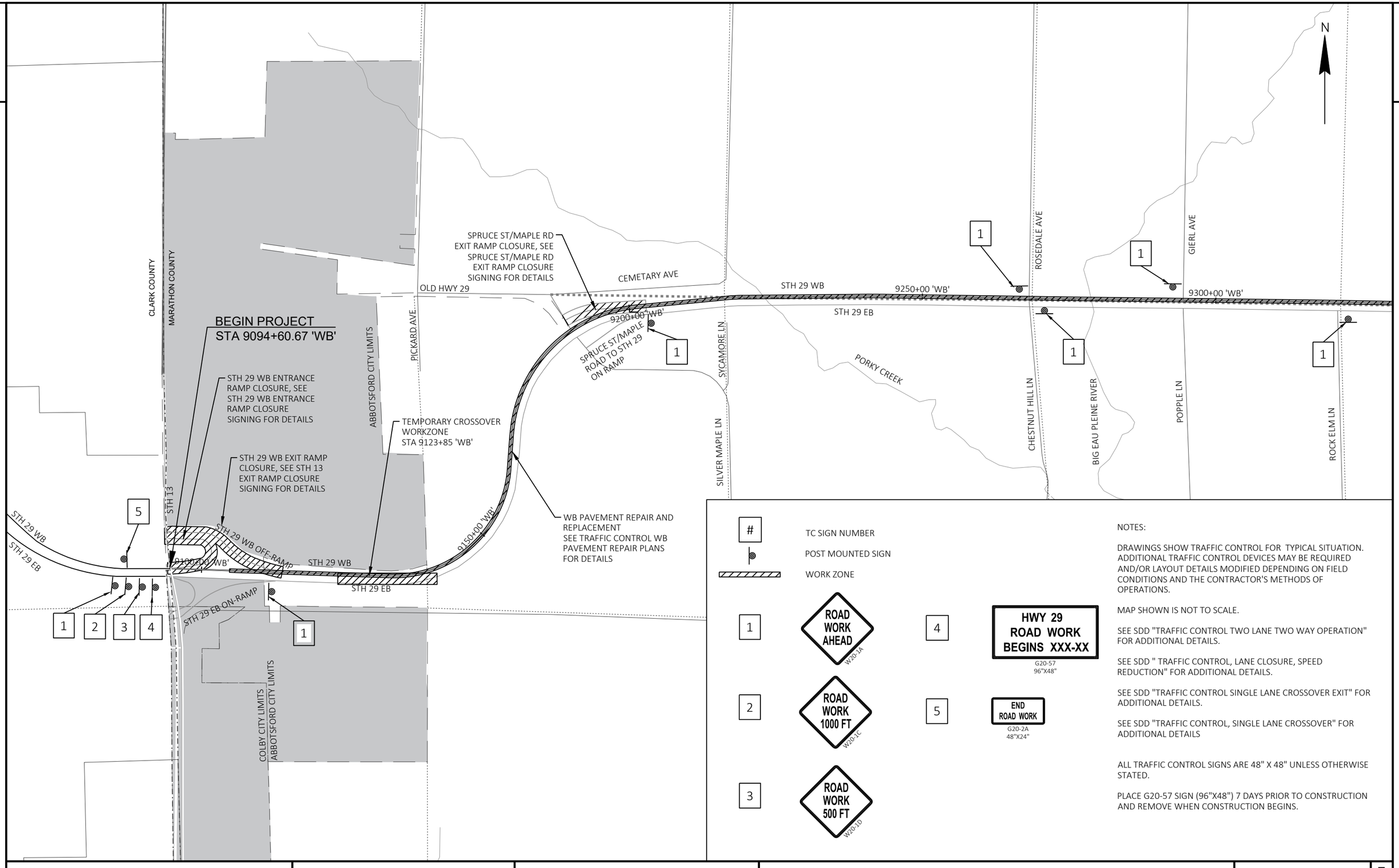
END CONSTRUCTION
STA 17+54.98 'CR'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PAVEMENT MARKING CROSSOVER	SHEET 79	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\024504-PM.DWG
LAYOUT NAME - 01

PLOT DATE : 10/18/2024 11:22 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



#	TC SIGN NUMBER
	POST MOUNTED SIGN
	WORK ZONE

1	ROAD WORK AHEAD W20-1A	4	HWY 29 ROAD WORK BEGINS XXX-XX G20-57 96"X48"
2	ROAD WORK 1000 FT W20-1C	5	END ROAD WORK G20-2A 48"X24"
3	ROAD WORK 500 FT W20-1D		

NOTES:

DRAWINGS SHOW TRAFFIC CONTROL FOR TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON FIELD CONDITIONS AND THE CONTRACTOR'S METHODS OF OPERATIONS.

MAP SHOWN IS NOT TO SCALE.

SEE SDD "TRAFFIC CONTROL TWO LANE TWO WAY OPERATION" FOR ADDITIONAL DETAILS.

SEE SDD " TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" FOR ADDITIONAL DETAILS.

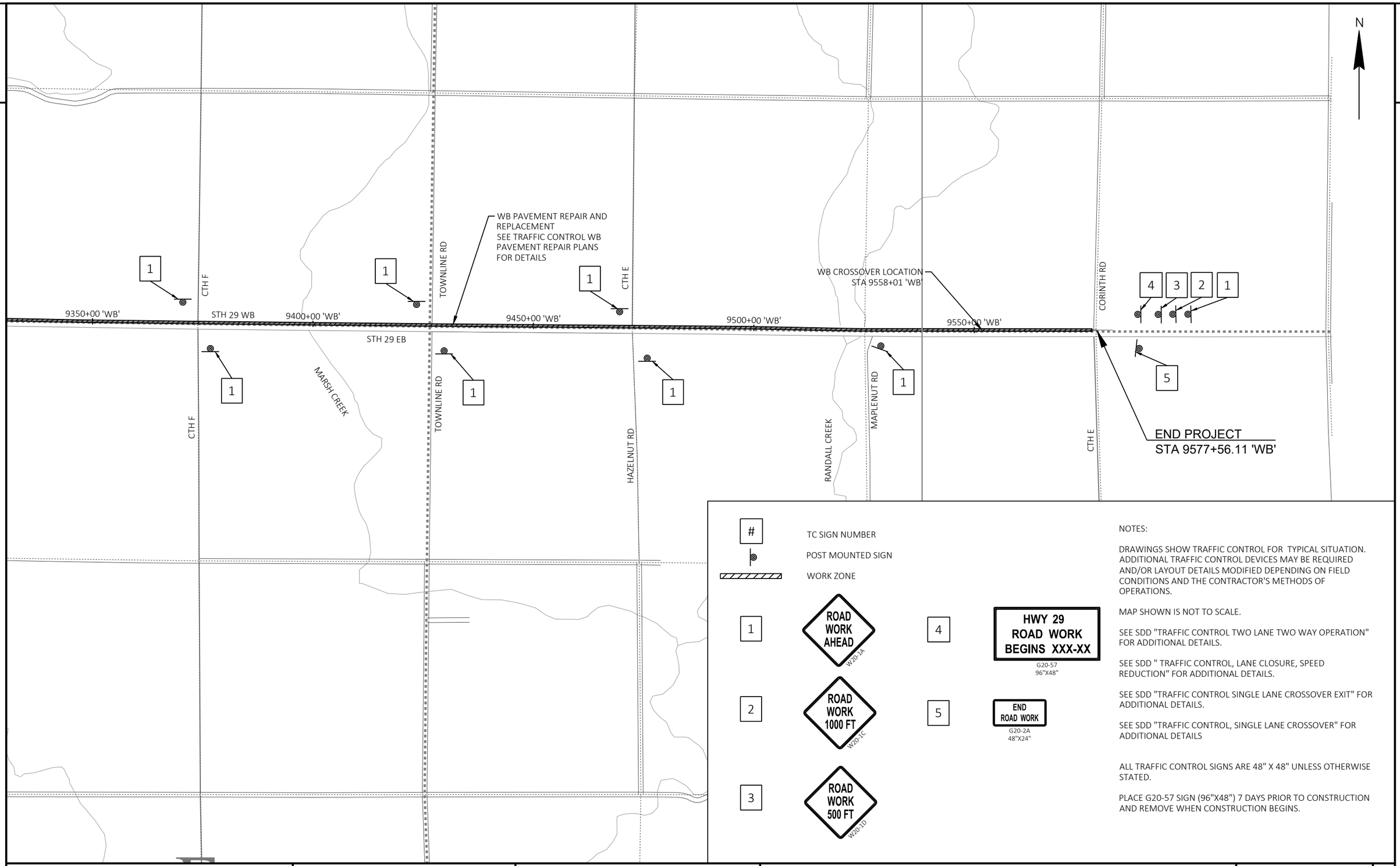
SEE SDD "TRAFFIC CONTROL SINGLE LANE CROSSOVER EXIT" FOR ADDITIONAL DETAILS.

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CROSSOVER" FOR ADDITIONAL DETAILS

ALL TRAFFIC CONTROL SIGNS ARE 48" X 48" UNLESS OTHERWISE STATED.

PLACE G20-57 SIGN (96"X48") 7 DAYS PRIOR TO CONSTRUCTION AND REMOVE WHEN CONSTRUCTION BEGINS.

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL OVERVIEW	SHEET 80	E



#	TC SIGN NUMBER
	POST MOUNTED SIGN
	WORK ZONE

1	ROAD WORK AHEAD (W20-1A)	4	HWY 29 ROAD WORK BEGINS XXX-XX (G20-57, 96"X48")
2	ROAD WORK 1000 FT (W20-1C)	5	END ROAD WORK (G20-2A, 48"X24")
3	ROAD WORK 500 FT (W20-1D)		

NOTES:

DRAWINGS SHOW TRAFFIC CONTROL FOR TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON FIELD CONDITIONS AND THE CONTRACTOR'S METHODS OF OPERATIONS.

MAP SHOWN IS NOT TO SCALE.

SEE SDD "TRAFFIC CONTROL TWO LANE TWO WAY OPERATION" FOR ADDITIONAL DETAILS.

SEE SDD " TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION" FOR ADDITIONAL DETAILS.

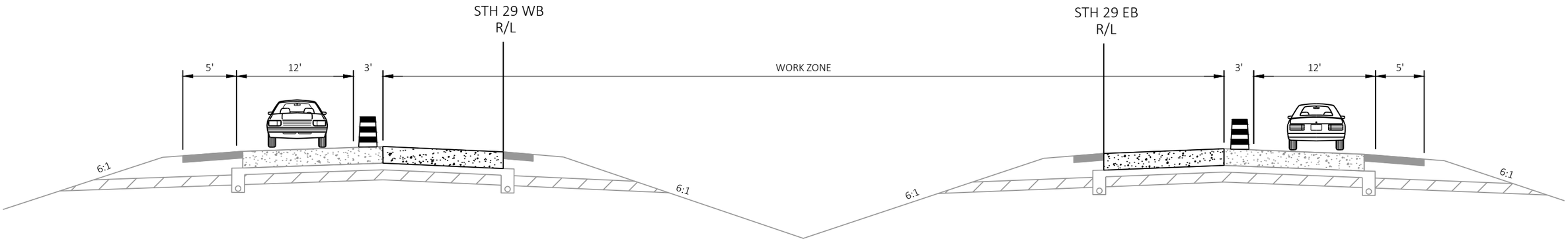
SEE SDD "TRAFFIC CONTROL SINGLE LANE CROSSOVER EXIT" FOR ADDITIONAL DETAILS.

SEE SDD "TRAFFIC CONTROL, SINGLE LANE CROSSOVER" FOR ADDITIONAL DETAILS

ALL TRAFFIC CONTROL SIGNS ARE 48" X 48" UNLESS OTHERWISE STATED.

PLACE G20-57 SIGN (96"X48") 7 DAYS PRIOR TO CONSTRUCTION AND REMOVE WHEN CONSTRUCTION BEGINS.

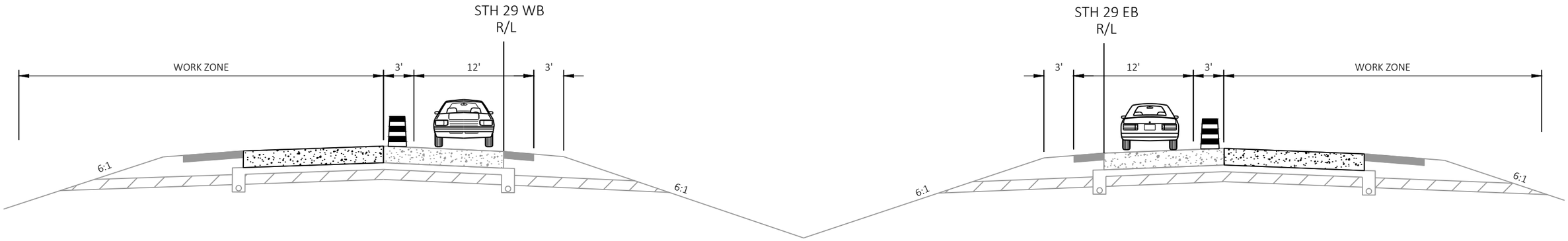
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL OVERVIEW	SHEET 81	E



INSIDE LANE CLOSURE - STAGE 1A

-INSIDE LANE CLOSURES FOR WESTBOUND AND EASTBOUND, MAXIMUM 5 MILE CLOSURE, MAINTAIN A MINIMUM OF 2 MILES BETWEEN CLOSURES.
-ALL RAMPS ARE OPEN TO TRAFFIC.
-CONSTRUCT CROSSOVER.
-CONCRETE REPAIRS, REPLACEMENT, OR APPROACH SLABS IN INSIDE LANE FROM B-37-290 TO 9132+00 'WB' AND FROM 9550+00 'WB' TO EAST LIMITS.
-CONCRETE REPAIRS IN EASTBOUND INSIDE LANE.
-MILLING AND PAVING OF INSIDE SHOULDERS FROM B-37-290 TO 9132+00 'WB' AND FROM 9550+00 'WB' TO EAST LIMITS.
-INSTALL BEAM GUARD MEDIAN SIDE AT B-37-290, B-37-284, B-37-285, AND MEDIAN BETWEEN B-37-282 AND B-37-281.

NOTES:
1. WHEN WORK ACTIVITIES ARE NOT BEING CONDUCTED, MOVE THE TRAFFIC CONTROL DRUMS INTO THE CONSTRUCTION ZONE ON THE OTHER SIDE OF THE CENTERLINE.
2. DO NOT REMOVE EXISTING EDGE LINE MARKINGS.
3. REPLACE ANY CONCRETE PAVEMENT SECTIONS REMOVED ON THE SAME DAY. NO OVERNIGHT PAVEMENT SURFACE VOIDS ARE ALLOWED.



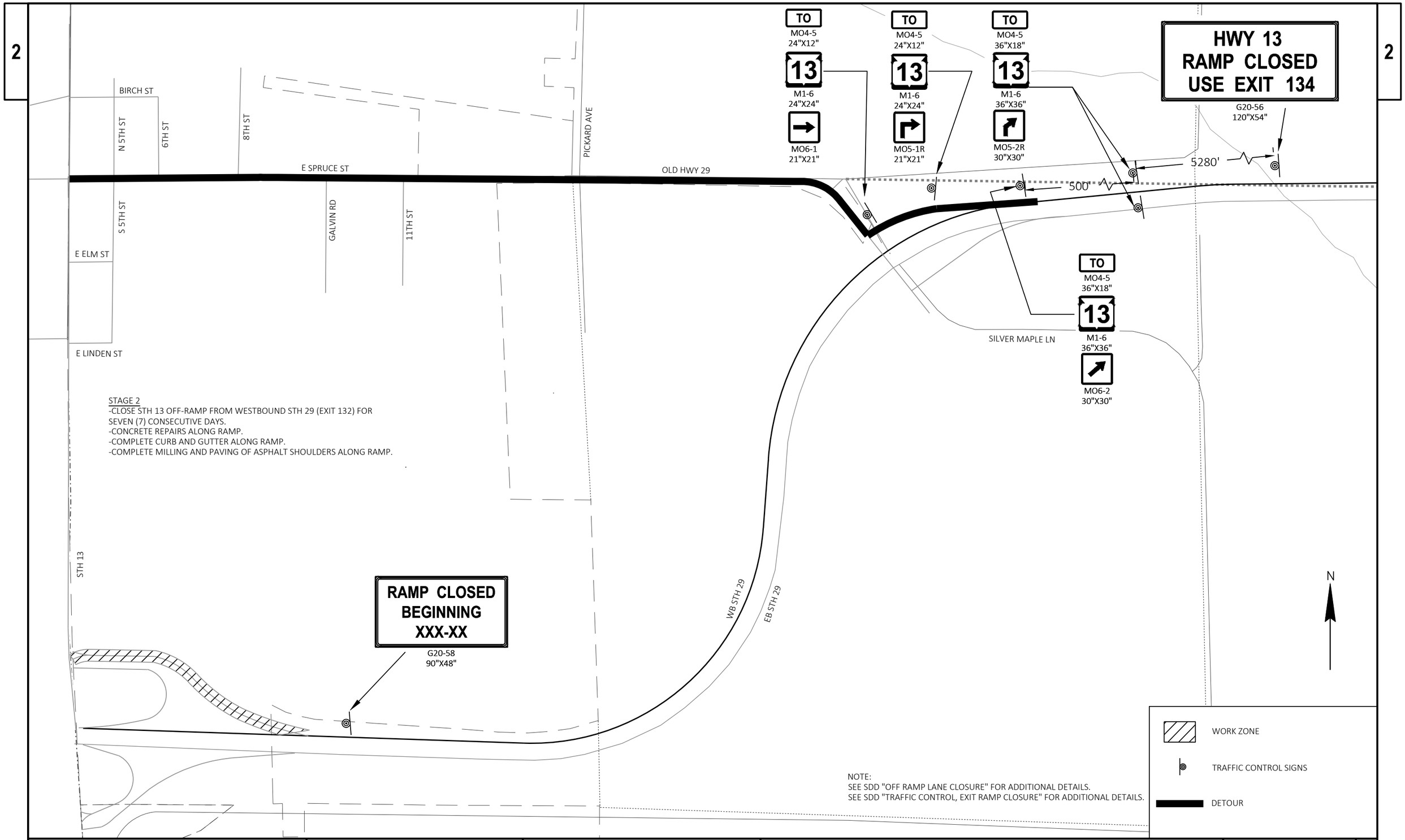
OUTSIDE LANE CLOSURE - STAGE 1B

-OUTSIDE LANE CLOSURES FOR WESTBOUND AND EASTBOUND, MAXIMUM 5 MILE CLOSURE, MAINTAIN A MINIMUM OF 2 MILES BETWEEN CLOSURES.
-ALL RAMPS ARE OPEN TO TRAFFIC.
-CONCRETE REPAIRS, REPLACEMENT, PAVEMENT, OR APPROACH SLABS IN OUTSIDE LANE FROM 9550+00 'WB' TO EAST LIMITS.
-CONCRETE REPAIRS IN EASTBOUND OUTSIDE LANE.
-GUARDRAIL INSTALLATION OUTSIDE AT B-37-284, B-37-285.
-CRASH CUSHION AT B-37-281.

NOTES:
1. WHEN WORK ACTIVITIES ARE NOT BEING CONDUCTED, MOVE THE TRAFFIC CONTROL DRUMS INTO THE CONSTRUCTION ZONE ON THE OTHER SIDE OF THE CENTERLINE.
2. DO NOT REMOVE EXISTING EDGE LINE MARKINGS.
3. REPLACE ANY CONCRETE PAVEMENT SECTIONS REMOVED ON THE SAME DAY. NO OVERNIGHT PAVEMENT SURFACE VOIDS ARE ALLOWED.

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL STAGING - STAGE 1	SHEET 82	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025002-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 10/17/2024 3:16 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



STAGE 2
-CLOSE STH 13 OFF-RAMP FROM WESTBOUND STH 29 (EXIT 132) FOR SEVEN (7) CONSECUTIVE DAYS.
-CONCRETE REPAIRS ALONG RAMP.
-COMPLETE CURB AND GUTTER ALONG RAMP.
-COMPLETE MILLING AND PAVING OF ASPHALT SHOULDERS ALONG RAMP.

NOTE:
SEE SDD "OFF RAMP LANE CLOSURE" FOR ADDITIONAL DETAILS.
SEE SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR ADDITIONAL DETAILS.

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	STH 13 EXIT RAMP CLOSURE SIGNING - STAGE 2	SHEET 83	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\027001-DT.DWG
LAYOUT NAME - 01
PLOT DATE : 10/17/2024 11:33 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : Custom
WISDOT/CADDS SHEET 42

2

N

WEST
M3-4
24"X12"
29
M1-6
24"X24"

TO
MO4-5
24"X12"
WEST
M3-4
24"X12"
29
M1-6
24"X24"
MO5-1R
21"X21"

TO
MO4-5
24"X12"
WEST
M3-4
24"X12"
29
M1-6
24"X24"
MO6-1
21"X21"

WEST
M3-4
24"X12"
29
M1-6
24"X24"
RAMP CLOSED AHEAD
W20-53A

TO
MO4-5
24"X12"
WEST
M3-4
24"X12"
29
M1-6
24"X24"
MO6-1
21"X21"

TO
MO4-5
24"X12"
WEST
M3-4
24"X12"
29
M1-6
24"X24"
MO5-1L
21"X21"

TO
MO4-5
24"X12"
WEST
M3-4
24"X12"
29
M1-6
24"X24"
MO6-1
21"X21"

WEST
M3-4
24"X12"
29
M1-6
24"X24"
RAMP CLOSED AHEAD
W20-53A

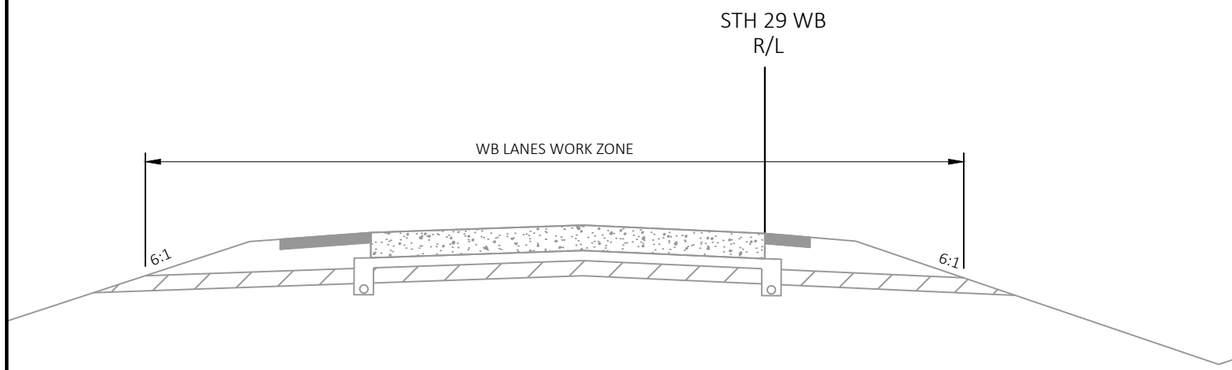
HILINE AVE
W SPRUCE ST
E SPRUCE ST
OLD HWY 29
OLD HWY 29
N HILINE DR
STH 13
STH 13
WB STH 29
EB STH 29

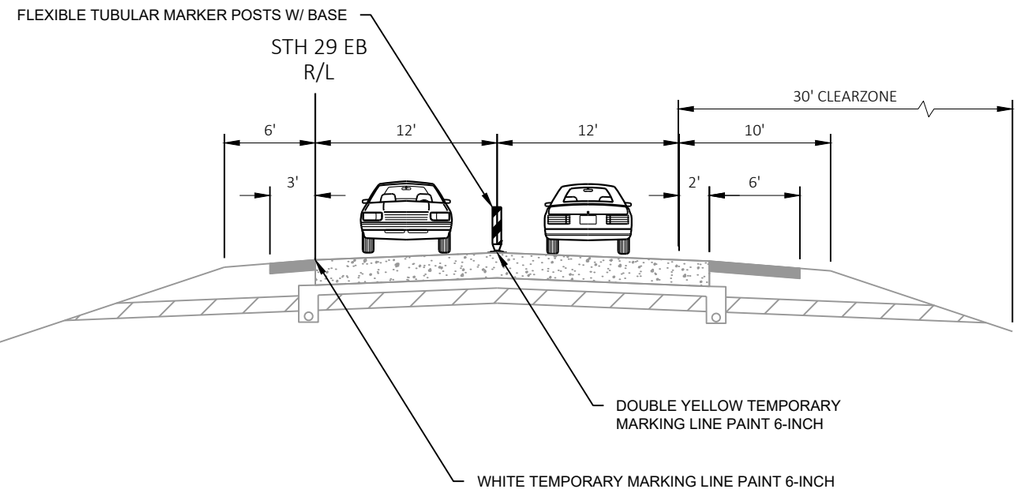
STAGE 3
-CLOSE STH 13 ON-RAMP TO WESTBOUND STH 29 FOR SEVEN (7) CONSECUTIVE DAYS BETWEEN JUNE 9TH AND JUNE 27TH.
-CONCRETE REPAIRS ALONG RAMP.
-REPLACE WESTBOUND APPROACH SLAB AT B-37-290.
-INSTALL GUARDRAIL ON OUTSIDE WESTBOUND LANE AT B-37-290.
-COMPLETE CURB AND GUTTER ALONG RAMP.
-COMPLETE MILLING AND PAVING OF ASPHALT SHOULDERS ALONG RAMP.

WORK ZONE
TRAFFIC CONTROL SIGNS
DETOUR

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	STH 29 WB ENTRANCE RAMP CLOSURE SIGNING - STAGE 3	SHEET 84	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\027003-DT.DWG
LAYOUT NAME - 01
PLOT DATE : 10/29/2024 9:07 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT
WISDOT/CADDS SHEET 42





STAGE 4

-WESTBOUND AND EASTBOUND TRAFFIC IS BI-DIRECTIONAL IN THE EASTBOUND LANES.
-WESTBOUND SPRUCE ST/MAPLE ROAD OFF-RAMP (EXIT 134) IS CLOSED.
-CONCRETE REPAIRS, REPLACEMENT, OR APPROACH SLABS IN THE WESTBOUND LANES FROM 9132+00 'WB' TO 9550+00 'WB'.
-GUARDRAIL INSTALLATION ALONG WESTBOUND LANES BETWEEN 9132+00 'WB' TO 9550+00 'WB'
-MILL AND PAVE SHOULDERS FROM 9132+00 'WB' TO 9550+00 'WB'.
-ROUT AND SEAL OR COMPLETE IN STAGE 5.
-PAVEMENT MARKING OR COMPLETE IN STAGE 5.

2

2

N

SPEED LIMIT 65
R2-1
48"X60"

END ROAD WORK
G20-2A
48"X24"

STH 29 WB

2600'

STH 29 EB

ROAD WORK 1 MILE
W20-1F

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

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
  COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1 R11-2
ROAD CLOSED
TYPE III BARRICADE
TYPE III BARRICADE
TYPE III BARRICADE

N

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

ENTRANCE RAMP HWY 13

INL

50' TYP.

B-37-290

9095+00 'WB'

9100+00 'WB'

9105+00 'WB'

STH 29 WB

2600'

1600'

400'

700'

105+00 'EB'

10+00 'EB'

STH 29 EB

EXIT RAMP HWY 13

LEFT LANE CLOSED 1/2 MILE
W20-5G

SPEED LIMIT 55
W03-5

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 86	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 01
PLOT DATE : 10/30/2024 7:48 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

EXIT RAMP HWY 13

50' TYP.

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

9110+00 'WB'

9115+00 'WB'

9120+00 'WB'

STH 29 WB

1600'

1000'

700'

500'

115+00 'EB'

120+00 'EB'

125+00 'EB'

STH 29 EB

ENTRANCE RAMP HWY 13

SPEED LIMIT 55
R2-1
48"X60"

ROAD WORK AHEAD
W20-1A

WO4-2L

SPEED LIMIT 55
R2-1
48"X60"

N

MATCH LINE STA9124+00

2

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
  COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1

R11-2
ROAD CLOSED
TYPE III BARRICADE
TYPE III BARRICADE
TYPE III BARRICADE

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

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

9125+00 'WB'

1000'

130+00 'EB'

9130+00 'WB'

135+00 'EB'

660'

50' TYP.

NEXT 8 MILES
WO57-51
48"X24"

STH 29 WB

9135+00 'WB'

140+00 'EB'

STH 29 EB

100' TYP.

YELLOW TEMPORARY MARKING LINE EPOXY 6-INCH

DO NOT PASS
R4-1
36"X48"

WO1-6
48"X24"

N

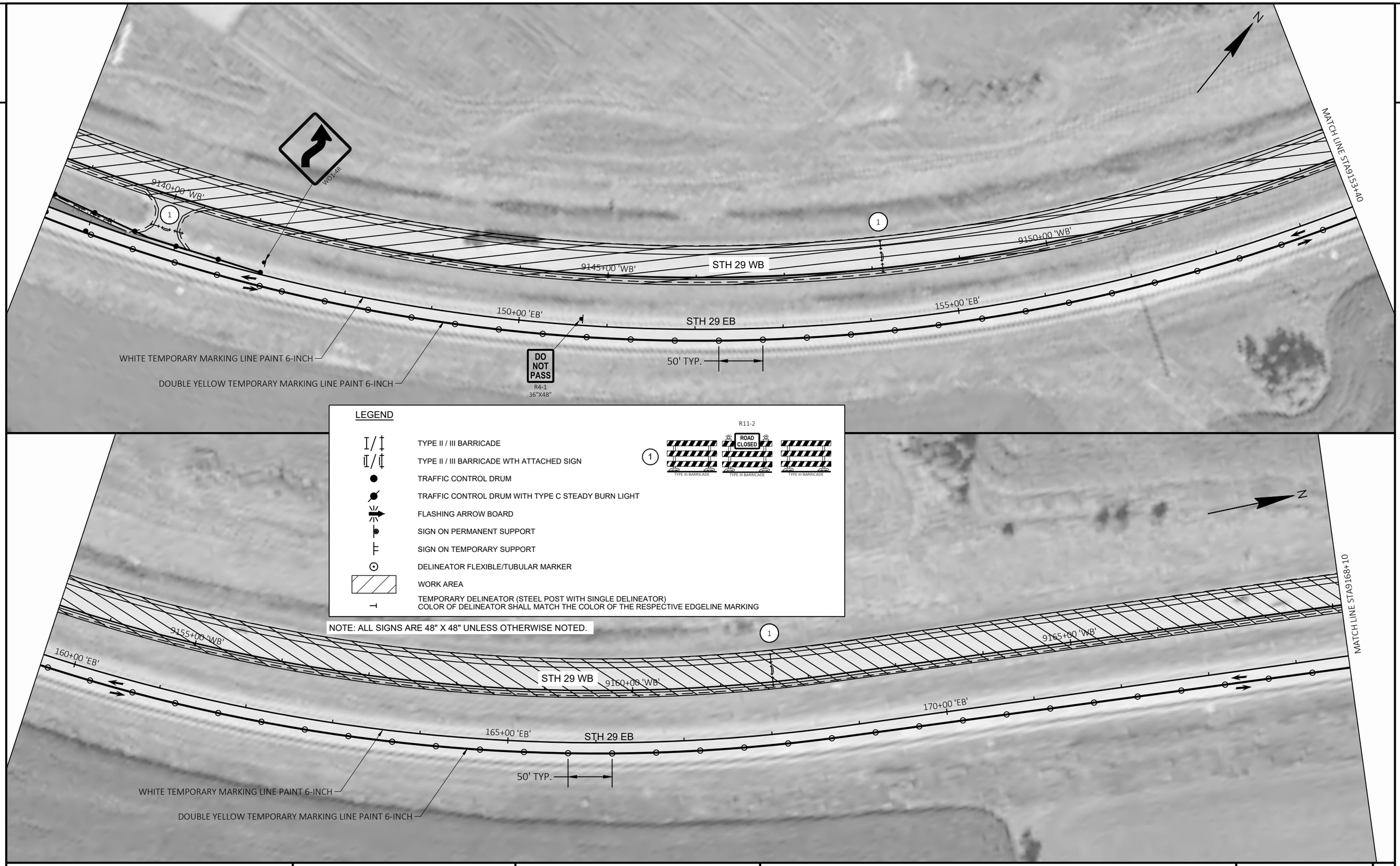
MATCH LINE STA9138+70

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 87	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 02
PLOT DATE : 10/30/2024 7:48 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 88	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 03
PLOT DATE : 10/30/2024 7:48 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

2

STH 29 WB

STH 29 EB

9170+00 'WB'

9175+00 'WB'

9180+00 'WB'

175+00 'EB'

180+00 'EB'

185+00 'EB'

50' TYP.

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

MATCH LINE STA9182+80

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
  COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1 R11-2



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

SILVER MAPLE EXIT RAMP

STH 29 WB

STH 29 EB

B-37-275

OLD HWY 29

9185+00 'WB'

9190+00 'WB'

9195+00 'WB'

190+00 'EB'

195+00 'EB'

200+00 'EB'

50' TYP.

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

MATCH LINE STA9197+50

NEXT 1 MILES

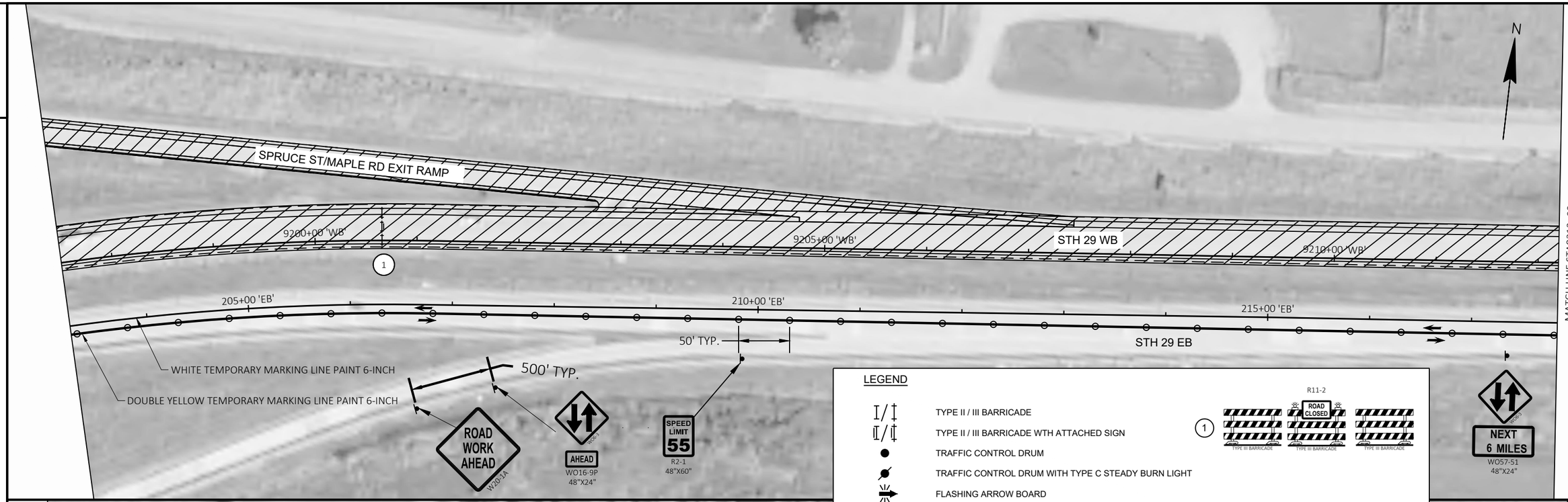
WO57-51
48"X24"

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 89	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 04
PLOT DATE : 10/30/2024 7:48 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

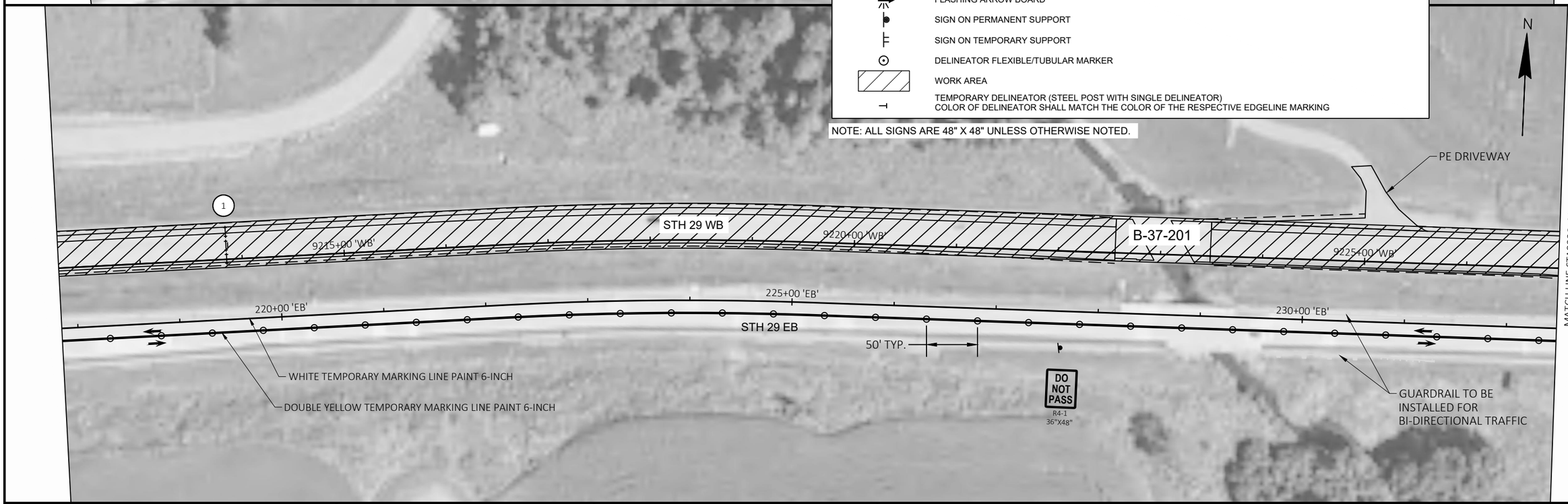


LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
  COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1 — R11-2 ROAD CLOSED (TYPE III BARRICADE)

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



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 90	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 05
PLOT DATE : 10/30/2024 7:49 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

N

PE DRIVEWAY

1

9230+00 'WB'

9235+00 'WB'

STH 29 WB

9240+00 'WB'

1

MATCH LINE STA9241+60

235+00 'EB'

240+00 'EB'

245+00 'EB'

STH 29 EB

50' TYP.

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

PE DRIVEWAY

STOP
R1-1
30"X30"

ONE WAY
R6-2L

COVERING SIGNS TYPE II

LEGEND

I/I	TYPE II / III BARRICADE
I/I	TYPE II / III BARRICADE WTH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
⊙	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
⊣	TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

R11-2

1 

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

N

1

1

9245+00 'WB'

9250+00 'WB'

STH 29 WB

9255+00 'WB'

MATCH LINE STA9256+30

250+00 'EB'

255+00 'EB'

260+00 'EB'

STH 29 EB

50' TYP.

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

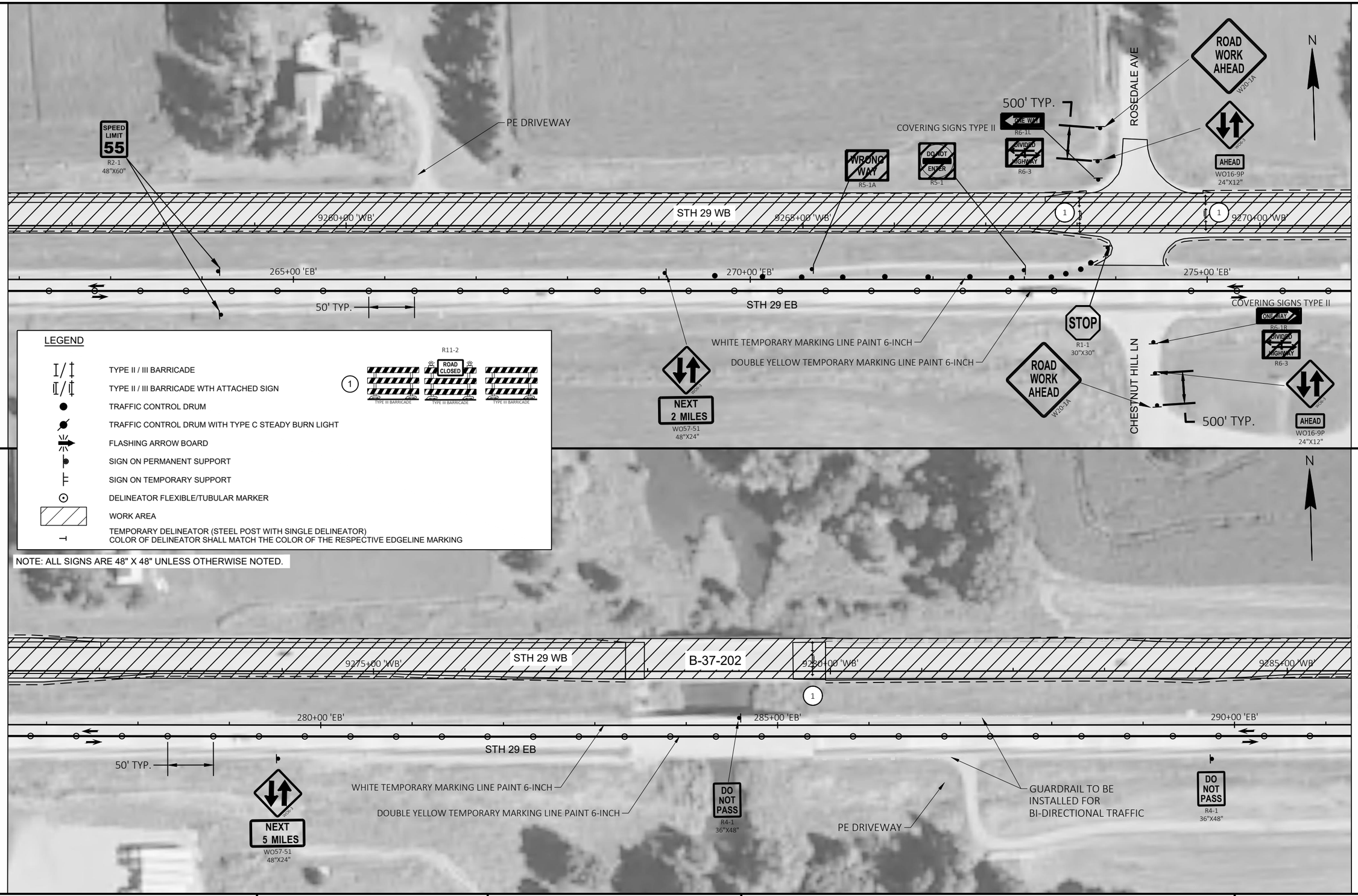
DO NOT PASS
R4-1
36"X48"

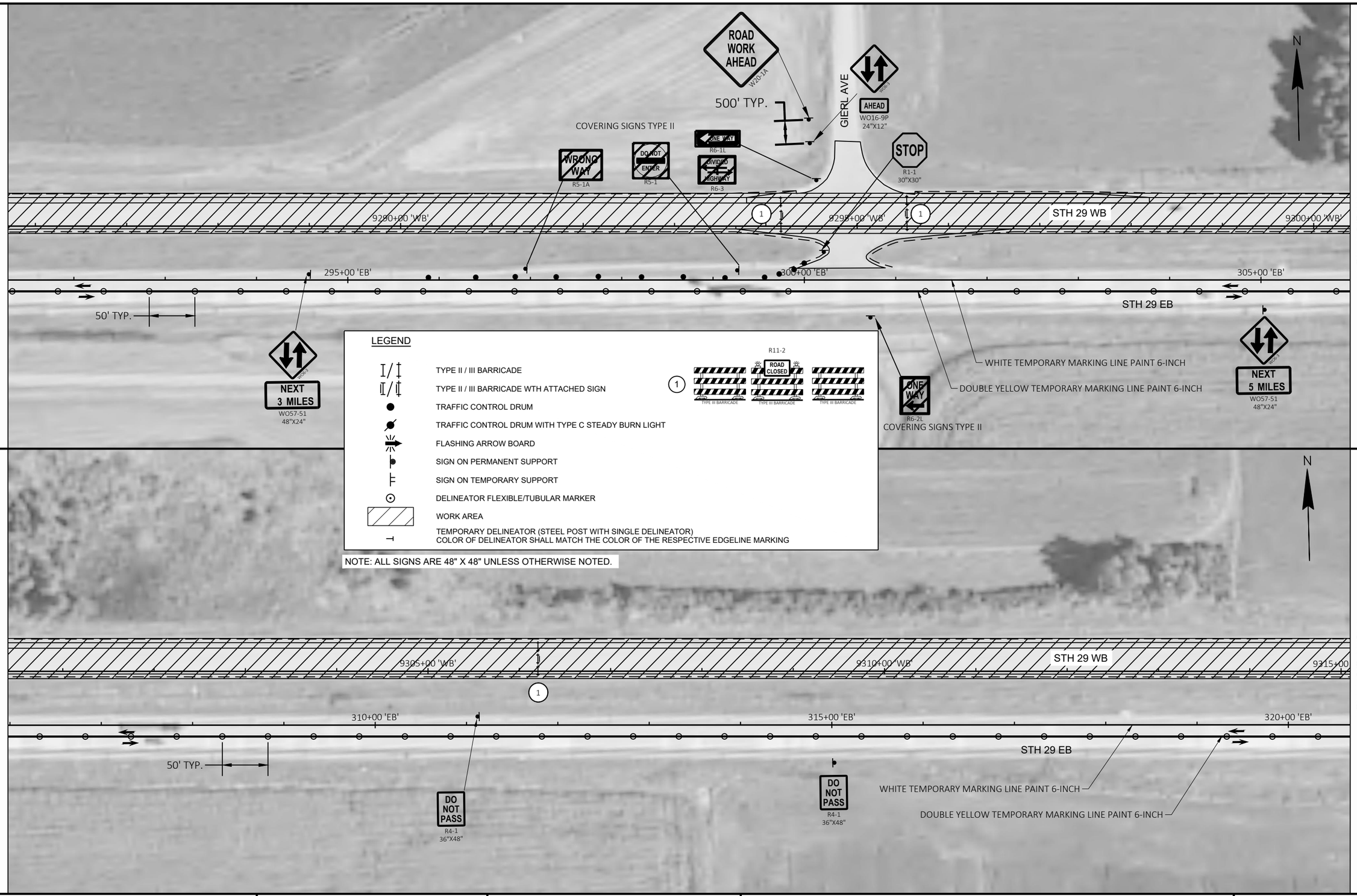
PE DRIVEWAY

PE DRIVEWAY

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 91	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 06
PLOT DATE : 10/30/2024 7:49 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44


SPEED LIMIT 55
R2-1
48"X60"
PE DRIVEWAY
9260+00 'WB'
265+00 'EB'
50' TYP.
STH 29 WB
STH 29 EB
9265+00 'WB'
270+00 'EB'
WRONG WAY
R5-1A
DO NOT ENTER
R5-1
COVERING SIGNS TYPE II
ONE WAY
R6-1L
DIVIDED HIGHWAY
R6-3
500' TYP.
ROSEDALE AVE
ROAD WORK AHEAD
W20-1A
AHEAD
WO16-9P
24"X12"
9270+00 'WB'
275+00 'EB'
COVERING SIGNS TYPE II
ONE WAY
R6-1R
DIVIDED HIGHWAY
R6-3
STOP
R1-1
30"X30"
WHITE TEMPORARY MARKING LINE PAINT 6-INCH
DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH
NEXT 2 MILES
WO57-51
48"X24"
ROAD WORK AHEAD
W20-1A
CHESTNUT HILL LN
500' TYP.
AHEAD
WO16-9P
24"X12"
N
MATCH LINE STA9271+00
LEGEND
TYPE II / III BARRICADE
TYPE II / III BARRICADE WTH ATTACHED SIGN
TRAFFIC CONTROL DRUM
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
FLASHING ARROW BOARD
SIGN ON PERMANENT SUPPORT
SIGN ON TEMPORARY SUPPORT
DELINEATOR FLEXIBLE/TUBULAR MARKER
WORK AREA
TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
R11-2
ROAD CLOSED
TYPE III BARRICADE
NOTE: ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
9275+00 'WB'
STH 29 WB
B-37-202
9280+00 'WB'
9285+00 'WB'
280+00 'EB'
285+00 'EB'
290+00 'EB'
STH 29 EB
50' TYP.
NEXT 5 MILES
WO57-51
48"X24"
WHITE TEMPORARY MARKING LINE PAINT 6-INCH
DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH
DO NOT PASS
R4-1
36"X48"
PE DRIVEWAY
GUARDRAIL TO BE INSTALLED FOR BI-DIRECTIONAL TRAFFIC
DO NOT PASS
R4-1
36"X48"
N
MATCH LINE STA9285+70



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 93	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG PLOT DATE : 10/30/2024 7:49 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 08

WISDOT/CADDS SHEET 44

2

COVERING SIGNS TYPE II

ONE WAY
R6-2L

1

'WB'

9320+00 'WB'

9325+00 'WB'

STH 29 WB

MATCH LINE STA9329+80

325+00 'EB'

330+00 'EB'

335+00 'EB'

STH 29 EB

50' TYP.

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

500' TYP.

COVERING SIGNS TYPE II

ONE WAY
R6-1R

DIVIDED HIGHWAY
R6-3

AHEAD
WO16-9P
24"X12"

ROCK ELM LN

ROAD WORK AHEAD
W20-1A

NEXT 3 MILES
WO57-51
48"X24"

NEXT 4 MILES
WO57-51

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

LEGEND

I/I	TYPE II / III BARRICADE
I/I	TYPE II / III BARRICADE WTH ATTACHED SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
⊙	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
⊣	TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1

R11-2
ROAD CLOSED
TYPE III BARRICADE
TYPE III BARRICADE
TYPE III BARRICADE

PE DRIVEWAY

1

9330+00 'WB'

9335+00 'WB'

9340+00 'WB'

STH 29 WB

MATCH LINE STA9344+50

340+00 'EB'

345+00 'EB'

350+00

STH 29 EB

50' TYP.

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

DO NOT PASS
R4-1
36"X48"

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 94	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 09
PLOT DATE : 10/30/2024 7:49 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

2

N

PE DRIVEWAY

1

9345+00 'WB'

9350+00 'WB'

STH 29 WB

9355+00 'WB'

STOP

R1-1
30"X30"

'EB'

355+00 'EB'

360+00 'EB'

50' TYP.

STH 29 EB

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

DO NOT PASS
R4-1
36"X48"

PE DRIVEWAY

LEGEND

	TYPE II / III BARRICADE
	TYPE II / III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DELINEATOR FLEXIBLE/TUBULAR MARKER
	WORK AREA
	TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1

R11-2

ROAD CLOSED

TYPE III BARRICADE

TYPE III BARRICADE

TYPE III BARRICADE

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

N

ROAD WORK AHEAD
W20-1A

AHEAD
WO16-9P
24"X12"

500' TYP.

CTH F

COVERING SIGNS TYPE II

WRONG WAY
R5-1A

DO NOT ENTER
R5-1

ONE WAY
R6-1R

DIVIDED HIGHWAY
R6-3

9360+00 'WB'

9365+00 'WB'

STH 29 WB

9370+00 'WB'

1

STOP
R1-1
30"X30"

MATCH LINE STA9373+90

65+00 'EB'

370+00 'EB'

375+00 'EB'

50' TYP.

STH 29 EB

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

NEXT 4 MILES
WO57-51
48"X24"

NEXT 4 MILES
WO57-51
48"X24"

DO NOT PASS
R4-1
36"X48"

AHEAD
WO16-9P
24"X12"

500' TYP.

ROAD WORK AHEAD
W20-1A

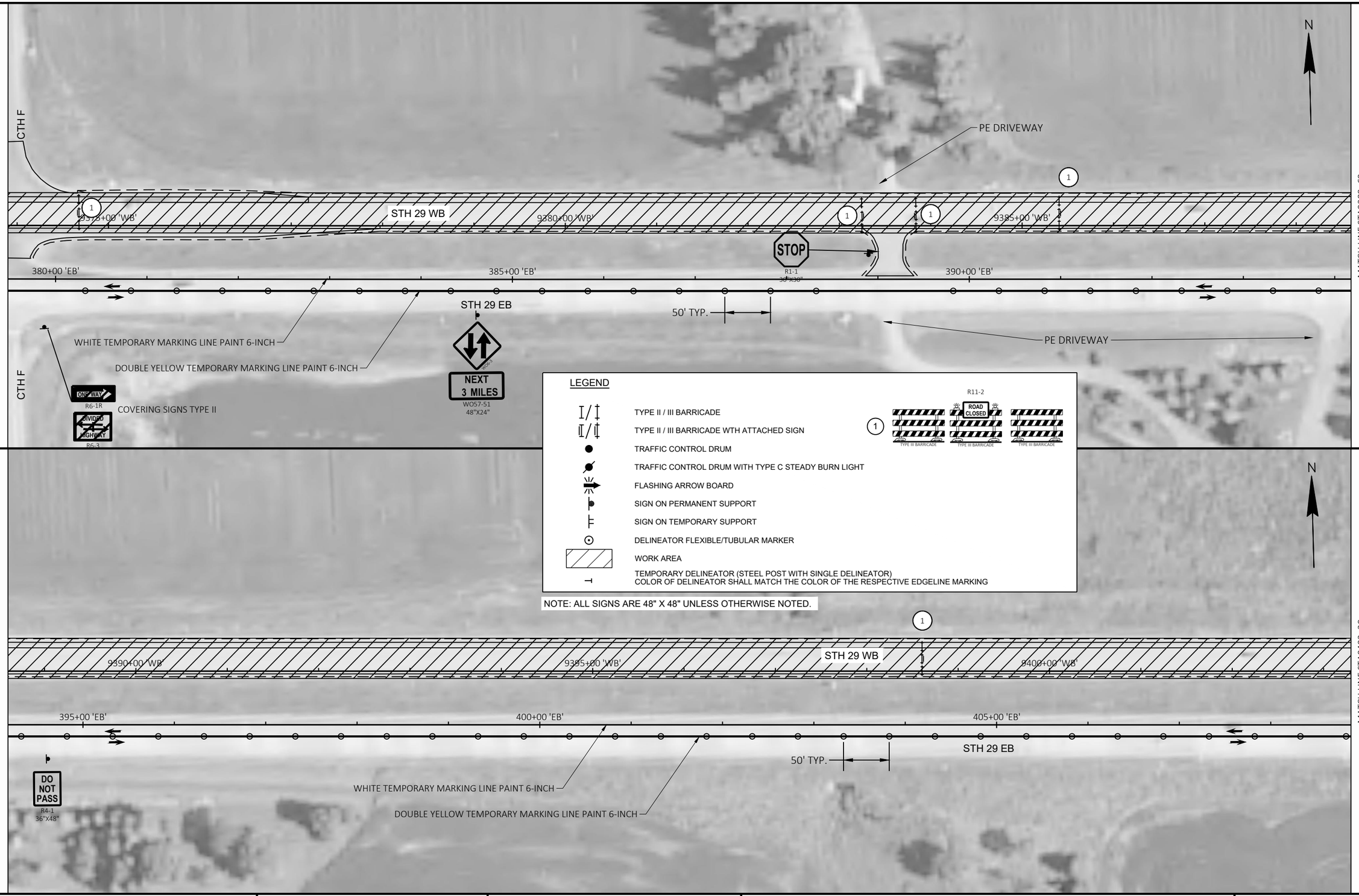
CTH F

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 95 E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 10

PLOT DATE : 10/30/2024 7:49 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 96	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 11
PLOT DATE : 10/30/2024 7:49 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

CE DRIVEWAY

PE DRIVEWAY

N

9405+00 'WB'

9410+00 'WB'

STH 29 WB

9415+00 'WB'

STOP
R1-1
30"X30"

410+00 'EB'

415+00 'EB'

420+00 'EB'

STH 29 EB

50' TYP.

MATCH LINE STA9418+00

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

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
  COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1 — R11-2 ROAD CLOSED — TYPE III BARRICADE — TYPE III BARRICADE — TYPE III BARRICADE

DO NOT PASS
R4-1
36"X48"

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

ONE WAY
R6-2L

COVERING SIGNS TYPE II

ROAD WORK AHEAD
W20-1A

TOWNLINE RD

COVERING SIGNS TYPE II

ONE WAY
R6-1R

DIVIDED HIGHWAY
R6-3

AHEAD
WO16-9P
24"X12"

500' TYP.

COVERING SIGNS TYPE II

WRONG WAY
R5-1A

DO NOT ENTER
R5-1

STOP
R1-1
30"X30"

500' TYP.

9420+00 'WB'

9425+00 'WB'

STH 29 WB

9430+00 'WB'

425+00 'EB'

430+00 'EB'

435+00 'EB'

STH 29 EB

50' TYP.

NEXT
8 MILES
WO57-51
48"X24"

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

AHEAD
WO16-9P
24"X12"

TOWNLINE RD

500' TYP.

ONE WAY
R6-1R

DIVIDED HIGHWAY
R6-3

COVERING SIGNS TYPE II

ROAD WORK AHEAD
W20-1A

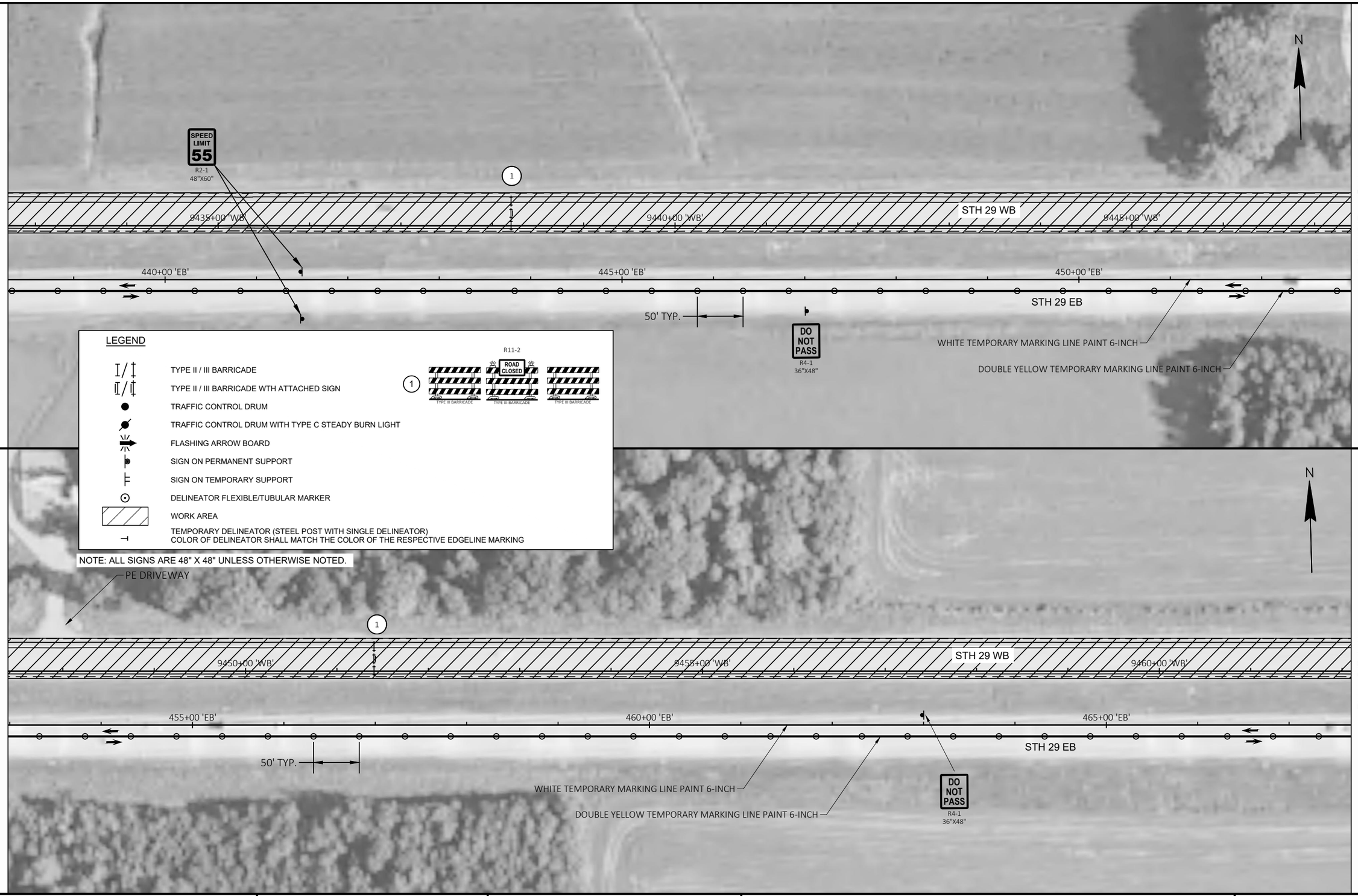
NEXT
2 MILES
WO57-51
48"X24"

MATCH LINE STA9432+70

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 97	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 12
PLOT DATE : 10/30/2024 7:49 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



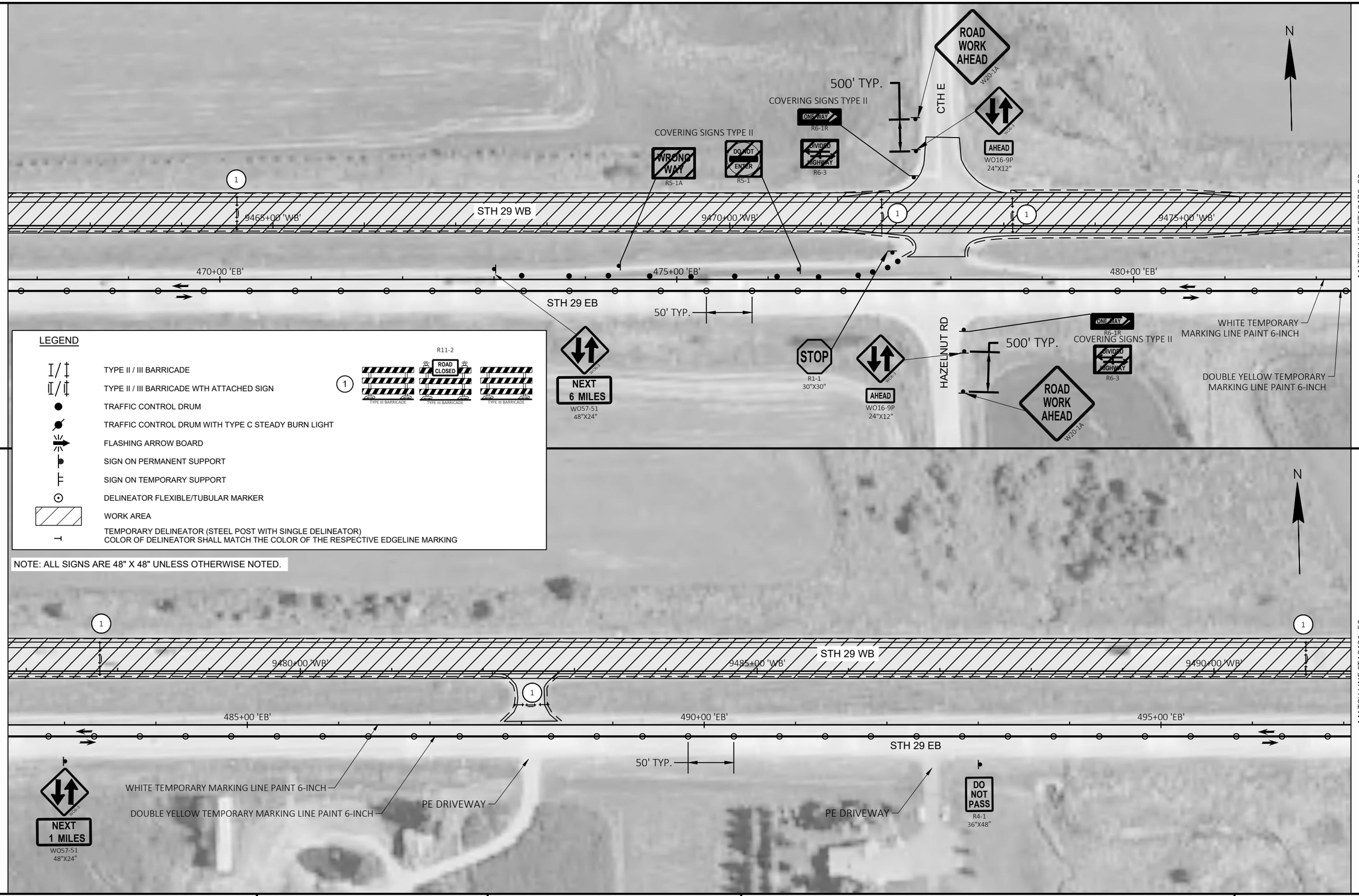
2

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 98	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 13
PLOT DATE : 10/30/2024 7:49 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

2



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 99	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 14
PLOT DATE : 10/30/2024 7:49 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

N

1

9495+00 'WB'

9500+00 'WB'

STH 29 WB

9505+00 'WB'

500+00 'EB'

505+00 'EB'

510+00 'EB'

50' TYP.

STH 29 EB

MATCH LINE STA9506+20

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
  COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1

R11-2

ROAD CLOSED

TYPE III BARRICADE

TYPE III BARRICADE

TYPE III BARRICADE

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

N

CE DRIVEWAY

1

1

1

9510+00 'WB'

9515+00 'WB'

STH 29 WB

9520+00 'WB'

STOP

R1-1

36"X36"

515+00 'EB'

520+00 'EB'

525+00 'EB'

50' TYP.

STH 29 EB

MATCH LINE STA9520+90

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

DO NOT PASS

R4-1

36"X48"

ONE WAY

R6-2L

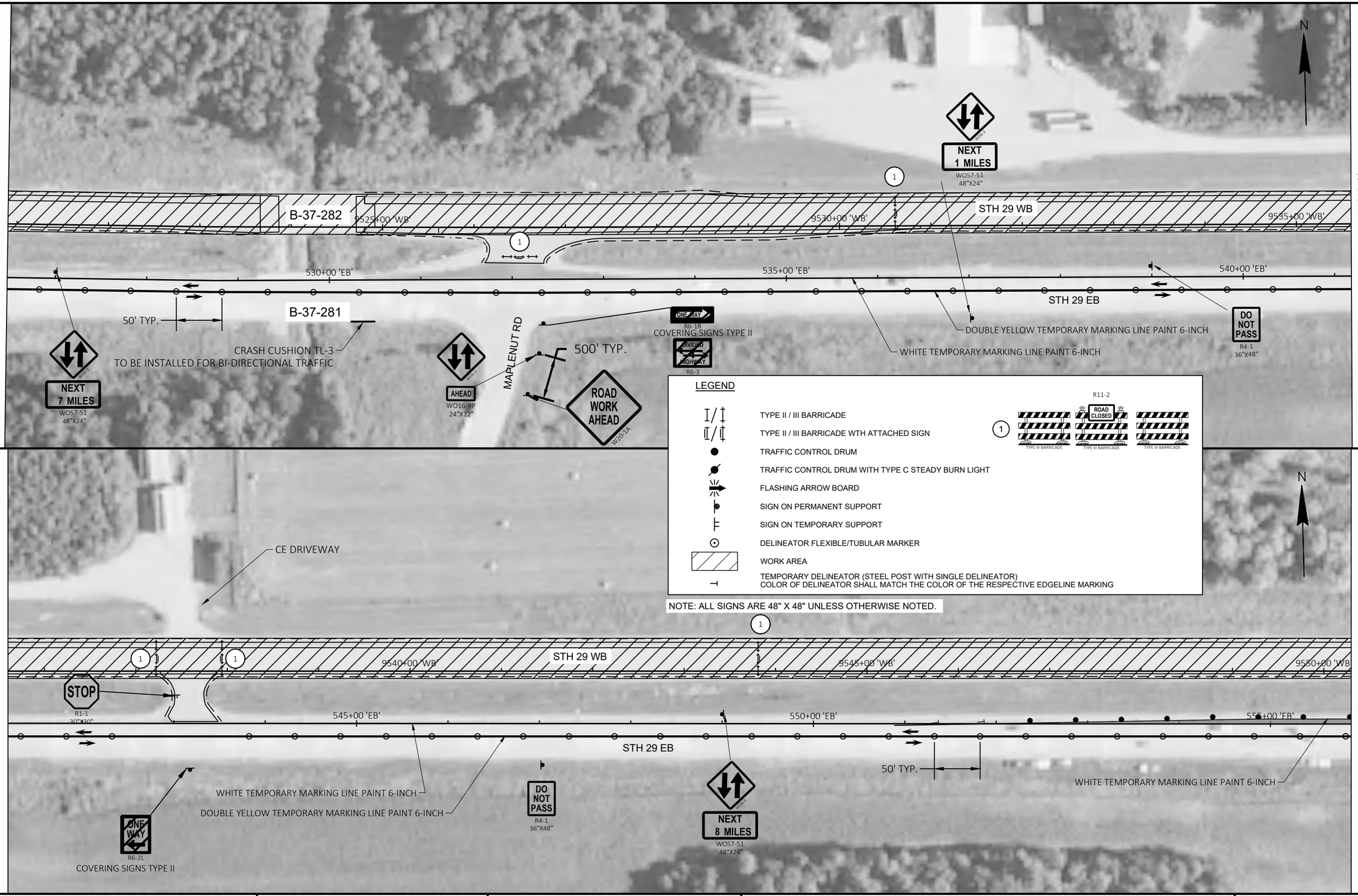
COVERING SIGNS TYPE II

PE DRIVEWAY

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 100	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 15
PLOT DATE : 10/30/2024 7:49 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 101	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 16
PLOT DATE : 10/30/2024 7:49 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

2

2

N

ROAD CLOSED
R11-2
48"X30"

WO1-6
48"X24"

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

50' TYP.

STH 29 WB

9555+00 'WB'

9560+00 'WB'

9565+0

MATCH LINE STA9565+00

1

25' TYP.

YELLOW TEMPORARY MARKING LINE EPOXY 6-INCH

560+00 'EB'

565+00 'EB'

570+00 'EB'

25' TYP.

400'

STH 29 EB

WHITE TEMPORARY MARKING LINE PAINT 6-INCH

DOUBLE YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

YELLOW TEMPORARY MARKING LINE PAINT 6-INCH

END ROAD WORK
G20-2A
48"X24"

SPEED LIMIT
65
R2-1
48"X60"

WO1-4L

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
  COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1

R11-2

ROAD CLOSED

TYPE III BARRICADE

TYPE III BARRICADE

TYPE III BARRICADE

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

N

CORINTH RD

ROAD WORK AHEAD
W20-1A

LANE CLOSED
R11-2L
48"X30"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

100' TYP.

STH 29 WB

00 'WB'

9570+00 'WB'

9575+00 'WB'

575+00 'EB'

580+00 'EB'

STH 29 EB

STOP
R1-1
30"X30"

CTH E

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 102	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 17

PLOT DATE : 10/30/2024 7:49 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

2

2

N

1000'

660'

100' TYP.

500'

50' TYP.

STH 29 WB

STH 29 EB

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

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
  COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1

R11-2

ROAD CLOSED

TYPE III BARRICADE

TYPE III BARRICADE

TYPE III BARRICADE

N

1600'

500'

700'

WO4-2R
48"X48"

STH 29 WB

SPEED LIMIT 55

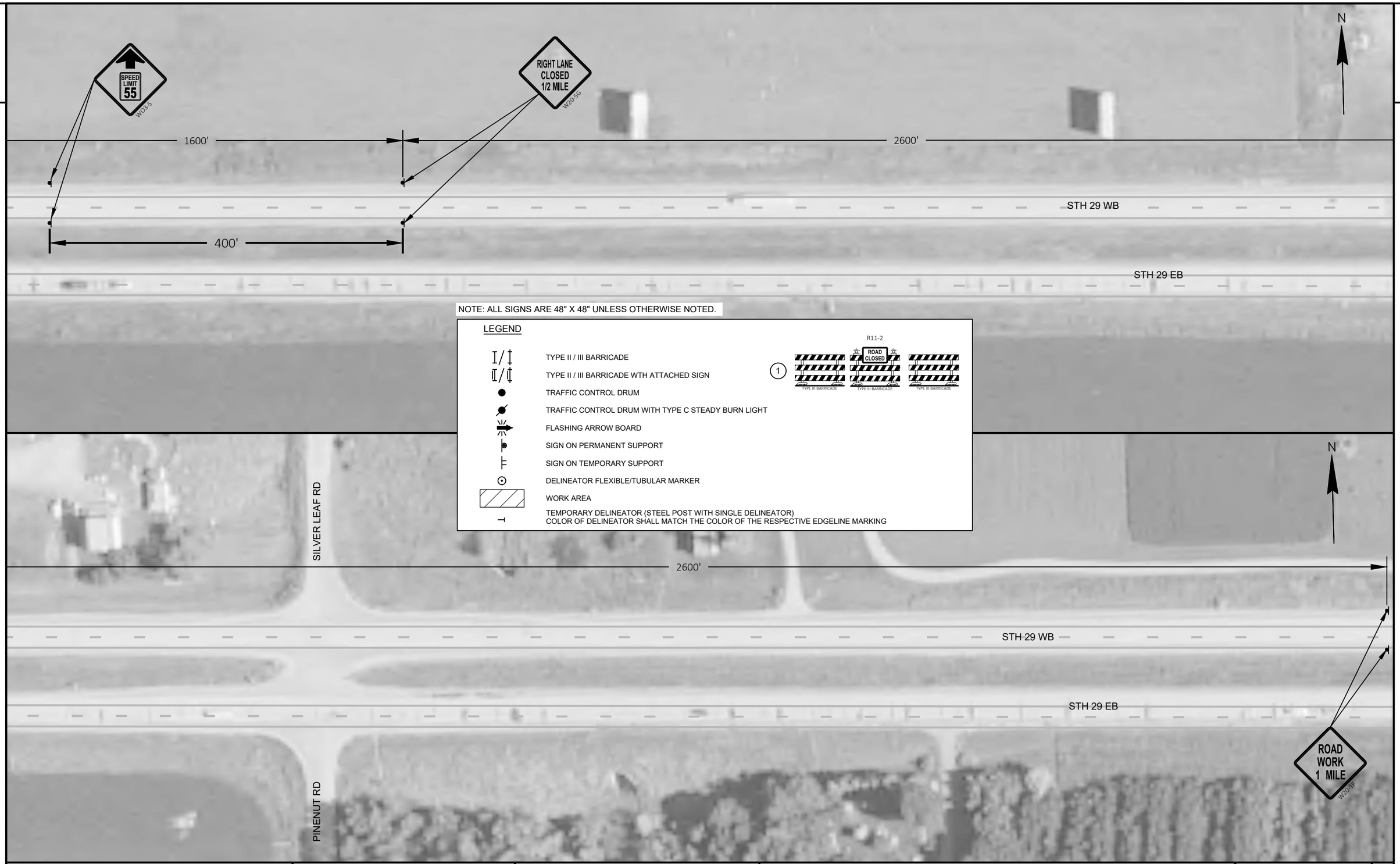
R2-1
48"X60"

STH 29 EB

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 103	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 18
PLOT DATE : 10/30/2024 7:49 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100FT
WISDOT/CADDS SHEET 44

2



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

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- WORK AREA
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
  COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING

1

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL WB PAVEMENT REPAIR PLANS STAGE 4	SHEET 104	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025003-TC.DWG
LAYOUT NAME - 19
PLOT DATE : 10/30/2024 7:50 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

2

2

NOTE: PLACE G20-58 SIGN 1 WEEK BEFORE CONSTRUCTION BEGINS.

RAMP CLOSED BEGINNING XXX-XX

G20-58
90"X48"

OLD HWY 29 RAMP CLOSED USE EXIT 132

G20-56
120"X54"

BIRCH ST
N 5TH ST
6TH ST
8TH ST
E SPRUCE ST
PICKARD AVE
OLD HWY 29
GALVIN RD
11TH ST
E ELM ST
S 5TH ST
E LINDEN ST
SILVER MAPLE LN
STH 13
WB STH 29
EB STH 29

TO
MO4-5
24"X12"
SPRUCE ST/ MAPLE RD
M1-94
72" X 26"
MO6-1
21"X21"

TO
MO4-5
24"X12"
SPRUCE ST/ MAPLE RD
M1-94
72" X 26"
MO5-1R
21"X21"

TO
MO4-5
36"X18"
SPRUCE ST/ MAPLE RD
M1-94
92" X 36"
MO6-2
30"X30"

TO
MO4-5
36"X18"
SPRUCE ST/ MAPLE RD
M1-94
92" X 36"
MO5-2R
30"X30"

N

WORK ZONE

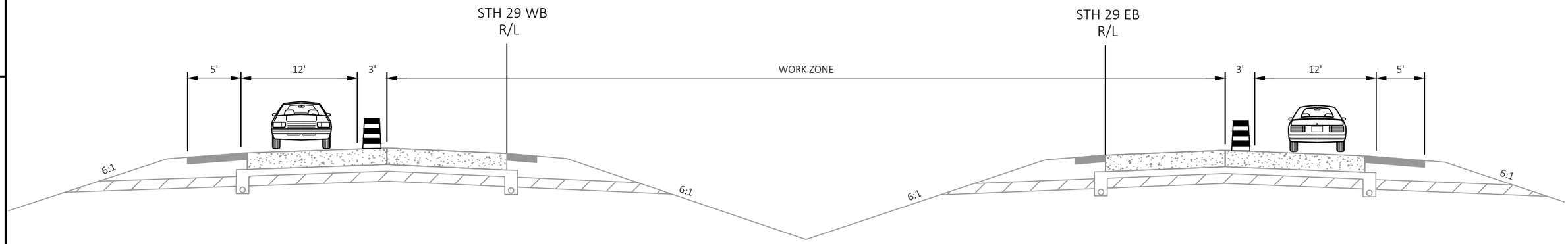
TRAFFIC CONTROL SIGNS

DETOUR

NOTE:
SEE SDD "OFF RAMP LANE CLOSURE" FOR ADDITIONAL DETAILS.
SEE SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE" FOR ADDITIONAL DETAILS.

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	SPRUCE ST/MAPLE RD EXIT RAMP CLOSURE SIGNING - STAGE 4	SHEET 105	E

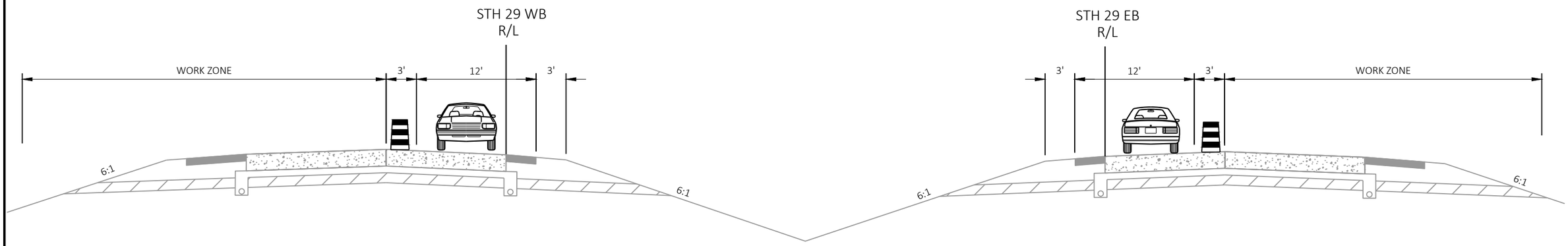
FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\027002-DT.DWG
LAYOUT NAME - 01
PLOT DATE : 10/17/2024 11:30 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : Custom



STAGE 5A

-WESTBOUND TRAFFIC IS IN THE WESTBOUND LANES AND EASTBOUND TRAFFIC IS IN THE EASTBOUND LANES.
-TEMPORARY SINGLE LANE CLOSURES FOR INSIDE LANES UTILIZED TO COMPLETE ROUT AND SEAL, DIAMOND GRINDING, PAVEMENT MARKING, REMOVING CROSSOVER, RESTORATION, AND ALL REMAINING ITEMS OF WORK.
-LANE CLOSURES ARE ALLOWED THE ENTIRE LENGTH OF PROJECT FROM 6 AM MONDAY TO NOON FRIDAY.
-MAXIMUM 5 MILE LANE CLOSURE, MAINTAIN A MINIMUM OF 2 MILES BETWEEN CLOSURES FROM NOON FRIDAY TO 6 AM MONDAY.

NOTES:
1. WHEN WORK ACTIVITIES ARE NOT BEING CONDUCTED, MOVE THE TRAFFIC CONTROL DRUMS INTO THE CONSTRUCTION ZONE ON THE OTHER SIDE OF THE CENTERLINE.
2. DO NOT REMOVE EXISTING EDGE LINE MARKINGS.



STAGE 5B

-WESTBOUND TRAFFIC IS IN THE WESTBOUND LANES AND EASTBOUND TRAFFIC IS IN THE EASTBOUND LANES.
-TEMPORARY SINGLE LANE CLOSURE FOR OUTSIDE LANES UTILIZED TO COMPLETE ROUT AND SEAL, DIAMOND GRINDING, PAVEMENT MARKING, RESTORATION, AND ALL REMAINING ITEMS OF WORK.
-LANE CLOSURES ARE ALLOWED THE ENTIRE LENGTH OF PROJECT FROM 6 AM MONDAY TO NOON FRIDAY.
-MAXIMUM 5 MILE LANE CLOSURE, MAINTAIN A MINIMUM OF 2 MILES BETWEEN CLOSURES FROM NOON FRIDAY TO 6 AM MONDAY.

NOTES:
1. WHEN WORK ACTIVITIES ARE NOT BEING CONDUCTED, MOVE THE TRAFFIC CONTROL DRUMS INTO THE CONSTRUCTION ZONE ON THE OTHER SIDE OF THE CENTERLINE.
2. DO NOT REMOVE EXISTING EDGE LINE MARKINGS.

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL STAGING - STAGE 5	SHEET 106	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025002-TC.DWG PLOT DATE : 1/10/2025 1:25 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:10 FT
LAYOUT NAME - 03
WISDOT/CADDS SHEET 42

2

LANE CLOSED
R11-2L
48"X30"

COMPLETE STH 13 MEDIAN WORK

WO1-6
48"X24"

15' TYP.

STH 13

WB STH 29 EXIT TO STH 13

STH 13 ENTRANCE TO STH 29 WB

15' TYP.

COMPLETE STH 13 MEDIAN WORK

LANE CLOSED
R11-2L
48"X30"

LEGEND

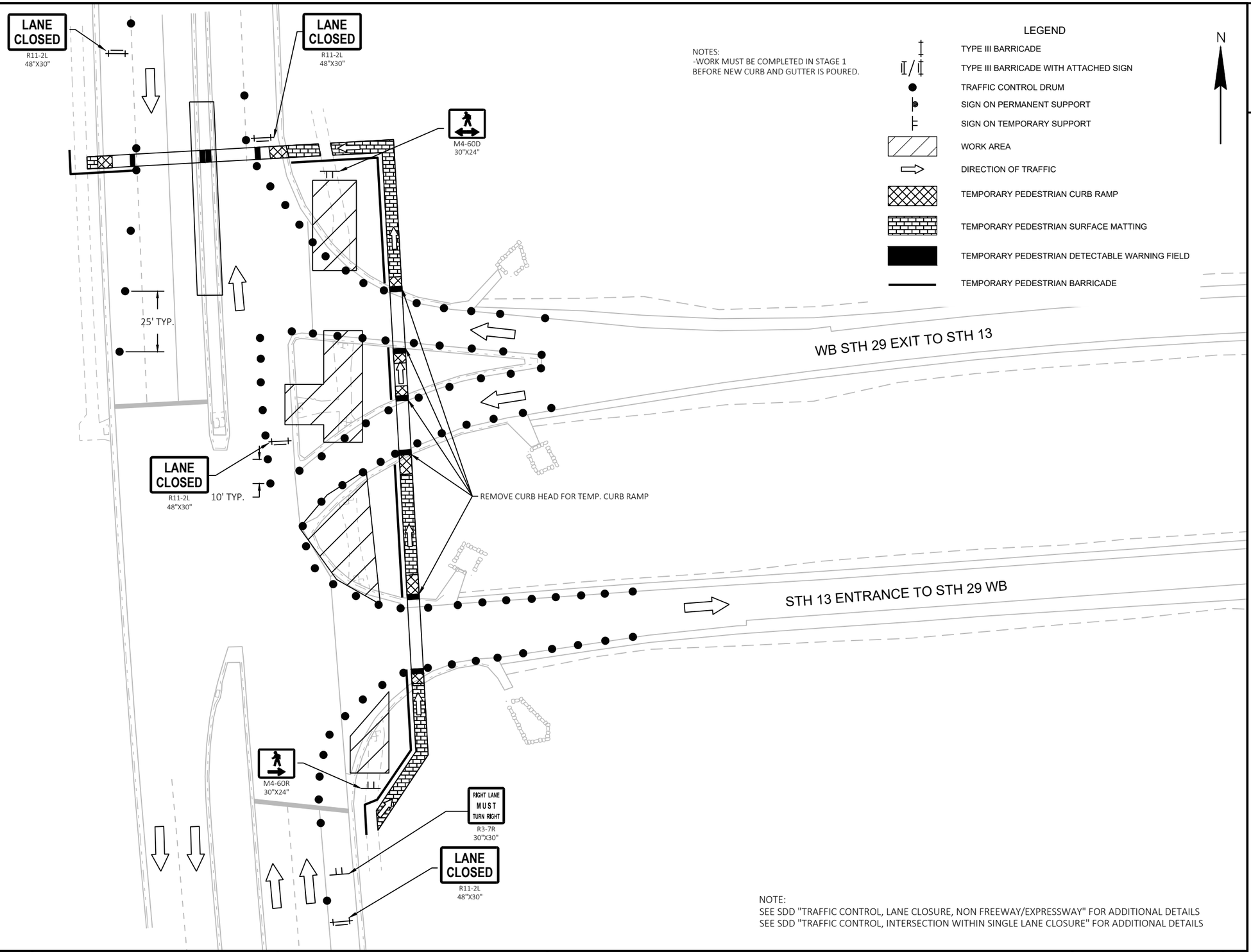
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE MATTING
- TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE

N

NOTE:
SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, NON FREEWAY/EXPRESSWAY" FOR ADDITIONAL DETAILS
SEE SDD "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" FOR ADDITIONAL DETAILS

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL PEDESTRIAN ACCOMMODATIONS	SHEET 107	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025004-TC-PED-ACC.DWG PLOT DATE : 10/29/2024 9:21 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 01
WISDOT/CADDS SHEET 42



NOTES:
-WORK MUST BE COMPLETED IN STAGE 1 BEFORE NEW CURB AND GUTTER IS POURED.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE MATTING
- TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE

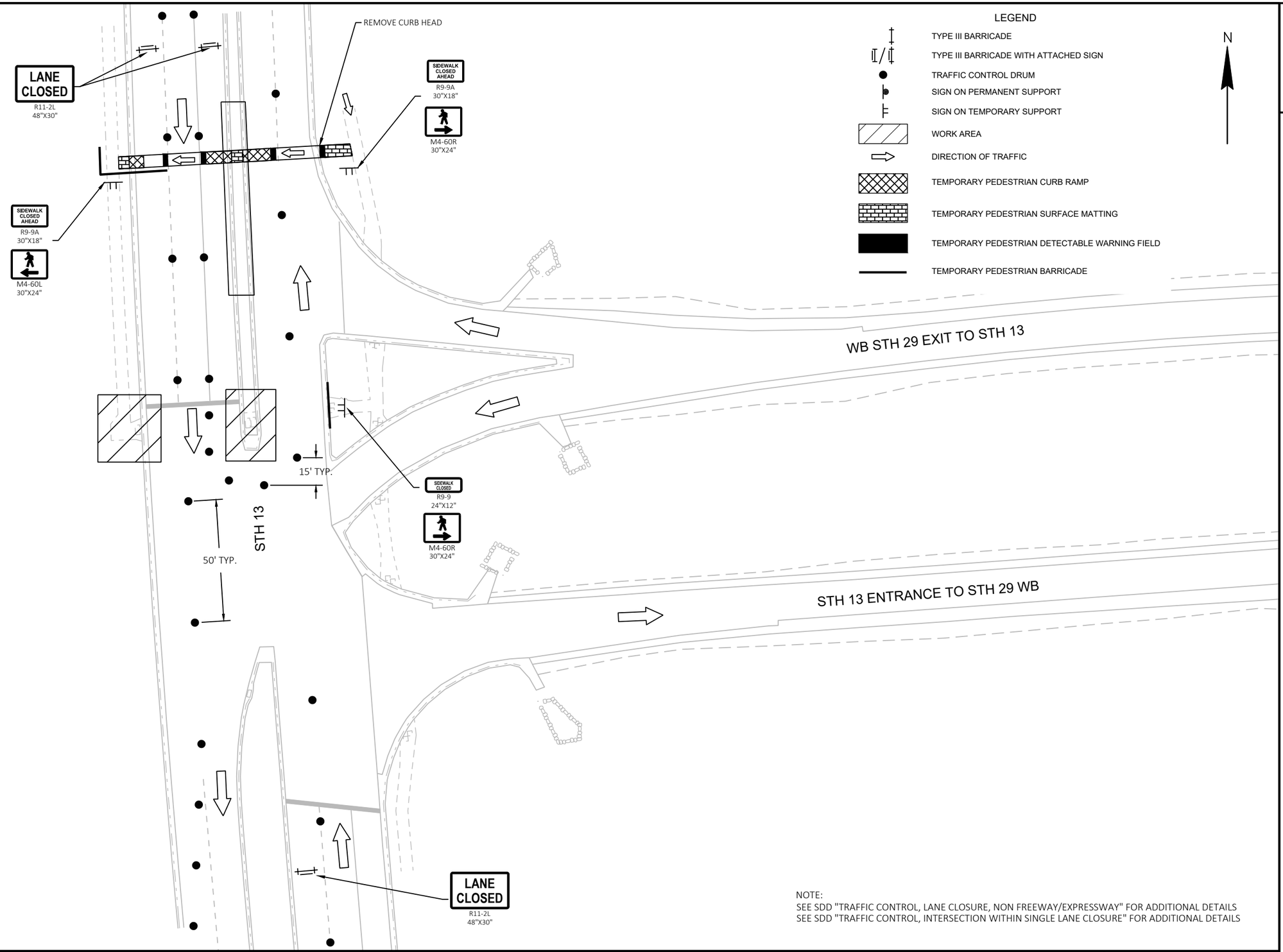
N

NOTE:
SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, NON FREEWAY/EXPRESSWAY" FOR ADDITIONAL DETAILS
SEE SDD "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" FOR ADDITIONAL DETAILS

2

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL PEDESTRIAN ACCOMMODATIONS	SHEET 108	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025004-TC-PED-ACC.DWG PLOT DATE : 10/29/2024 9:21 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 02
WISDOT/CADDS SHEET 42



NOTE:
SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, NON FREEWAY/EXPRESSWAY" FOR ADDITIONAL DETAILS
SEE SDD "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" FOR ADDITIONAL DETAILS

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL PEDESTRIAN ACCOMMODATIONS	SHEET 109	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025004-TC-PED-ACC.DWG PLOT DATE : 10/29/2024 9:21 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 03
WISDOT/CADDS SHEET 42

2

2

N

WB STH 29 EXIT TO STH 13

25' TYP.

STH 13

STH 13 ENTRANCE TO STH 29 WB

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE MATTING
- TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE

NOTES:
-WORK WITHIN MEDIAN OF STH 13 RAMPS MAY BE COMPLETED WITH SHOULDER CLOSURES ON RAMPS.
-SEE SDD "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH" FOR ADDITIONAL DETAILS

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	TRAFFIC CONTROL TRUCK APRON IMPROVEMENTS	SHEET 110	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\025004-TC-PED-ACC.DWG PLOT DATE : 10/29/2024 9:21 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:40 FT
LAYOUT NAME - 04

WISDOT/CADDS SHEET 42

2



BEGIN PROJECT
STA 9094+60.67 'WB'
Y=192,780.939
X=103,578.888

CURVE 1
PI STA = 9151+03.29
Y = 192590.637
X = 109218.297
DELTA = 87°40'57" LT
D = 2°54'09"
T = 1895.82'
L = 3021.05'
R = 1974.09'
PC STA = 9132+07.47
Y = 192654.575
X = 107323.559
PT STA = 9162+28.52
Y = 194481.241
X = 109358.798
DB = S88°04'02"E
DA = N04°15'00"E

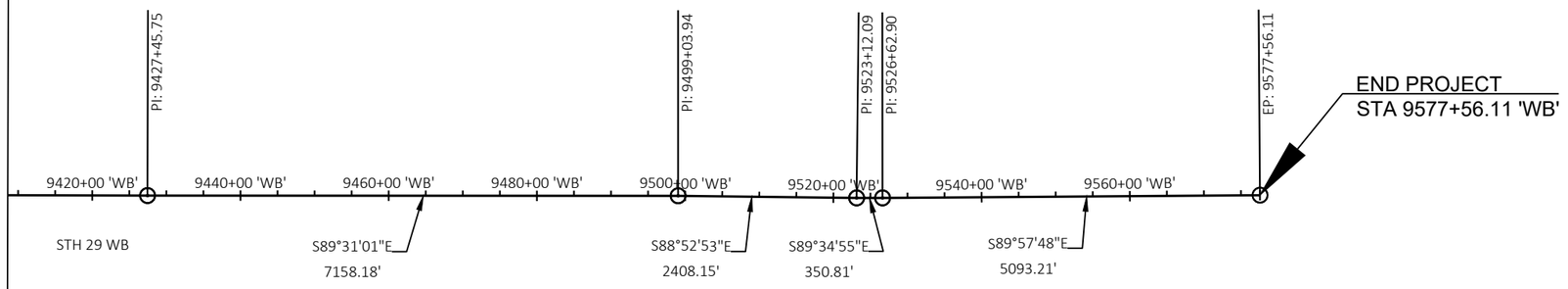
CURVE 2
PI STA = 9188+04.08
Y = 197049.715
X = 109549.674
DELTA = 80°13'22" RT
D = 2°25'57"
T = 1984.23'
L = 3297.92'
R = 2355.41'
PC STA = 9168+19.85
Y = 195070.939
X = 109402.621
PT STA = 9201+17.77
Y = 197240.834
X = 111524.681
DB = N04°15'00"E
DA = N84°28'22"E

CURVE 3
PI STA = 9218+05.99
Y = 197403.441
X = 113205.058
DELTA = 4°59'33" RT
D = 1°40'43"
T = 148.81'
L = 297.44'
R = 3413.46'
PC STA = 9216+57.18
Y = 197389.108
X = 113056.936
PT STA = 9219+54.62
Y = 197404.830
X = 113353.867
DB = N84°28'22"E
DA = N89°27'55"E

CURVE 4
PI STA = 9242+12.12
Y = 197425.893
X = 115611.268
DELTA = 1°22'35" RT
D = 0°30'05"
T = 137.26'
L = 274.50'
R = 11427.75'
PC STA = 9240+74.86
Y = 197424.612
X = 115474.019
PT STA = 9243+49.36
Y = 197423.877
X = 115748.508
DB = N89°27'55"E
DA = S89°09'30"E

2

N



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	ALIGNMENT DETAILS - STH 29 WB	SHEET 112	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\027201-AD.DWG
LAYOUT NAME - 10
PLOT DATE : 10/16/2024 11:03 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42

2



CURVE 1
PI STA = 157+25.48
Y = 192530.072
X = 109278.544
DELTA = 87°49'30" LT
D = 2°48'56"
T = 1959.18'
L = 3119.32'
R = 2035.00'
PC STA = 137+66.30
Y = 192595.905
X = 107320.475
PT STA = 168+85.62
Y = 194484.232
X = 109418.646
DB = S88°04'28"E
DA = N04°06'03"E

CURVE 2
PI STA = 193+90.09
Y = 196982.289
X = 109597.741
DELTA = 80°06'40" RT
D = 2°29'36"
T = 1932.05'
L = 3213.06'
R = 2298.00'
PC STA = 174+58.04
Y = 195055.188
X = 109459.580
PT STA = 206+71.11
Y = 197177.141
X = 111519.937
DB = N04°06'03"E
DA = N84°12'42"E

CURVE 3
PI STA = 223+66.34
Y = 197344.351
X = 113206.900
DELTA = 4°59'43" RT
D = 1°43'13"
T = 145.28'
L = 290.38'
R = 3330.52'
PC STA = 222+21.06
Y = 197330.334
X = 113062.298
PT STA = 225+11.44
Y = 197345.723
X = 113352.173
DB = N84°27'48"E
DA = N89°27'32"E

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	ALIGNMENT DETAILS - STH 29 EB	SHEET 113	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\027202-AD.DWG
LAYOUT NAME - 09
PLOT DATE : 10/16/2024 11:08 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42

2

N

MATCH LINE 414+00 'EB'

STH 29 EB

PI: 432+97.54

PI: 504+60.81

PI: 528+75.55

PI: 578+62.96

EP: 583+19.96

420+00 'EB' 440+00 'EB' 460+00 'EB' 480+00 'EB' 500+00 'EB' 520+00 'EB' 540+00 'EB' 560+00 'EB' 580+00 'EB'

S89°31'14"E
7163.27'

S88°52'41"E
2414.74'

S89°56'12"E
4987.41'

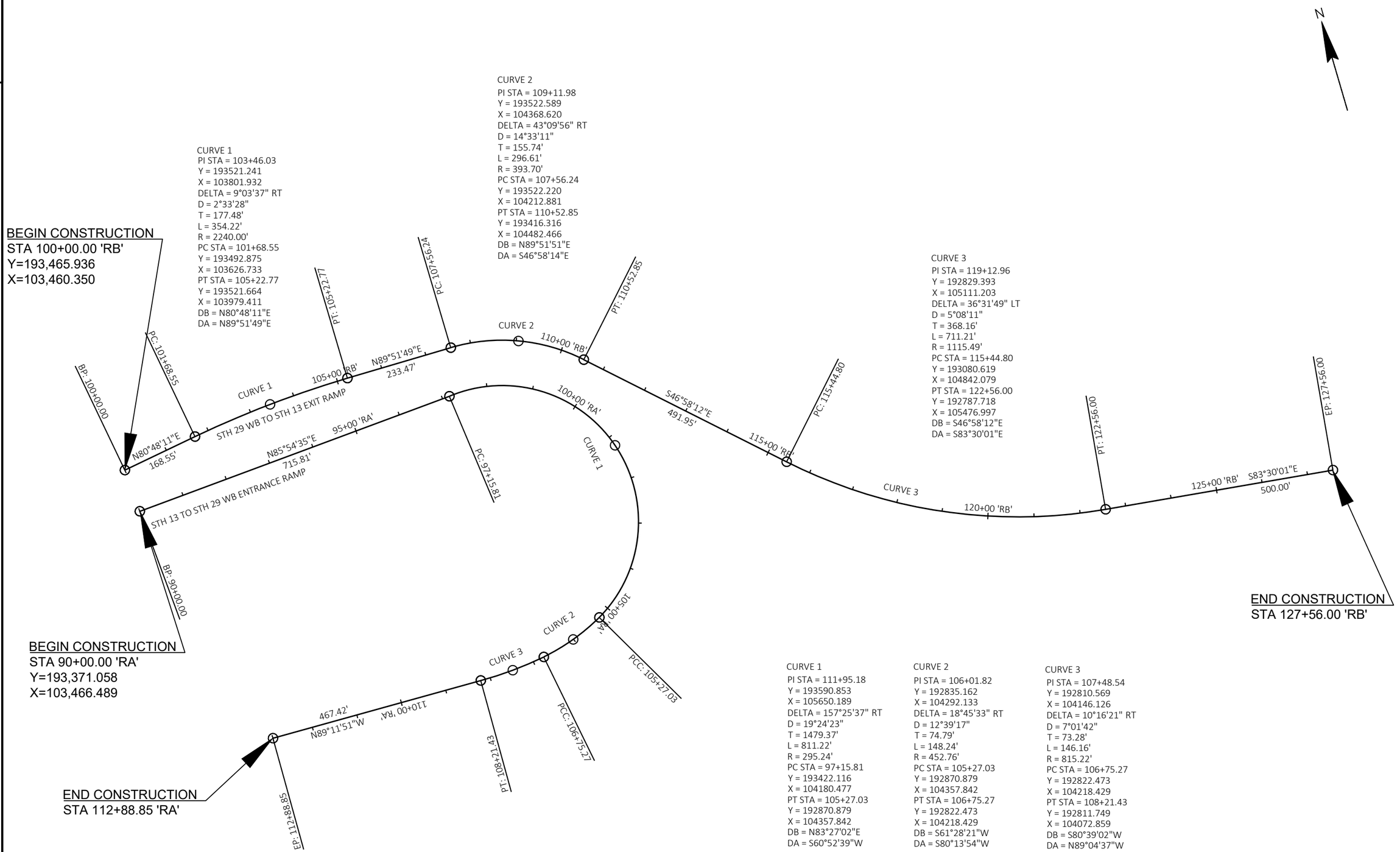
S89°53'44"E
457.00'

END CONSTRUCTION
STA 583+19.96 'EB'

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	ALIGNMENT DETAILS - STH 29 EB	SHEET 114	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\027202-AD.DWG
LAYOUT NAME - 10
PLOT DATE : 10/16/2024 11:08 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:2000 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	ALIGNMENT DETAILS - STH 13 RAMPS	SHEET 115	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\027203-AD.DWG
LAYOUT NAME - 09
PLOT DATE : 10/16/2024 11:20 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2

N

END CONSTRUCTION
STA 100+00.00 'RD'

CURVE 1
PI STA = 94+76.92
Y = 192619.045
X = 104339.402
DELTA = 21°13'14" LT
D = 12°56'10"
T = 82.97'
L = 164.04'
R = 442.91'
PC STA = 93+93.95
Y = 192580.520
X = 104412.886
PT STA = 95+57.99
Y = 192628.360
X = 104256.955
DB = N62°20'00"W
DA = N83°33'14"W

CURVE 2
PI STA = 95+82.85
Y = 192145.865
X = 105241.953
DELTA = 144°59'08" LT
D = 19°24'14"
T = 936.10'
L = 747.20'
R = 295.28'
PC STA = 86+46.75
Y = 192026.146
X = 104313.543
PT STA = 93+93.95
Y = 192580.520
X = 104412.886
DB = N82°39'08"E
DA = N62°20'00"W

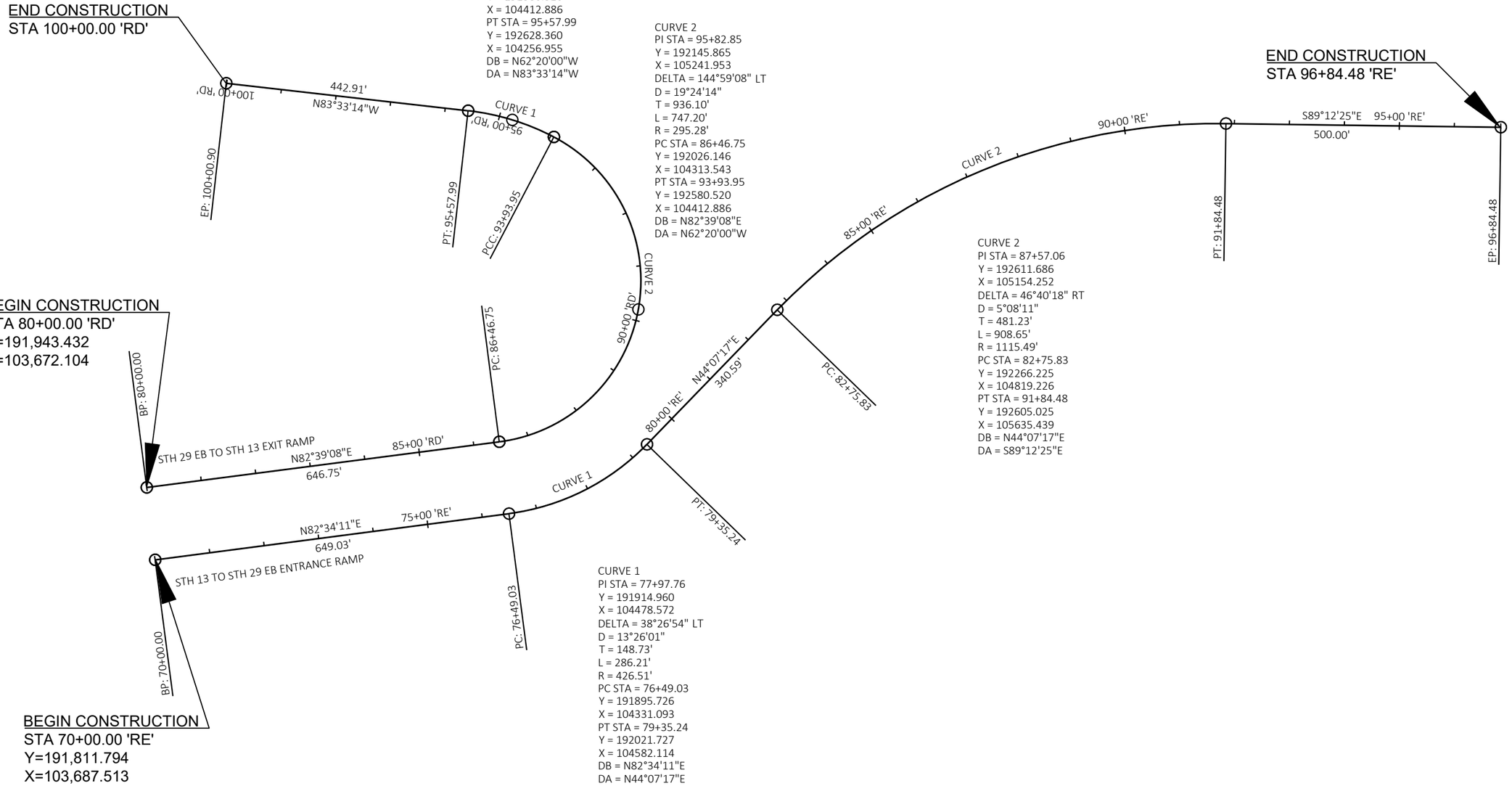
END CONSTRUCTION
STA 96+84.48 'RE'

CURVE 2
PI STA = 87+57.06
Y = 192611.686
X = 105154.252
DELTA = 46°40'18" RT
D = 5°08'11"
T = 481.23'
L = 908.65'
R = 1115.49'
PC STA = 82+75.83
Y = 192266.225
X = 104819.226
PT STA = 91+84.48
Y = 192605.025
X = 105635.439
DB = N44°07'17"E
DA = S89°12'25"E

BEGIN CONSTRUCTION
STA 80+00.00 'RD'
Y=191,943.432
X=103,672.104

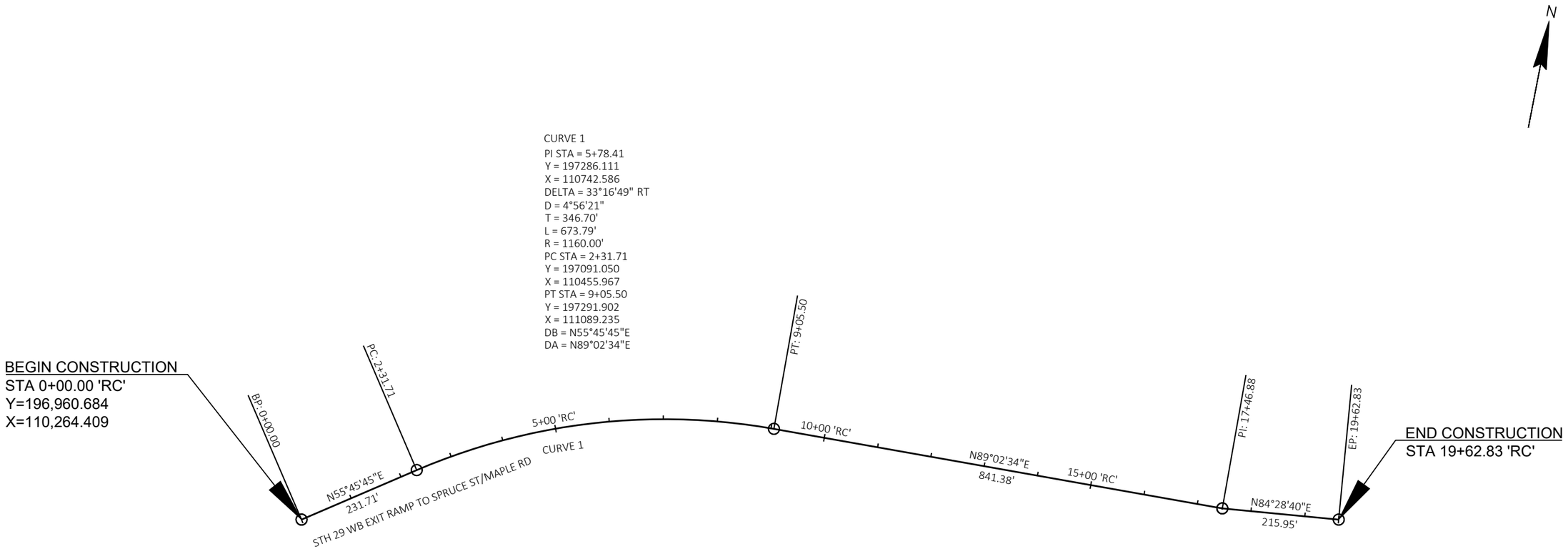
BEGIN CONSTRUCTION
STA 70+00.00 'RE'
Y=191,811.794
X=103,687.513

CURVE 1
PI STA = 77+97.76
Y = 191914.960
X = 104478.572
DELTA = 38°26'54" LT
D = 13°26'01"
T = 148.73'
L = 286.21'
R = 426.51'
PC STA = 76+49.03
Y = 191895.726
X = 104331.093
PT STA = 79+35.24
Y = 192021.727
X = 104582.114
DB = N82°34'11"E
DA = N44°07'17"E



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	ALIGNMENT DETAILS - STH 13 RAMPS	SHEET 116	E

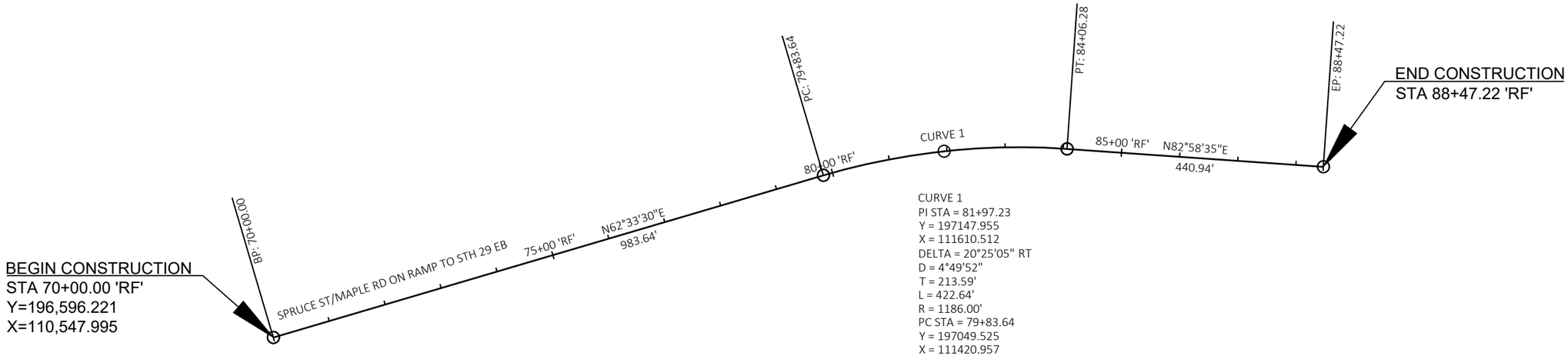
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	ALIGNMENT DETAILS - SPRUCE ST/MAPLE RD RAMP	SHEET 117	E

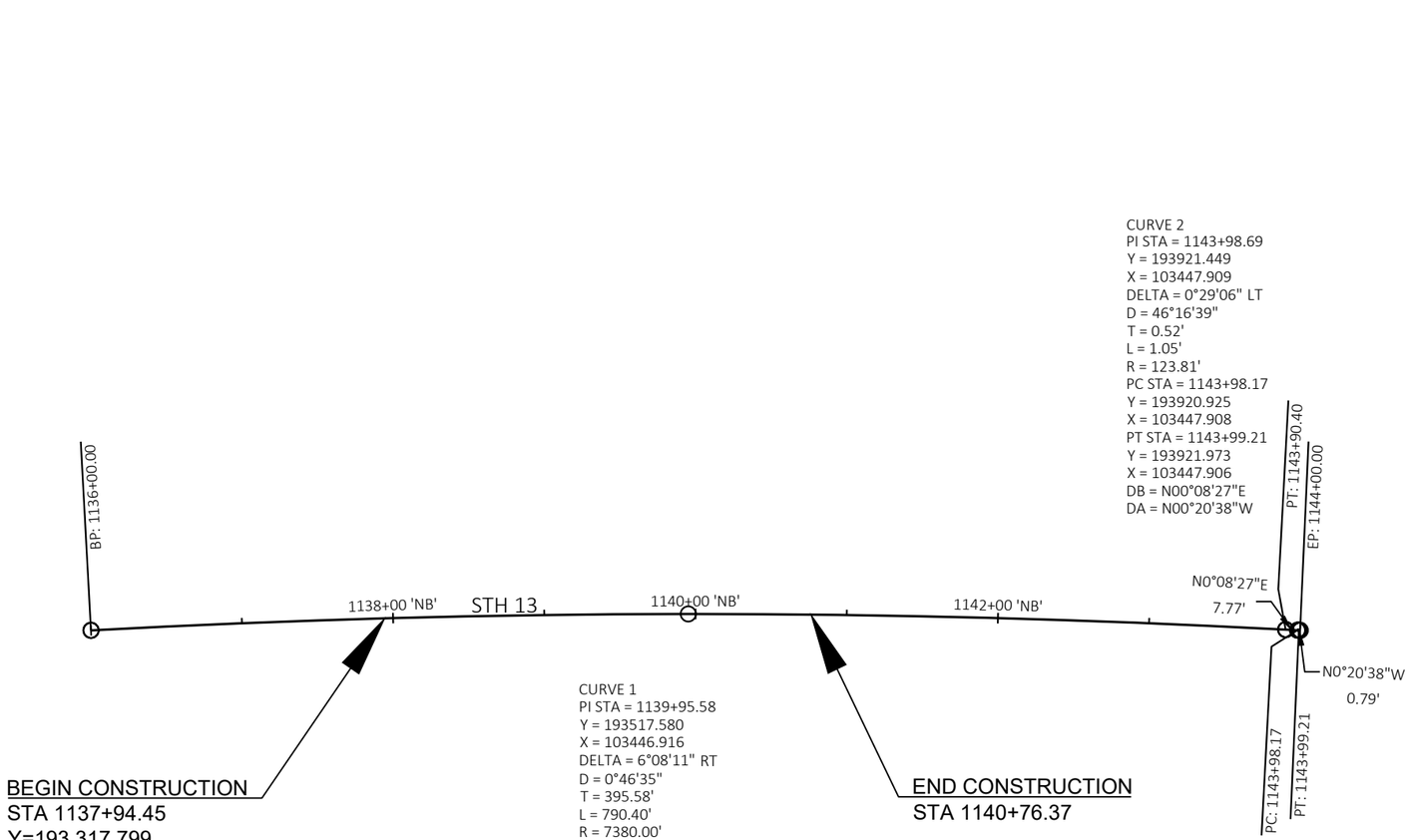
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	ALIGNMENT DETAILS - SPRUCE ST/MAPLE RD RAMP	SHEET 118	E

FILE NAME : C:\USERS\MATHEWTARNOW\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\027204-AD-A.DWG PLOT DATE : 10/16/2024 7:06 AM PLOT BY : MATHEW TARNOW PLOT NAME : PLOT SCALE : 1 IN:200 FT
LAYOUT NAME - 01
WISDOT/CADDS SHEET 42



5

5

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	ALIGNMENT DETAILS - STH 13 NB	SHEET 119	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\027205-AD.DWGPLOT DATE : 7/10/2024 3:50 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 01
WISDOT/CADDS SHEET 44

Estimate Of Quantities

1053-07-77

Line	Item	Item Description	Unit	Total	Qty
0002	204.0100	Removing Concrete Pavement	SY	10,922.000	10,922.000
0004	204.0110	Removing Asphaltic Surface	SY	1,710.000	1,710.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,330.000	1,330.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	61,840.000	61,840.000
0010	204.0150	Removing Curb & Gutter	LF	566.000	566.000
0012	204.0155	Removing Concrete Sidewalk	SY	114.000	114.000
0014	204.0165	Removing Guardrail	LF	1,025.000	1,025.000
0016	204.0190	Removing Surface Drains	EACH	5.000	5.000
0018	204.0195	Removing Concrete Bases	EACH	2.000	2.000
0020	204.9060.S	Removing (item description) 01. Removing Apron Endwall For Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0022	204.9060.S	Removing (item description) 02. Removing Apron Endwall For Underdrain Pipe Reinforced Concrete 6-Inch	EACH	2.000	2.000
0024	205.0100	Excavation Common	CY	8,353.000	8,353.000
0026	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	1,079.000	1,079.000
0028	213.0100	Finishing Roadway (project) 01. 1053-07-77	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	10,770.000	10,770.000
0032	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,370.000	4,370.000
0034	311.0110	Breaker Run	TON	2,730.000	2,730.000
0036	312.0110	Select Crushed Material	TON	30.000	30.000
0038	405.0100	Coloring Concrete WisDOT Red	CY	183.000	183.000
0040	415.0100	Concrete Pavement 10-Inch	SY	10,573.000	10,573.000
0042	415.0410	Concrete Pavement Approach Slab	SY	351.000	351.000
0044	415.2010	Concrete Truck Apron 12-inch	SY	547.000	547.000
0046	415.6000.S	Rout and Seal	LF	108,731.000	108,731.000
0048	416.0610	Drilled Tie Bars	EACH	5,656.000	5,656.000
0050	416.0620	Drilled Dowel Bars	EACH	6,284.000	6,284.000
0052	416.1710	Concrete Pavement Repair	SY	3,052.000	3,052.000
0054	416.1720	Concrete Pavement Replacement	SY	10,820.000	10,820.000
0056	420.1000	Continuous Diamond Grinding Concrete Pavement	SY	25,700.000	25,700.000
0058	455.0605	Tack Coat	GAL	460.000	460.000
0060	460.2000	Incentive Density HMA Pavement	DOL	8,450.000	8,450.000
0062	460.5224	HMA Pavement 4 LT 58-28 S	TON	13,190.000	13,190.000
0064	465.0125	Asphaltic Surface Temporary	TON	700.000	700.000
0066	465.0315	Asphaltic Flumes	SY	30.000	30.000
0068	465.0510	Asphaltic Rumble Strips, Shoulder Divided Roadway	LF	88,000.000	88,000.000
0070	520.3324	Culvert Pipe Class III-A 24-Inch	LF	16.000	16.000
0072	520.8000	Concrete Collars for Pipe	EACH	2.000	2.000
0074	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0076	522.2414	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	LF	28.000	28.000
0078	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	150.000	150.000
0080	601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	87.000	87.000
0082	601.0581	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type R	LF	560.000	560.000
0084	601.0584	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBT	LF	52.000	52.000
0086	602.0410	Concrete Sidewalk 5-Inch	SF	620.000	620.000
0088	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	60.000	60.000
0090	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	32.000	32.000
0092	602.3010	Concrete Surface Drains	CY	15.000	15.000
0094	606.0200	Riprap Medium	CY	6.000	6.000

1053-07-77

Line	Item	Item Description	Unit	Total	Qty
0096	611.0642	Inlet Covers Type MS	EACH	2.000	2.000
0098	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
0100	612.0106	Pipe Underdrain 6-Inch	LF	50.000	50.000
0102	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	2.000	2.000
0104	614.0010	Barrier System Grading Shaping Finishing	EACH	10.000	10.000
0106	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	1.000	1.000
0108	614.0230	Steel Thrie Beam	LF	36.000	36.000
0110	614.0905	Crash Cushions Temporary	EACH	1.000	1.000
0112	614.0951	Replacing Guardrail Rail and Hardware	LF	25.000	25.000
0114	614.1000	MGS Guardrail Temporary	LF	462.500	462.500
0116	614.1100	MGS Guardrail Temporary Thrie Beam Transition	LF	160.000	160.000
0118	614.1200	MGS Guardrail Temporary Terminal EAT	EACH	4.000	4.000
0120	614.2300	MGS Guardrail 3	LF	1,037.500	1,037.500
0122	614.2500	MGS Thrie Beam Transition	LF	240.000	240.000
0124	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0126	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1053-07-77	EACH	1.000	1.000
0128	619.1000	Mobilization	EACH	1.000	1.000
0130	620.0300	Concrete Median Sloped Nose	SF	160.000	160.000
0132	624.0100	Water	MGAL	360.000	360.000
0134	625.0100	Topsoil	SY	13,174.000	13,174.000
0136	628.1504	Silt Fence	LF	250.000	250.000
0138	628.1520	Silt Fence Maintenance	LF	250.000	250.000
0140	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0142	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0144	628.2004	Erosion Mat Class I Type B	SY	13,058.000	13,058.000
0146	628.2008	Erosion Mat Urban Class I Type B	SY	116.000	116.000
0148	628.7005	Inlet Protection Type A	EACH	5.000	5.000
0150	628.7015	Inlet Protection Type C	EACH	1.000	1.000
0152	628.7504	Temporary Ditch Checks	LF	288.000	288.000
0154	628.7555	Culvert Pipe Checks	EACH	1.000	1.000
0156	628.7570	Rock Bags	EACH	20.000	20.000
0158	629.0210	Fertilizer Type B	CWT	8.900	8.900
0160	630.0130	Seeding Mixture No. 30	LB	482.000	482.000
0162	630.0200	Seeding Temporary	LB	159.000	159.000
0164	630.0500	Seed Water	MGAL	300.000	300.000
0166	633.1100	Delineators Temporary	EACH	58.000	58.000
0168	634.0808	Posts Tubular Steel 2x2-Inch X 8-FT	EACH	3.000	3.000
0170	638.2102	Moving Signs Type II	EACH	3.000	3.000
0172	642.5201	Field Office Type C	EACH	1.000	1.000
0174	643.0300	Traffic Control Drums	DAY	22,024.000	22,024.000
0176	643.0420	Traffic Control Barricades Type III	DAY	13,479.000	13,479.000
0178	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	1,473.000	1,473.000
0180	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	1,228.000	1,228.000
0182	643.0705	Traffic Control Warning Lights Type A	DAY	17,818.000	17,818.000
0184	643.0715	Traffic Control Warning Lights Type C	DAY	4,100.000	4,100.000
0186	643.0800	Traffic Control Arrow Boards	DAY	200.000	200.000
0188	643.0900	Traffic Control Signs	DAY	27,033.000	27,033.000
0190	643.0920	Traffic Control Covering Signs Type II	EACH	38.000	38.000
0192	643.1000	Traffic Control Signs Fixed Message	SF	274.000	274.000

1053-07-77

Line	Item	Item Description	Unit	Total	Qty
0194	643.3165	Temporary Marking Line Paint 6-Inch	LF	134,792.000	134,792.000
0196	643.5000	Traffic Control	EACH	1.000	1.000
0198	644.1440	Temporary Pedestrian Surface Matting	SF	1,089.000	1,089.000
0200	644.1601	Temporary Pedestrian Curb Ramp	DAY	77.000	77.000
0202	644.1605	Temporary Pedestrian Detectable Warning Field	SF	130.000	130.000
0204	644.1810	Temporary Pedestrian Barricade	LF	348.000	348.000
0206	646.1020	Marking Line Epoxy 4-Inch	LF	210.000	210.000
0208	646.2025	Marking Line Grooved Black Epoxy 6-Inch	LF	24,200.000	24,200.000
0210	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	216,830.000	216,830.000
0212	646.2050	Marking Line Grooved Permanent Tape 6-Inch	LF	24,800.000	24,800.000
0214	646.4050	Marking Line Grooved Permanent Tape 10-Inch	LF	11,200.000	11,200.000
0216	646.5020	Marking Arrow Epoxy	EACH	3.000	3.000
0218	646.6120	Marking Stop Line Epoxy 18-Inch	LF	118.000	118.000
0220	646.7220	Marking Chevron Epoxy 24-Inch	LF	510.000	510.000
0222	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	376.000	376.000
0224	646.8220	Marking Island Nose Epoxy	EACH	2.000	2.000
0226	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	500.000	500.000
0228	646.9050	Marking Removal Line Grooved Permanent Tape 4-Inch	LF	22,739.000	22,739.000
0230	650.7000	Construction Staking Concrete Pavement	LF	1,963.000	1,963.000
0232	650.8000	Construction Staking Resurfacing Reference	LF	48,296.000	48,296.000
0234	650.9000	Construction Staking Curb Ramps	EACH	10.000	10.000
0236	650.9911	Construction Staking Supplemental Control (project) 01. 1053-07-77	EACH	1.000	1.000
0238	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	13.000	13.000
0240	653.0900	Adjusting Pull Boxes	EACH	3.000	3.000
0242	654.0101	Concrete Bases Type 1	EACH	1.000	1.000
0244	655.0230	Cable Traffic Signal 5-14 AWG	LF	70.000	70.000
0246	690.0150	Sawing Asphalt	LF	1,117.000	1,117.000
0248	690.0250	Sawing Concrete	LF	48,183.000	48,183.000
0250	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	7,440.000	7,440.000
0252	SPV.0060	Special 01. V-Loc Post Anchor VS3	EACH	3.000	3.000
0254	SPV.0060	Special 02. Salvage Traffic Signals	EACH	2.000	2.000
0256	SPV.0090	Special 01. Salvage and Reinstall High Tension Cable Barrier	LF	4,460.000	4,460.000
0258	SPV.0165	Special 01. Concrete Sidewalk 12-Inch	SF	182.000	182.000
0260	SPV.0180	Special 01. Concrete Pavement Shoulder 10-Inch	SY	70.000	70.000

3

REMOVALS

						204.0100	204.0110	204.0115	204.0120	204.0150	204.0155	204.0190	204.0195	204.9060.S.01	204.9060.S.02	
CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	REMOVING CONCRETE PAVEMENT SY	REMOVING ASPHALTIC SURFACE SY	REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	REMOVING ASPHALTIC SURFACE MILLING SY	REMOVING CURB & GUTTER LF	REMOVING CONCRETE SIDEWALK SY	REMOVING SURFACE DRAINS EACH	REMOVING CONCRETE BASES EACH	REMOVING (ITEM DESCRIPTION) (01. REMOVING APRON ENDWALL 24-INCH) EACH	REMOVING (ITEM DESCRIPTION) (02. REMOVING APRON ENDWALL 6-INCH) EACH	REMARKS
0010	0+00	-	19+63	'RC'	RAMP	3,320	-	-	-	-	-	-	-	-	-	SPRUCE ST/MAPLE RD RAMP
0010	0+05	-	17+47	'RC'	RT	-	670	-	-	-	-	-	-	-	-	SPRUCE ST/MAPLE RD RAMP
0010	0+70	-	19+63	'RC'	LT	-	1,040	-	-	87	-	-	-	-	-	SPRUCE ST/MAPLE RD RAMP
0010	90+93	-	110+06	'RA'	LT	-	-	-	790	-	-	1	-	-	-	STH 13 TO STH 29 ON RAMP
0010	91+04	-	107+76	'RA'	RT	-	-	-	900	-	-	-	-	-	-	STH 13 TO STH 29 ON RAMP
0010	101+06	-	127+56	'RB'	LT	-	-	-	1,510	-	-	-	-	-	-	STH 29 TO STH 13 OFF RAMP
0010	101+22	-	126+07	'RB'	RT	-	-	-	1,100	-	-	1	-	-	-	STH 29 TO STH 13 OFF RAMP
0010	100+37	-	100+63	'EB'	LT	-	-	-	-	-	-	1	-	-	-	
0010	100+37		100+70	'EB'	RT	-	-	-	-	-	-	1	-	-	-	
0010	1137+94		1138+23	'NB'	RT	-	-	-	-	21	13	-	-	-	-	FAR SOUTH CURB RAMP
0010	1138+70	-	1139+18	'NB'	RT	-	-	-	-	170	24	-	2	-	-	SOUTH CURB RAMPS
0010	1139+32	-	1139+62	'NB'	LT	-	-	-	-	28	20	-	-	-	-	MIDDLE WEST CURB RAMP
0010	1139+33	-	1139+78	'NB'	RT	-	-	-	-	46	35	-	-	-	-	MIDDLE EAST CURB RAMPS
0010	1139+39	-	1139+58	'NB'	LT	-	-	-	-	194	5	-	-	-	-	MEDIAN CURB RAMPS
0010	1140+03	-	1140+37	'NB'	RT	-	-	-	-	20	17	-	-	-	-	NORTH CURB RAMP
0010	9094+61		9577+56	'WB'	PROJECT	-	-	1,330	9,090	-	-	-	-	-	-	SIDEROADS/MEDIAN CROSSOVERS
0010	9094+66	-	9095+06	'WB'	RT	-	-	-	-	-	-	1	-	-	-	
0010	9094+86	-	9099+98	'WB'	LT	-	-	-	440	-	-	-	-	-	-	SHOULDERS
0010	9094+90	-	9222+55	'WB'	RT	-	-	-	4,430	-	-	-	-	-	-	SHOULDERS
0010	9100+65	-	9114+82	'WB'	LT	-	-	-	950	-	-	-	-	-	-	SHOULDERS
0010	9119+10	-	9139+94	'WB'	LT	-	-	-	1,390	-	-	-	-		-	SHOULDERS
0010	9120+00		9150+00	'WB'	LT/RT	-	-	-	-	-	-	-	-	1	2	WEST END CROSSOVER
0010	9139+94	-	9204+75	'WB'	LT	-	-	-	4,330	-	-	-	-	-	-	SHOULDERS
0010	9200+40	-	9204+27	'WB'	OUTSIDE	605	-	-	-	-	-	-	-	-	-	
0010	9207+44	-	9222+56	'WB'	LT	-	-	-	1,020	-	-	-	-	-	-	SHOULDERS
0010	9223+49	-	9277+76	'WB'	LT	-	-	-	3,650	-	-	-	-	-	-	SHOULDERS
0010	9223+49	-	9277+76	'WB'	RT	-	-	-	2,070	-	-	-	-	-	-	SHOULDERS
0010	9223+54	-	9227+88	'WB'	OUTSIDE	684	-	-	-	-	-	-	-	-	-	
0010	9244+02	-	9251+28	'WB'	OUTSIDE	1,142	-	-	-	-	-	-	-	-	-	
0010	9279+95	-	9523+66	'WB'	RT	-	-	-	8,460	-	-	-	-	-	-	SHOULDERS
0010	9279+95	-	9523+66	'WB'	LT	-	-	-	16,310	-	-	-	-	-	-	SHOULDERS
0010	9360+98	-	9369+12	'WB'	OUTSIDE	1,269	-	-	-	-	-	-	-	-	-	
0010	9380+74	-	9384+05	'WB'	OUTSIDE	522	-	-	-	-	-	-	-	-	-	
0010	9410+76	-	9415+70	'WB'	OUTSIDE	769	-	-	-	-	-	-	-	-	-	
0010	9524+80	-	9576+05	'WB'	RT	-	-	-	1,860	-	-	-	-	-	-	SHOULDERS
0010	9524+80	-	9575+96	'WB'	LT	-	-	-	3,540	-	-	-	-	-	-	SHOULDERS
0010	9525+00	-	9532+73	'WB'	OUTSIDE	1,332	-	-	-	-	-	-	-	-	-	
0010	9551+24	-	9557+55	'WB'	OUTSIDE	928	-	-	-	-	-	-	-	-	-	
					PROJECT	351	-	-	-	-	-	-	-	-	-	APPROACH SLABS
					TOTAL 0010	10,922	1,710	1,330	61,840	566	114	5	2	1	2	

3

3

EARTHWORK ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	205.0100 EXCAVATION COMMON CY	REMARKS
0010	0+00	-	19+63	'RC'	RAMP	1,630	SPRUCE ST/MAPLE RD RAMP
0010	1137+94	-	1140+76	'NB'	LT/RT	113	STH 13 INTERSECTION
0010	9120+00	-	9150+00	'WB'	LT/RT	1,500	WEST END CROSSOVER INSTALL
0010	9120+00	-	9150+00	'WB'	LT/RT	2,760	WEST END CROSSOVER REMOVAL
0010	9200+40	-	9204+27	'WB'	OUTSIDE	170	PATCH NUMBER 400
0010	9223+54	-	9227+88	'WB'	OUTSIDE	190	PATCH NUMBER 401
0010	9244+02	-	9251+28	'WB'	OUTSIDE	320	PATCH NUMBER 402
0010	9360+98	-	9369+12	'WB'	OUTSIDE	360	PATCH NUMBER 403
0010	9380+74	-	9384+05	'WB'	OUTSIDE	150	PATCH NUMBER 404
0010	9410+76	-	9415+70	'WB'	OUTSIDE	220	PATCH NUMBER 405
0010	9525+00	-	9532+73	'WB'	OUTSIDE	380	PATCH NUMBER 406
0010	9551+24	-	9557+55	'WB'	OUTSIDE	260	PATCH NUMBER 407
					UNDISTRIBUTED	300	WEST END CROSSOVER EBS
					TOTAL 0010	8,353	

AGGREGATE ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	LOCATION	211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS STA	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	311.0110 BREAKER RUN TON	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL	REMARKS
0010	9094+86	-	9099+98	LT		6	60	-	-	-	-	SHOULDERS
0010	9094+90	-	9222+55	RT		128	1,000	-	-	-	-	SHOULDERS
0010	9100+65	-	9114+82	LT		15	150	-	-	-	-	SHOULDERS
0010	9119+10	-	9139+94	LT		21	220	-	-	-	-	SHOULDERS
0010	9139+94	-	9204+75	LT		65	680	-	-	-	-	SHOULDERS
0010	9207+44	-	9222+56	LT		16	160	-	-	-	-	SHOULDERS
0010	9223+49	-	9277+76	LT		55	570	-	-	-	-	SHOULDERS
0010	9223+49	-	9277+76	RT		55	430	-	-	-	-	SHOULDERS
0010	9279+95	-	9523+66	RT		244	1,900	-	-	-	-	SHOULDERS
0010	9279+95	-	9523+66	LT		244	2,530	-	-	-	-	SHOULDERS
0010	9524+80	-	9576+05	RT		52	400	-	-	-	-	SHOULDERS
0010	9524+80	-	9575+96	LT		52	540	-	-	-	-	SHOULDERS
0010	0+70	-	19+63	LT		19	150	850	-	-	-	SPRUCE ST/MAPLE RD RAMP
0010	0+05	-	17+47	RT		18	50	780	-	-	-	SPRUCE ST/MAPLE RD RAMP
0010	90+93	-	110+06	LT		20	50	-	-	-	-	STH 13 TO STH 29 ON RAMP
0010	91+04	-	107+76	RT		17	140	-	-	-	-	STH 13 TO STH 29 ON RAMP
0010	101+06	-	127+56	LT		27	210	-	-	-	-	STH 29 TO STH 13 OFF RAMP
0010	101+22	-	126+07	RT		25	70	-	-	-	-	STH 29 TO STH 13 OFF RAMP
0010	9120+00	-	9150+00	RT		-	480	2,330	2,270	-	-	WEST END CROSSOVER
0010	9128+80	-	9178+84	RT		-	-	10	-	20	-	WEEP LOCATIONS
				UNDISTRIBUTED		-	980	400	460	10	360	
					TOTAL 0010	1,079	10,770	4,370	2,730	30	360	

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INTERSECTION IMPROVEMENTS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	405.0100 COLORING CONCRETE WISDOT RED CY	415.2010 CONCRETE TRUCK APRON 12-INCH SY	601.0555 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A LF	601.0581 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE R LF	601.0584 CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBT LF	602.3010 CONCRETE SURFACE DRAINS CY	606.0200 RIPRAP MEDIUM CY	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	653.0900 ADJUSTING PULL BOXES EACH	654.0101 CONCRETE BASES TYPE 1 EACH	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG LF	SPV.0060.02 SPECIAL (02. SALVAGE TRAFFIC SIGNALS) EACH	SPV.0180.01 SPECIAL (01. CONCRETE PAVEMENT SHOULDER 10-INCH) SY	REMARKS
0010	1137+94	-	1140+76	'NB'	STH 13 INTERSECTION	183	547	-	560	-	12	-	160	13	3	1	70	2	-	
0010	0+01	-	0+61	'RC'	SPRUCE ST/MAPLE RD OFF RAMP	-	-	87	-	-	-	-	-	-	-	-	-	-	-	
0010	100+37	-	100+63	'EB'	LT	-	-	-	-	4	1	2	-	-	-	-	-	-	16	
0010	100+37	-	100+70	'EB'	RT	-	-	-	-	8	1	2	-	-	-	-	-	-	27	
0010	9094+66	-	9095+06	'WB'	RT	-	-	-	-	40	1	2	-	-	-	-	-	-	27	
					TOTAL 0010	183	547	87	560	52	15	6	160	13	3	1	70	2	70	

NOTE:
*ADDITIONAL QUANTITIES ARE LISTED ELSEWHERE

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ASPHALT ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	415.6000.S ROUT AND SEAL LF	455.0605 TACK COAT GAL	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON	465.0315 ASPHALTIC FLUMES SY	465.0510 ASPHALTIC RUMBLE STRIPS, SHOULDER DIVIDED ROADWAY LF	* 690.0150 SAWING ASPHALT LF	REMARKS
0010	9094+86	-	9099+98	'WB'	LT	512	-	100	-	-	-	-	SHOULDERS
0010	9094+90	-	9222+55	'WB'	RT	12,765	-	1,000	-	-	-	-	SHOULDERS
0010	9100+65	-	9114+82	'WB'	LT	1,417	-	220	-	-	-	-	SHOULDERS
0010	9119+10	-	9139+94	'WB'	LT	2,084	-	320	-	-	-	-	SHOULDERS
0010	9120+00	-	9150+00	'WB'	LT/RT	-	-	-	700	-	-	760	WEST END CROSSOVER
0010	9139+94	-	9204+75	'WB'	LT	6,481	-	970	-	-	-	-	SHOULDERS
0010	9207+44	-	9222+56	'WB'	LT	1,512	-	230	-	-	-	-	SHOULDERS
0010	9223+49	-	9277+76	'WB'	LT	5,427	-	820	-	-	-	-	SHOULDERS
0010	9223+49	-	9277+76	'WB'	RT	5,427	-	470	-	-	-	-	SHOULDERS
0010	9279+95	-	9523+66	'WB'	RT	24,371	-	1,900	-	-	-	-	SHOULDERS
0010	9279+95	-	9523+66	'WB'	LT	24,371	-	3,660	-	-	-	-	SHOULDERS
0010	9524+80	-	9576+05	'WB'	RT	5,125	-	420	-	-	-	-	SHOULDERS
0010	9524+80	-	9575+96	'WB'	LT	5,116	-	800	-	-	-	-	SHOULDERS
0010	0+70	-	19+63	'RC'	LT	1,893	-	240	-	-	-	-	SPRUCE ST/MAPLE RD RAMP
0010	0+05	-	17+47	'RC'	RT	1,742	-	160	-	-	-	-	SPRUCE ST/MAPLE RD RAMP
0010	93+25	-	110+06	'RA'	LT	1,681	-	180	-	-	-	-	STH 13 TO STH 29 ON RAMP
0010	91+04	-	107+76	'RA'	RT	1,672	-	210	-	-	-	-	STH 13 TO STH 29 ON RAMP
0010	101+06	-	127+56	'RB'	LT	2,650	-	340	-	-	-	-	STH 29 TO STH 13 OFF RAMP
0010	101+22	-	126+07	'RB'	RT	2,485	-	250	-	-	-	-	STH 29 TO STH 13 OFF RAMP
0010	9094+61	-	9577+56	'WB'	LT/RT	2,000	460	900	-	30	-	-	SIDEROADS/MEDIAN CROSSOVERS
0010	9273+22	-	9293+46	'WB'	LT	-	-	-	-	-	2,030	-	
0010	9273+22	-	9293+40	'WB'	RT	-	-	-	-	-	2,020	-	
0010	9299+22	-	9372+53	'WB'	LT	-	-	-	-	-	7,330	-	
0010	9297+00	-	9319+81	'WB'	RT	-	-	-	-	-	2,280	-	
0010	9325+77	-	9372+43	'WB'	RT	-	-	-	-	-	4,670	-	
0010	9377+96	-	9425+07	'WB'	LT	-	-	-	-	-	4,710	-	
0010	9378+43	-	9424+99	'WB'	RT	-	-	-	-	-	4,660	-	
0010	9430+57	-	9470+67	'WB'	LT	-	-	-	-	-	4,010	-	
0010	9430+52	-	9471+03	'WB'	RT	-	-	-	-	-	4,050	-	
0010	9476+57	-	9523+66	'WB'	LT	-	-	-	-	-	4,710	-	
0010	9476+85	-	9523+66	'WB'	RT	-	-	-	-	-	4,680	-	
0010	9524+80	-	9575+93	'WB'	LT	-	-	-	-	-	5,110	-	
0010	9531+89	-	9576+05	'WB'	RT	-	-	-	-	-	4,420	-	
0010	9223+49	-	9267+48	'WB'	LT	-	-	-	-	-	4,400	-	
0010	9223+49	-	9266+22	'WB'	RT	-	-	-	-	-	4,270	-	
0010	9207+38	-	9222+56	'WB'	LT	-	-	-	-	-	1,520	-	
0010	9094+60	-	9222+55	'WB'	RT	-	-	-	-	-	12,800	-	
0010	9119+20	-	9202+78	'WB'	LT	-	-	-	-	-	8,360	-	
0010	9095+25	-	9114+88	'WB'	LT	-	-	-	-	-	1,970	-	
					TOTAL 0010	108,731	460	13,190	700	30	88,000	760	

CONCRETE ITEMS (1 OF 9)

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	PATCH NUMBER	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	* 690.0250 SAWING CONCRETE LF	REMARKS
0010	0+00	-	19+63	'RC'	RAMP	-	3,320	-	-	-	-	-	216	SPRUCE ST/MAPLE RD RAMP
0010	92+59	-	92+82	'RA'	RAMP	313	-	-	-	18	-	39	75	STH 13 TO STH 29 ON RAMP
0010	95+67	-	95+92	'RA'	RAMP	314	-	-	-	18	-	42	75	STH 13 TO STH 29 ON RAMP
0010	96+94	-	97+18	'RA'	RAMP	315	-	-	-	18	-	40	75	STH 13 TO STH 29 ON RAMP
0010	98+38	-	98+82	'RA'	RAMP	316	-	-	-	18	-	75	120	STH 13 TO STH 29 ON RAMP
0010	101+66	-	101+91	'RA'	RAMP	317	-	-	-	18	-	42	75	STH 13 TO STH 29 ON RAMP
0010	102+02	-	102+29	'RA'	RAMP	318	-	-	-	18	-	45	75	STH 13 TO STH 29 ON RAMP
0010	103+67	-	103+92	'RA'	RAMP	319	-	-	-	18	-	42	75	STH 13 TO STH 29 ON RAMP
0010	111+62	-	112+05	'RB'	RAMP	320	-	-	-	18	-	72	120	STH 29 TO STH 13 OFF RAMP
0010	-	-	-	'WB'	OUTSIDE	321	-	-	12	16	-	62	98	WEST OF BRIDGE B-37-290
0010	-	-	-	'WB'	MEDIAN	322	-	-	12	16	-	53	84	WEST OF BRIDGE B-37-290
0010	-	-	-	'EB'	MEDIAN	323	-	-	4	16	-	21	48	WEST OF BRIDGE B-37-289
0010	-	-	-	'WB'	APPROACH	-	-	83	-	-	-	-	-	APPROACH WEST OF BRIDGE B-37-290
0010	-	-	-	'EB'	APPROACH	-	-	51	-	-	-	-	-	APPROACH WEST OF BRIDGE B-37-289
0010	100+37	-	100+70	'EB'	APPROACH	-	-	66	-	-	-	-	-	BRIDGE APPROACH SLAB
0010	9094+66	-	9094+86	'WB'	APPROACH	-	-	101	-	-	-	-	-	BRIDGE APPROACH SLAB
0010	9094+86	-	9095+38	'WB'	MEDIAN	311	-	-	16	32	-	149	277	
0010	9117+02	-	9117+08	'WB'	OUTSIDE	1	-	-	3	16	10	-	34	
0010	9117+75	-	9117+81	'WB'	OUTSIDE	2	-	-	3	16	10	-	34	
0010	9118+46	-	9118+54	'WB'	OUTSIDE	3	-	-	4	16	13	-	50	
0010	9119+20	-	9119+26	'WB'	OUTSIDE	4	-	-	3	16	10	-	34	
0010	9121+19	-	9121+44	'WB'	OUTSIDE	200	-	-	10	16	-	39	95	
0010	9123+00	-	9123+06	'WB'	OUTSIDE	5	-	-	3	16	10	-	34	
0010	9145+30	-	9145+36	'WB'	OUTSIDE	6	-	-	3	16	10	-	34	
0010	9150+20	-	9150+72	'WB'	OUTSIDE	201	-	-	21	16	-	80	177	
0010	9151+71	-	9151+77	'WB'	OUTSIDE	7	-	-	3	16	10	-	34	
0010	9160+10	-	9160+76	'WB'	OUTSIDE	202	-	-	27	16	-	103	220	
0010	9169+82	-	9169+88	'WB'	OUTSIDE	8	-	-	3	16	10	-	34	
0010	9171+76	-	9171+82	'WB'	OUTSIDE	9	-	-	3	16	10	-	34	
0010	9172+66	-	9172+72	'WB'	OUTSIDE	10	-	-	3	16	10	-	34	
0010	9173+25	-	9173+37	'WB'	MEDIAN	11	-	-	5	16	16	-	45	
0010	9173+34	-	9173+46	'WB'	OUTSIDE	12	-	-	5	16	19	-	54	
0010	9177+28	-	9177+34	'WB'	OUTSIDE	13	-	-	3	16	10	-	34	
0010	9177+43	-	9177+49	'WB'	OUTSIDE	14	-	-	3	16	10	-	34	
0010	9178+03	-	9178+09	'WB'	OUTSIDE	15	-	-	3	16	10	-	34	
0010	9179+51	-	9179+57	'WB'	OUTSIDE	16	-	-	3	16	10	-	34	
0010	9180+51	-	9180+60	'WB'	MEDIAN	18	-	-	3	16	8	-	30	
0010	9180+54	-	9180+60	'WB'	OUTSIDE	17	-	-	3	16	10	-	28	
0010	9180+69	-	9180+75	'WB'	OUTSIDE	19	-	-	3	16	10	-	34	
0010	9181+44	-	9181+50	'WB'	OUTSIDE	20	-	-	3	16	10	-	34	
0010	9181+59	-	9181+65	'WB'	OUTSIDE	21	-	-	3	16	10	-	34	
0010	9182+03	-	9182+09	'WB'	OUTSIDE	22	-	-	3	16	10	-	34	
0010	9183+97	-	9184+03	'WB'	OUTSIDE	23	-	-	3	16	10	-	34	
0010	9184+71	-	9184+77	'WB'	OUTSIDE	24	-	-	3	16	10	-	34	
0010	9185+01	-	9185+07	'WB'	OUTSIDE	25	-	-	3	16	10	-	34	
0010	9186+05	-	9186+11	'WB'	OUTSIDE	26	-	-	3	16	10	-	34	
0010	9190+50	-	9190+56	'WB'	OUTSIDE	27	-	-	3	16	10	-	34	
0010	9191+54	-	9191+60	'WB'	OUTSIDE	28	-	-	3	16	10	-	34	
0010	9191+69	-	9191+75	'WB'	OUTSIDE	29	-	-	3	16	10	-	34	
					SHEET SUBTOTAL		3,320	301	194	736	306	904	2,928	

NOTE:
*ADDITIONAL QUANTITIES ARE LISTED ELSEWHERE

CONCRETE ITEMS (2 OF 9)

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	PATCH NUMBER	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE LF	REMARKS
0010	9195+69	-	9195+75	'WB'	OUTSIDE	30	-	-	3	16	10	-	34	
0010	9197+34	-	9197+61	'WB'	MEDIAN	203	-	-	11	16	-	36	87	
0010	9197+59	-	9197+69	'WB'	OUTSIDE	31	-	-	4	16	16	-	51	
0010	9200+40	-	9204+27	'WB'	OUTSIDE	400	605	-	154	16	-	-	1,186	
0010	9205+30	-	9205+36	'WB'	OUTSIDE	32	-	-	3	16	10	-	34	
0010	9207+66	-	9207+72	'WB'	OUTSIDE	33	-	-	3	16	10	-	34	
0010	9208+03	-	9208+09	'WB'	OUTSIDE	34	-	-	3	16	10	-	34	
0010	9208+21	-	9208+27	'WB'	OUTSIDE	35	-	-	3	16	10	-	34	
0010	9208+39	-	9208+64	'WB'	OUTSIDE	204	-	-	10	16	-	39	95	
0010	9208+75	-	9208+81	'WB'	OUTSIDE	36	-	-	3	16	10	-	34	
0010	9209+11	-	9209+17	'WB'	OUTSIDE	37	-	-	3	16	10	-	34	
0010	9210+03	-	9210+82	'WB'	OUTSIDE	205	-	-	32	16	-	123	261	
0010	9210+75	-	9210+81	'WB'	MEDIAN	38	-	-	3	16	8	-	24	
0010	9210+90	-	9211+16	'WB'	MEDIAN	206	-	-	11	16	-	35	80	
0010	9211+10	-	9211+36	'WB'	OUTSIDE	207	-	-	11	16	-	41	96	
0010	9211+48	-	9211+54	'WB'	MEDIAN	39	-	-	3	16	8	-	30	
0010	9212+93	-	9212+99	'WB'	MEDIAN	40	-	-	3	16	8	-	30	
0010	9213+11	-	9213+17	'WB'	OUTSIDE	41	-	-	3	16	10	-	28	
0010	9213+11	-	9213+23	'WB'	MEDIAN	42	-	-	5	16	16	-	48	
0010	9213+24	-	9213+54	'WB'	OUTSIDE	208	-	-	12	16	-	47	114	
0010	9213+84	-	9213+90	'WB'	OUTSIDE	43	-	-	3	16	10	-	34	
0010	9214+56	-	9214+81	'WB'	OUTSIDE	209	-	-	10	16	-	39	95	
0010	9215+11	-	9215+17	'WB'	OUTSIDE	44	-	-	3	16	10	-	34	
0010	9215+48	-	9215+56	'WB'	OUTSIDE	45	-	-	3	16	10	-	34	
0010	9216+02	-	9216+08	'WB'	MEDIAN	46	-	-	3	16	8	-	30	
0010	9216+20	-	9216+26	'WB'	OUTSIDE	47	-	-	3	16	10	-	34	
0010	9216+57	-	9216+82	'WB'	OUTSIDE	210	-	-	10	16	-	39	95	
0010	9216+93	-	9216+99	'WB'	OUTSIDE	48	-	-	3	16	10	-	34	
0010	9217+12	-	9217+18	'WB'	OUTSIDE	49	-	-	3	16	10	-	34	
0010	9217+30	-	9217+36	'WB'	OUTSIDE	50	-	-	3	16	10	-	34	
0010	9217+48	-	9217+54	'WB'	OUTSIDE	51	-	-	3	16	10	-	34	
0010	9218+03	-	9218+09	'WB'	OUTSIDE	52	-	-	3	16	10	-	34	
0010	9218+57	-	9218+63	'WB'	OUTSIDE	53	-	-	3	16	10	-	34	
0010	9219+66	-	9219+72	'WB'	OUTSIDE	54	-	-	3	16	10	-	34	
0010	9220+39	-	9220+45	'WB'	OUTSIDE	55	-	-	3	16	10	-	34	
0010	9221+68	-	9221+74	'WB'	OUTSIDE	56	-	-	3	16	10	-	34	
0010	9221+86	-	9222+11	'WB'	OUTSIDE	211	-	-	10	16	-	39	95	
0010	9223+54	-	9227+88	'WB'	OUTSIDE	401	684	-	174	16	-	-	1,335	
0010	9223+54	-	9224+06	'WB'	MEDIAN	212	-	-	23	16	-	76	120	
0010	9230+20	-	9230+26	'WB'	OUTSIDE	57	-	-	3	16	10	-	34	
0010	9231+12	-	9232+10	'WB'	OUTSIDE	213	-	-	40	16	-	153	308	
0010	9233+86	-	9235+06	'WB'	OUTSIDE	214	-	-	48	16	-	187	386	
0010	9234+23	-	9234+51	'WB'	MEDIAN	215	-	-	12	16	-	38	60	
					SHEET SUBTOTAL		1,289	-	655	688	284	892	5,368	

CONCRETE ITEMS (3 OF 9)

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	PATCH NUMBER	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE LF	REMARKS
0010	9235+61	-	9235+90	'WB'	OUTSIDE	216	-	-	12	16	-	46	113	
0010	9235+66	-	9235+90	'WB'	MEDIAN	217	-	-	10	16	-	32	60	
0010	9236+55	-	9236+61	'WB'	MEDIAN	58	-	-	3	16	8	-	30	
0010	9238+33	-	9240+06	'WB'	OUTSIDE	218	-	-	70	16	-	270	537	
0010	9241+53	-	9241+59	'WB'	OUTSIDE	59	-	-	3	16	10	-	34	
0010	9244+02	-	9251+28	'WB'	OUTSIDE	402	1,142	-	289	16	-	-	2,196	
0010	9245+27	-	9245+39	'WB'	MEDIAN	60	-	-	5	16	16	-	36	
0010	9247+94	-	9248+00	'WB'	MEDIAN	61	-	-	3	16	8	-	24	
0010	9248+11	-	9248+17	'WB'	MEDIAN	62	-	-	3	16	8	-	24	
0010	9248+33	-	9248+72	'WB'	MEDIAN	219	-	-	16	16	-	52	84	
0010	9254+75	-	9253+93	'WB'	OUTSIDE	220	-	-	8	16	-	28	74	
0010	9258+15	-	9258+27	'WB'	OUTSIDE	63	-	-	5	16	19	-	54	
0010	9258+53	-	9258+95	'WB'	OUTSIDE	221	-	-	17	16	-	66	140	
0010	9260+31	-	9260+37	'WB'	OUTSIDE	64	-	-	3	16	10	-	34	
0010	9260+84	-	9260+90	'WB'	OUTSIDE	65	-	-	3	16	10	-	28	
0010	9260+84	-	9260+90	'WB'	MEDIAN	66	-	-	3	16	8	-	30	
0010	9262+09	-	9263+22	'WB'	OUTSIDE	222	-	-	46	16	-	176	365	
0010	9263+69	-	9264+11	'WB'	OUTSIDE	223	-	-	17	16	-	66	140	
0010	9266+13	-	9266+41	'WB'	OUTSIDE	224	-	-	12	16	-	44	98	
0010	9268+12	-	9268+18	'WB'	OUTSIDE	67	-	-	3	16	10	-	34	
0010	9268+46	-	9268+53	'WB'	MEDIAN	68	-	-	3	16	10	-	28	
0010	9268+65	-	9268+75	'WB'	OUTSIDE	69	-	-	3	16	10	-	32	
0010	9268+65	-	9268+72	'WB'	MEDIAN	70	-	-	3	16	10	-	28	
0010	9269+36	-	9269+96	'WB'	OUTSIDE	225	-	-	24	16	-	94	200	
0010	9271+24	-	9271+60	'WB'	OUTSIDE	226	-	-	15	16	-	56	134	
0010	9271+84	-	9271+96	'WB'	OUTSIDE	71	-	-	5	16	19	-	54	
0010	9273+26	-	9273+68	'WB'	OUTSIDE	227	-	-	17	16	-	66	140	
0010	9273+89	-	9274+21	'WB'	OUTSIDE	228	-	-	36	16	-	50	257	
0010	9277+14	-	9277+80	'WB'	OUTSIDE	229	-	-	43	16	-	103	220	
0010	9277+16	-	9277+80	'WB'	MEDIAN	230	-	-	5	16	-	86	132	
0010	9279+59	-	9279+95	'WB'	APPROACH	-	-	50	-	-	-	-	-	BRIDGE APPROACH SLAB
0010	9279+77	-	9280+83	'WB'	OUTSIDE	231	-	-	43	16	-	165	344	
0010	9279+77	-	9280+66	'WB'	MEDIAN	232	-	-	36	16	-	119	168	
0010	9282+13	-	9282+25	'WB'	OUTSIDE	72	-	-	5	16	19	-	54	
0010	9289+95	-	9290+07	'WB'	OUTSIDE	73	-	-	5	16	19	-	42	
0010	9289+95	-	9290+07	'WB'	MEDIAN	74	-	-	5	16	16	-	48	
0010	9291+26	-	9291+50	'WB'	OUTSIDE	233	-	-	10	16	-	38	70	
0010	9291+26	-	9291+50	'WB'	MEDIAN	234	-	-	10	16	-	32	84	
0010	9292+50	-	9292+92	'WB'	OUTSIDE	235	-	-	17	16	-	66	140	
0010	9294+61	-	9294+71	'WB'	OUTSIDE	75	-	-	4	16	16	-	52	
0010	9294+81	-	9294+87	'WB'	OUTSIDE	76	-	-	3	16	10	-	28	
0010	9294+81	-	9294+87	'WB'	MEDIAN	77	-	-	3	16	8	-	30	
0010	9299+81	-	9299+87	'WB'	MEDIAN	194	-	-	3	16	8	-	30	
					SHEET SUBTOTAL		1,142	50	829	672	252	1,655	6,450	

CONCRETE ITEMS (4 OF 9)

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	PATCH NUMBER	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE LF	REMARKS
0010	9306+70	-	9306+85	'WB'	OUTSIDE	78	-	-	6	16	24	-	71	
0010	9310+02	-	9310+78	'WB'	OUTSIDE	236	-	-	31	16	-	119	244	
0010	9310+02	-	9310+27	'WB'	MEDIAN	237	-	-	10	16	-	34	60	
0010	9310+90	-	9311+14	'WB'	MEDIAN	238	-	-	10	16	-	32	84	
0010	9311+05	-	9311+14	'WB'	OUTSIDE	79	-	-	4	16	14	-	42	
0010	9315+01	-	9315+43	'WB'	OUTSIDE	239	-	-	17	16	-	66	140	
0010	9318+76	-	9318+82	'WB'	MEDIAN	80	-	-	3	16	8	-	30	
0010	9323+95	-	9324+01	'WB'	MEDIAN	81	-	-	3	16	8	-	30	
0010	9329+31	-	9329+73	'WB'	OUTSIDE	240	-	-	17	16	-	66	140	
0010	9329+49	-	9329+55	'WB'	MEDIAN	82	-	-	3	16	8	-	24	
0010	9331+83	-	9331+89	'WB'	OUTSIDE	83	-	-	3	16	10	-	34	
0010	9332+82	-	9232+95	'WB'	OUTSIDE	84	-	-	6	16	21	-	55	
0010	9333+75	-	9333+81	'WB'	OUTSIDE	85	-	-	3	16	10	-	34	
0010	9338+02	-	9338+08	'WB'	MEDIAN	86	-	-	3	16	8	-	30	
0010	9338+20	-	9338+62	'WB'	OUTSIDE	241	-	-	17	16	-	73	151	
0010	9341+05	-	9341+47	'WB'	OUTSIDE	242	-	-	17	16	-	66	140	
0010	9341+05	-	9341+47	'WB'	MEDIAN	243	-	-	17	16	-	56	84	
0010	9344+43	-	9344+49	'WB'	OUTSIDE	87	-	-	3	16	10	-	34	
0010	9344+43	-	9344+49	'WB'	MEDIAN	88	-	-	3	16	8	-	24	
0010	9344+72	-	9344+85	'WB'	OUTSIDE	89	-	-	6	16	21	-	55	
0010	9348+45	-	9348+65	'WB'	OUTSIDE	244	-	-	8	16	-	32	76	
0010	9349+73	-	9349+84	'WB'	OUTSIDE	90	-	-	5	16	18	-	53	
0010	9349+95	-	9350+19	'WB'	OUTSIDE	245	-	-	10	16	-	38	94	
0010	9351+55	-	9352+02	'WB'	MEDIAN	246	-	-	19	16	-	63	143	
0010	9351+66	-	9352+02	'WB'	OUTSIDE	247	-	-	15	16	-	56	98	
0010	9353+15	-	9354+64	'WB'	MEDIAN	248	-	-	60	16	-	199	425	
0010	9353+24	-	9353+82	'WB'	OUTSIDE	249	-	-	24	16	-	91	140	
0010	9353+98	-	9354+37	'WB'	OUTSIDE	250	-	-	16	16	-	61	98	
0010	9355+05	-	9356+06	'WB'	OUTSIDE	251	-	-	41	16	-	158	325	
0010	9356+36	-	9356+47	'WB'	OUTSIDE	91	-	-	5	16	18	-	53	
0010	9360+98	-	9369+12	'WB'	OUTSIDE	403	1,269	-	324	16	-	-	2,466	
0010	9361+45	-	9361+82	'WB'	MEDIAN	252	-	-	15	16	-	50	84	
0010	9366+26	-	9366+39	'WB'	MEDIAN	92	-	-	6	16	18	-	36	
0010	9370+78	-	9370+91	'WB'	OUTSIDE	93	-	-	6	16	21	-	55	
0010	9371+25	-	9371+55	'WB'	OUTSIDE	253	-	-	12	16	-	47	114	
0010	9372+48	-	9372+62	'WB'	OUTSIDE	94	-	-	6	16	22	-	56	
0010	9372+48	-	9372+62	'WB'	MEDIAN	95	-	-	6	16	19	-	36	
0010	9372+87	-	9373+51	'WB'	OUTSIDE	254	-	-	26	16	-	100	218	
0010	9373+80	-	9373+86	'WB'	OUTSIDE	96	-	-	3	16	10	-	37	
0010	9374+01	-	9375+35	'WB'	OUTSIDE	255	-	-	54	16	-	209	428	
0010	9374+34	-	9374+40	'WB'	MEDIAN	97	-	-	3	16	8	-	24	
0010	9374+87	-	9374+93	'WB'	MEDIAN	196	-	-	3	16	8	-	24	
					SHEET SUBTOTAL		1,269	-	849	672	292	1,616	6,589	

CONCRETE ITEMS (5 OF 9)

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	PATCH NUMBER	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE LF	REMARKS
0010	9376+11	-	9376+17	'WB'	OUTSIDE	98	-	-	3	16	10	-	34	
0010	9377+72	-	9377+78	'WB'	MEDIAN	99	-	-	3	16	8	-	30	
0010	9379+99	-	9380+14	'WB'	OUTSIDE	100	-	-	6	16	24	-	71	
0010	9380+03	-	9380+09	'WB'	MEDIAN	101	-	-	3	16	8	-	24	
0010	9380+74	-	9384+05	'WB'	OUTSIDE	404	522	-	131	16	-	-	1,017	
0010	9389+59	-	9389+65	'WB'	MEDIAN	102	-	-	3	16	8	-	30	
0010	9390+44	-	9390+54	'WB'	OUTSIDE	103	-	-	4	16	16	-	52	
0010	9391+83	-	9392+02	'WB'	MEDIAN	256	-	-	8	16	-	26	67	
0010	9393+68	-	9393+74	'WB'	MEDIAN	104	-	-	3	16	8	-	30	
0010	9394+39	-	9395+17	'WB'	OUTSIDE	257	-	-	32	16	-	122	260	
0010	9395+99	-	9396+41	'WB'	OUTSIDE	258	-	-	17	16	-	66	140	
0010	9396+70	-	9397+12	'WB'	OUTSIDE	259	-	-	17	16	-	66	140	
0010	9396+82	-	9396+94	'WB'	MEDIAN	105	-	-	5	16	16	-	36	
0010	9397+06	-	9397+12	'WB'	MEDIAN	106	-	-	3	16	8	-	24	
0010	9397+33	-	9397+84	'WB'	OUTSIDE	260	-	-	21	16	-	80	177	
0010	9397+53	-	9397+84	'WB'	MEDIAN	261	-	-	13	16	-	42	72	
0010	9399+55	-	9399+61	'WB'	MEDIAN	107	-	-	3	16	8	-	30	
0010	9400+38	-	9400+53	'WB'	OUTSIDE	108	-	-	6	16	24	-	71	
0010	9402+39	-	9402+45	'WB'	OUTSIDE	109	-	-	3	16	10	-	34	
0010	9403+28	-	9403+34	'WB'	MEDIAN	195	-	-	3	16	8	-	30	
0010	9405+17	-	9405+51	'WB'	OUTSIDE	262	-	-	14	16	-	53	118	
0010	9405+95	-	9406+55	'WB'	OUTSIDE	263	-	-	24	16	-	94	200	
0010	9406+31	-	9406+37	'WB'	MEDIAN	110	-	-	3	16	8	-	24	
0010	9406+80	-	9406+90	'WB'	OUTSIDE	111	-	-	4	16	16	-	52	
0010	9407+91	-	9409+82	'WB'	OUTSIDE	264	-	-	77	16	-	298	597	
0010	9409+51	-	9409+57	'WB'	MEDIAN	112	-	-	3	16	8	-	24	
0010	9410+76	-	9415+70	'WB'	OUTSIDE	405	769	-	196	16	-	-	1,502	
0010	9410+76	-	9410+82	'WB'	MEDIAN	113	-	-	3	16	8	-	24	
0010	9411+29	-	9411+57	'WB'	MEDIAN	265	-	-	12	16	-	38	60	
0010	9412+36	-	9412+42	'WB'	MEDIAN	114	-	-	3	16	8	-	24	
0010	9414+32	-	9414+43	'WB'	MEDIAN	115	-	-	5	16	15	-	36	
0010	9417+99	-	9418+36	'WB'	OUTSIDE	266	-	-	15	16	-	58	135	
0010	9418+59	-	9419+01	'WB'	MEDIAN	268	-	-	17	16	-	56	126	
0010	9418+68	-	9419+01	'WB'	OUTSIDE	267	-	-	14	16	-	52	84	
0010	9419+13	-	9419+18	'WB'	OUTSIDE	116	-	-	3	16	10	-	34	
0010	9419+84	-	9419+97	'WB'	MEDIAN	197	-	-	6	16	18	-	49	
0010	9419+96	-	9420+14	'WB'	OUTSIDE	312	-	-	8	16	-	28	74	
0010	9420+52	-	9420+64	'WB'	OUTSIDE	117	-	-	5	16	19	-	54	
0010	9421+03	-	9422+74	'WB'	OUTSIDE	270	-	-	69	16	-	266	535	
0010	9421+40	-	9421+53	'WB'	MEDIAN	118	-	-	6	16	18	-	36	
0010	9421+97	-	9522+22	'WB'	MEDIAN	269	-	-	10	16	-	34	60	
0010	9424+04	-	9424+35	'WB'	OUTSIDE	271	-	-	13	16	-	49	115	
0010	9427+08	-	9428+50	'WB'	OUTSIDE	272	-	-	57	16	-	221	450	
0010	9431+19	-	9432+23	'WB'	OUTSIDE	273	-	-	42	16	-	162	328	
0010	9432+66	-	9432+72	'WB'	MEDIAN	119	-	-	3	16	8	-	30	
0010	9433+32	-	9433+79	'WB'	OUTSIDE	274	-	-	19	16	-	74	159	
0010	9433+71	-	9433+79	'WB'	MEDIAN	120	-	-	4	16	11	-	36	
					SHEET SUBTOTAL		1,291	-	922	752	303	1,885	7,335	

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CONCRETE ITEMS (6 OF 9)

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	PATCH NUMBER	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE LF	REMARKS
0010	9434+17	-	9434+50	'WB'	OUTSIDE	275	-	-	14	16	-	52	117	
0010	9434+97	-	9435+08	'WB'	OUTSIDE	121	-	-	5	16	18	-	53	
0010	9435+30	-	9435+36	'WB'	OUTSIDE	122	-	-	3	16	10	-	34	
0010	9435+41	-	9435+47	'WB'	MEDIAN	123	-	-	3	16	8	-	30	
0010	9436+61	-	9436+74	'WB'	OUTSIDE	124	-	-	6	16	21	-	55	
0010	9437+19	-	9437+43	'WB'	OUTSIDE	276	-	-	10	16	-	42	102	
0010	9440+03	-	9440+27	'WB'	OUTSIDE	313	-	-	10	16	-	38	94	
0010	9440+92	-	9441+16	'WB'	OUTSIDE	277	-	-	10	16	-	38	94	
0010	9442+52	-	9442+58	'WB'	MEDIAN	125	-	-	3	16	8	-	30	
0010	9445+34	-	9445+46	'WB'	OUTSIDE	126	-	-	5	16	19	-	54	
0010	9445+72	-	9445+78	'WB'	MEDIAN	127	-	-	3	16	8	-	30	
0010	9446+91	-	9447+03	'WB'	OUTSIDE	128	-	-	5	16	19	-	54	
0010	9447+50	-	9447+61	'WB'	OUTSIDE	129	-	-	5	16	18	-	53	
0010	9449+10	-	9449+34	'WB'	MEDIAN	278	-	-	10	16	-	36	92	
0010	9449+99	-	9450+41	'WB'	OUTSIDE	279	-	-	17	16	-	73	151	
0010	9450+35	-	9450+41	'WB'	MEDIAN	130	-	-	3	16	7	-	21	
0010	9454+61	-	9454+71	'WB'	OUTSIDE	131	-	-	4	16	16	-	52	
0010	9462+55	-	9462+72	'WB'	OUTSIDE	280	-	-	7	16	-	27	73	
0010	9464+57	-	9464+99	'WB'	OUTSIDE	281	-	-	17	16	-	66	140	
0010	9468+65	-	9469+07	'WB'	OUTSIDE	282	-	-	17	16	-	66	140	
0010	9469+19	-	9469+27	'WB'	OUTSIDE	132	-	-	4	16	13	-	42	
0010	9469+19	-	9469+30	'WB'	MEDIAN	133	-	-	5	16	15	-	47	
0010	9469+90	-	9470+32	'WB'	OUTSIDE	283	-	-	17	16	-	66	140	
0010	9471+08	-	9471+21	'WB'	OUTSIDE	134	-	-	6	16	21	-	55	
0010	9472+03	-	9472+09	'WB'	MEDIAN	136	-	-	3	16	9	-	27	
0010	9472+21	-	9472+29	'WB'	OUTSIDE	135	-	-	4	16	13	-	46	
0010	9472+92	-	9473+05	'WB'	OUTSIDE	137	-	-	6	16	21	-	55	
0010	9473+81	-	9474+05	'WB'	OUTSIDE	284	-	-	10	16	-	38	94	
0010	9474+34	-	9474+94	'WB'	OUTSIDE	285	-	-	24	16	-	94	200	
0010	9474+63	-	9474+76	'WB'	MEDIAN	138	-	-	6	16	18	-	36	
0010	9475+05	-	9475+11	'WB'	OUTSIDE	139	-	-	3	16	10	-	34	
0010	9475+23	-	9475+29	'WB'	OUTSIDE	140	-	-	3	16	10	-	34	
0010	9475+76	-	9476+00	'WB'	MEDIAN	286	-	-	10	16	-	32	84	
0010	9476+26	-	9477+30	'WB'	OUTSIDE	287	-	-	42	16	-	162	328	
0010	9476+83	-	9476+89	'WB'	MEDIAN	141	-	-	3	16	8	-	24	
0010	9479+98	-	9480+31	'WB'	OUTSIDE	289	-	-	14	16	-	52	117	
0010	9480+03	-	9480+31	'WB'	MEDIAN	314	-	-	12	16	-	38	60	
0010	9480+53	-	9480+65	'WB'	OUTSIDE	142	-	-	5	16	19	-	54	
0010	9481+45	-	9481+51	'WB'	MEDIAN	143	-	-	3	16	8	-	30	
0010	9481+77	-	9481+90	'WB'	OUTSIDE	144	-	-	6	16	21	-	55	
0010	9489+64	-	9489+70	'WB'	OUTSIDE	145	-	-	3	16	10	-	34	
0010	9489+64	-	9489+70	'WB'	MEDIAN	146	-	-	3	16	8	-	24	
0010	9490+86	-	9491+31	'WB'	OUTSIDE	290	-	-	18	16	-	70	157	
0010	9491+03	-	9491+32	'WB'	MEDIAN	291	-	-	12	16	-	39	72	
0010	9492+09	-	9492+15	'WB'	OUTSIDE	147	-	-	3	16	10	-	34	
0010	9492+09	-	9492+15	'WB'	MEDIAN	148	-	-	3	16	8	-	24	
					SHEET SUBTOTAL		-	-	385	736	374	1,029	3,374	

CONCRETE ITEMS (7 OF 9)

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	PATCH NUMBER	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE LF	REMARKS
0010	9492+80	-	9492+88	'WB'	OUTSIDE	149	-	-	4	16	13	-	50	
0010	9493+26	-	9493+57	'WB'	OUTSIDE	292	-	-	13	16	-	49	115	
0010	9493+33	-	9493+39	'WB'	MEDIAN	150	-	-	3	16	8	-	24	
0010	9499+53	-	9499+61	'WB'	OUTSIDE	151	-	-	4	16	14	-	50	
0010	9499+53	-	9499+61	'WB'	MEDIAN	152	-	-	4	16	12	-	44	
0010	9500+61	-	9500+66	'WB'	MEDIAN	153	-	-	3	16	8	-	27	
0010	9501+14	-	9501+20	'WB'	MEDIAN	154	-	-	3	16	8	-	27	
0010	9503+40	-	9503+55	'WB'	OUTSIDE	155	-	-	6	16	24	-	65	
0010	9506+82	-	9506+88	'WB'	OUTSIDE	156	-	-	3	16	10	-	34	
0010	9507+33	-	9507+44	'WB'	OUTSIDE	157	-	-	5	16	18	-	53	
0010	9507+52	-	9507+58	'WB'	OUTSIDE	158	-	-	3	16	10	-	34	
0010	9507+52	-	9507+58	'WB'	MEDIAN	159	-	-	3	16	8	-	24	
0010	9507+70	-	9507+76	'WB'	OUTSIDE	160	-	-	3	16	10	-	34	
0010	9508+77	-	9509+19	'WB'	OUTSIDE	293	-	-	17	16	-	66	140	
0010	9508+95	-	9509+01	'WB'	MEDIAN	161	-	-	3	16	8	-	24	
0010	9511+92	-	9512+03	'WB'	OUTSIDE	162	-	-	5	16	18	-	53	
0010	9512+25	-	9512+73	'WB'	OUTSIDE	294	-	-	20	16	-	77	161	
0010	9514+04	-	9514+68	'WB'	OUTSIDE	295	-	-	26	16	-	100	218	
0010	9514+04	-	9514+15	'WB'	MEDIAN	163	-	-	5	16	15	-	36	
0010	9514+39	-	9514+50	'WB'	MEDIAN	164	-	-	5	16	15	-	36	
0010	9518+16	-	9518+93	'WB'	OUTSIDE	296	-	-	31	16	-	120	245	
0010	9518+16	-	9518+93	'WB'	MEDIAN	297	-	-	31	16	-	103	144	
0010	9522+59	-	9522+65	'WB'	MEDIAN	165	-	-	3	16	8	-	27	
0010	9523+30	-	9523+54	'WB'	OUTSIDE	298	-	-	23	16	-	57	134	
0010	9525+00	-	9532+73	'WB'	OUTSIDE	406	1,334	-	311	16	-	-	2,508	
0010	9526+05	-	9526+11	'WB'	MEDIAN	166	-	-	3	16	7	-	21	
0010	9526+94	-	9527+00	'WB'	MEDIAN	167	-	-	3	16	7	-	21	
0010	9527+83	-	9527+89	'WB'	MEDIAN	168	-	-	3	16	7	-	21	
0010	9528+71	-	9528+77	'WB'	MEDIAN	169	-	-	3	16	7	-	21	
0010	9529+42	-	9529+48	'WB'	MEDIAN	170	-	-	3	16	7	-	21	
0010	9530+31	-	9530+44	'WB'	MEDIAN	171	-	-	6	16	16	-	32	
0010	9530+96	-	9531+08	'WB'	MEDIAN	172	-	-	5	16	14	-	32	
0010	9531+40	-	9531+63	'WB'	MEDIAN	298	-	-	10	16	-	27	53	
0010	9532+09	-	9532+52	'WB'	MEDIAN	299	-	-	18	16	-	51	93	
0010	9532+96	-	9533+04	'WB'	MEDIAN	173	-	-	4	16	11	-	40	
0010	9533+86	-	9533+92	'WB'	MEDIAN	174	-	-	3	16	8	-	27	
					SHEET SUBTOTAL		1,334	-	598	576	291	650	4,689	

CONCRETE ITEMS (8 OF 9)

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	PATCH NUMBER	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE LF	REMARKS
0010	9534+75	-	9534+81	'WB'	OUTSIDE	175	-	-	3	16	10	-	31	
0010	9534+75	-	9534+81	'WB'	MEDIAN	176	-	-	3	16	8	-	27	
0010	9535+63	-	9537+30	'WB'	OUTSIDE	300	-	-	67	16	-	232	480	
0010	9535+63	-	9535+69	'WB'	MEDIAN	177	-	-	3	16	7	-	27	
0010	9536+52	-	9536+58	'WB'	MEDIAN	178	-	-	3	16	7	-	27	
0010	9538+30	-	9538+36	'WB'	OUTSIDE	179	-	-	3	16	10	-	31	
0010	9538+30	-	9538+36	'WB'	MEDIAN	180	-	-	3	16	8	-	27	
0010	9539+19	-	9539+25	'WB'	OUTSIDE	181	-	-	3	16	10	-	31	
0010	9539+19	-	9539+25	'WB'	MEDIAN	182	-	-	3	16	8	-	27	
0010	9540+37	-	9540+85	'WB'	OUTSIDE	301	-	-	20	16	-	83	172	
0010	9542+02	-	9542+17	'WB'	OUTSIDE	183	-	-	6	16	24	-	71	
0010	9542+91	-	9544+39	'WB'	OUTSIDE	302	-	-	60	16	-	231	470	
0010	9545+21	-	9545+29	'WB'	MEDIAN	198	-	-	4	16	11	-	40	
0010	9546+02	-	9546+35	'WB'	OUTSIDE	303	-	-	14	16	-	52	118	
0010	9547+81	-	9548+38	'WB'	OUTSIDE	304	-	-	23	16	-	89	197	
0010	9548+23	-	9548+29	'WB'	MEDIAN	184	-	-	3	16	8	-	30	
0010	9548+94	-	9549+79	'WB'	OUTSIDE	305	-	-	34	16	-	135	281	
0010	9549+83	-	9549+89	'WB'	MEDIAN	185	-	-	3	16	8	-	30	
0010	9550+18	-	9550+24	'WB'	MEDIAN	186	-	-	3	16	8	-	30	
0010	9551+24	-	9557+55	'WB'	OUTSIDE	407	928	-	249	16	-	-	1,904	
0010	9554+80	-	9554+86	'WB'	MEDIAN	187	-	-	3	16	8	-	24	
0010	9556+42	-	9556+84	'WB'	MEDIAN	306	-	-	17	16	-	56	84	
0010	9558+15	-	9558+30	'WB'	OUTSIDE	188	-	-	6	16	24	-	71	
0010	9558+69	-	9559+21	'WB'	OUTSIDE	307	-	-	21	16	-	81	178	
0010	9561+01	-	9561+11	'WB'	OUTSIDE	189	-	-	4	16	16	-	52	
0010	9562+18	-	9562+33	'WB'	OUTSIDE	190	-	-	6	16	24	-	71	
0010	9563+30	-	9563+40	'WB'	OUTSIDE	191	-	-	4	16	16	-	52	
0010	9564+05	-	9564+65	'WB'	OUTSIDE	308	-	-	24	16	-	94	200	
0010	9565+65	-	9565+71	'WB'	OUTSIDE	192	-	-	3	16	10	-	34	
0010	9566+89	-	9567+35	'WB'	OUTSIDE	309	-	-	19	16	-	72	158	
0010	9569+19	-	9569+25	'WB'	OUTSIDE	193	-	-	3	16	10	-	34	
0010	9572+91	-	9573+38	'WB'	OUTSIDE	310	-	-	19	16	-	74	159	
0010	247+05	-	247+11	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	275+28	-	275+34	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	276+22	-	276+28	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	305+10	-	305+16	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	311+09	-	311+15	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	329+39	-	329+45	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	384+83	-	384+89	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	398+16	-	398+22	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	405+00	-	405+06	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	409+93	-	409+99	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	412+08	-	412+14	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
0010	416+47	-	416+53	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
					SHEET SUBTOTAL		928	-	675	704	355	1,199	5,576	

CONCRETE (9 OF 9)

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	PATCH NUMBER	415.0100 CONCRETE PAVEMENT 10-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1710 CONCRETE PAVEMENT REPAIR SY	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	690.0250 SAWING CONCRETE LF	REMARKS
	423+05	-	423+11	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	444+76	-	444+82	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	445+51	-	445+57	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	454+60	-	454+66	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	455+76	-	455+82	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	468+34	-	468+40	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	482+00	-	482+06	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	492+69	-	492+75	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	510+27	-	510+33	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	542+44	-	545+50	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	542+57	-	542+63	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	544+09	-	544+15	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
	554+30	-	554+36	'EB'	OUTSIDE	-	-	-	3	16	10	-	34	
					SHEET SUBTOTAL		-	-	39	208	130	-	442	
					UNDISTRIBUTED EB				75	405	255			
					UNDISTRIBUTED WB		-	-	510	540	210	990	5,055	
					TOTAL 0010		10,573	351	5,656	6,284	3,052	10,820	47,806	

GRINDING ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	420.1000 CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT SY	REMARKS
0010	9094+86	-	9145+41	'WB'	LT/RT	400	
0010	9150+16	-	9205+41	'WB'	LT/RT	900	
0010	9207+61	-	9248+77	'WB'	LT/RT	3,400	
0010	9254+70	-	9300+60	'WB	LT/RT	2,100	
0010	9303+00	-	9344+90	'WB'	LT/RT	1,500	
0010	9348+40	-	9398+21	'WB'	LT/RT	3,300	
0010	9399+50	-	9445+83	'WB'	LT/RT	4,900	
0010	9446+86	-	9493+62	'WB'	LT/RT	3,200	
0010	9499+48	-	9550+29	'WB'	LT/RT	4,000	
0010	9554+75	-	9573+43	'WB'	LT/RT	700	
					UNDISTRIBUTED	1,300	
					TOTAL 0010	25,700	

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CURB RAMP ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	601.0415 CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP DETECTABLE WARNING FIELD RADIAL YELLOW SF	* 690.0150 SAWING ASPHALT LF	* 690.0250 SAWING CONCRETE LF	SPV.0165.01 SPECIAL (01. CONCRETE SIDEWALK 12-INCH) SF	REMARKS
0010	1140+03	-	1140+37	'NB'	RT	20	121	-	16	-	30	-	NORTH
0010	1139+33	-	1139+78	'NB'	RT	45	260	30	-	19	132	-	MIDDLE EAST
0010	1139+39	-	1139+58	'NB'	LT	35	25	-	-	220	19	-	MEDIAN
0010	1139+32	-	1139+62	'NB'	LT	30	117	10	-	32	10	-	MIDDLE WEST
0010	1138+70	-	1139+18	'NB'	RT	-	-	20	-	29	155	182	SOUTH
0010	1137+94	-	1138+23	'NB'	RT	20	97	-	16	57	31	-	FAR SOUTH
					TOTAL 0010	150	620	60	32	357	377	182	

NOTE:
*ADDITIONAL QUANTITIES ARE LISTED ELSEWHERE

DRAINAGE ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	520.3324 CULVERT PIPE CLASS III-A 24-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.2414 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 14X23-INCH LF	611.0642 INLET COVERS TYPE MS EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	612.0106 PIPE UNDERDRAIN 6-INCH LF	612.0806 APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH EACH	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7555 CULVERT PIPE CHECKS EACH	REMARKS
0010	1138+66	-	1139+48	'NB'	RT	-	-	-	-	-	-	-	-	1	1	-	STH 13 MEDIAN
0010	9120+00	-	9150+00	'WB'	LT/RT	16	2	1	28	2	1	-	2	3	-	1	WEST END CROSSOVER
0010	9223+47	-	9228+51	'WB'	RT	-	-	-	-	-	-	-	-	1	-	-	
					UNDISTRIBUTED	-	-	-	-	-	-	50	-	-	-	-	
					TOTAL 0010	16	2	1	28	2	1	50	2	5	1	1	

CRASH CUSHION ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	530+20	-	530+70	RT 'EB'	1	1.00	OM-3L	TL-3	BIDIRECTIONAL	LEFT	PERMANENT CONCRETE BARRIER ON SHOULDER
				TOTAL 0010	1						

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GUARDRAIL ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	204.0165 REMOVING GUARDRAIL LF	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.0951 REPLACING GUARDRAIL RAIL AND HARDWARE LF	614.1000 MGS GUARDRAIL TEMPORARY LF	614.1100 MGS GUARDRAIL TEMPORARY THRIE BEAM TRANSITION LF	614.1200 MGS GUARDRAIL TEMPORARY TERMINAL EAT EACH	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH	REMARKS
0010	229+34	-	231+89	'EB'	LT	-	1	-	-	-	162.5	40	1	-	-	-	
0010	229+61	-	231+29	'EB'	RT	-	1	-	-	-	75.0	40	1	-	-	-	
0010	285+34	-	287+77	'EB'	LT	-	1	-	-	-	150.0	40	1	-	-	-	
0010	285+34	-	287+02	'EB'	RT	-	1	-	-	-	75.0	40	1	-	-	-	
0010	9094+81	-	9098+47	'WB'	RT	361	1	-	-	-	-	-	-	275.0	40	1	
0010	9094+71	-	9097+88	'WB'	LT	297	1	-	-	-	-	-	-	225.0	40	1	
0010	9223+25	-	9224+88	'WB'	LT	-	1	-	-	25	-	-	-	-	-	-	
0010	9279+69	-	9283+24	'WB'	LT	283	1	-	-	-	-	-	-	262.5	40	1	
0010	9524+79	-	9528+47	'WB'	LT	84	1	-	-	-	-	-	-	275.0	40	1	
0010	9524+79	-	9526+13	'WB'	RT	-	1	1	36	-	-	-	-	-	80	-	
					TOTAL 0010	1,025	10	1	36	25	462.5	160	4	1,037.5	240	4	

BARRIER GRADING SHAPING FINISHING (FOR INFORMATION ONLY)

STATION	TO	STATION	ALIGNMENT	LOCATION	625.0100 TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0500 SEED WATER MGAL
9094+80	-	9099+67	'WB'	RT	28	126	126	28	-	0.1	2	1
9094+86	-	9099+03	'WB'	LT	36	148	148	36	-	0.1	2	1
9223+47	-	9228+51	'WB'	RT	198	-	-	198	54	0.2	9	5
9279+70	-	9283+96	'WB'	LT	90	214	214	90	-	0.1	5	3
9524+79	-	9526+11	'WB'	RT	406	-	-	406	-	0.3	19	10
9524+80	-	9529+23	'WB'	LT	310	454	454	310	-	0.2	14	7
				TOTAL	1,068	942	942	1,068	54	1	51	27

CABLE GUARD ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	SPV.0090.01 SPECIAL (01. SALVAGE AND REINSTALL HIGH TENSION CABLE BARRIER) LF	REMARKS
0010	9095+45	-	9140+00	'WB'	RT	4,460	WEST END CROSSOVER
					TOTAL 0010	4,460	

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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	MISCELLANEOUS QUANTITIES	SHEET 137	E

EROSION ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	625.0100 TOPSOIL SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	REMARKS
0010	100+37	-	100+70	'EB'	RT	34	-	-	-	-	-	34	-	-	0.1	2	-	1	CONCRETE SURFACE DRAIN
0010	9094+66	-	9095+06	'WB'	RT	82	-	-	-	-	-	82	-	-	0.1	4	-	2	CONCRETE SURFACE DRAIN
0010	9120+00	-	9150+00	'WB'	LT/RT	12,412	-	-	-	-	12,412		234	-	7.9	348	127	279	WEST END CROSSOVER
0010	1138+66	-	1139+48	'NB'	RT	582	250	250	-	-	582	-	54	-	0.4	27	-	14	STH 13 MEDIAN
0010	1137+94	-	1138+23	'NB'	RT	12	-	-	-	-	12	-	-	-	0.1	1	-	1	FAR SOUTH CURB RAMP
0010	1139+32	-	1139+62	'NB'	LT	20	-	-	-	-	20	-	-	-	0.1	1	-	1	MIDDLE WEST CURB RAMP
0010	1140+03	-	1140+37	'NB'	RT	12	-	-	-	-	12	-	-	-	0.1	1	-	1	NORTH CURB RAMP
0010	0+01	-	0+61	'RC'	LT	20	-	-	-	-	20	-	-	-	0.1	1	-	1	SPRUCE ST/MAPLE RD RAMP
					PROJECT	-	-	-	2	2	-	-	-	-	-	-	-	-	
					UNDISTRIBUTED	-	-	-	-	-	-	-	-	20	-	97	32	-	
					TOTAL 0010	13,174	250	250	2	2	13,058	116	288	20	8.9	482	159	300	

SIGN ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	634.0808 POSTS TUBULAR STEEL 2X2-INCH X 8-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	SPV.0060.01 SPECIAL (01. V-LOC POST ANCHOR VS3) EACH	REMARKS
0010	1138+66	-	1139+48	'NB'	RT	3	3	3	STH 13 MEDIAN
					TOTAL 0010	3	3	3	

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TRAFFIC CONTROL ITEMS

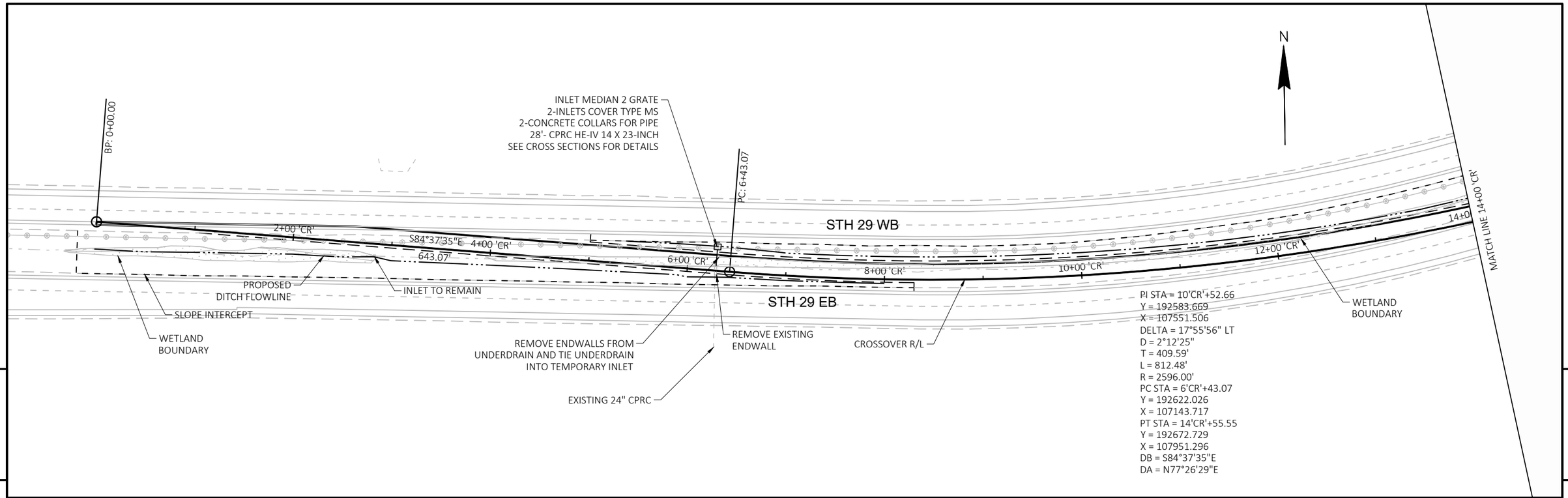
CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	633.1100 DELINEATORS TEMPORARY EACH	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO.	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS NO.	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	644.1440 TEMPORARY PEDESTRIAN SURFACE MATTING SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP NO.	644.1601 TEMPORARY PEDESTRIAN CURB RAMP DAY	644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	REMARKS
0010	93+00	-	583+20	'EB'	LT/RT	-	75	7,500	-	-	982	982	-	-	-	-	1	100	-	-	38	-	-	-	-	-	-	EB LANES
0010	9120+00	-	9150+00	'WB'	LT/RT	56	80	4,720	4	400	-	-	8	800	15	1,500	-	-	4	400	-	-	-	-	-	-	-	WEST END CROSSOVER
0010	9125+50	-	9550+00	'WB'	LT/RT	-	-	-	66	6,600	-	-	132	13,200	-	-	1	100	66	6,600	-	-	-	-	-	-	-	WB LANES
0010	9540+00	-	9565+00	'WB'	LT/RT	2	125	7,375	4	400	-	-	8	800	26	2,600	-	-	4	400	-	-	-	-	-	-	-	EAST END CROSSOVER
0010	9094+61	-	9575+96	'WB'	LT/RT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16,100	-	64	-	-	-	-	-	PROJECT
0010					RAMP CLOSURES	-	-	-	1	9	-	-	2	18	-	-	-	-	80	400	-	210	-	-	-	-	-	
0010	1137+94		1138+23	'NB'	RT	-	109	763	3	21	-	-	6	-	-	-	-	-	3	35	-	-	311	1	7	10	78	FAR SOUTH CURB RAMP
0010	1138+70	-	1139+18	'NB'	RT	-	55	385	-	-	-	-	-	-	-	-	-	-	-	14	-	-	205	2	14	20	60	SOUTH CURB RAMP
0010	1139+32	-	1139+62	'NB'	LT	-	123	861	4	28	-	-	8	-	-	-	-	-	4	28	-	-	44	2	14	10	78	MIDDLE WEST CURB RAMP
0010	1139+33	-	1139+78	'NB'	RT	-	27	189	2	14	-	-	4	-	-	-	-	-	2	28	-	-	0	2	14	40	42	MIDDLE EAST CURB RAMP
0010	1139+39	-	1139+58	'NB'	LT	-	12	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24	2	14	20	-	MEDIAN CURB RAMP
0010	1140+03	-	1140+37	'NB'	RT	-	21	147	1	7	-	-	2	-	-	-	-	-	1	28	-	-	505	2	14	30	90	NORTH CURB RAMP
						-	-	-	60	6,000	-	-	120	3,000	-	-	-	-	60	3,000	-	-	-	-	-	-	-	MEDIAN/SIDEROADS
					UNDISTRIBUTED	-	-	-	-	-	491	246	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
					TOTAL 0010	58		22,024		13,479	1,473	1,228		17,818		4,100		200		27,033	38	274	1,089		77	130	348	

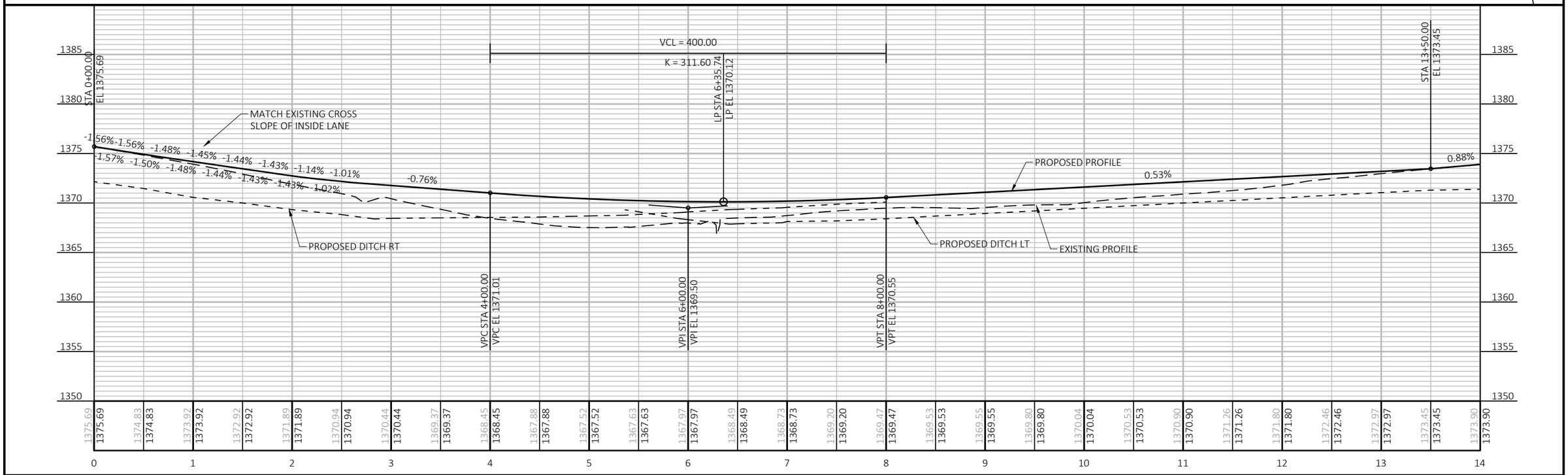
PAVEMENT MARKING ITEMS

CATEGORY	STATION	TO	STATION	ALIGNMENT	LOCATION	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH YELLOW LF	643.3165 TEMPORARY MARKING LINE PAINT 6-INCH WHITE LF	646.1020 MARKING LINE EPOXY 4-INCH LF	646.2025 MARKING LINE GROOVED BLACK EPOXY 6-INCH LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH WHITE LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW LF	646.2050 MARKING LINE GROOVED PERMANENT TAPE 6-INCH WHITE LF	646.4050 MARKING LINE GROOVED PERMANENT TAPE 10-INCH LF	646.5020 MARKING ARROW EPOXY EACH	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.7220 MARKING CHEVRON EPOXY 24-INCH LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.8220 MARKING ISLAND NOSE EPOXY EACH	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9050 MARKING REMOVAL LINE GROOVED PERMANENT TAPE 4-INCH LF	REMARKS
0010	9094+60	-	9577+56	'WB'	EB/WB	-	-	50	24,200	97,900	95,300	24,800	10,900	-	39	510	-	-	-	12,080	MAINLINE
0010	9120+00	-	9150+00	'WB'	EB/WB	1,500	3,700	-	-	-	-	-	-	-	-	-	-	-	500	-	WEST END CROSSOVER
0010	9150+00	-	9575+96	'WB'	EB	85,192	41,600	-	-	-	-	-	-	-	-	-	-	-	-	10,659	BI-DIRECTIONAL TRAFFIC
0010	9540+00	-	9565+00	'WB'	EB/WB	1,300	1,500	-	-	-	-	-	-	-	-	-	-	-	-	-	EAST END CROSSOVER
0010	100+00	-	127+56	'RB'	WB	-	-	-	-	2,756	2,756	-	150	1	-	-	-	-	-	-	STH 29 TO STH 13 WB RAMP
0010	90+00	-	108+21	'RA'	WB	-	-	-	-	1,821	1,821	-	-	-	-	-	-	-	-	-	STH 13 TO STH 29 WB RAMP
0010	0+00	-	19+63	'RC'	WB	-	-	-	-	1,963	1,963	-	-	1	34	-	-	-	-	-	SPRUCE ST/MAPLE RD WB RAMP
0010	80+00	-	100+00	'RD'	EB	-	-	-	-	2,000	2,000	-	150	1	-	-	-	-	-	-	STH 29 TO STH 13 EB RAMP
0010	70+00	-	90+50	'RE'	EB	-	-	-		2,050	2,050	-	-	-	-	-	-	-	-	-	STH 13 TO STH 29 EB RAMP
0010	70+00	-	82+25	'RF'	EB	-	-	-	-	1,225	1,225	-	-	-	-	-	-	-	-	-	SPRUCE ST/MAPLE RD EB RAMP
0010	1137+94	-	1140+37	'NB'	LT/RT	-	-	160	-	-	-	-	-	-	45	-	376	2	-	-	STH 13 CURB RAMPS
					TOTAL 0010	87,992	46,800	210	24,200	109,715	107,115	24,800	11,200	3	118	510	376	2	500	22,739	
						134,792				216,830											

STAKING ITEMS

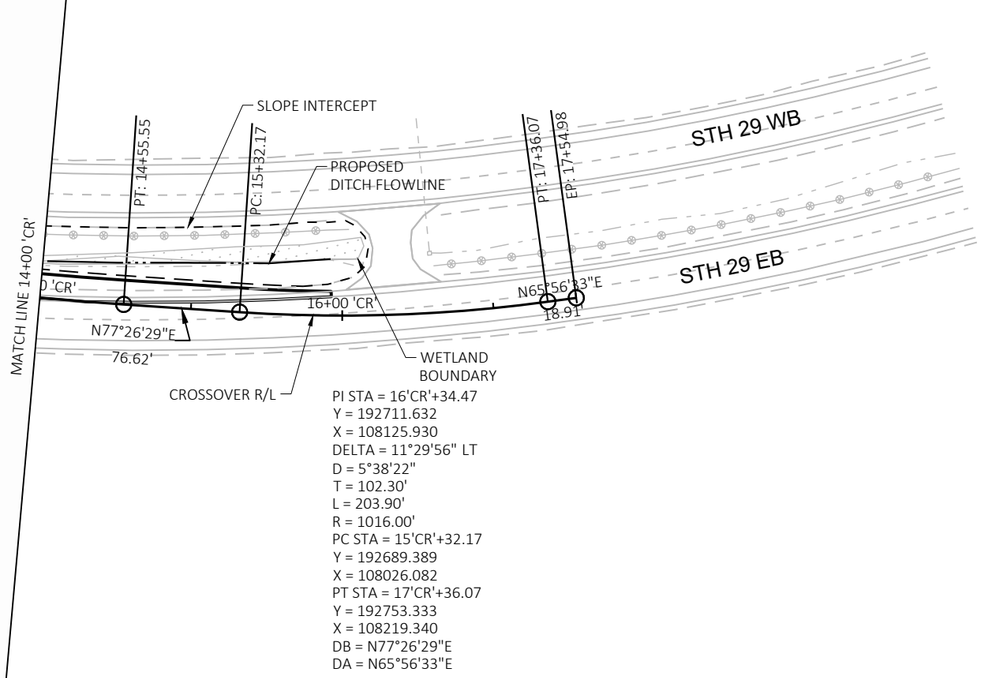
CATEGORY	STATION	TO	STATION	ALIGNMENT	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT LF	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF	650.9000 CONSTRUCTION STAKING CURB RAMPS EACH	REMARKS
0010	9094+60	-	9577+56	'WB'	-	48,296	-	
0010	0+00	-	19+63	'RC'	1,963	-	-	SPRUCE ST/MAPLE RD RAMP
0010	1137+94	-	1140+37	'NB'	-	-	10	STH 13 CURB RAMPS
				TOTAL 0010	1,963	48,296	10	

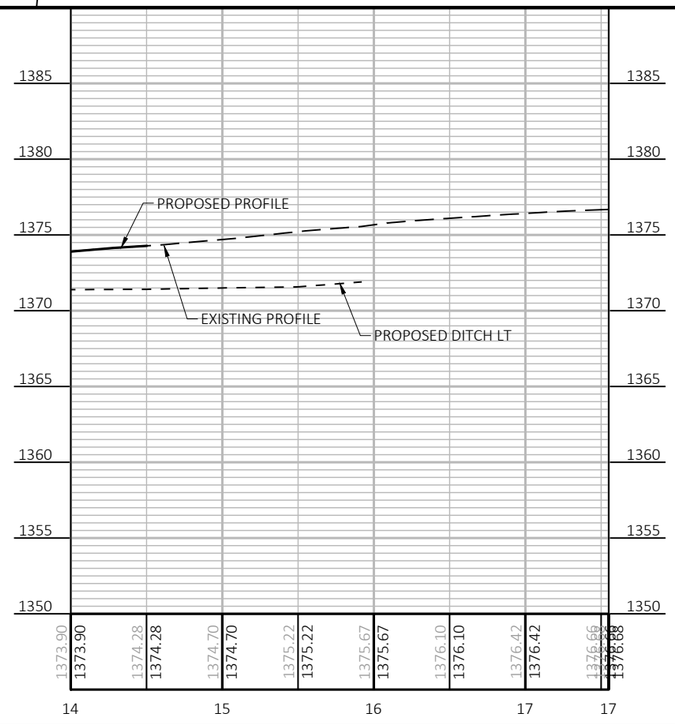




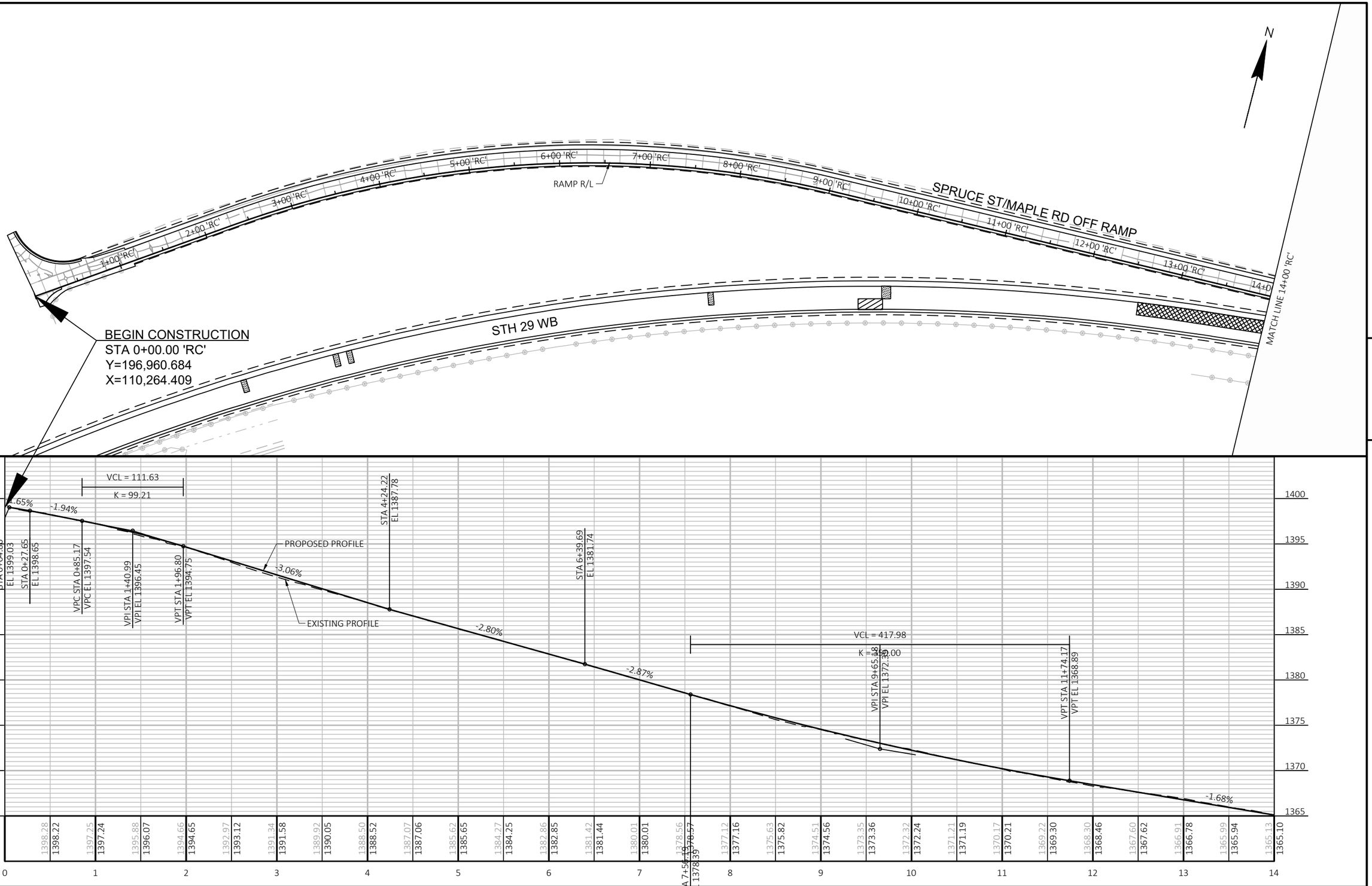
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN AND PROFILE: TEMPORARY CROSSOVER	SHEET 140	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050101-PP CROSSOVER.DWG PLOT DATE : 10/21/2024 12:42 PM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 01
WISDOT/CADDS SHEET 44





PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN AND PROFILE: TEMPORARY CROSSOVER	SHEET 141	E



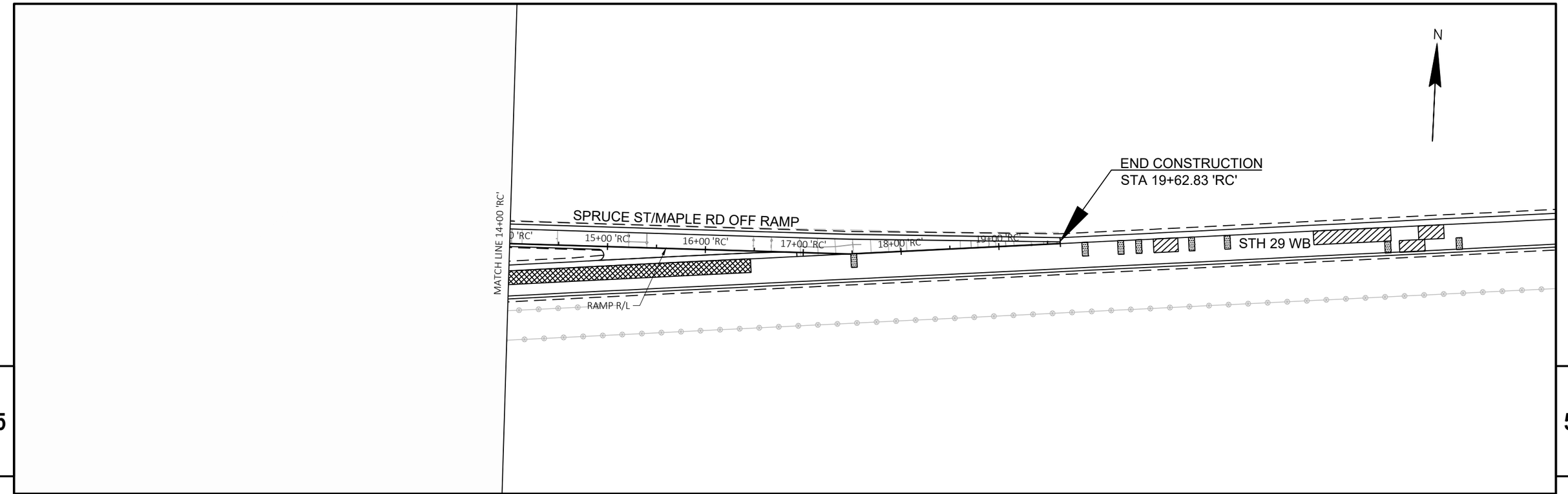
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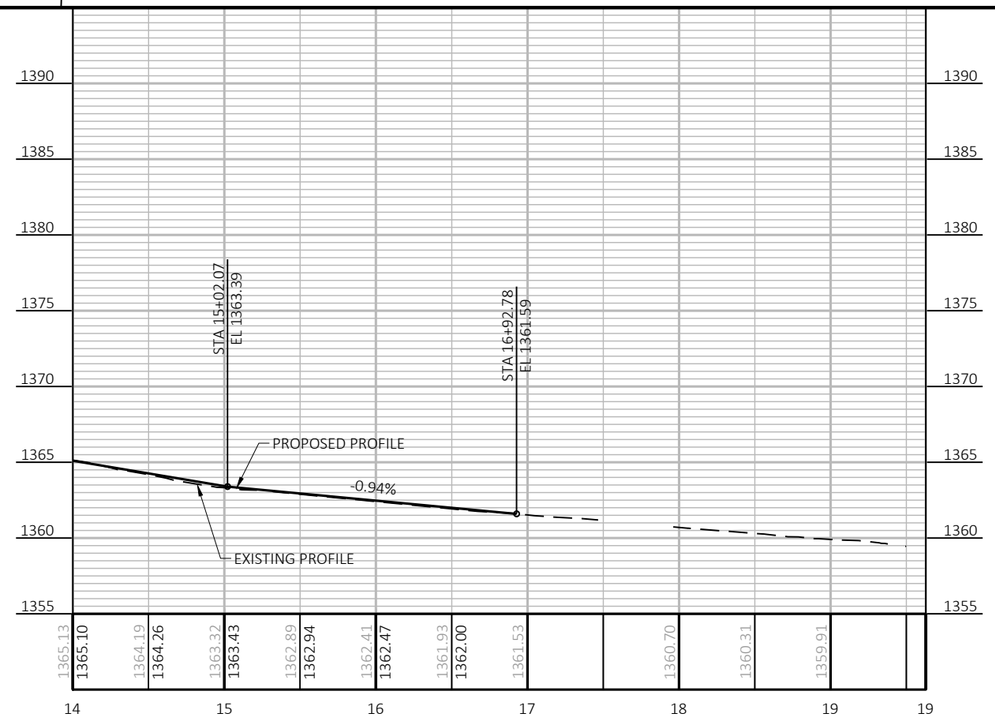
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN AND PROFILE: SPRUCE ST/MAPLE RD RAMP	SHEET 142	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050102 - PP SILVER MAPLE.DWG PLOTTED: 7/10/2024 3:52 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 01

WISDOT/CADDS SHEET 44





PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN AND PROFILE: SPRUCE ST/MAPLE RD RAMP	SHEET 143	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050102 - PP SILVER MAPLE.DWG 7/10/2024 3:52 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 02



N

LEGEND

- CONCRETE PAVEMENT APPROACH SLAB
- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT 10-INCH
- SIDEROAD PAVING (SEE CONSTRUCTION DETAIL)
- 'EB' CONCRETE PAVEMENT REPAIR
- XXX PATCH NUMBER

5

5

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 144	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 01A

PLOT DATE : 10/18/2024 11:02 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

FRONTIER COMMUNICATIONS

CONCRETE PAVEMENT APPROACH SLAB

GUARDRAIL WORK- SEE GUARDRAIL DETAILS

SLOPE INTERCEPT

STH 13 TO STH 29 WB

B-37-290

9095+00 'WB'

311

9100+00 'WB'

STH 29 WB

9105+00 'WB'

REPLACE SURFACE DRAIN SEE GUARDRAIL DETAILS

SLOPE INTERCEPT

STH 29 WB R/L

105+00 'EB'

110+00 'EB'

115

B-37-289

STH 29 EB

STH 29 EB R/L

BEGIN PROJECT
STA 9094+60.67 'WB'
Y= 192,780.939
X= 103,578.888

SLOPE INTERCEPT

REMOVE AND REPLACE EB CONCRETE SHOULDER AND SURFACE DRAIN IN KIND
-SPV.0180.01 CONCRETE PAVEMENT SHOULDER 10-INCH
-CONCRETE SURFACE DRAIN
-CONCRETE CURB & GUTTER 4-INCH SLOPED 30-INCH TYPE TBT
-RIPRAP MEDIUM 6' X 8'

STH 29 EB TO STH 13

MATCH LINE STA 9109+30 'WB'

N

LEGEND

- CONCRETE PAVEMENT APPROACH SLAB
- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT 10-INCH
- SIDEROAD PAVING (SEE CONSTRUCTION DETAIL)
- 'EB' CONCRETE PAVEMENT REPAIR
- XXX PATCH NUMBER

STH 29 WB TO STH 13

MATCH LINE STA 9109+30 'WB'

9110+00 'WB'

9115+00 'WB'

STH 29 WB

1 2 3 4 200 5

9120+00 'WB'

STH 29 WB R/L

+00 'EB'

120+00 'EB'

125+00 'EB'

STH 29 EB

STH 29 EB R/L

STH 13 TO STH 29 EB

MATCH LINE STA 9124+00 'WB'

N

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 145	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 01B

PLOT DATE : 10/18/2024 11:02 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

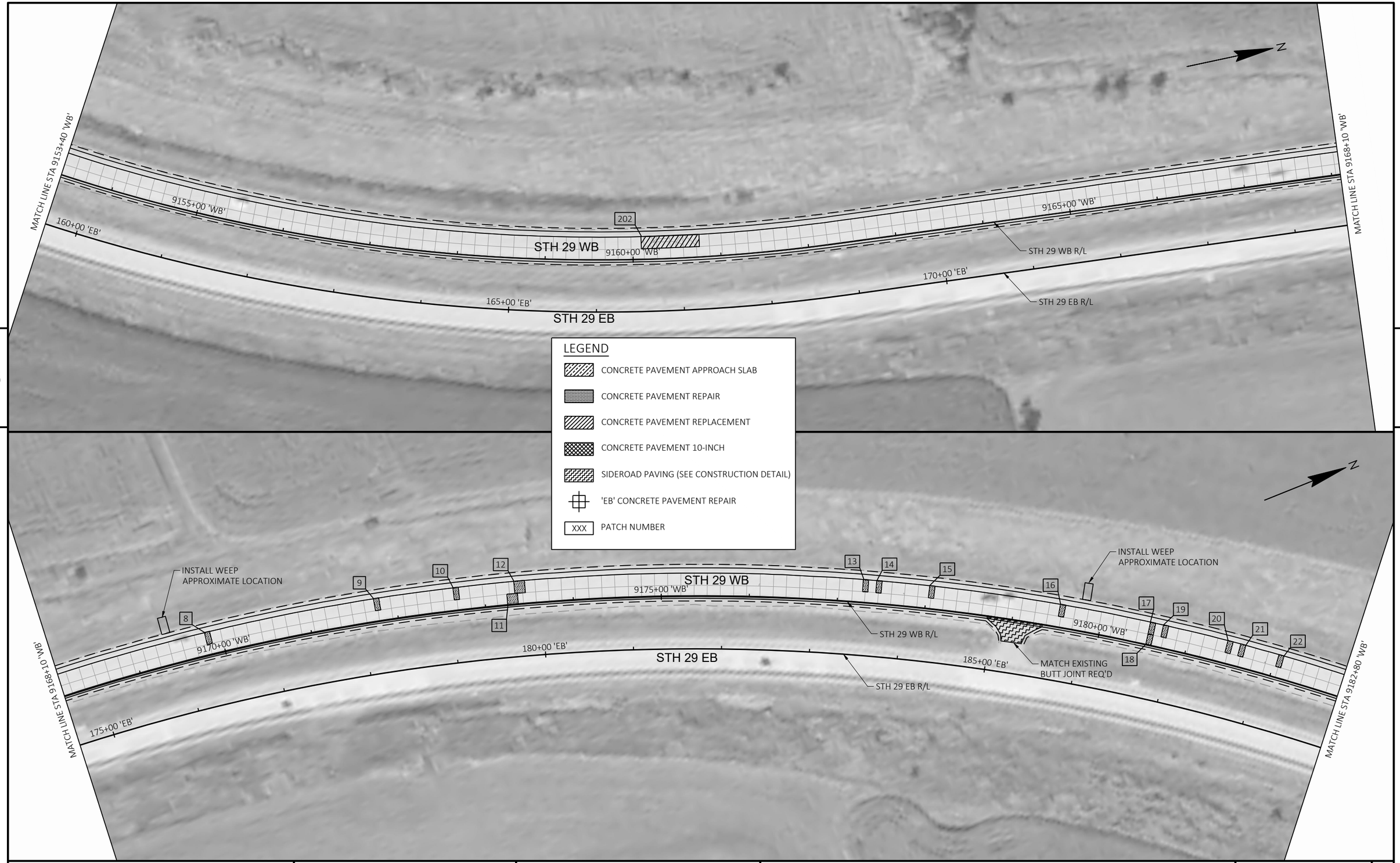
WISDOT/CADDS SHEET 44



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 146	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 02
PLOT DATE : 10/18/2024 11:02 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



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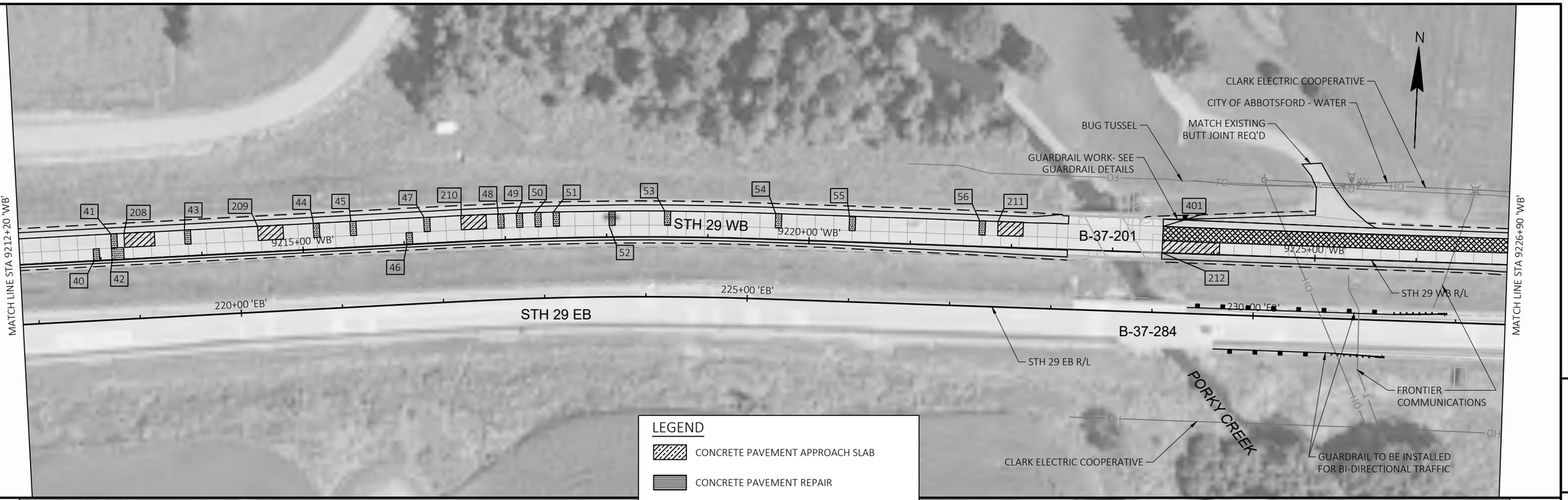
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 147	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 03
PLOT DATE : 10/18/2024 11:02 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 148	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 04
PLOT DATE : 10/18/2024 11:02 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44



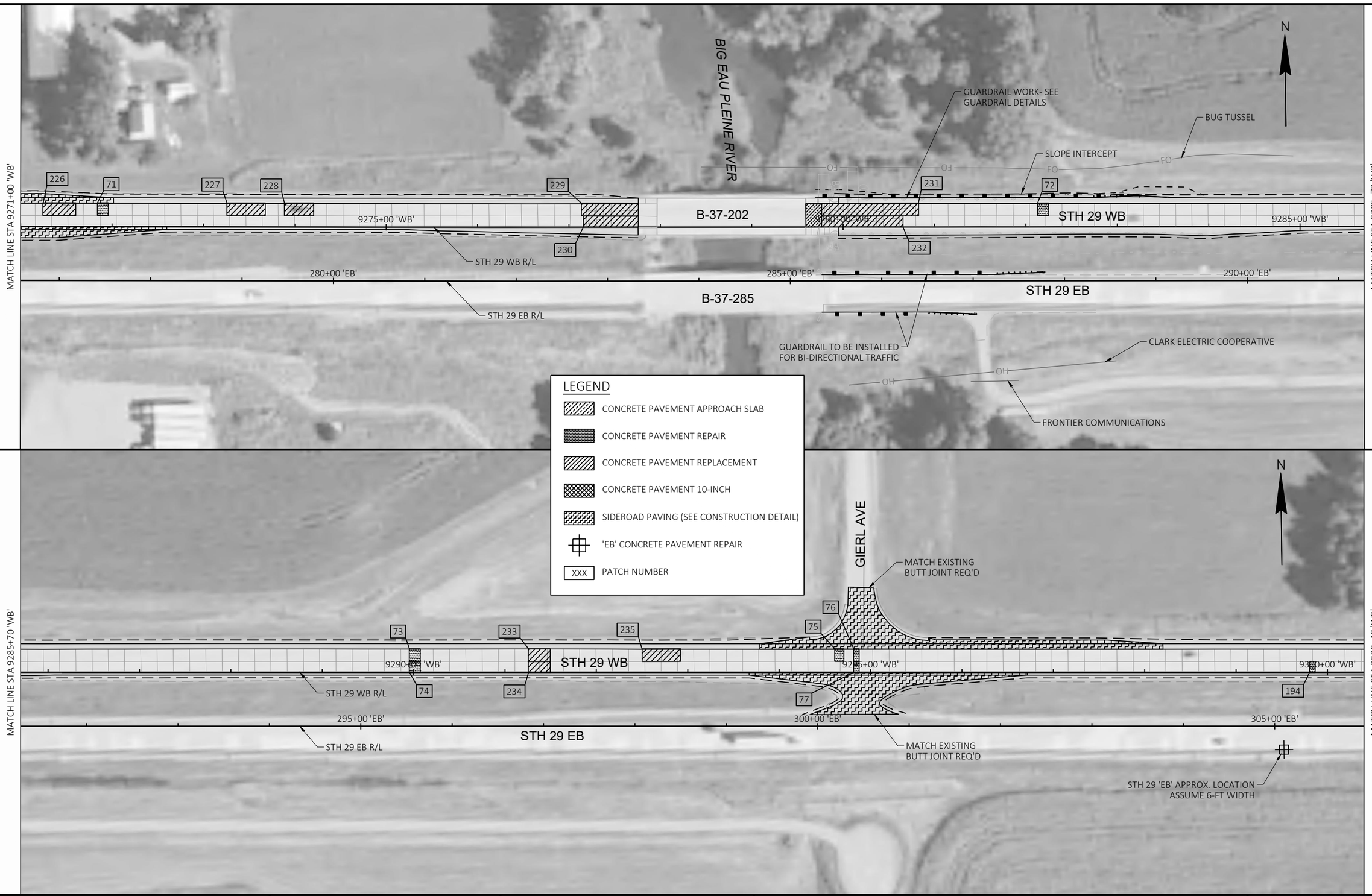
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 149	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 05
PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 150	E

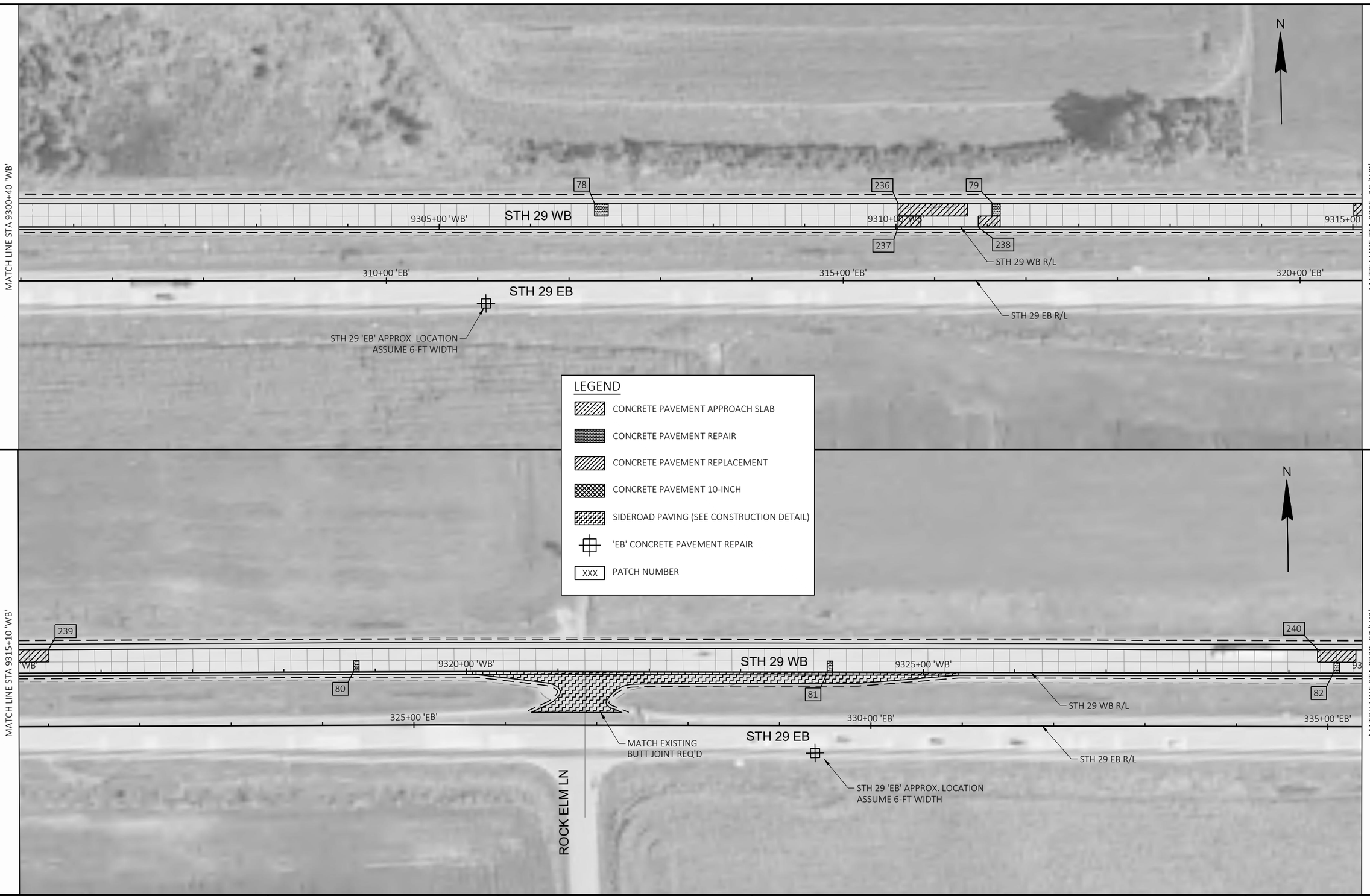
FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 06
PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 151	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 07
PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 152	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 08

PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 153	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 09

PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



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5

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 154	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 10

PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



5

5

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 155	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 11

PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

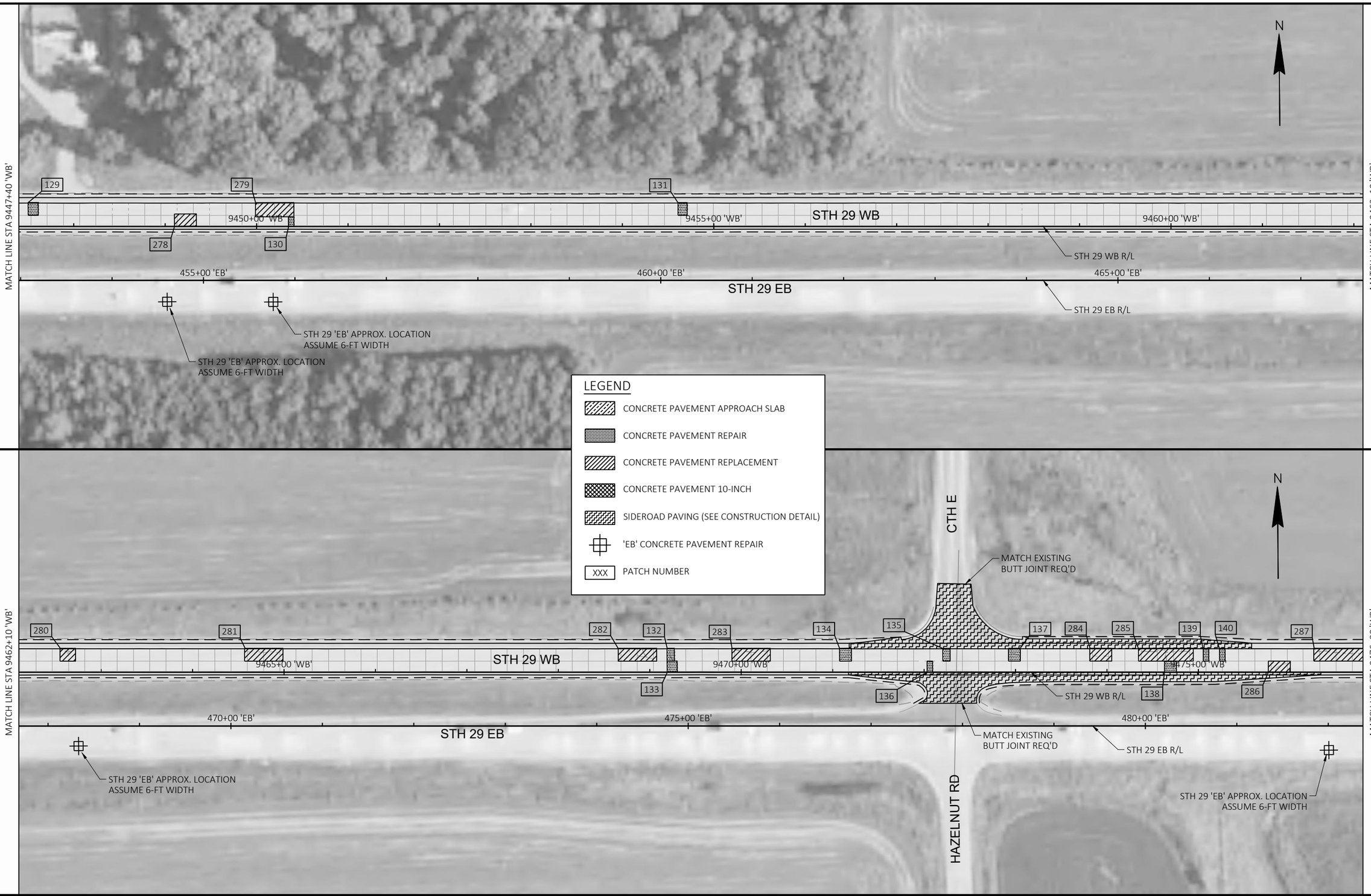


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 156	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 12
PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT



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5

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 157	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 13

PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



5

5

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 158	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 14
PLOT DATE : 10/18/2024 11:03 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 159 E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 15
PLOT DATE : 10/18/2024 11:04 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



5

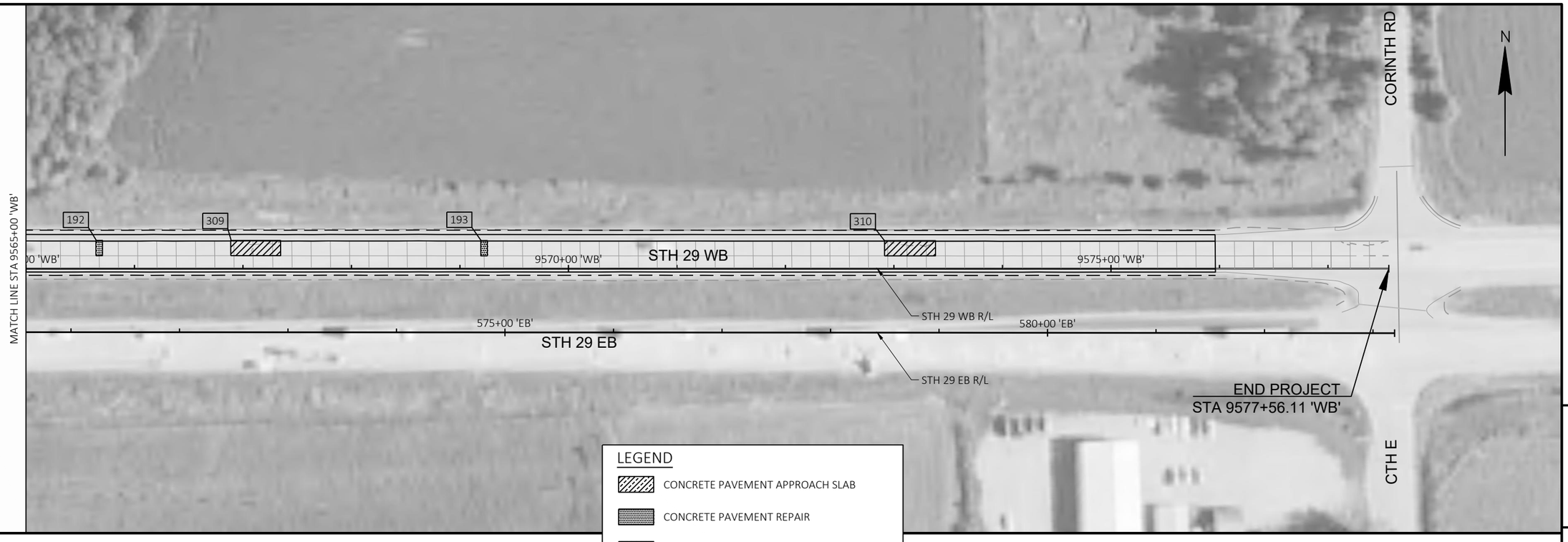
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN	SHEET 160	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050201-PN.DWG
LAYOUT NAME - 16

PLOT DATE : 10/18/2024 11:04 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44



5

5

LEGEND

- CONCRETE PAVEMENT APPROACH SLAB
- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT 10-INCH
- SIDEROAD PAVING (SEE CONSTRUCTION DETAIL)
- 'EB' CONCRETE PAVEMENT REPAIR
- XXX PATCH NUMBER

FRAME INTENTIONALLY LEFT BLANK



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN - STH 13 WB RAMPS	SHEET 162	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 02
PLOT DATE : 10/16/2024 3:09 PM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

5

5

N

HO

115+00 'RB'

STH 29 WB TO STH 13

120+00 'RB'

125+00 'RB'

END CONSTRUCTION
STA 127+56.00 'RB'

1

2

3

4

Pt: 91+48

95

STH 29 WB

STH 29 EB

90

STH 13 TO STH 29 EB

LEGEND

- CONCRETE PAVEMENT APPROACH SLAB
- CONCRETE PAVEMENT REPAIR
- CONCRETE PAVEMENT REPLACEMENT
- CONCRETE PAVEMENT 10-INCH
- SIDEROAD PAVING (SEE CONSTRUCTION DETAIL)
- 'EB' CONCRETE PAVEMENT REPAIR
- XXX PATCH NUMBER

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	PLAN - STH 13 WB RAMPS	SHEET 163	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\050202-PN.DWG
LAYOUT NAME - 01
PLOT DATE : 10/16/2024 3:09 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:100FT
WISDOT/CADDS SHEET 44

Standard Detail Drawing List

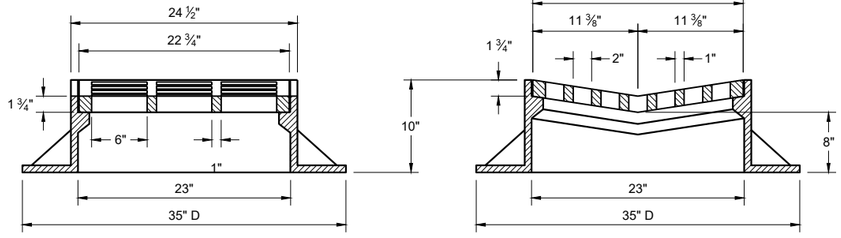
08A05-21B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C08-03	INLETS MEDIAN 1 AND 2 GRATE
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-08A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-08C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
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
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
11B02-02	CONCRETE MEDIAN NOSE
13A03-07	CONCRETE PAVEMENT SHOULDERS
13A05-06A	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13A05-06B	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13B02-09B	STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-17A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C11-14A	RURAL DOWELED CONCRETE PAVEMENT
13C11-14B	RURAL DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C18-08G	CONCRETE PAVEMENT JOINTING ACCELERATION/DECELERATION LANE
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B20-12A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-12B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-12C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-12F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-12G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-12H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B26-05A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05F	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05G	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05H	STEEL THRIE BEAM BULLNOSE TERMINAL
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

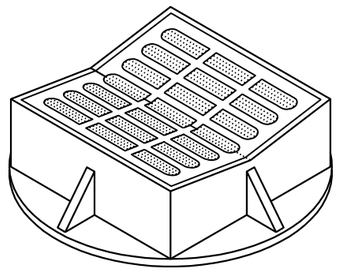
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Standard Detail Drawing List

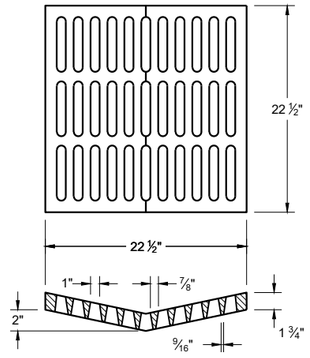
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B52-03A	CABLE BARRIER TYPE 1 LAYOUT
14B52-03B	CABLE BARRIER TYPE 1 LAYOUT
14B52-03C	CABLE BARRIER TYPE 1 LAYOUT
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09D	ON RAMP LANE CLOSURE
15C02-09E	OFF RAMP LANE CLOSURE
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C02-09G	TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-15C	PAVEMENT MARKING ARROWS
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23C	PAVEMENT MARKING (TURN LANES)
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-09A	MEDIAN ISLAND MARKINGS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C19-09C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C31-07A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-07C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C31-08A	PAVEMENT MARKING EXIT RAMP AND PARALLEL EXIT RAMP
15C31-08C	PAVEMENT MARKING ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D06-06	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D09-07	TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT
15D11-09	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-13A	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D12-13B	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-10A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

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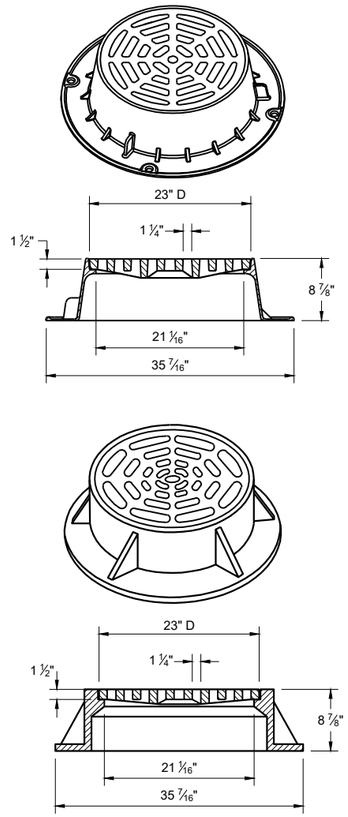
TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS POSSIBLE

NOTED AS TYPE B - A ON THE DRAINAGE TABLE



TYPE "C"

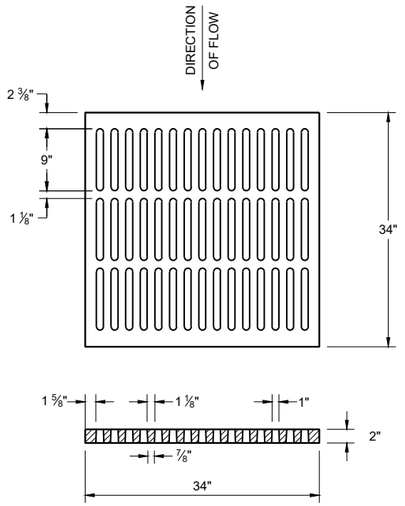
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

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

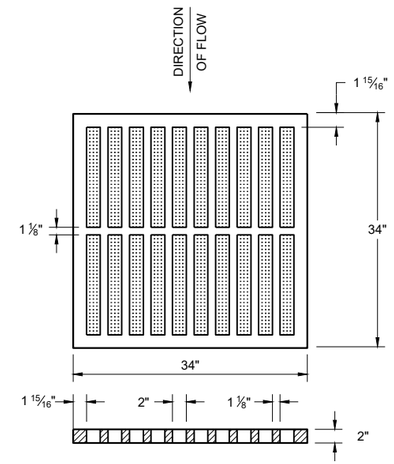
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OF BICYCLE TRAFFIC IS PERMITTED

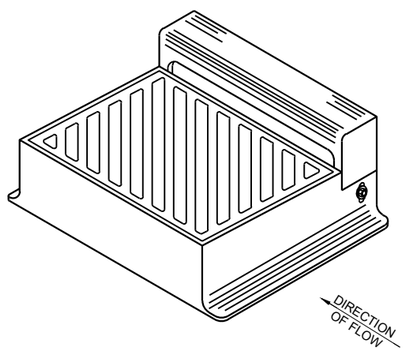
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



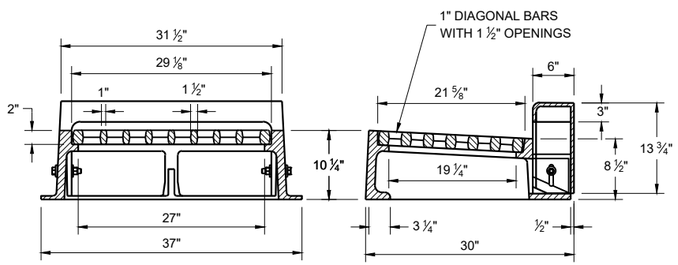
TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON THE DRAINAGE TABLE



DIAGONAL SLOTS SHALL BE ORIENTEDTO THE DIRECTION OF FLOW AS ILLUSTRATED.
GRATES ARE MANUFACTURED TO BE REVERSIBLE.



TYPE "WM"

NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

INLET COVERS TYPES B, B-A, C, MS, MS-A AND WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

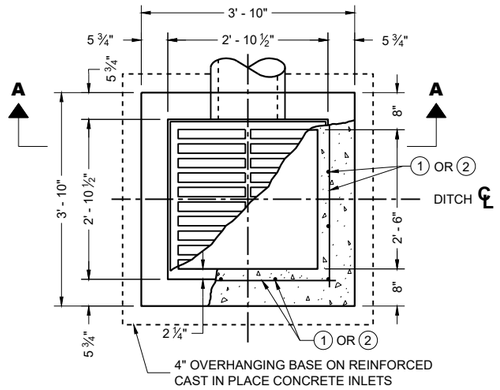
APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

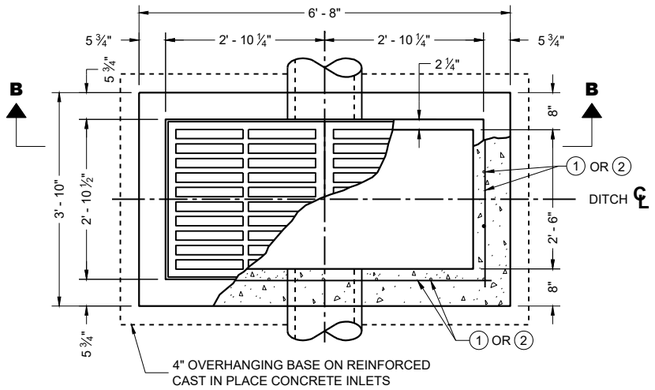
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SDD 08A05-21b

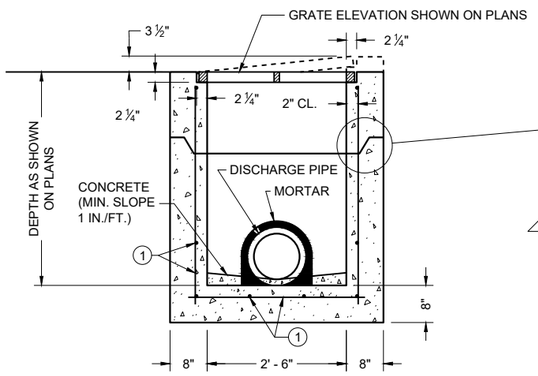
SDD 08A05-21b



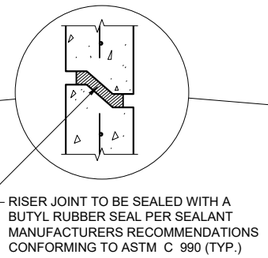
PLAN VIEW

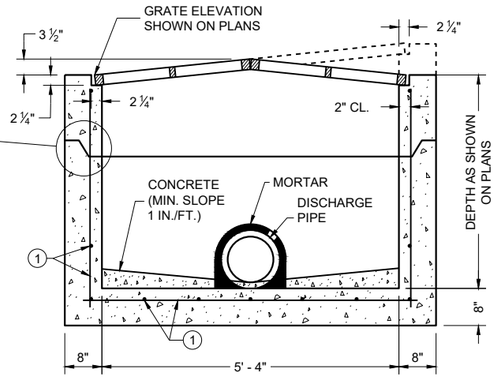


PLAN VIEW

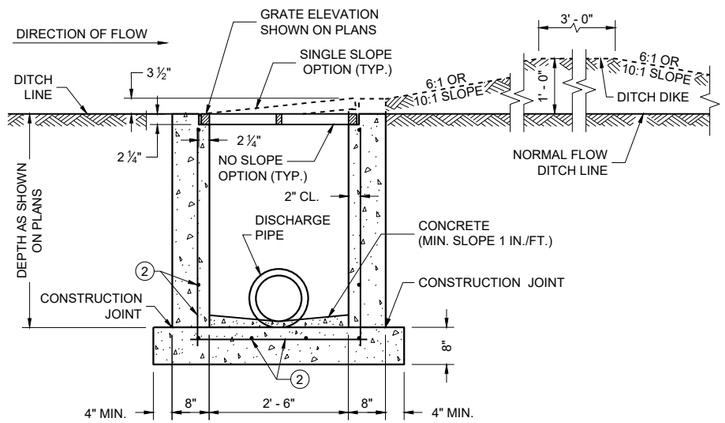


PRECAST REINFORCED CONCRETE SECTION A - A



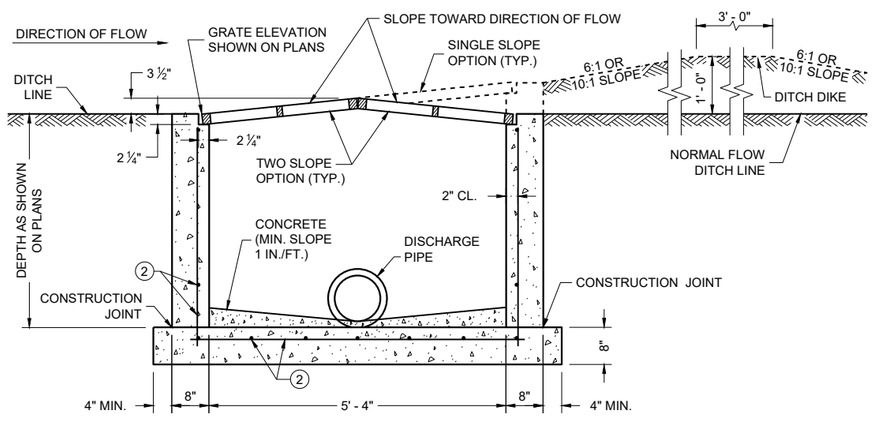


PRECAST REINFORCED CONCRETE SECTION B - B



REINFORCED CAST IN PLACE CONCRETE SECTION A - A

INLETS MEDIAN 1 GRATE



REINFORCED CAST IN PLACE CONCRETE SECTION B - B

INLETS MEDIAN 2 GRATE

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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE 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 PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

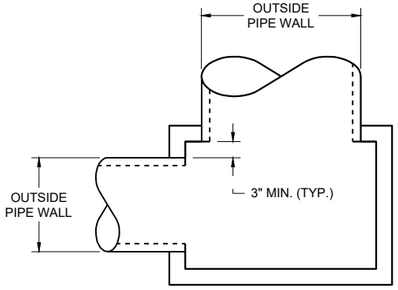
ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

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.



DETAIL "A"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42

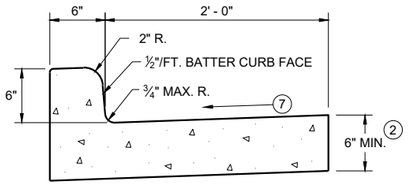
INLETS
MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

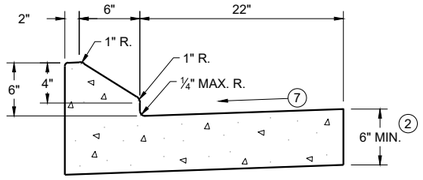
APPROVED
December 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

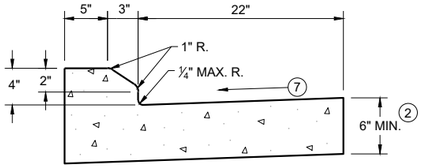
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SDD 08C08-03



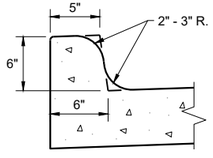
TYPES A (1) & D



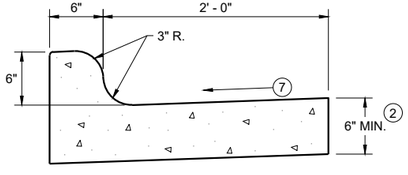
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

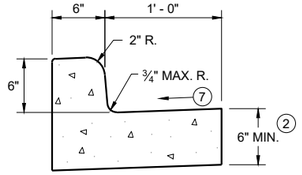


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



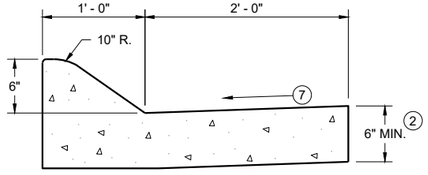
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

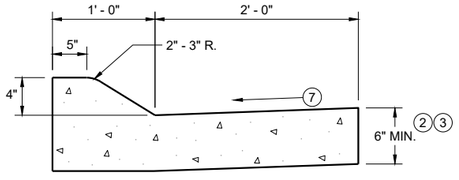


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

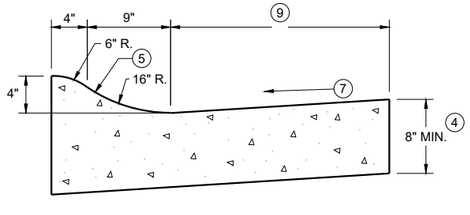


6" SLOPED CURB TYPES A (1) & D



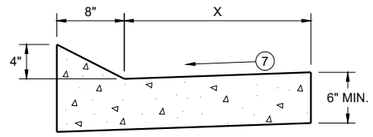
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

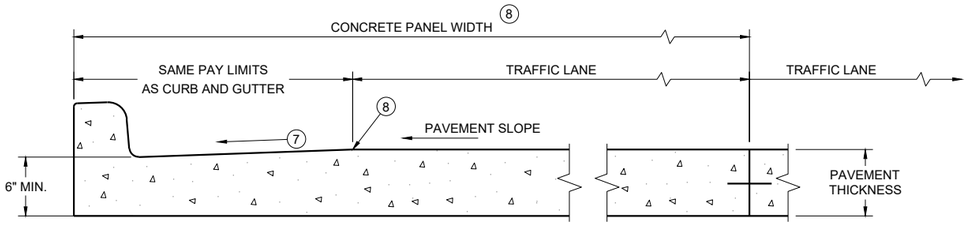


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

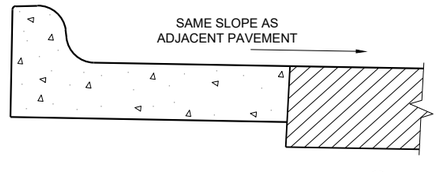
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

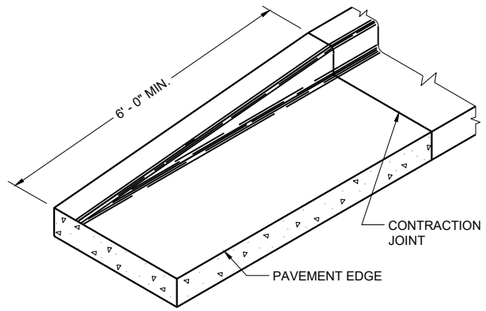
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

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

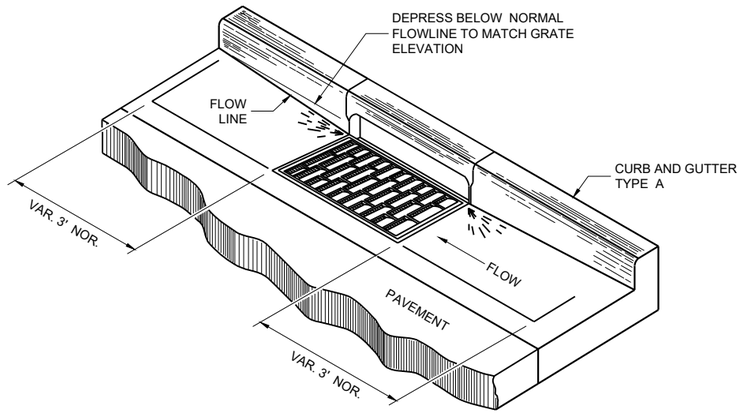
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

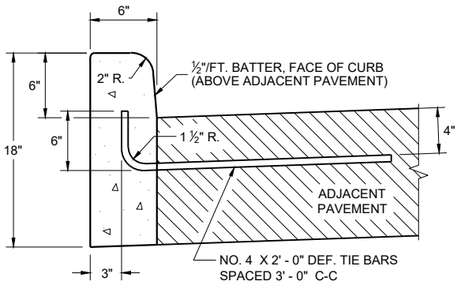
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

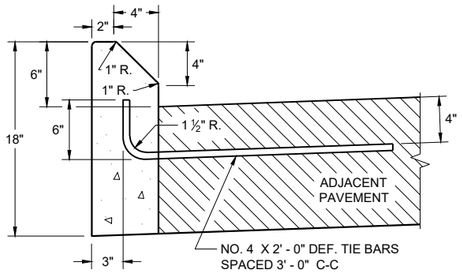
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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

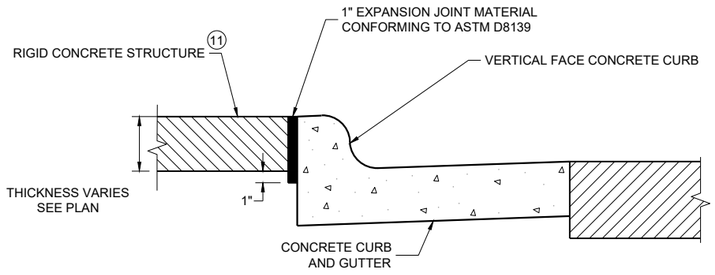


TYPES A (1) & D

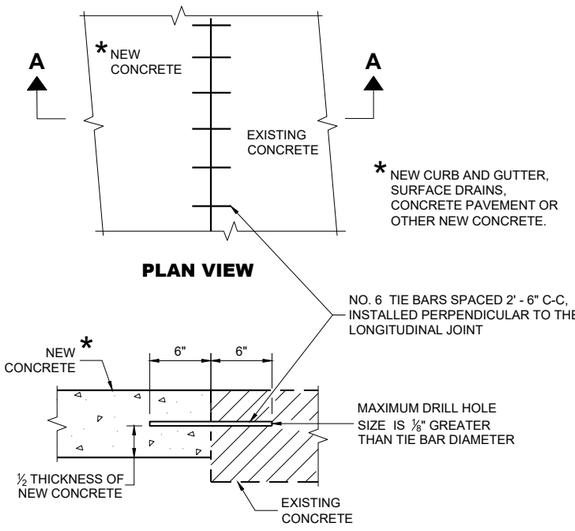


TYPES G (1) & J

CONCRETE CURB



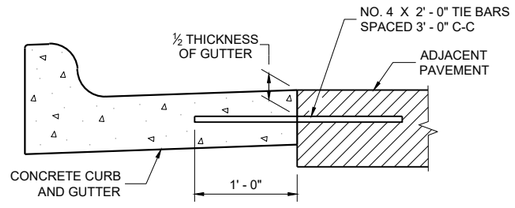
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



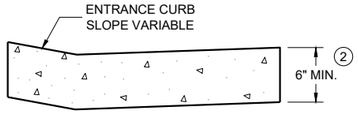
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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

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

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

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

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

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

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

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

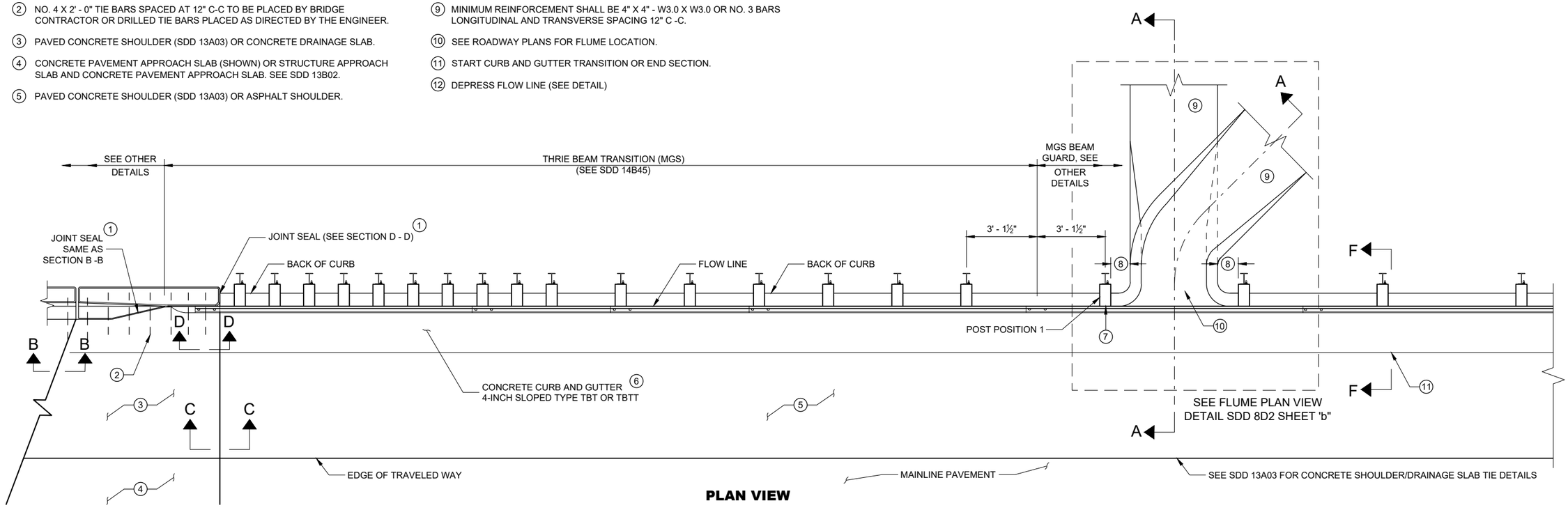
(8) CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.

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

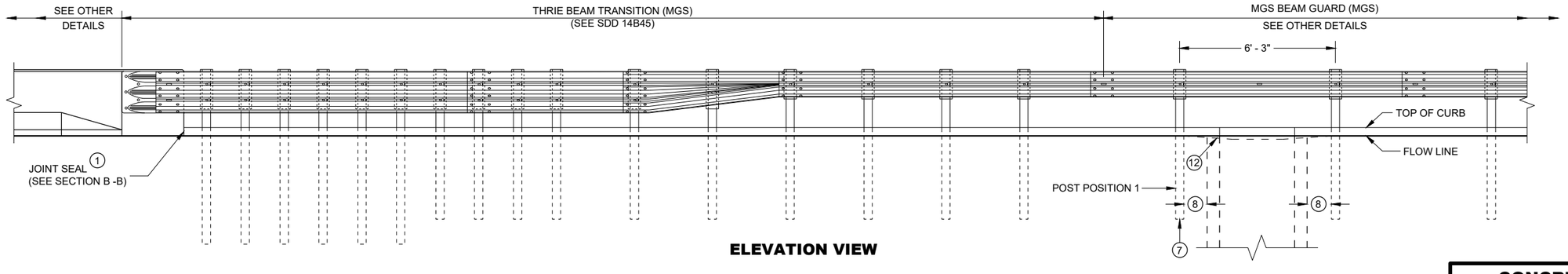
(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

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

(12) DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



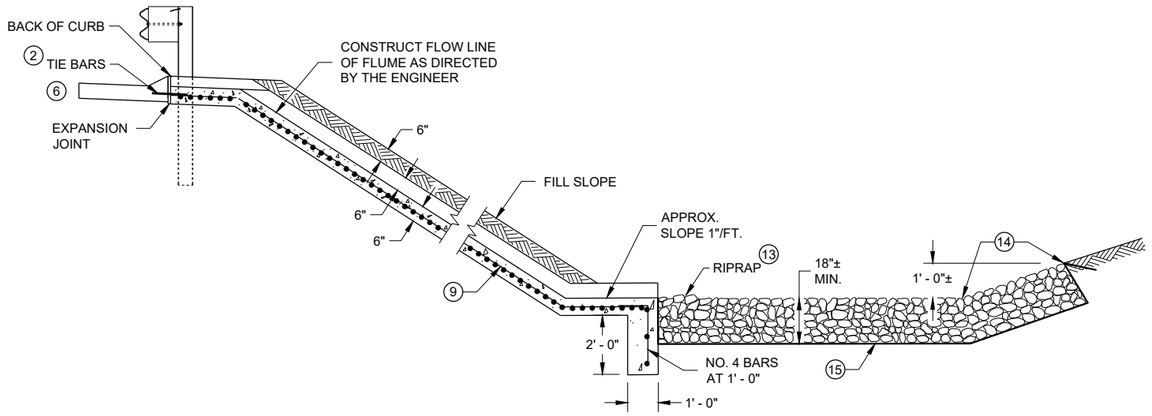
ELEVATION VIEW

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

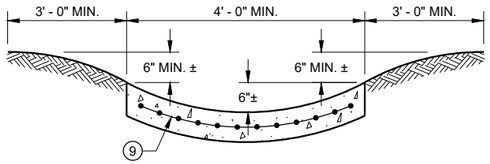
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

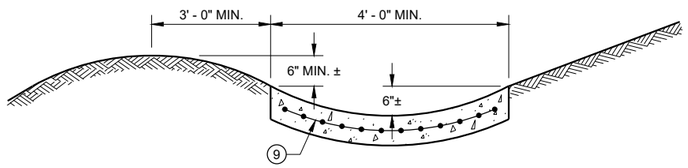
SDD 08D02 - 08a



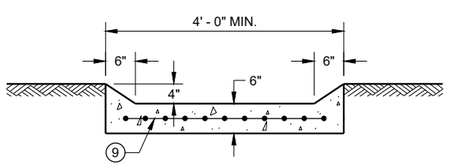
SECTION A - A



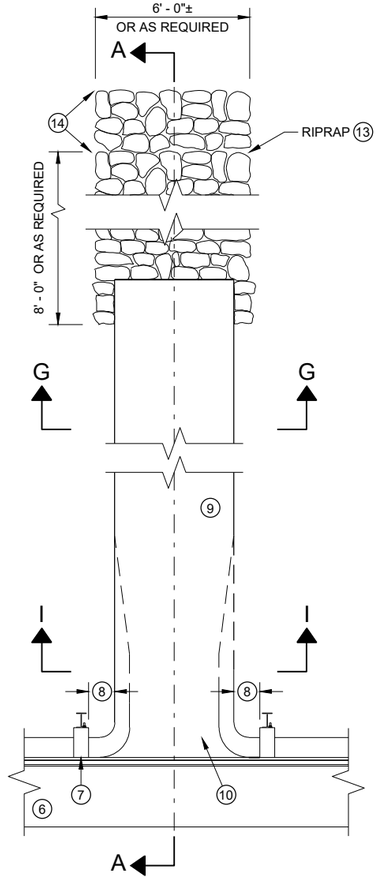
SECTION G - G



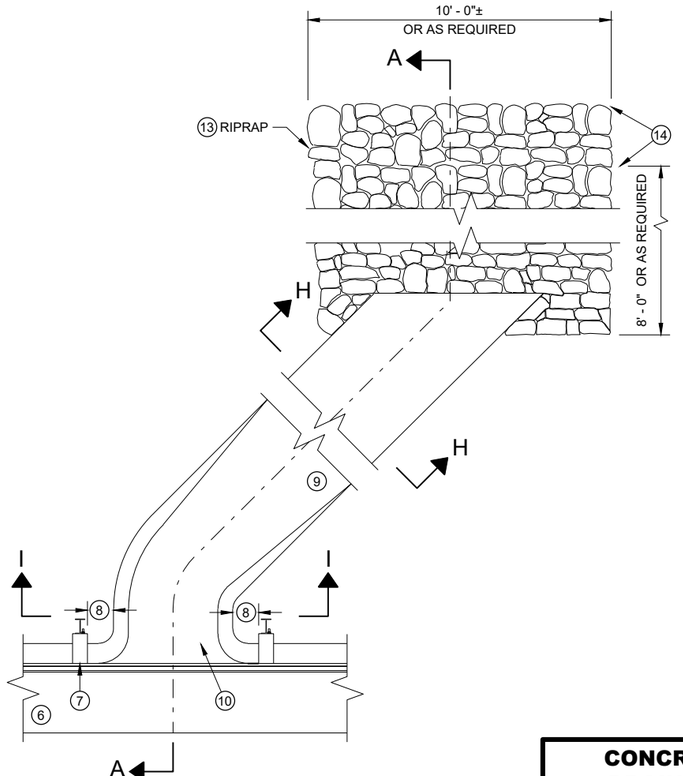
SECTION H - H



SECTION I - I



PLAN VIEW PERPENDICULAR FLUME



PLAN VIEW SKEWED FLUME

GENERAL NOTES

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

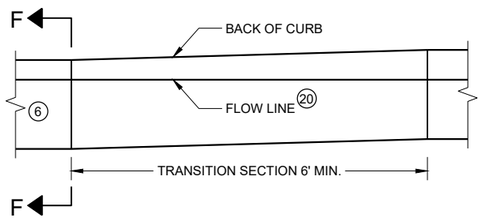
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

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

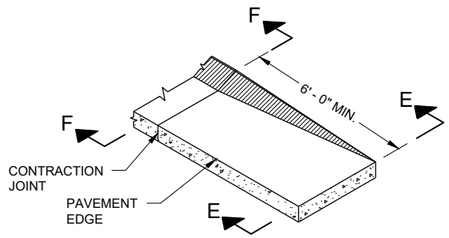
CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

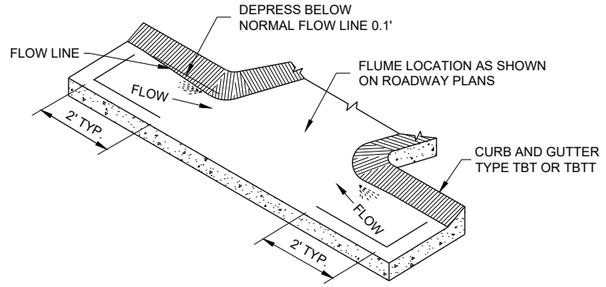
6
SDD 08D02 - 08b



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



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



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

(10) SEE ROADWAY PLANS FOR FLUME LOCATION.

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

(12) DEPRESS FLOW LINE (SEE DETAIL)

(13) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

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

(15) GEOTEXTILE TYPE HR.

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

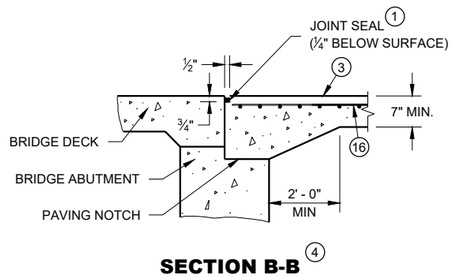
(17) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

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

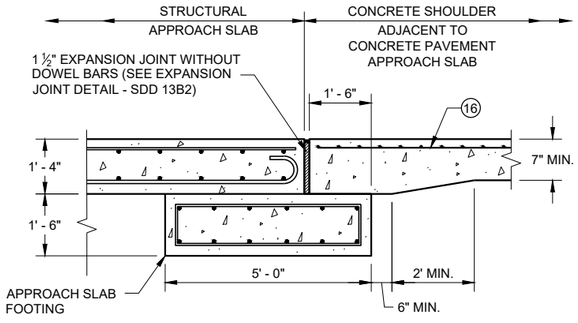
(19) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

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

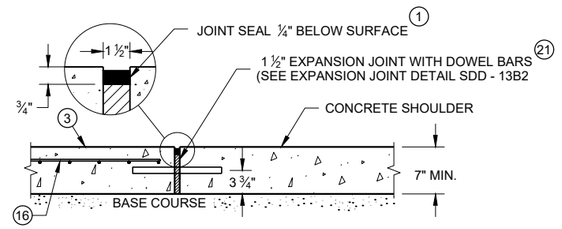
(21) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.



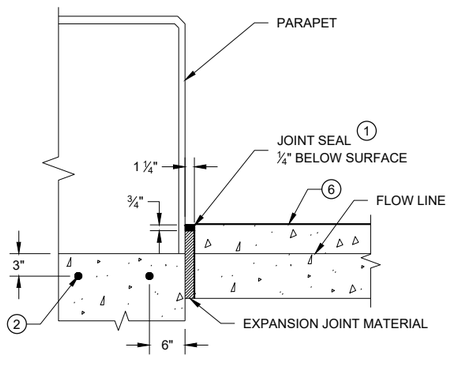
SECTION B-B



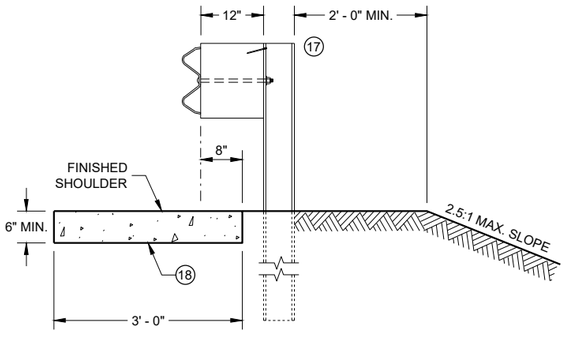
SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



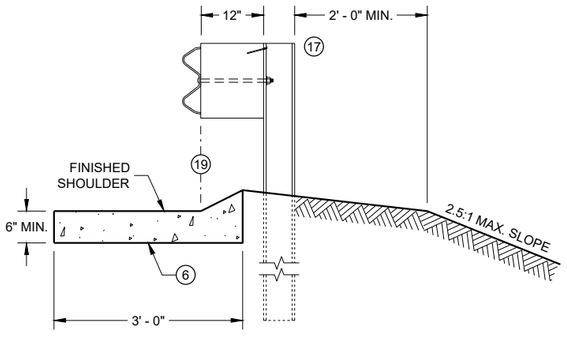
SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION D - D



SECTION E - E



SECTION F - F

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

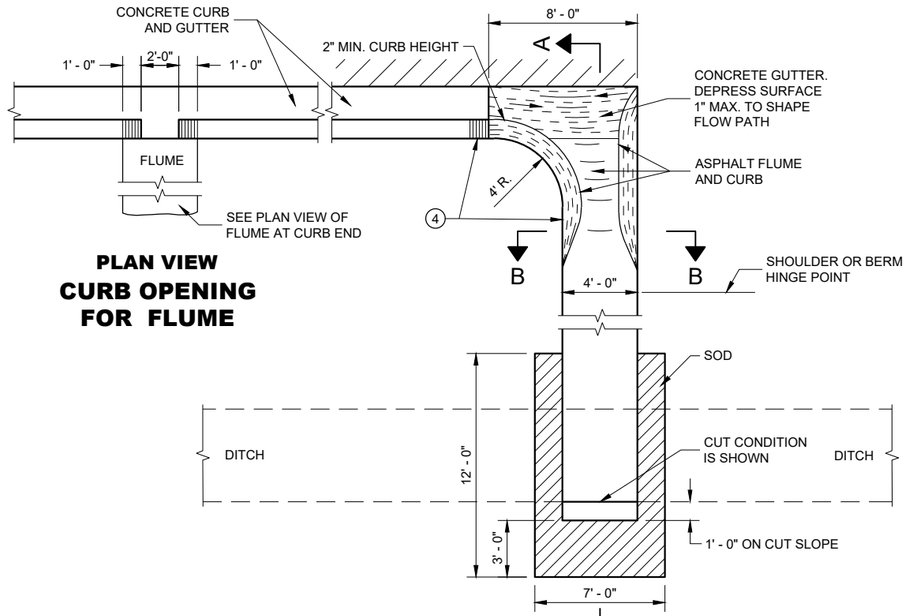
APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

6
SDD 08D02 - 08c

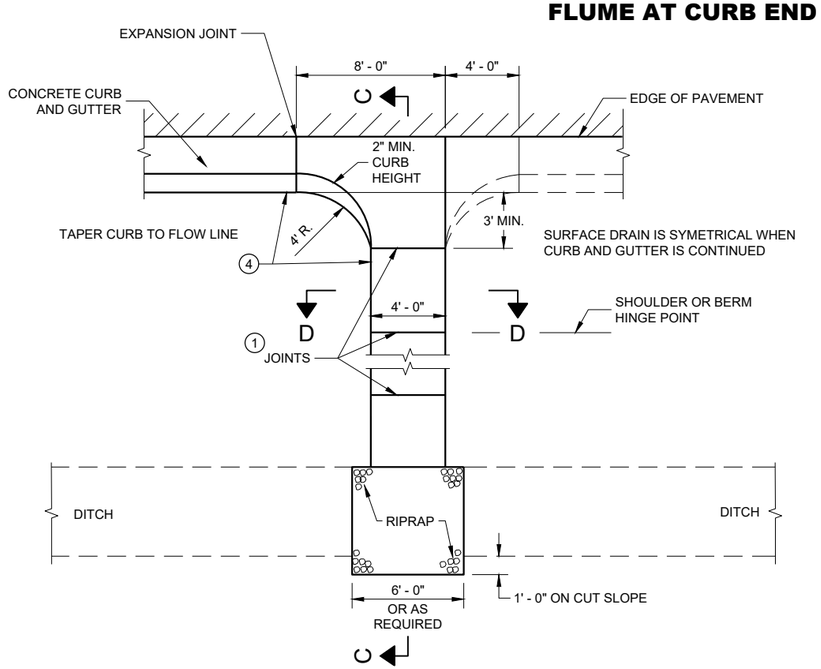
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



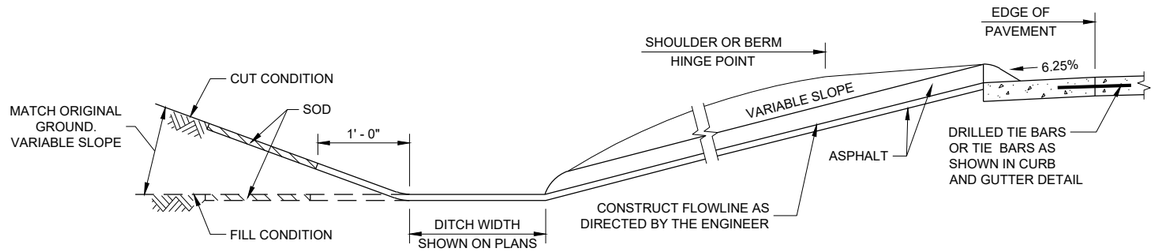
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

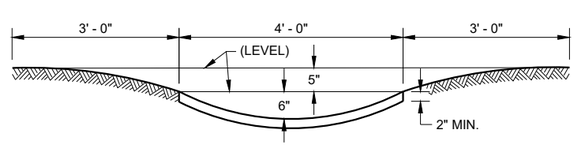
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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

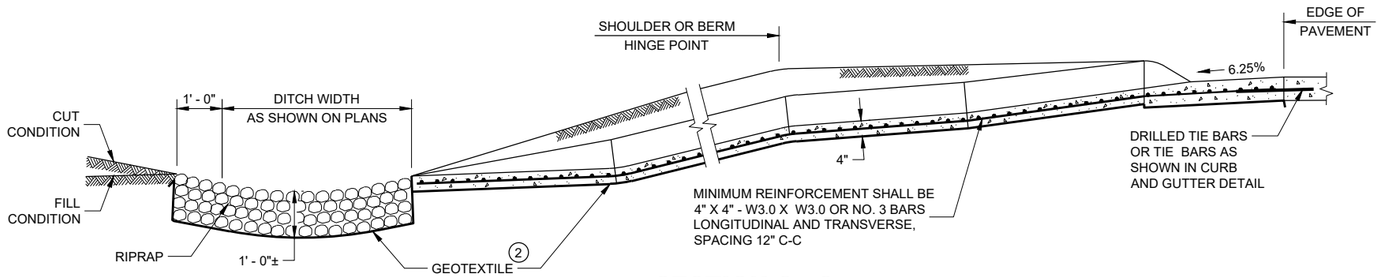
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4.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



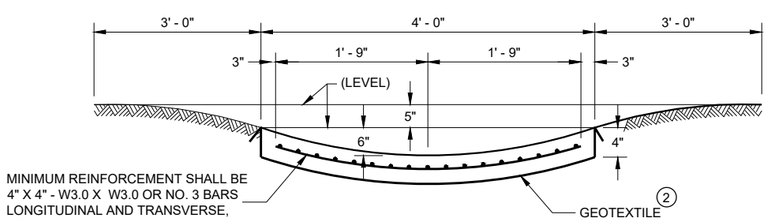
SECTION A - A



SECTION B - B



SECTION C - C



SECTION D - D

CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

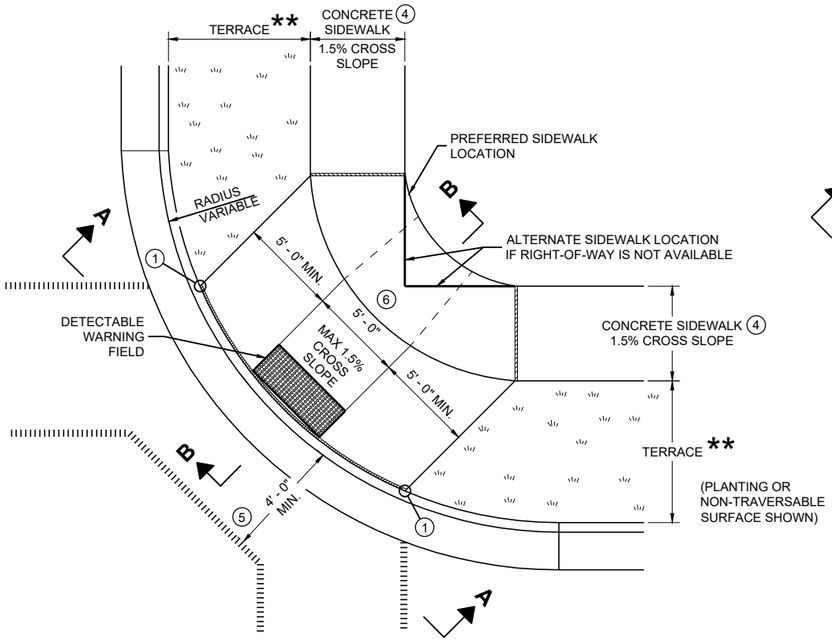
FHWA

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SDD 08D04 - 07

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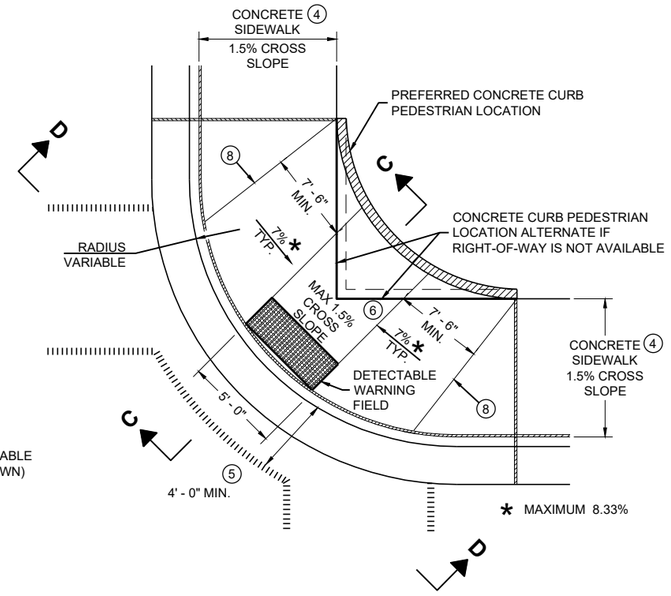
SDD 08D04 - 07



PLAN VIEW

CURB RAMP TYPE 1

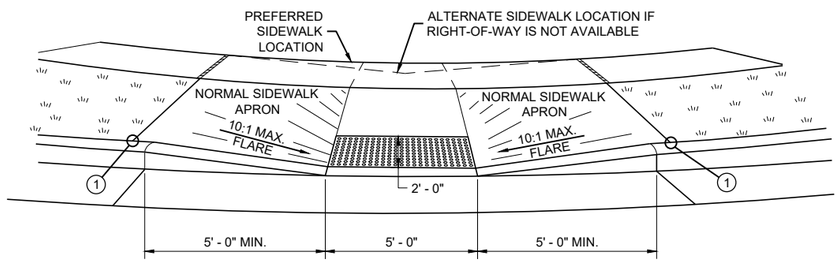
(CENTER OF CORNER RADIUS)



PLAN VIEW

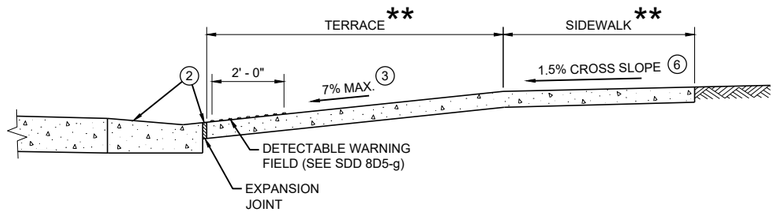
CURB RAMP TYPE 1 - A

(NO TERRACE)

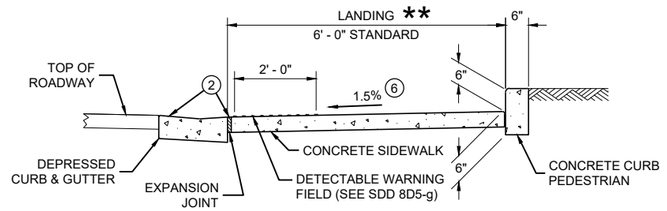


VIEW A - A FOR TYPE 1

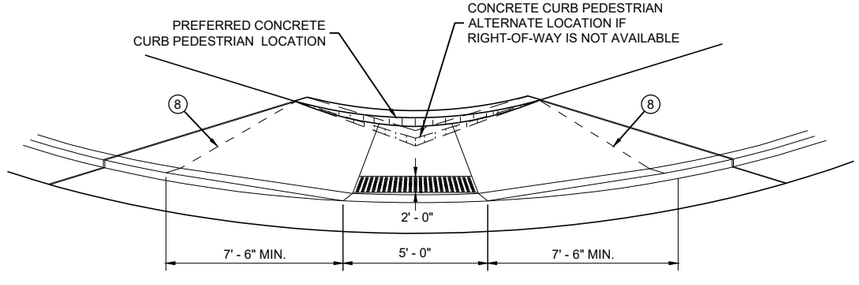
** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



SECTION C - C FOR TYPE 1 - A



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.

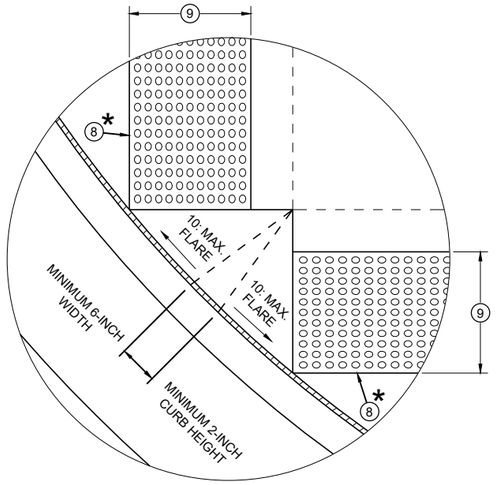
LEGEND

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

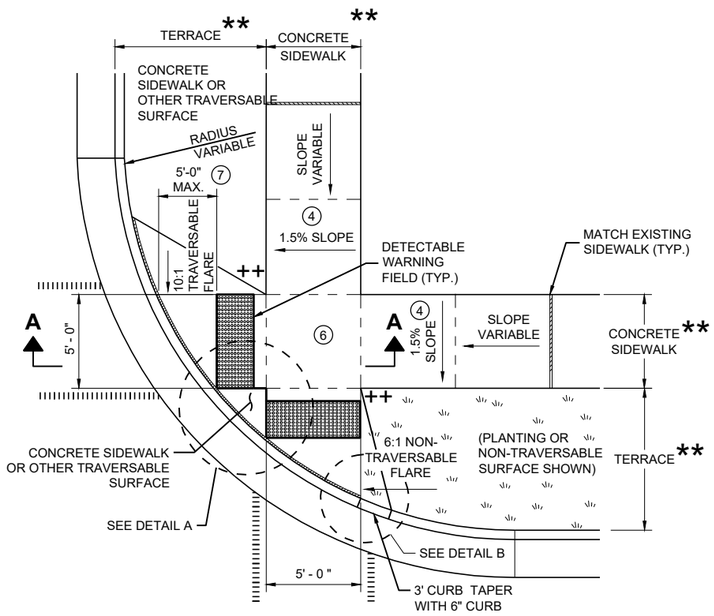
CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

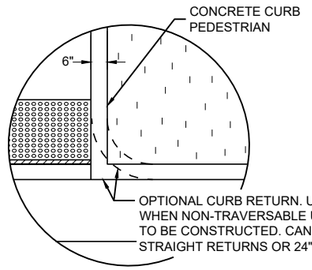
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SDD 08D05-21a



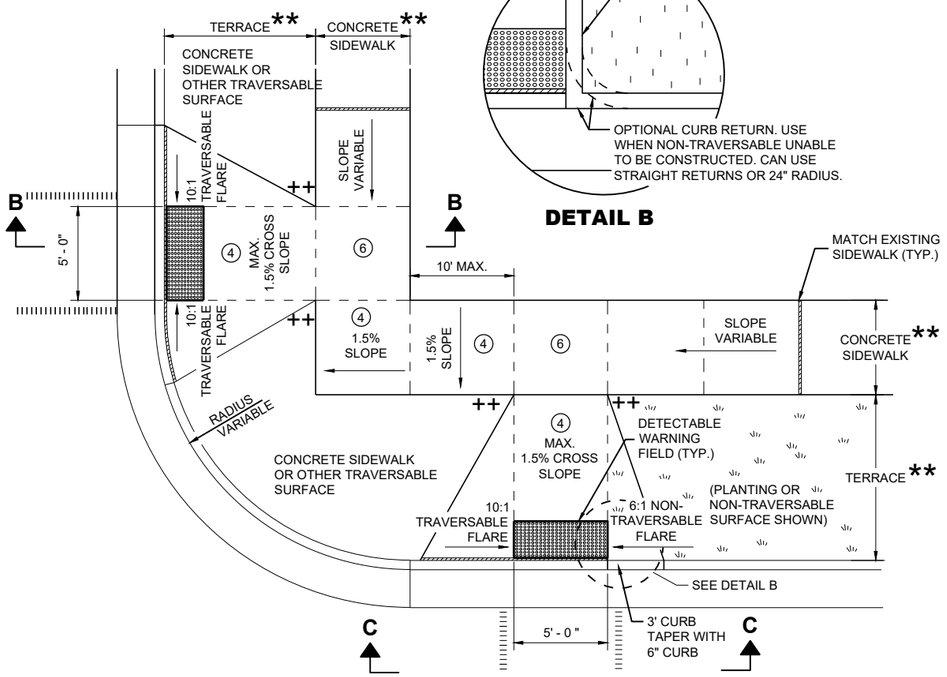
DETAIL A



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.

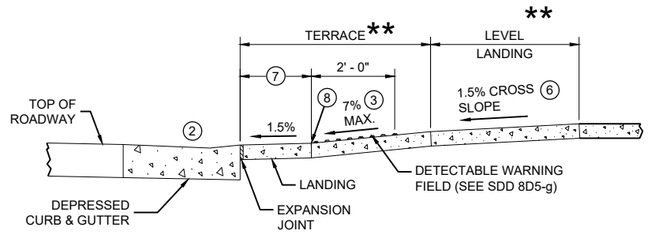
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

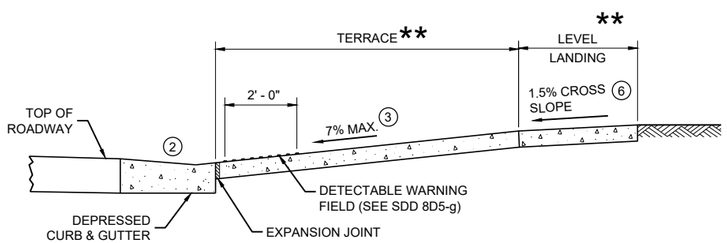


SECTION A - A FOR TYPE 2

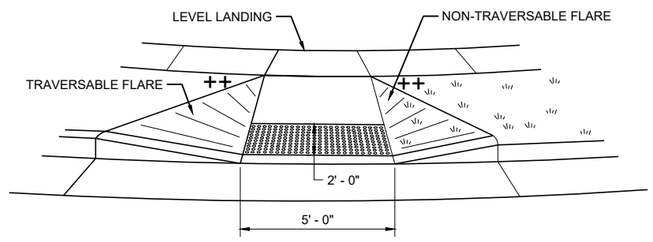
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



SECTION B - B FOR TYPE 3



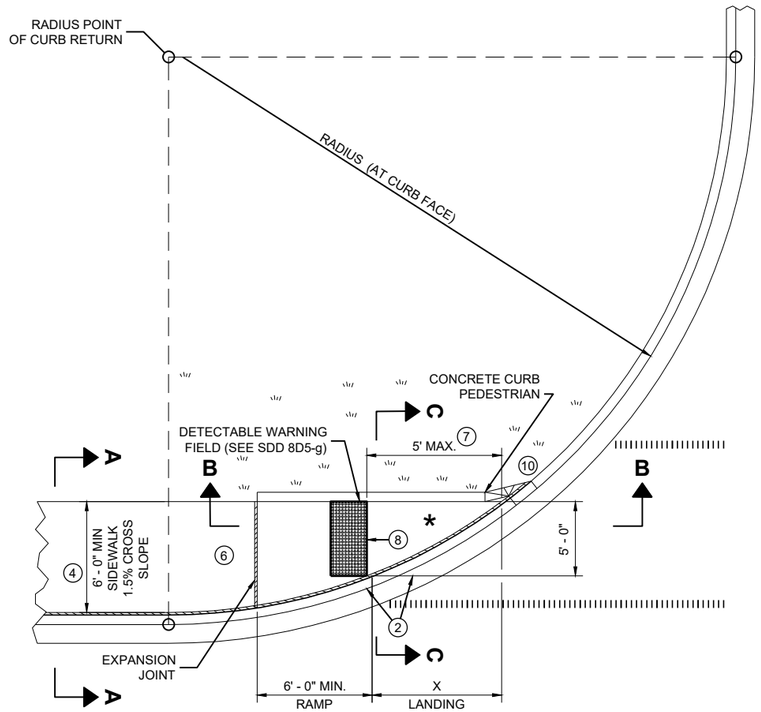
VIEW C - C FOR TYPE 3

LEGEND

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

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

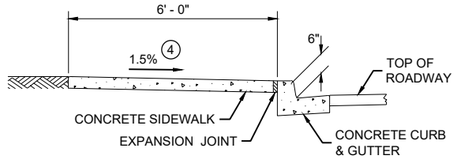


PLAN VIEW

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.

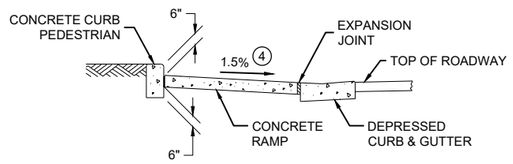
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

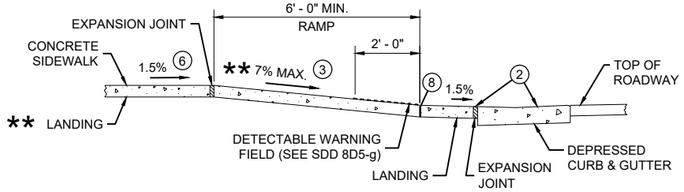
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)

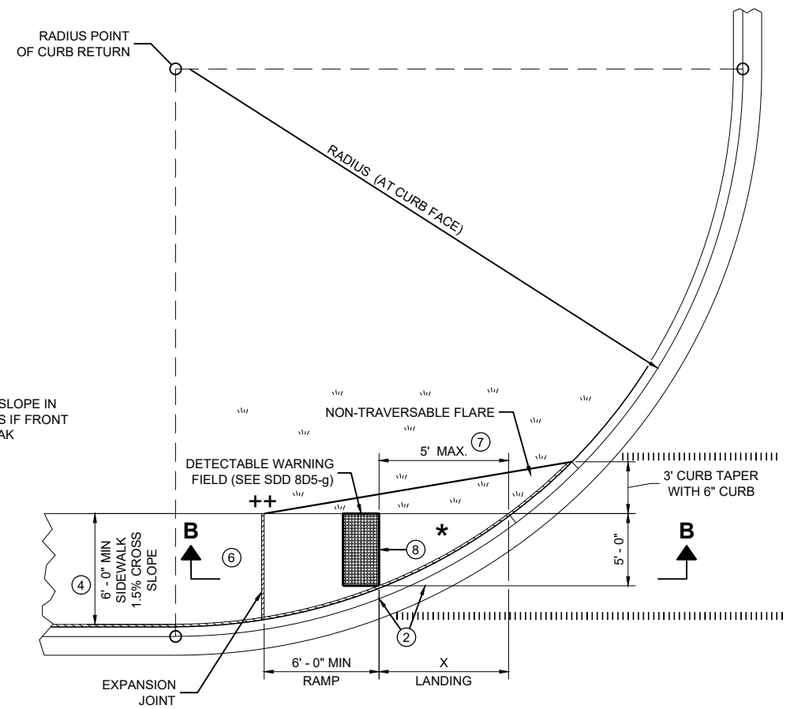


SECTION C - C FOR TYPE 4A



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

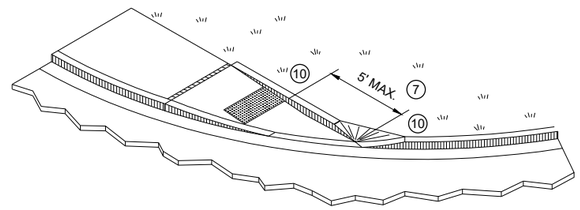
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



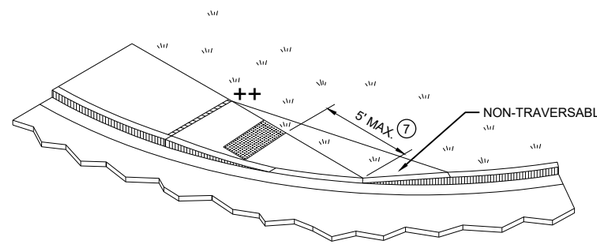
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

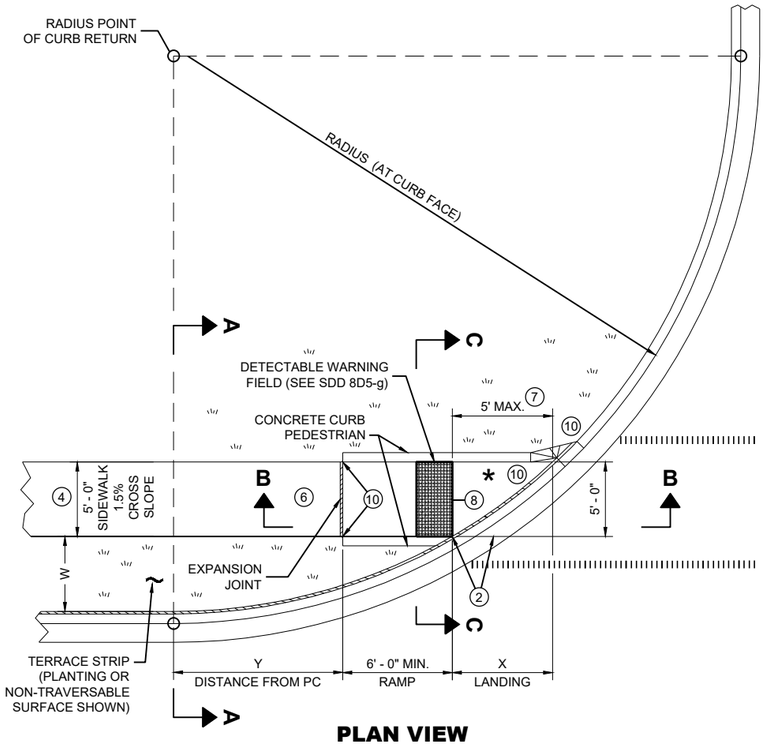
++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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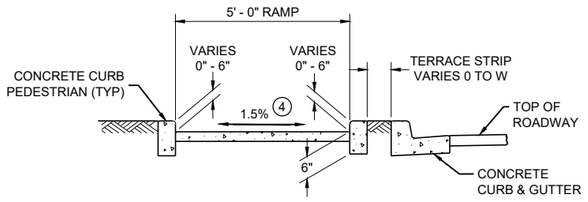
SDD 08D05-21c



PLAN VIEW
CURB RAMP TYPE 4B

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

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



SECTION C - C FOR TYPE 4B

LEGEND

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

GENERAL NOTES

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

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

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

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

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

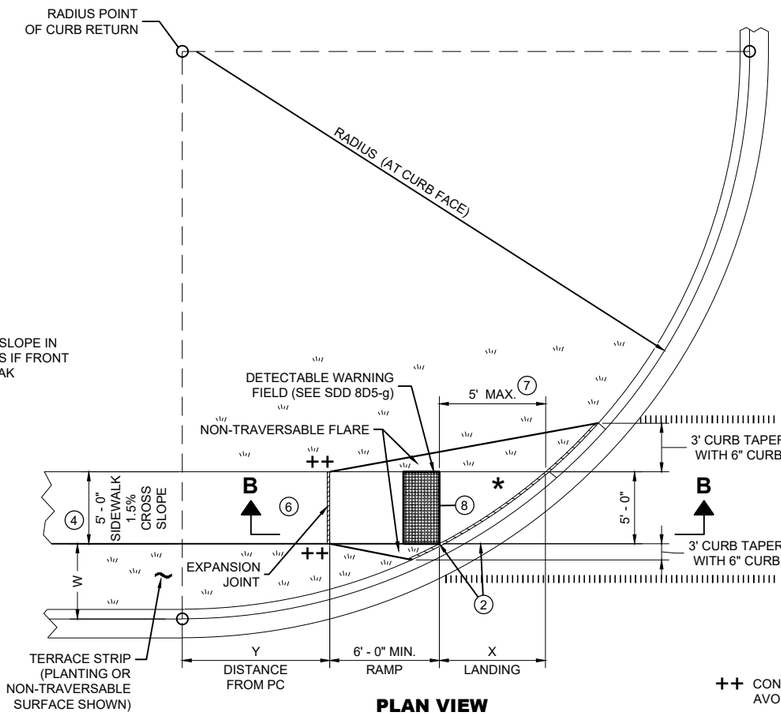
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

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

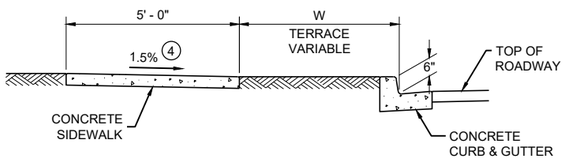
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

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

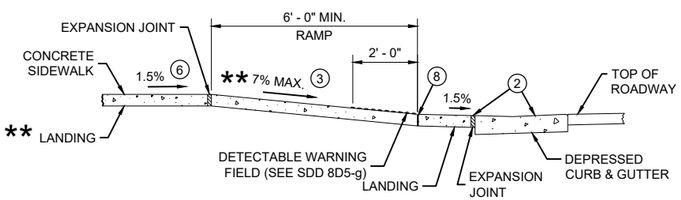
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



PLAN VIEW
CURB RAMP TYPE 4B1



SECTION A - A FOR TYPE 4B

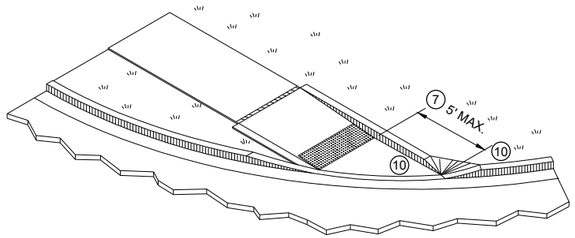


SECTION B - B FOR TYPE 4B AND TYPE 4B1

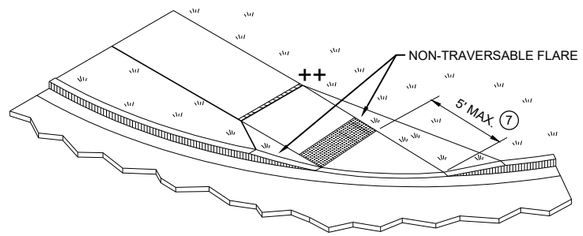
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

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

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



ISOMETRIC VIEW FOR TYPE 4B



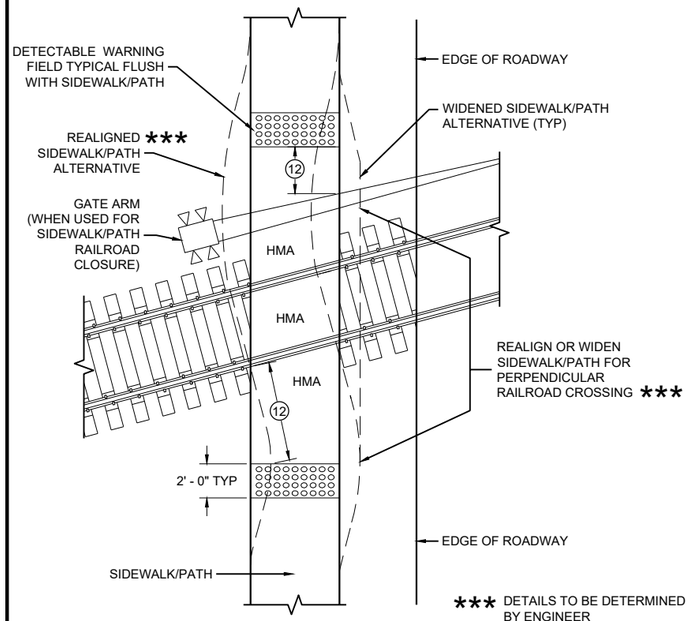
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

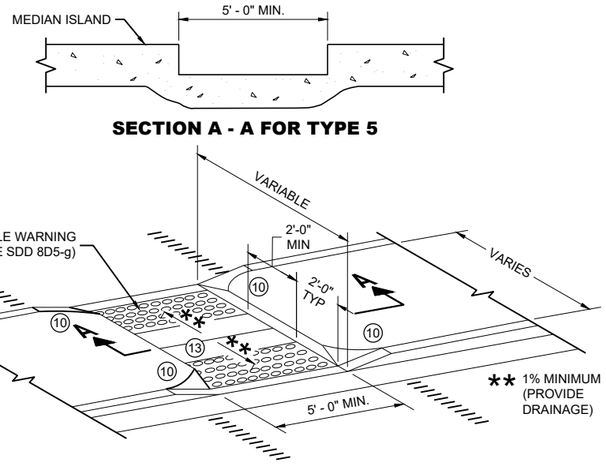
6

SDD 08D05-21d



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

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

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

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

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

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

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

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

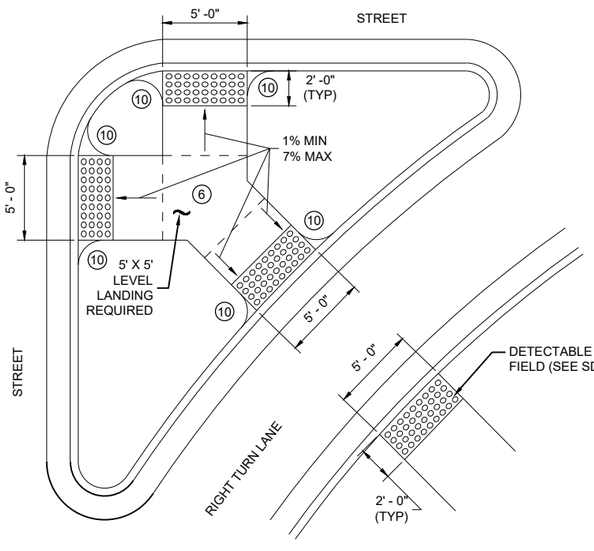
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

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

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

LEGEND

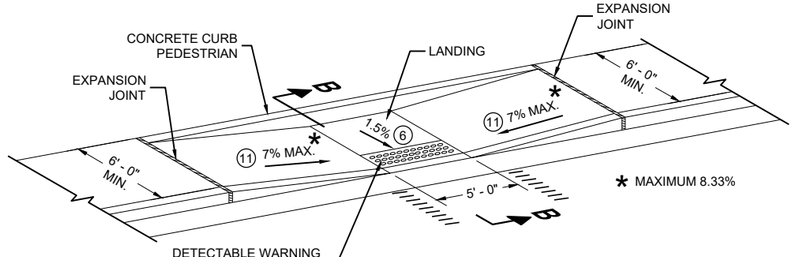
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

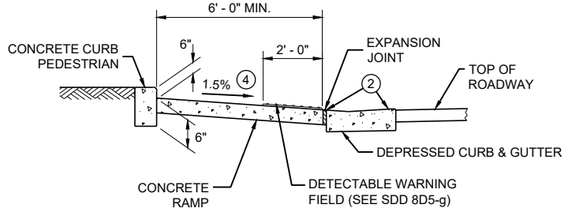
DETECTABLE WARNING AT ISLANDS

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

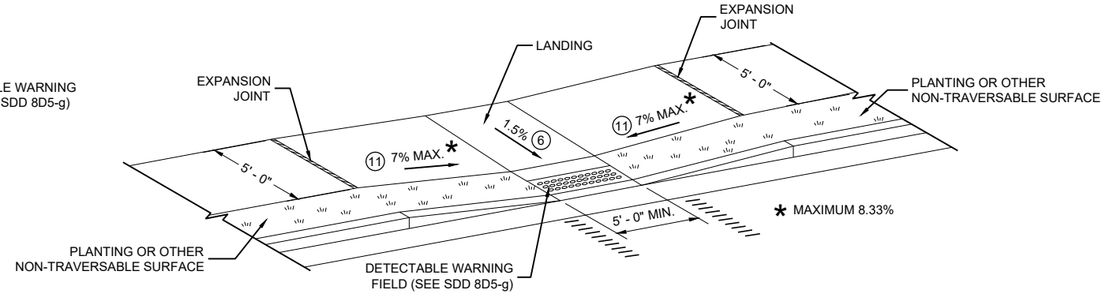


CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



SECTION B - B FOR TYPE 7A



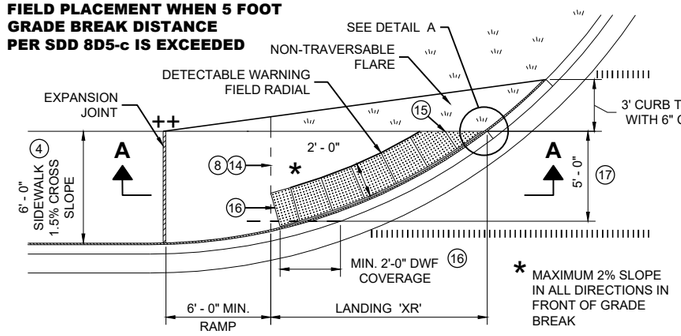
CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

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

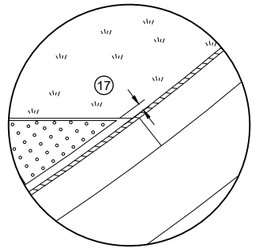
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

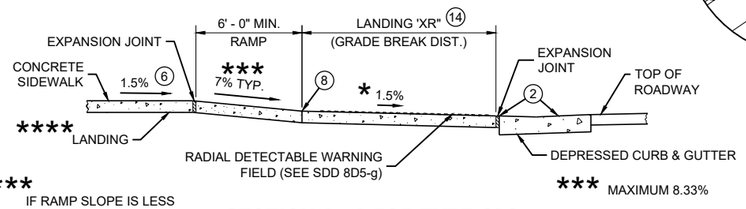


PLAN VIEW

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



DETAIL A



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

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

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

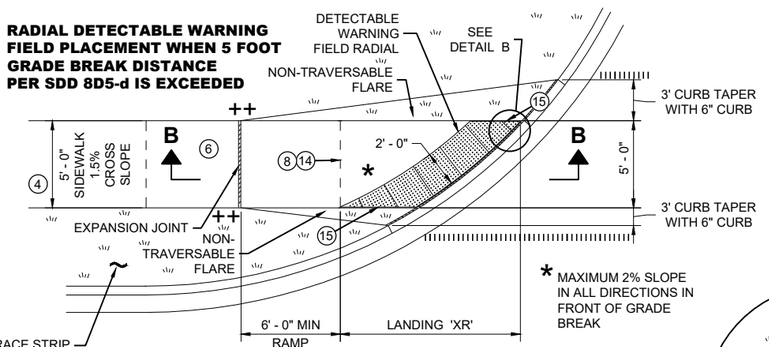
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

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

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

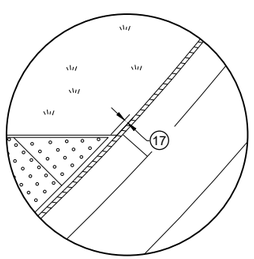
(17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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

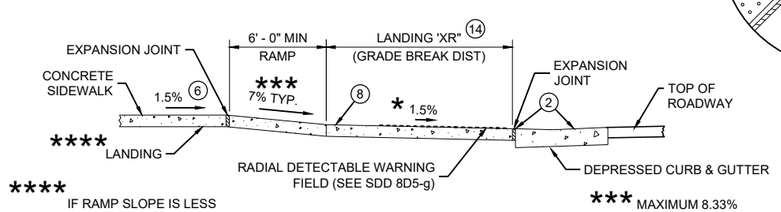


PLAN VIEW

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



DETAIL B

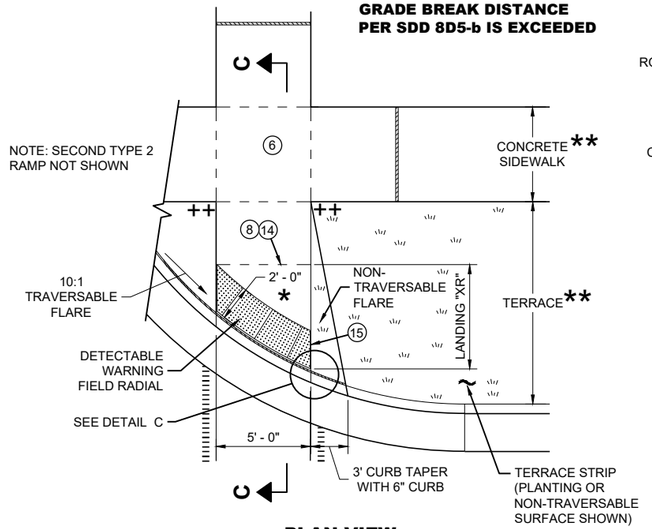


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

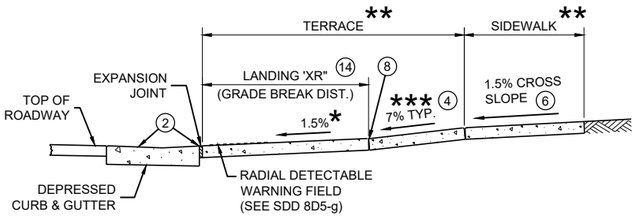
SECTION B - B FOR TYPE 4B1

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

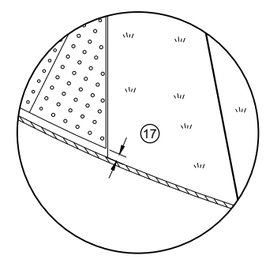


PLAN VIEW

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



SECTION C - C FOR TYPE 2



DETAIL C

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

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%

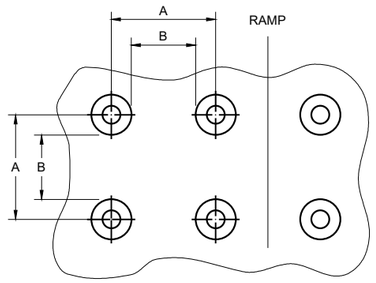
++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
RADIAL DETECTABLE WARNING

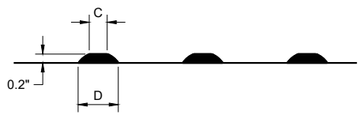
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

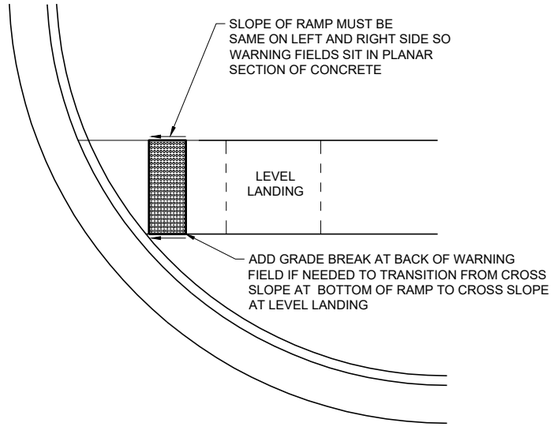
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

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

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

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

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

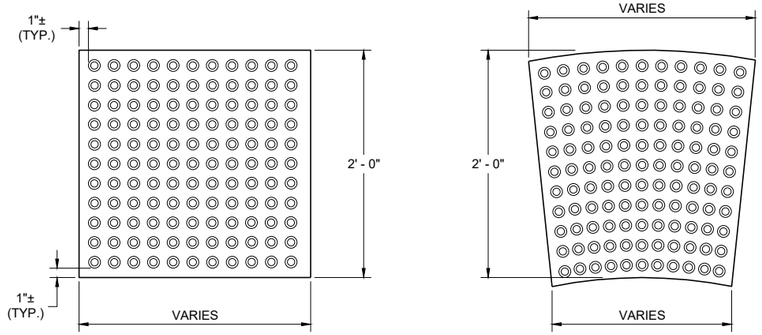
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE.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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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

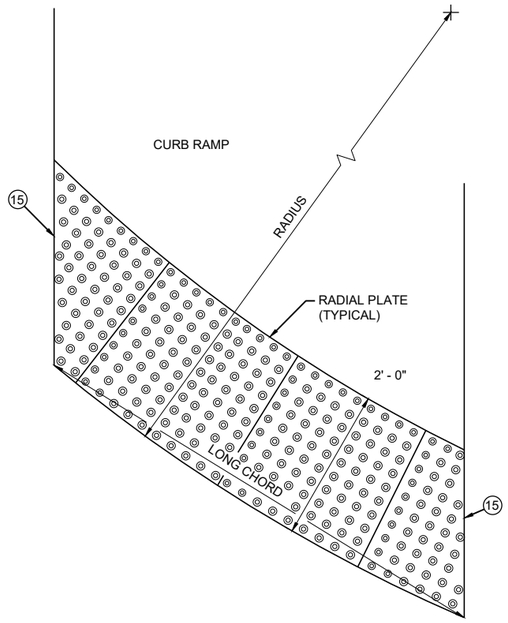
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



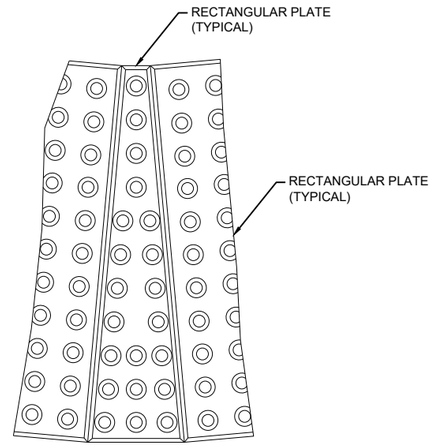
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

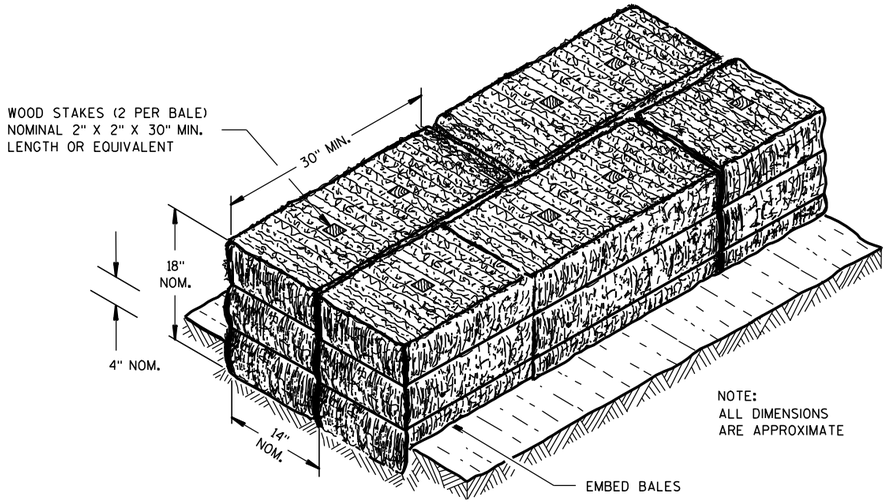
APPROVED

July 2023 — DATE

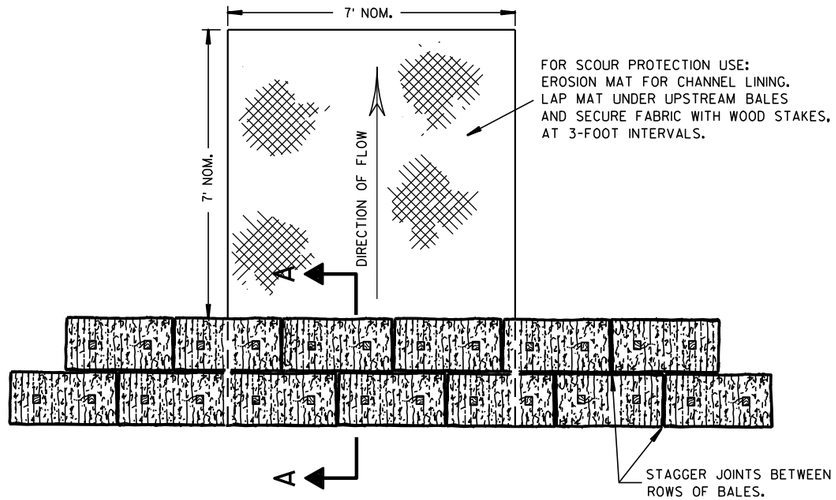
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

FHWA

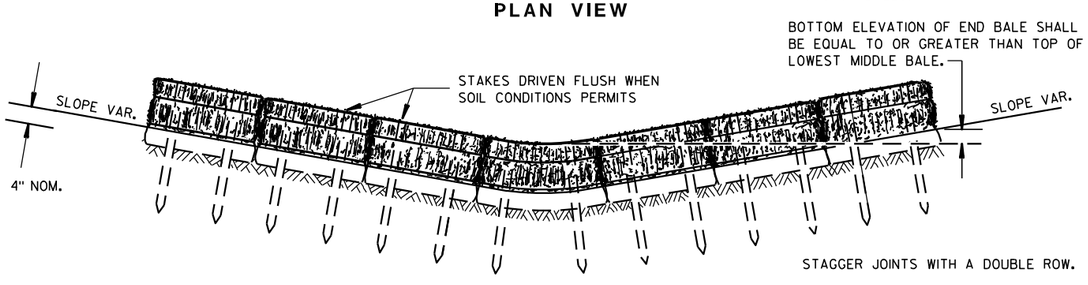
6
SDD 08D05-21g



SECTION A-A



PLAN VIEW



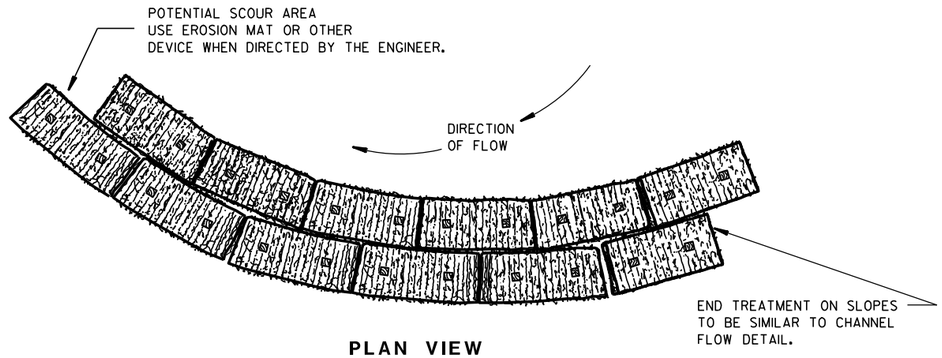
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

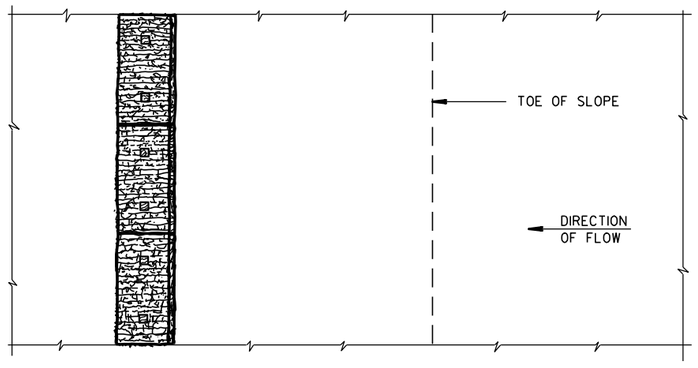
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

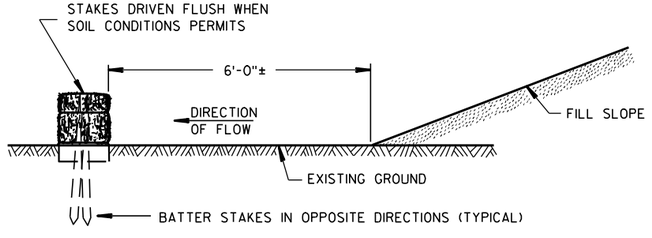


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

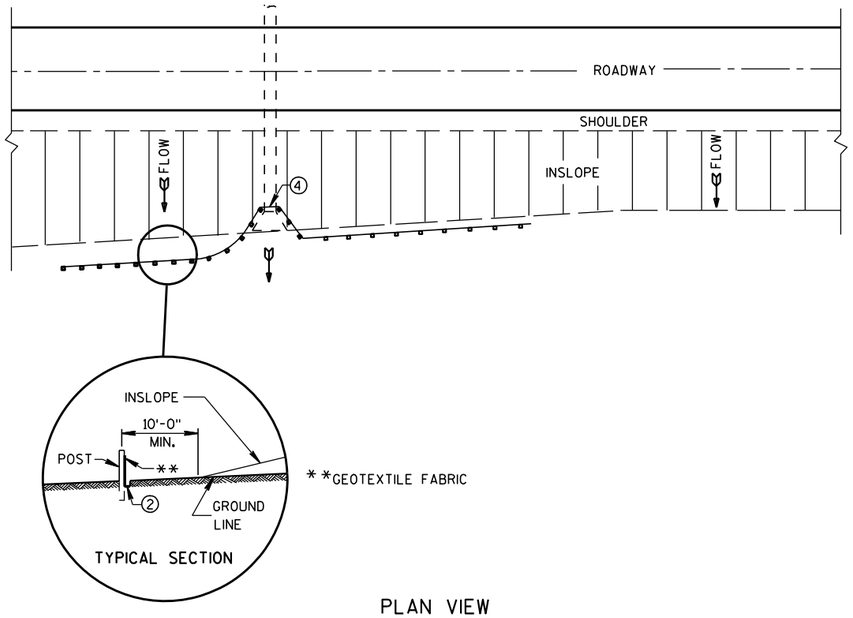
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

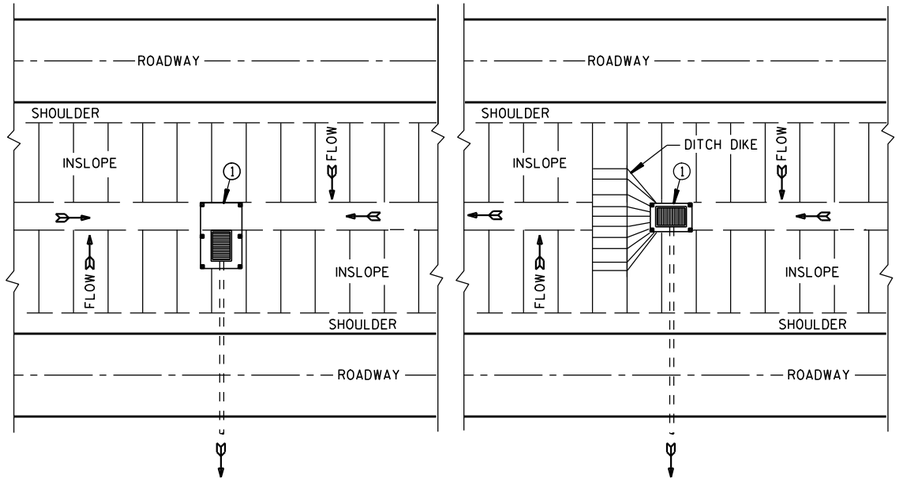
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



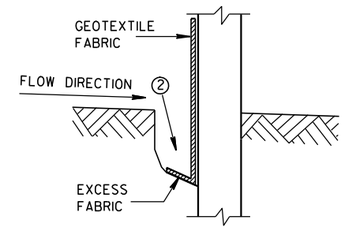
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

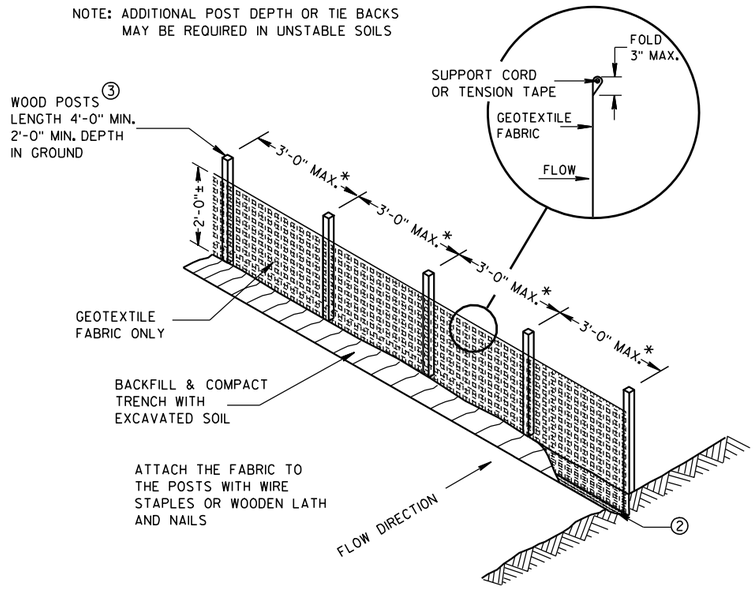
GENERAL NOTES

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

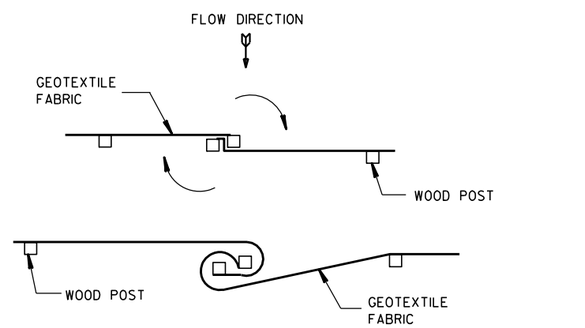
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL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



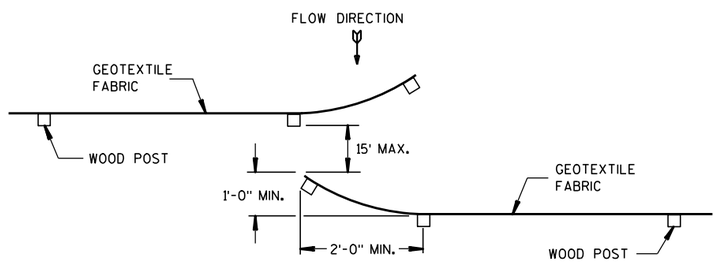
TRENCH DETAIL



SILT FENCE

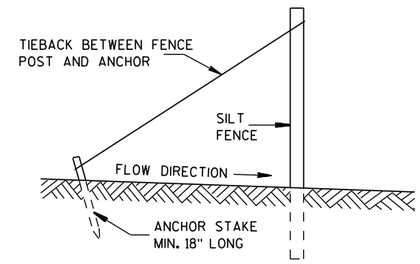


TWIST METHOD



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

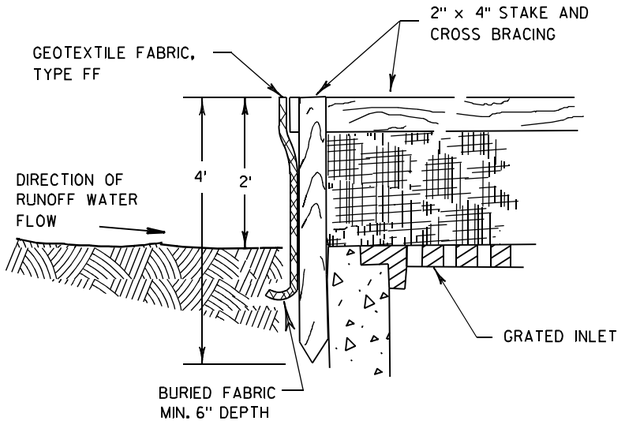
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

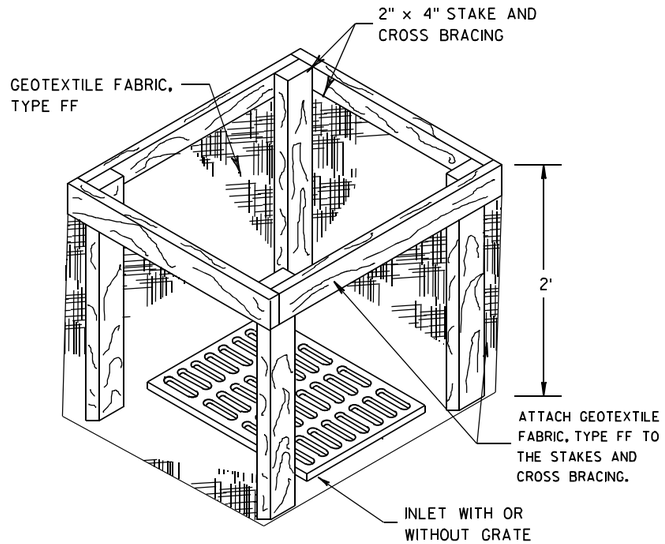
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S.D.D. 8 E 9-6

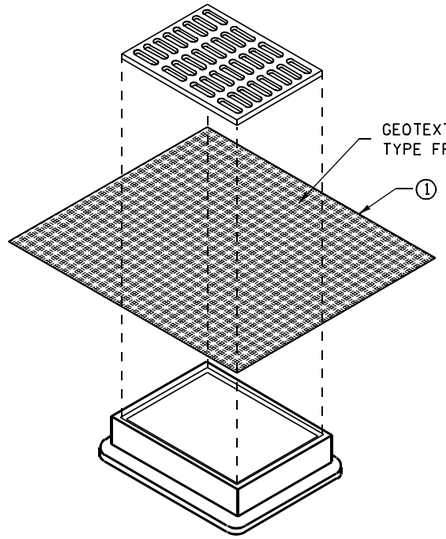
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S.D.D. 8 E 9-6



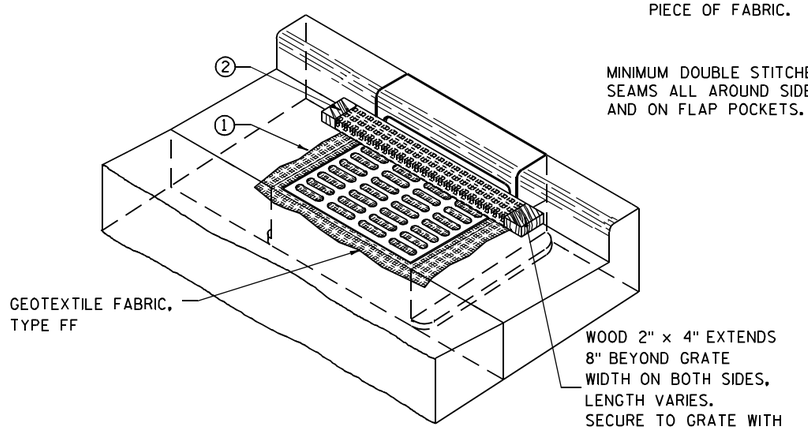


INLET PROTECTION, TYPE A

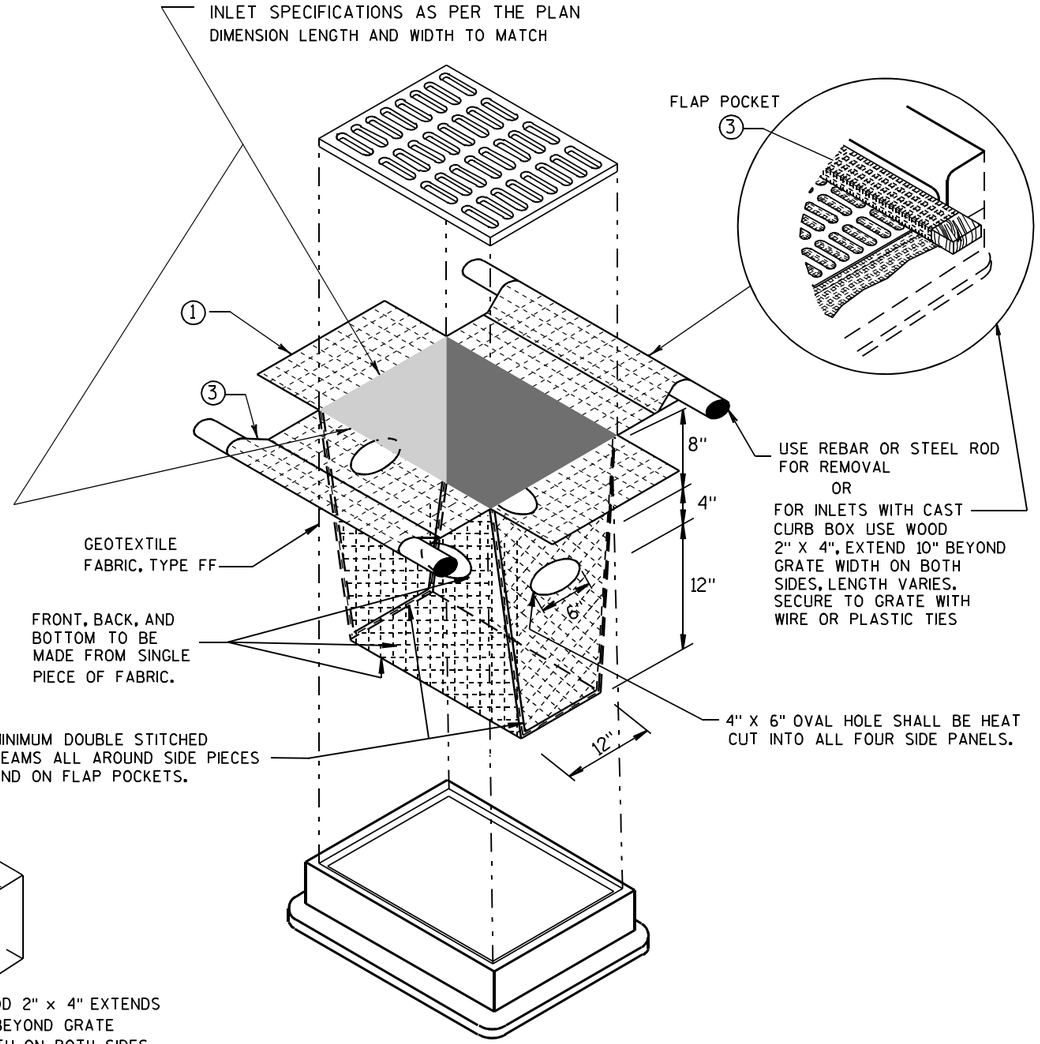


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

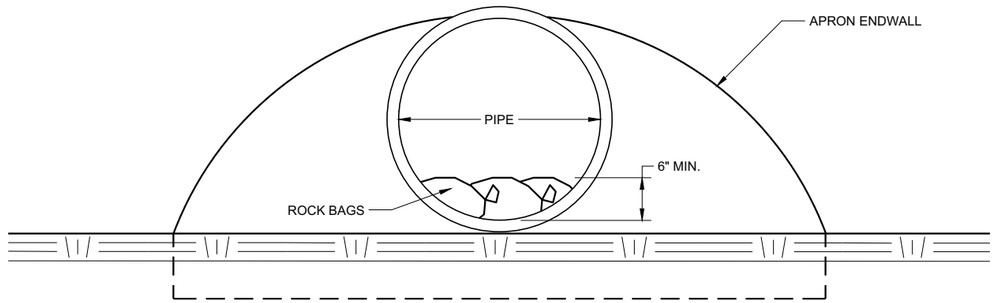
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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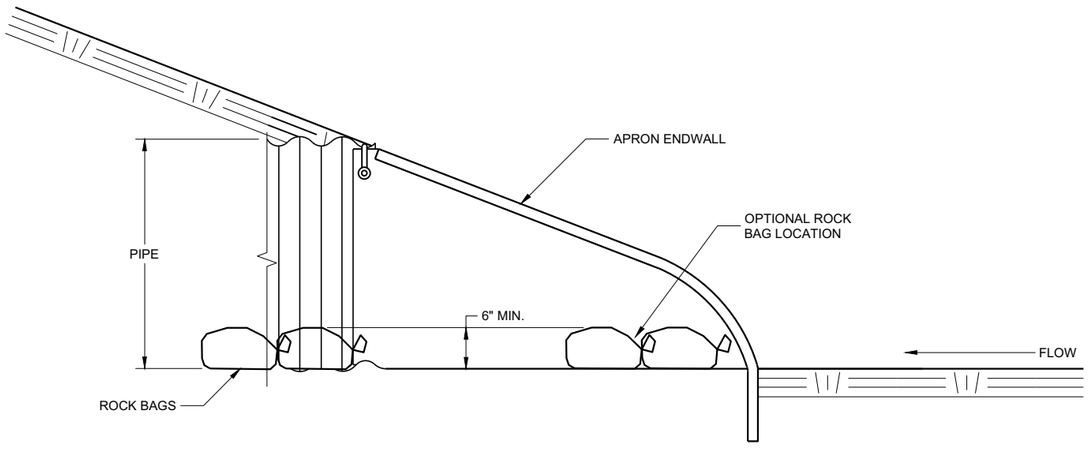
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Daniel Schave — EROSION CONTROL ENGI
FHWA

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SDD 08E15 - 01

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SDD 08E15 - 01

METAL APRON ENDWALLS

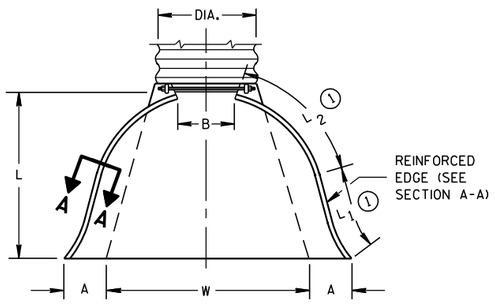
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

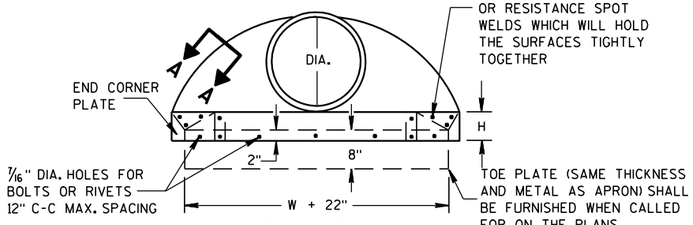
REINFORCED CONCRETE APRON ENDWALLS

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

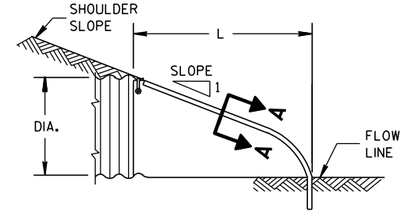
*MINIMUM
**MAXIMUM



PLAN VIEW

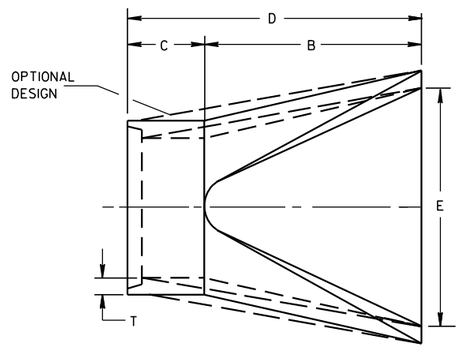


END VIEW

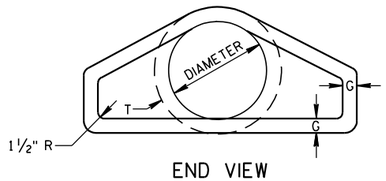


SIDE ELEVATION

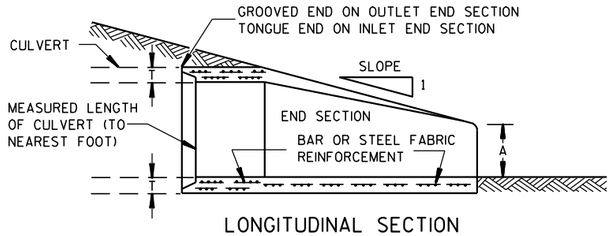
METAL ENDWALLS



PLAN

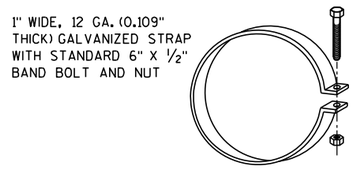


END VIEW



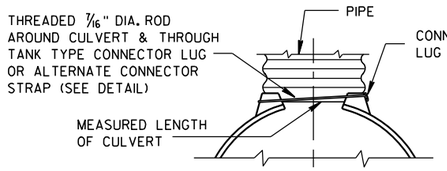
LONGITUDINAL SECTION

CONCRETE ENDWALLS

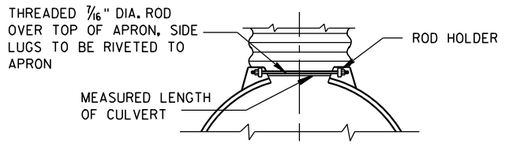


ALTERNATE FOR TYPE 1 CONNECTION

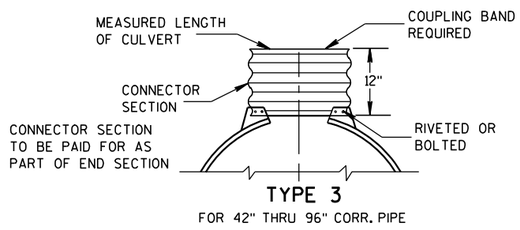
END SECTION CONNECTOR STRAP



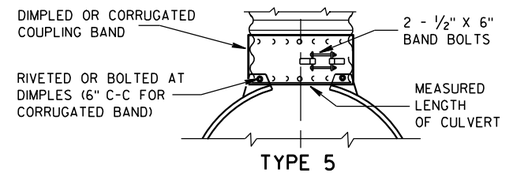
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

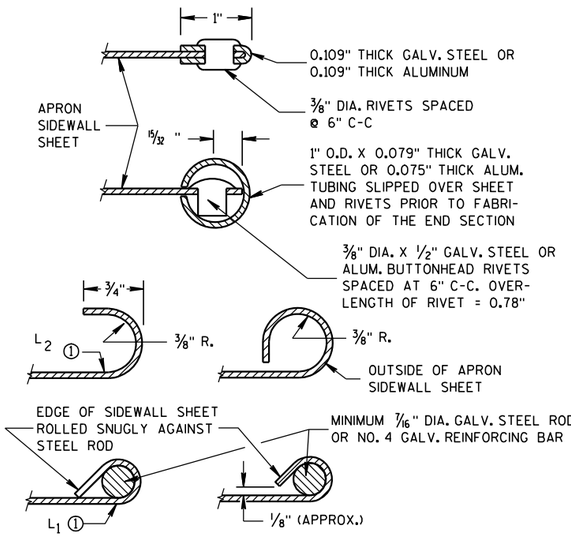
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

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

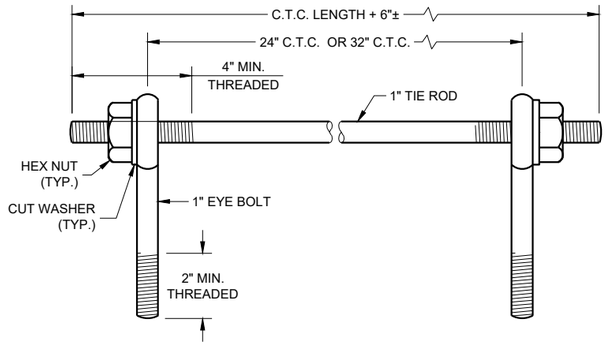
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

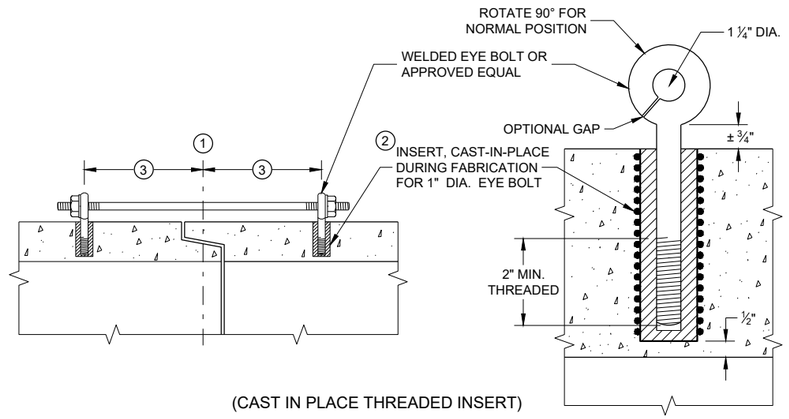
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

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

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

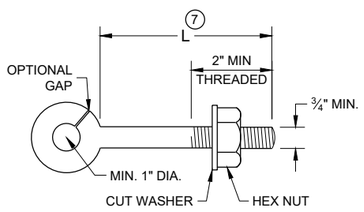
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

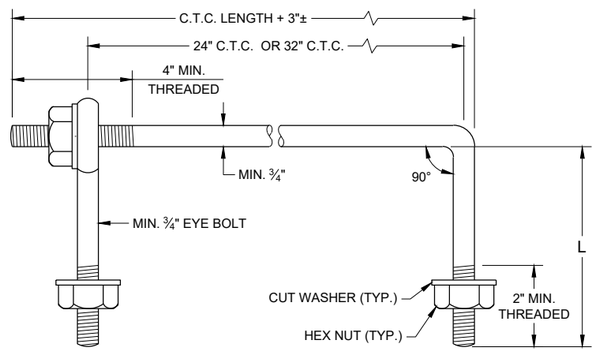
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

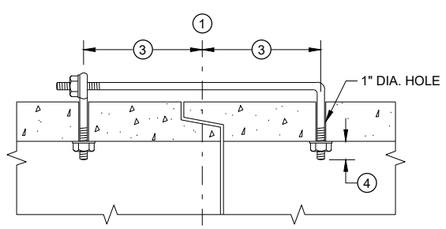


EYE BOLT (7)

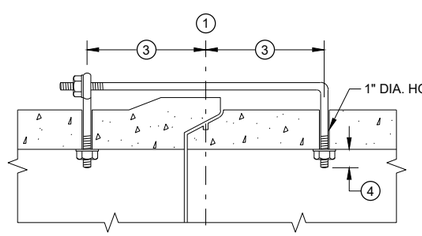
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

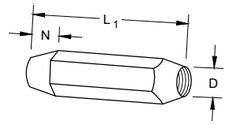
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

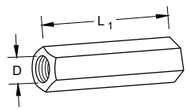
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



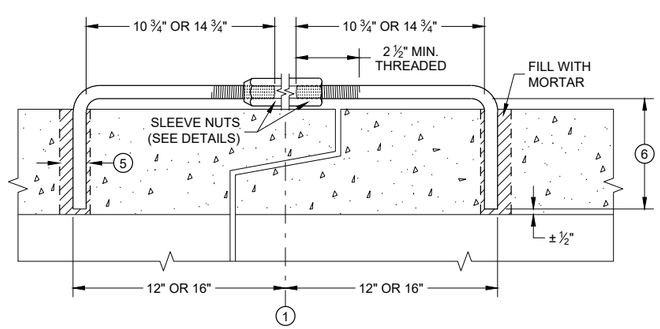
TAPERED



PLAIN

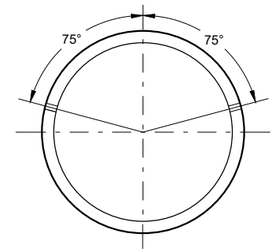
RIGHT AND LEFT THREADS

SLEEVE NUTS



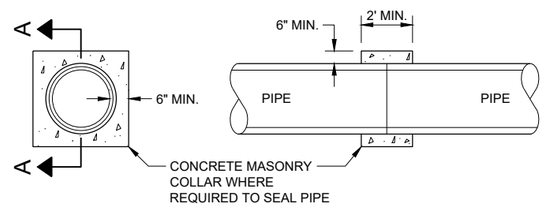
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

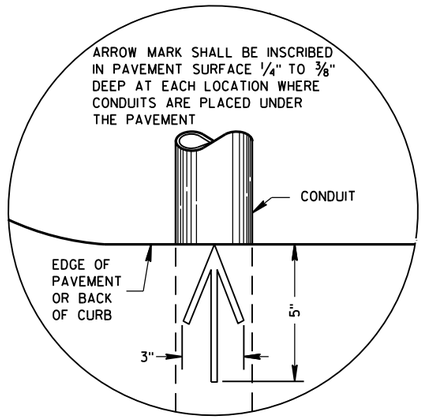
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

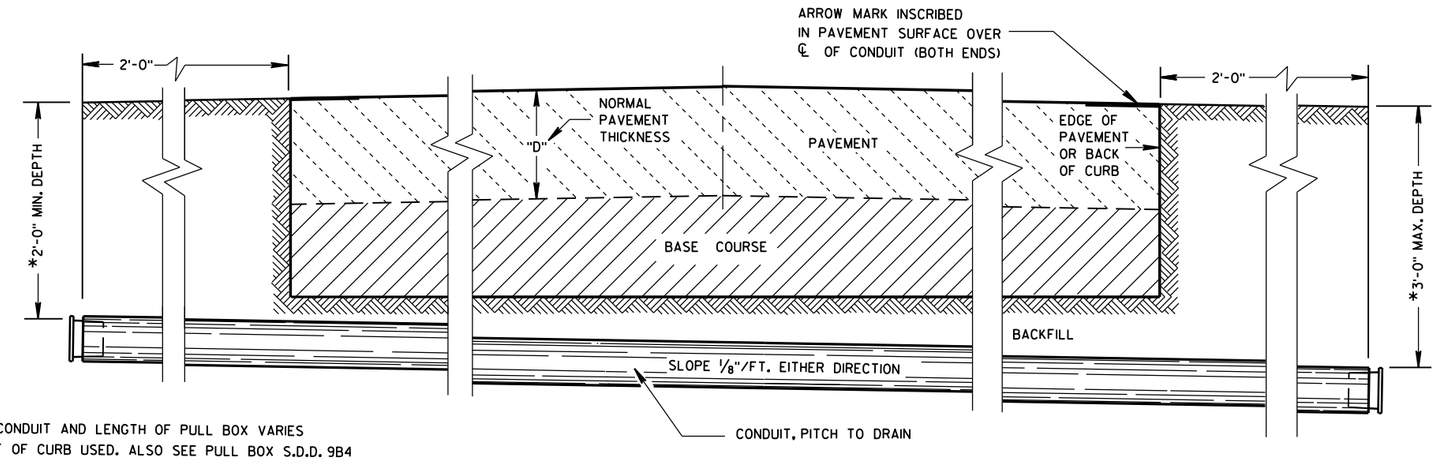
SDD 08F04 - 08

SDD 08F04 - 08



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.

CONDUIT

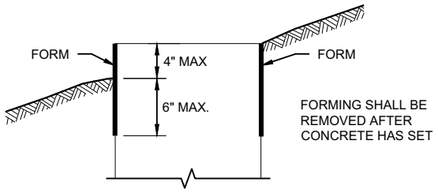
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 9 B 2-10

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



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

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

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

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

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

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

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

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

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

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

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

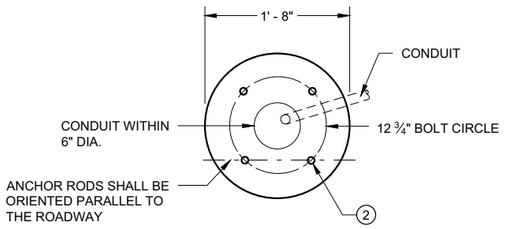
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

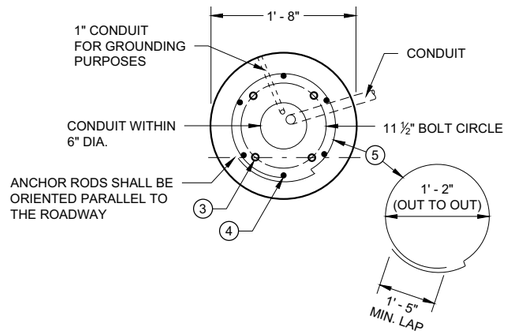
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

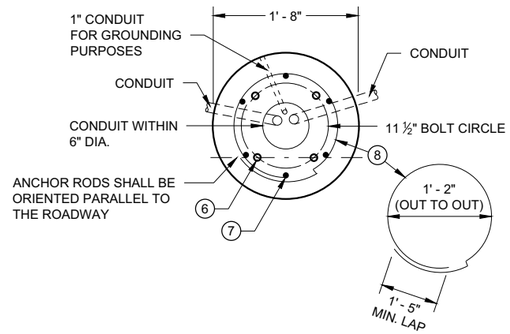
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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







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

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

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

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

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

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

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

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

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

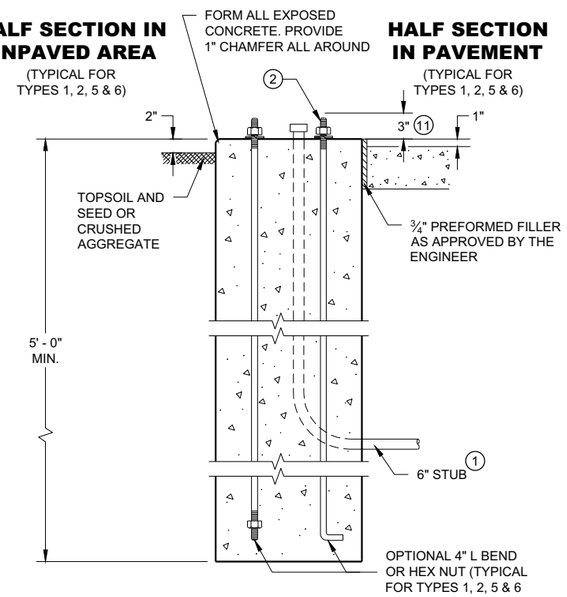
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

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

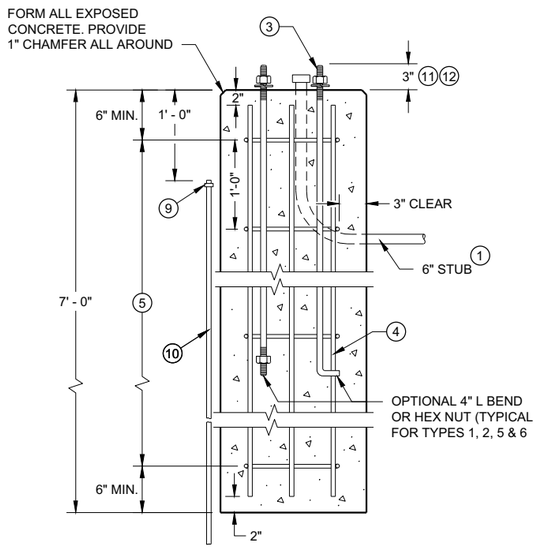
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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

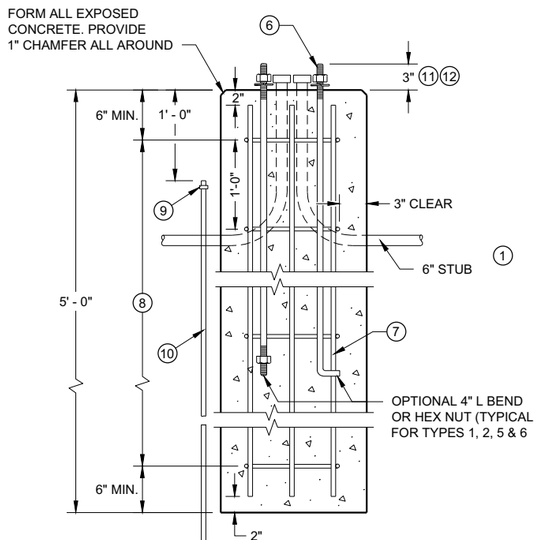
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

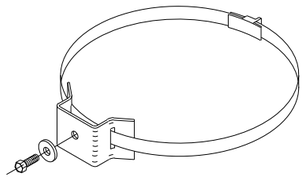
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SDD 09C02 - 09

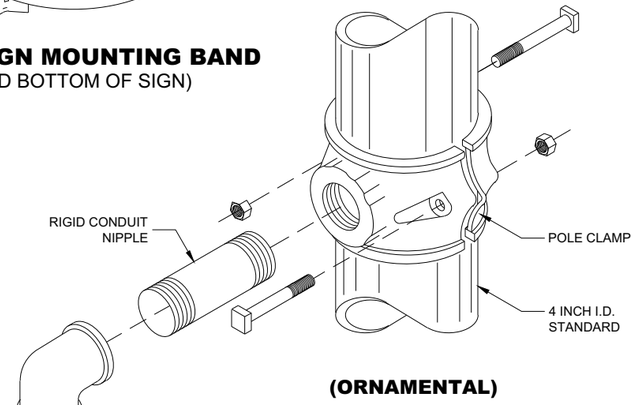
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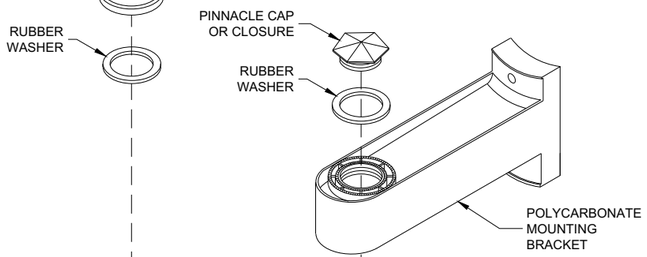
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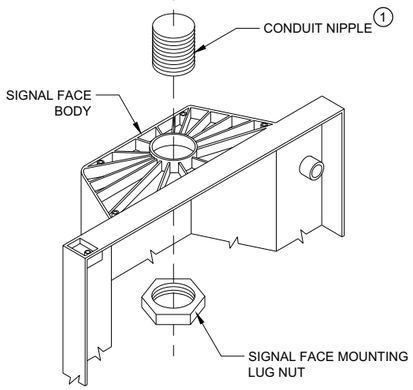
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



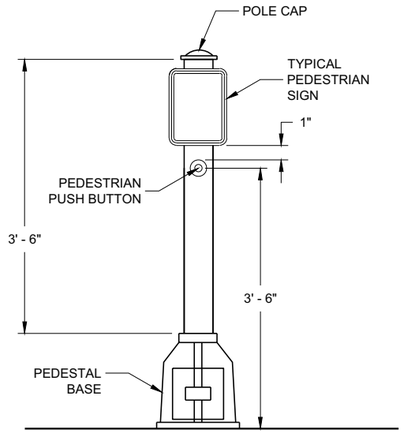
(ORNAMENTAL)



(BANDED)



SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

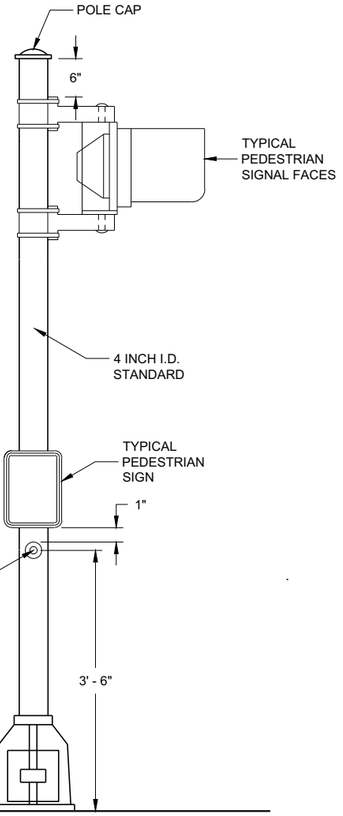
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

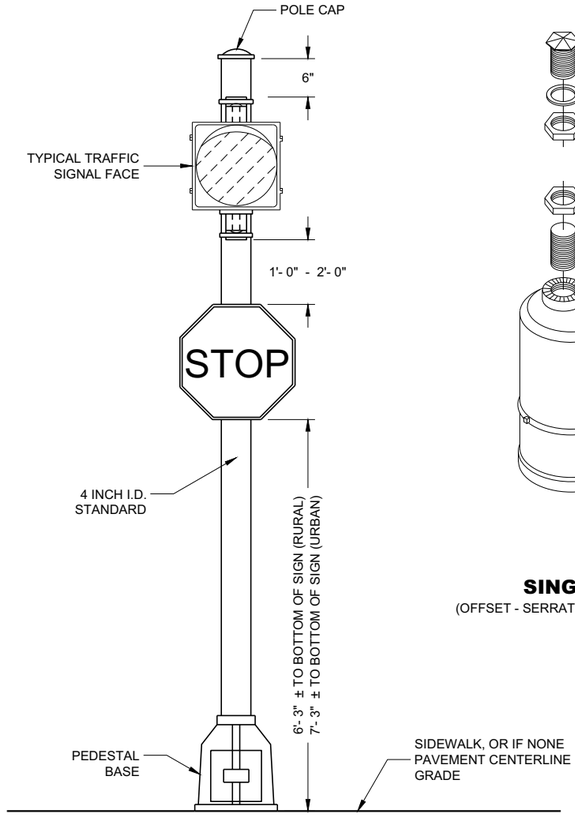
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

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

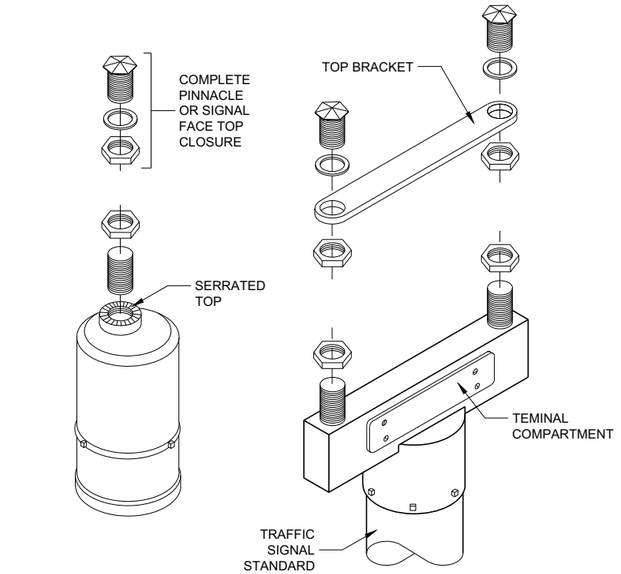
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

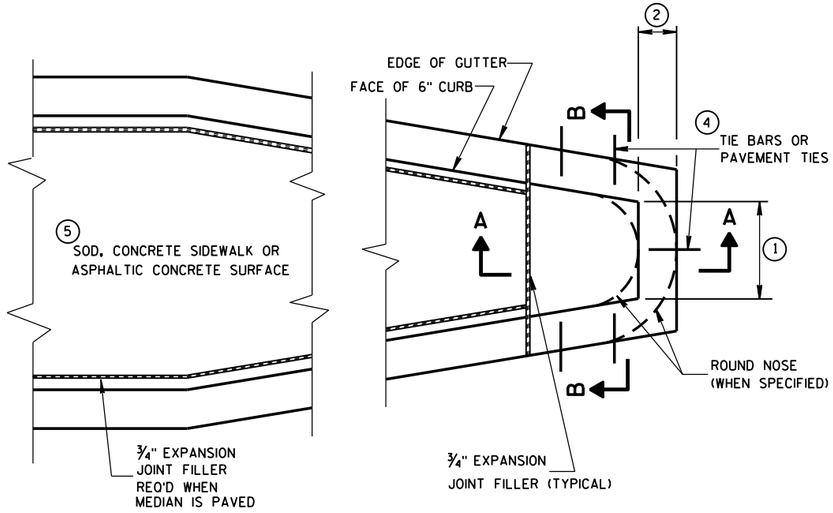
APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

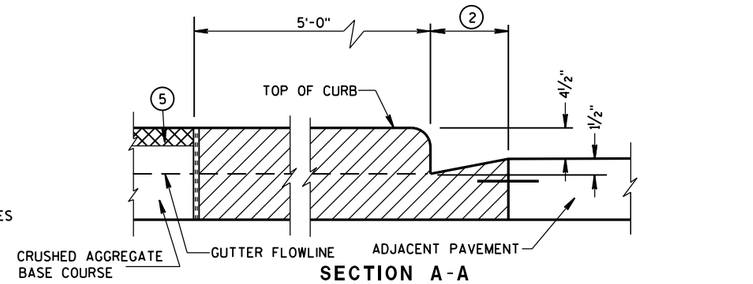
FHWA

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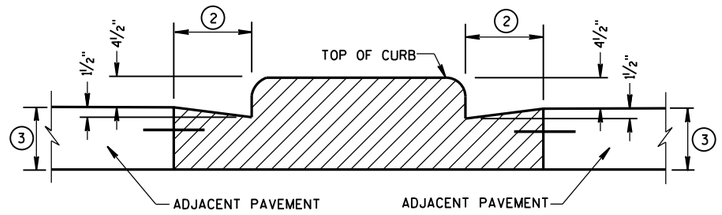
SDD 09E07 - 06

SDD 09E07 - 06





SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

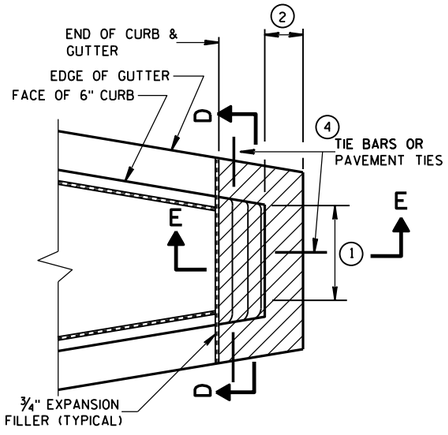
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

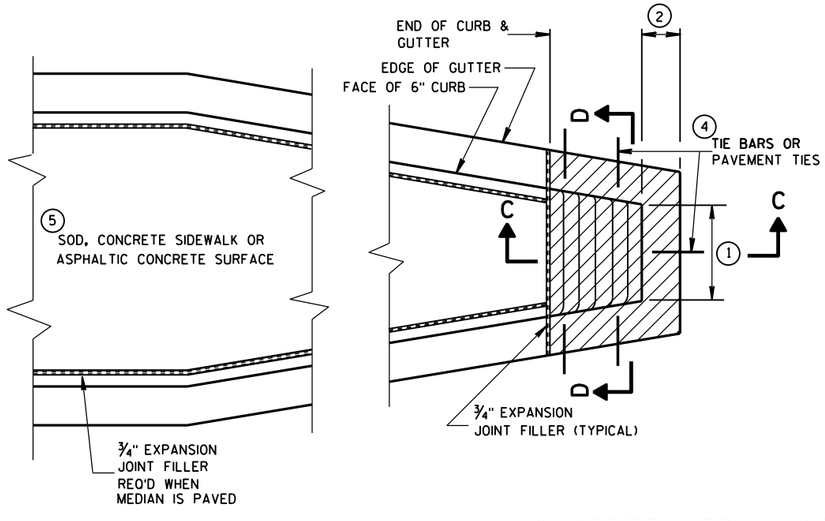
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

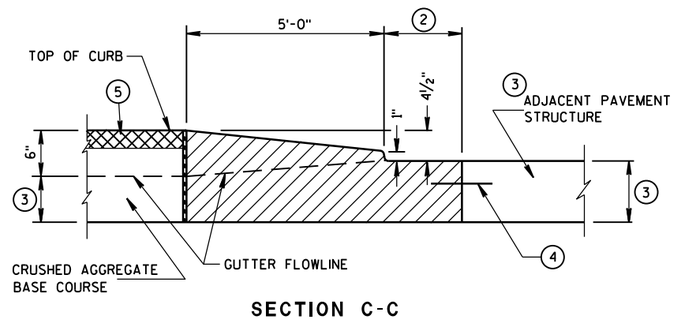
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

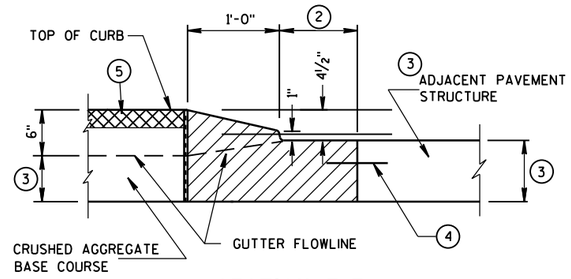




CONCRETE MEDIAN SLOPED NOSE TYPE 1

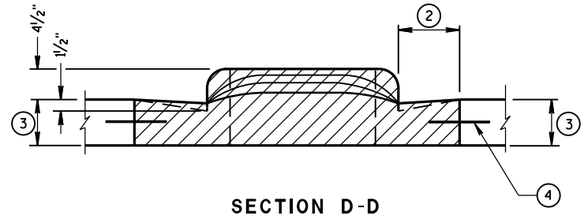


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

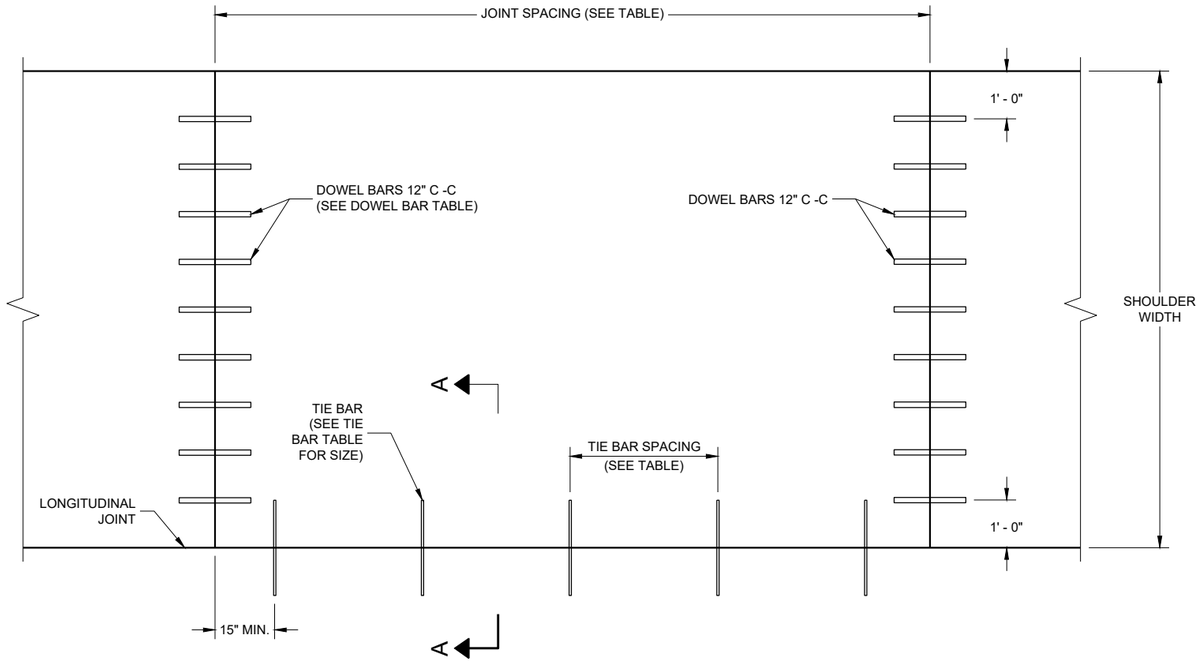
APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS D ENGINEER
FHWA

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S.D.D. 11 B 2-2

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S.D.D. 11 B 2-2



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

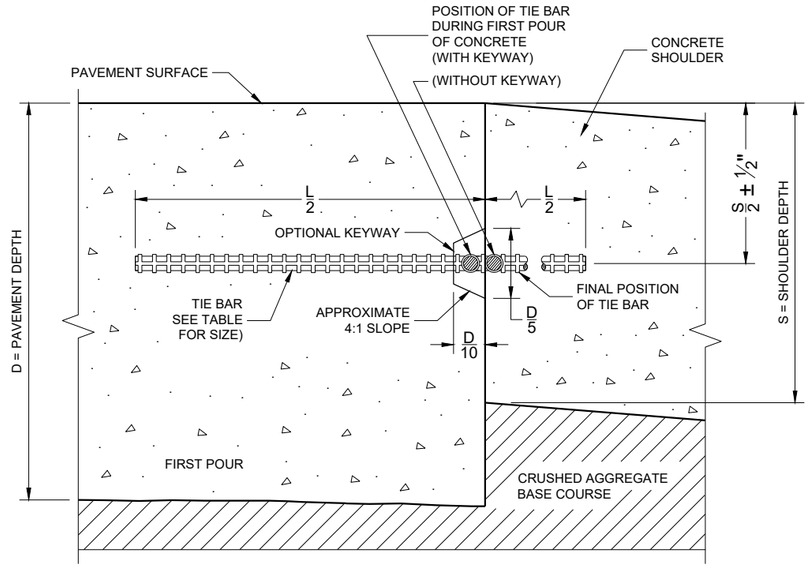
GENERAL NOTES

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

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

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

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



SECTION A - A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

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

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

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

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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

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

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Peter Kemp
PAVEMENT SUPERVIS

FHWA

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SDD 13A03 - 07

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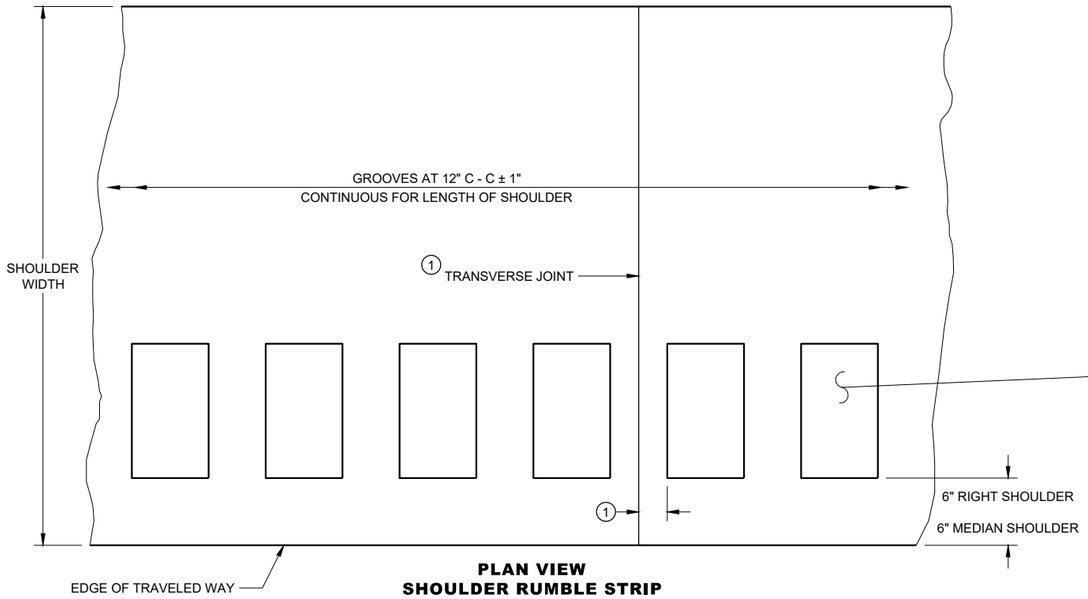
SDD 13A03 - 07

GENERAL NOTES

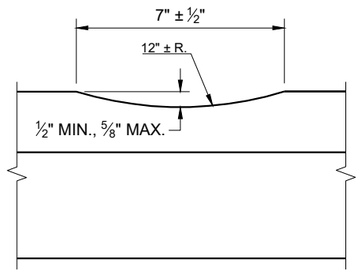
SDD 13A5, SHEET "b" SHOWS THE LOCATION OF THE RUMBLE STRIPS AT RAMP AND GORE LOCATIONS.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL AND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

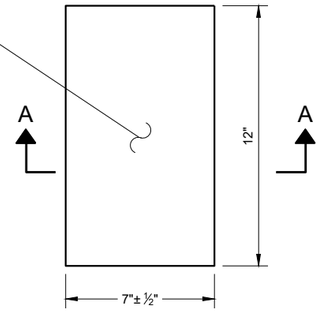
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6 INCHES AWAY FROM TRANSVERSE JOINTS.



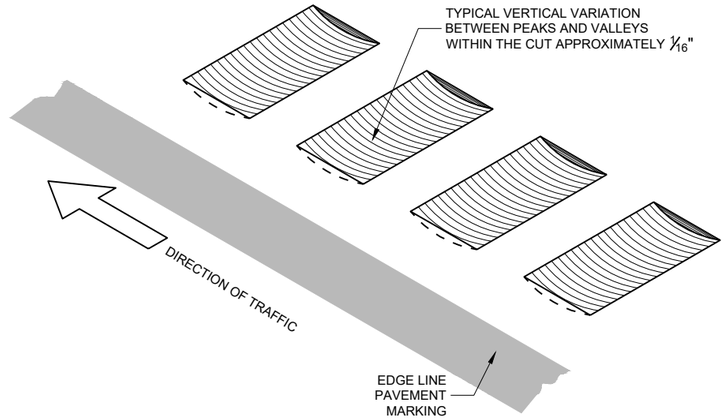
PLAN VIEW
SHOULDER RUMBLE STRIP



SECTION A - A

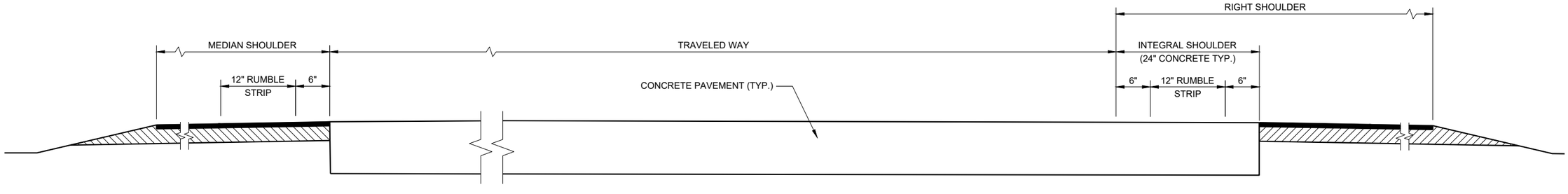


PLAN VIEW
(SINGLE GROOVE)



ISOMETRIC

PLACEMENT DETAIL FOR RUMBLE STRIP



SECTION VIEW

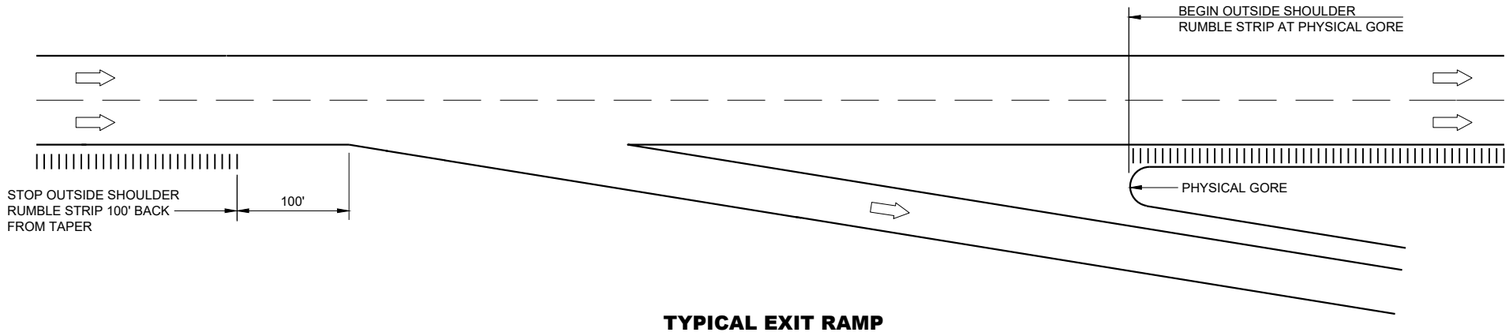
TYPICAL SHOULDER RUMBLE STRIPS
(ONE ROADWAY IS SHOWN)

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13A05-06a



TYPICAL EXIT RAMP

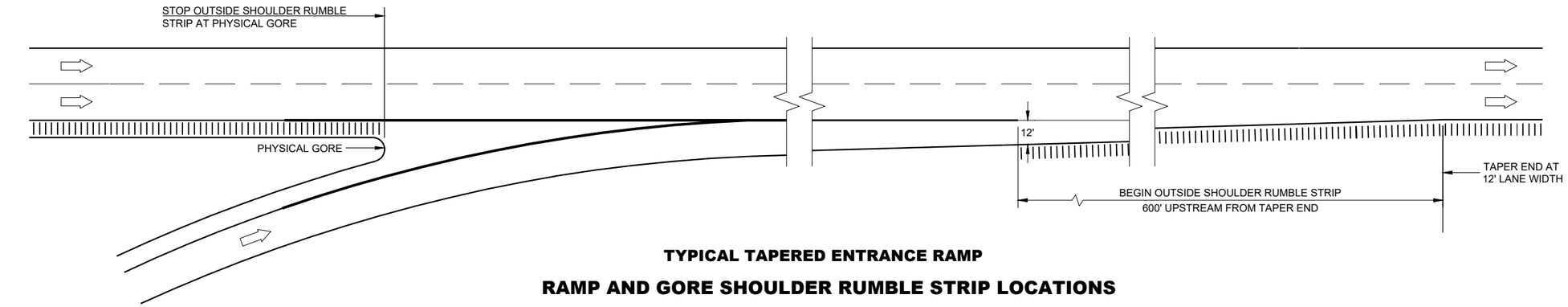
GENERAL NOTES

NO RUMBLE STRIP ON EXIT, DIRECTIONAL OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIALAND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

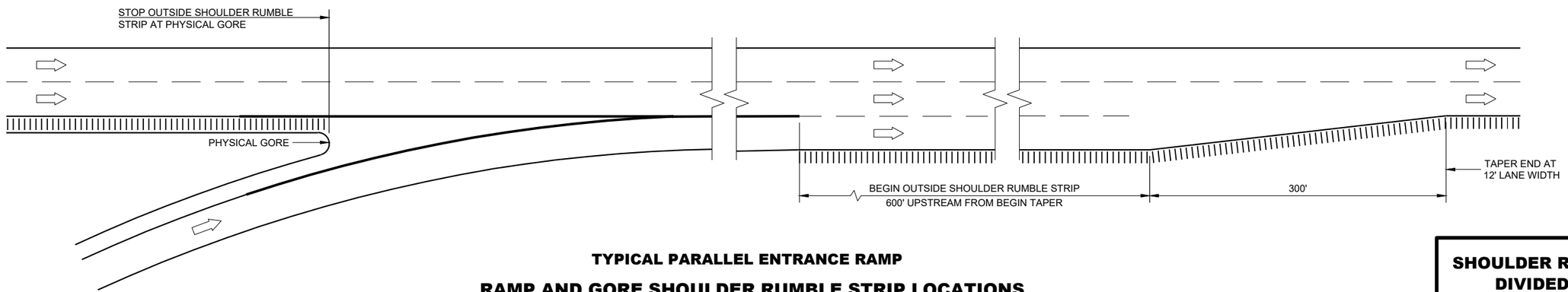
LEGEND

DIRECTION OF TRAFFIC



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

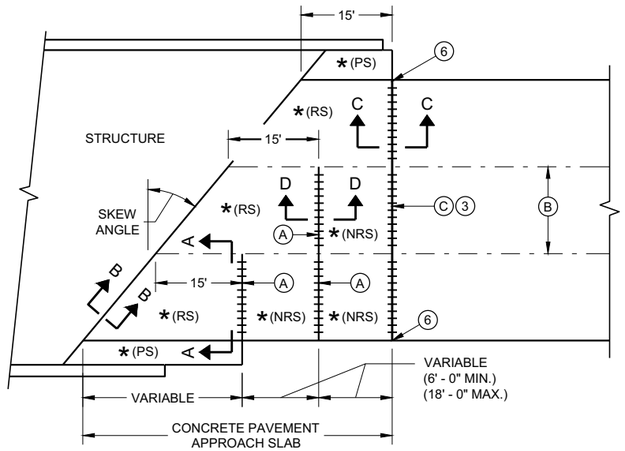
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

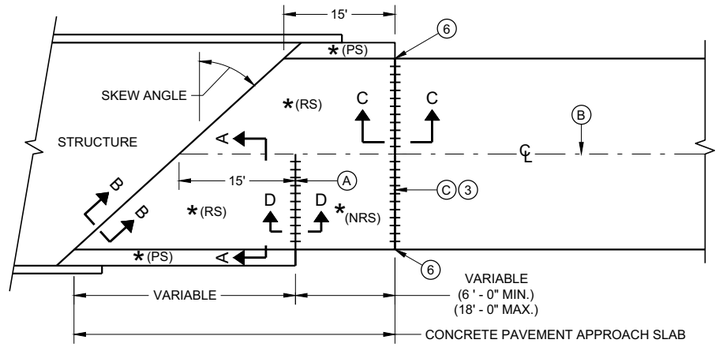
/S/ Rodney Taylor
ROADWAY DESIGN STANI
UNIT SUPERVISOR

FHWA

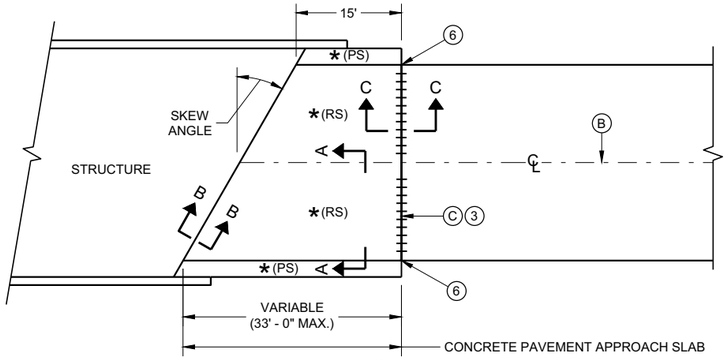
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SDD 13A05-06b



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

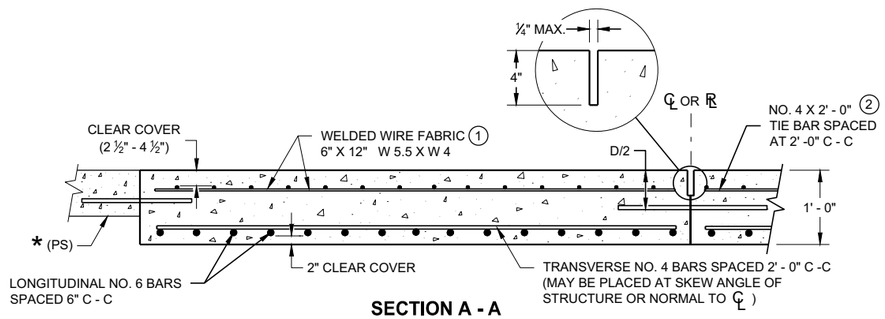
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

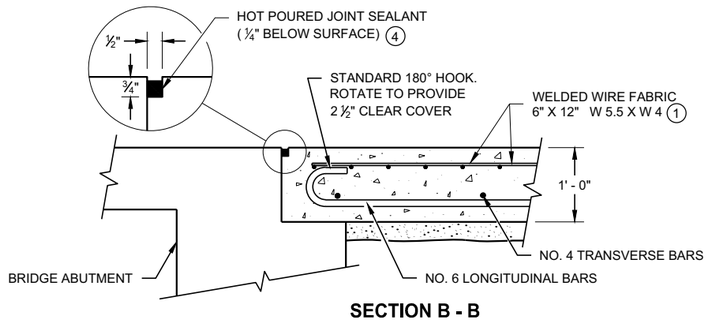
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

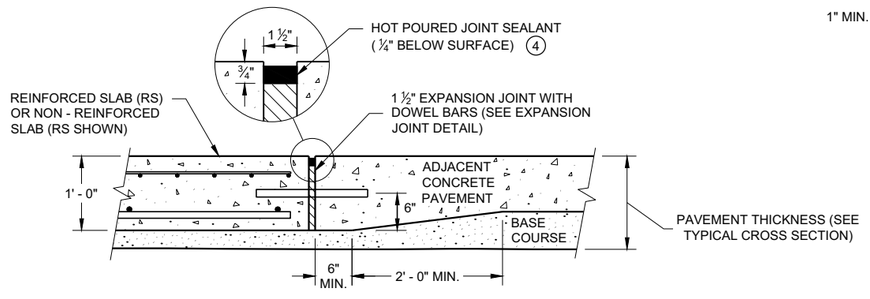
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

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

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

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

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

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

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

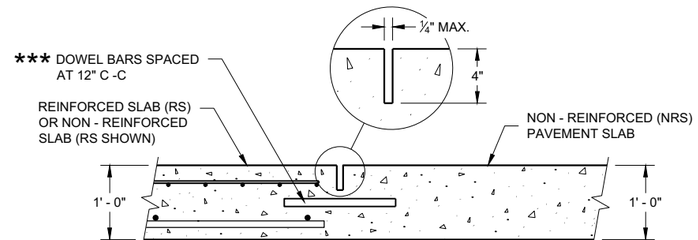
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

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

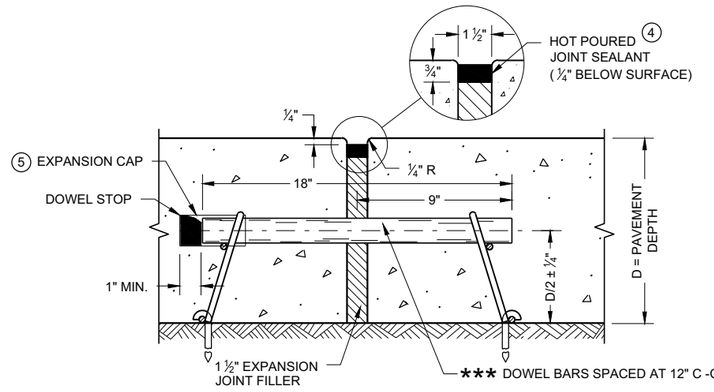
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

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



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

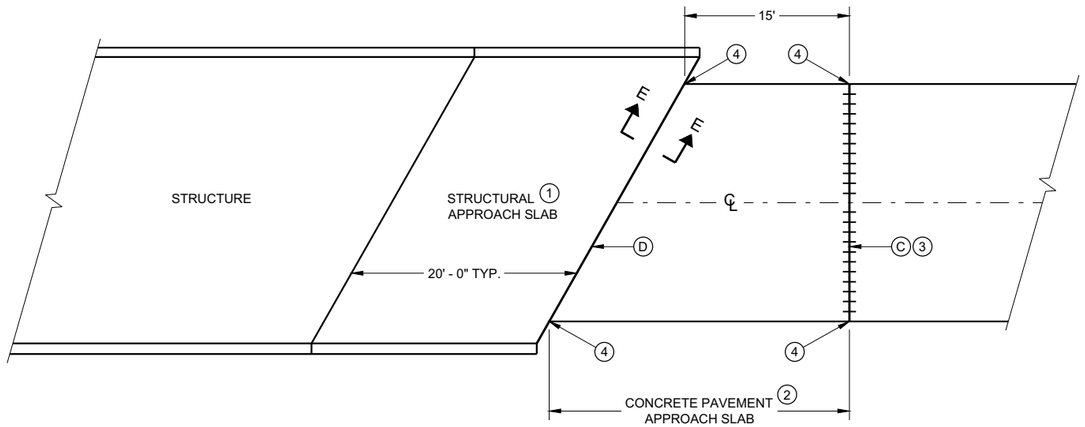
APPROVED
November 2018
DATE

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

FHWA

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SDD 13B02 - 09a



BRIDGE APPROACHES

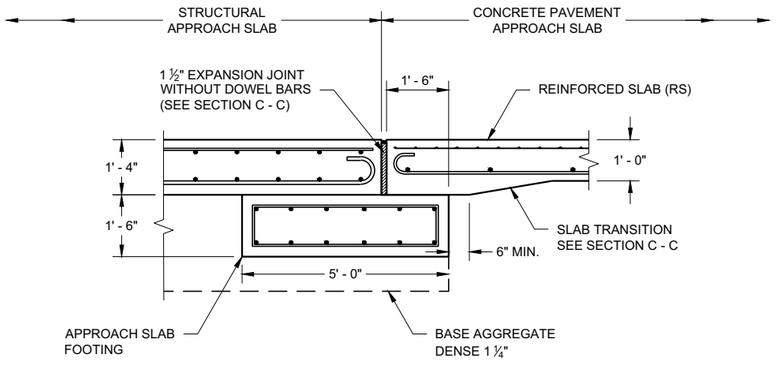
GENERAL NOTES

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

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

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

D. 1 ½" EXPANSION JOINT (NO DOWELS)



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

STRUCTURAL APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

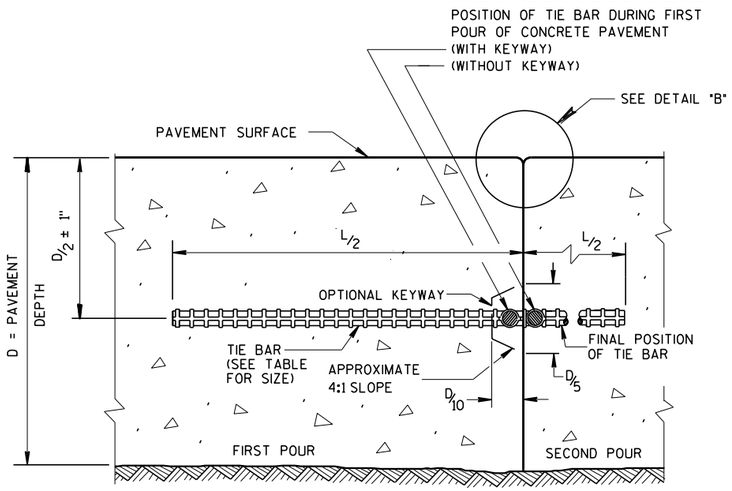
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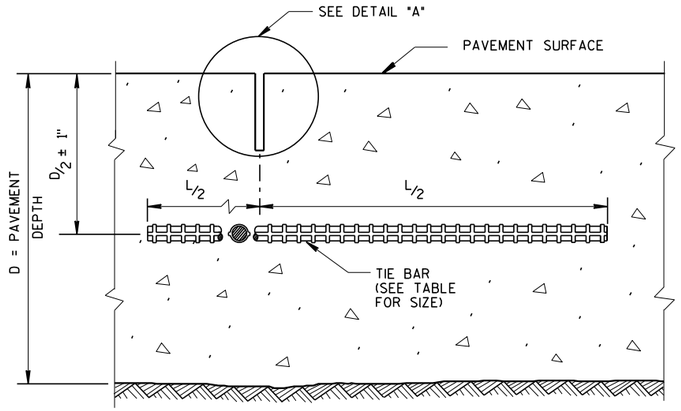
SDD 13B02 - 09b

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SDD 13B02 - 09b



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

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

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

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

PLAN VIEW

SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

DETAIL "A"

DETAIL "B"

DETAIL "C"

TIE BAR TABLE

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

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

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

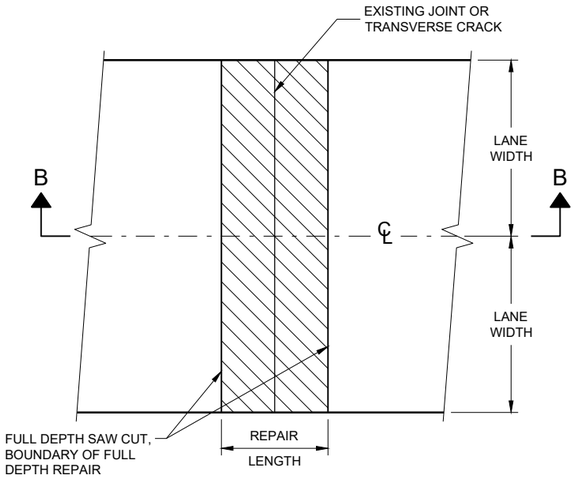
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

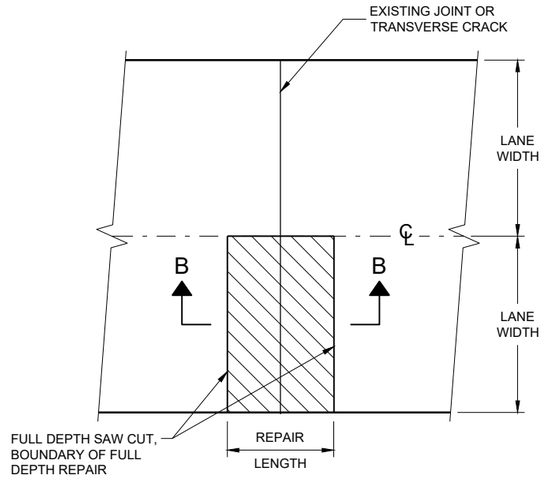
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp, PE
PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19



PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

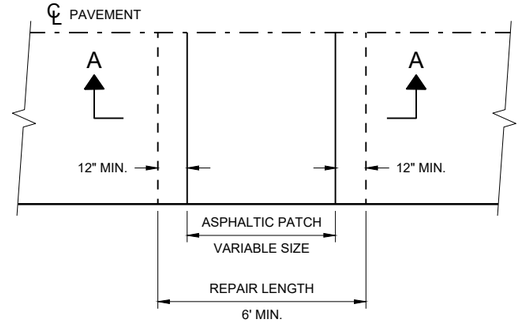
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

PROVIDE A 6 FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREA TO ADJACENT TRANSVERSE JOINT OR CRACK.

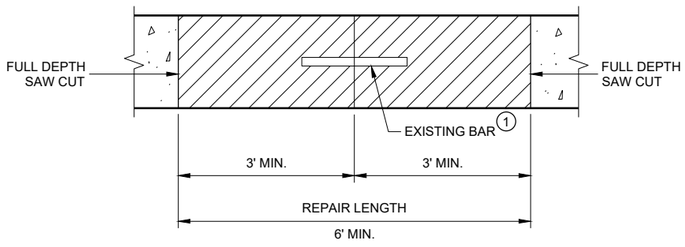
THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NON-DOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

(1) DOWEL BARS MAY NOT BE PRESENT.



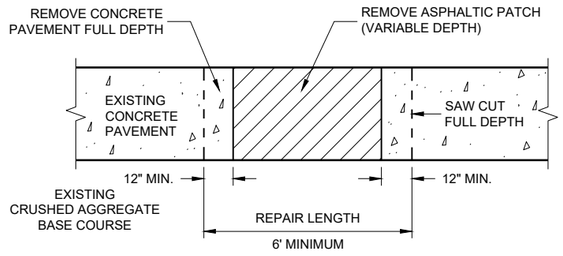
PLAN VIEW

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B - B

CONCRETE REMOVAL



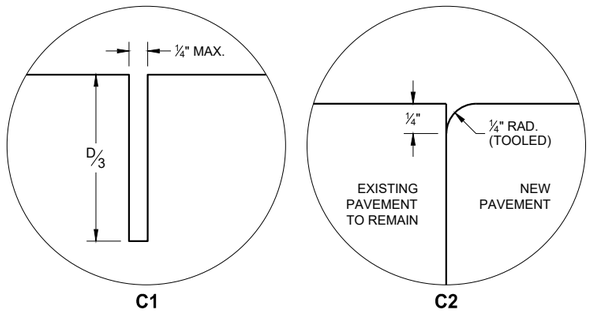
SECTION A - A

HMA PATCH REMOVAL

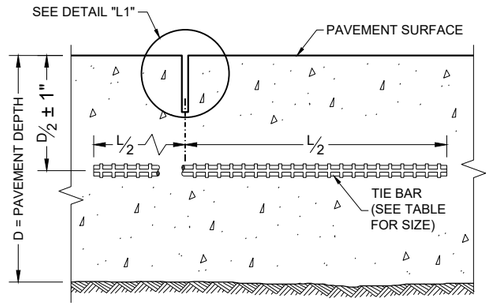
CONCRETE PAVEMENT REPAIR AND REPLACEMENT

SDD13C09 - 17a

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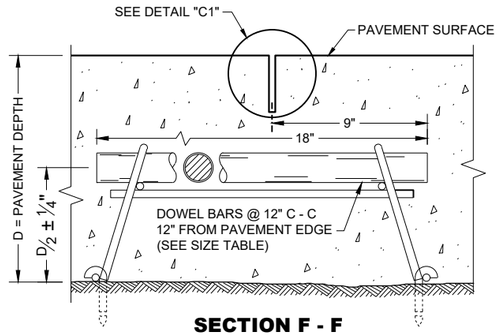


TRANSVERSE JOINTS



SECTION C - C

SAWED LONGITUDINAL JOINT



SECTION F - F

DOWELED CONTRACTION JOINT

GENERAL NOTES

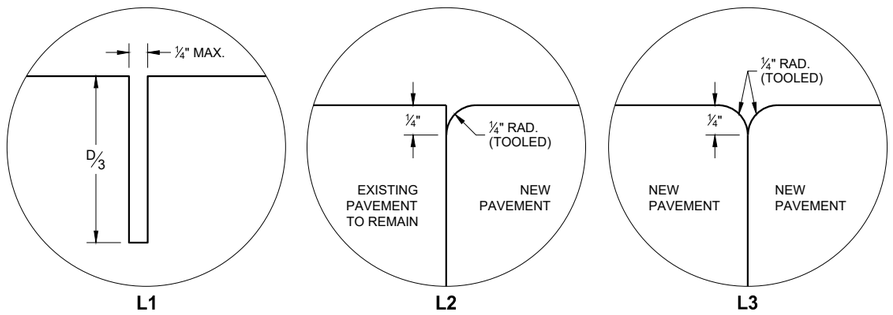
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

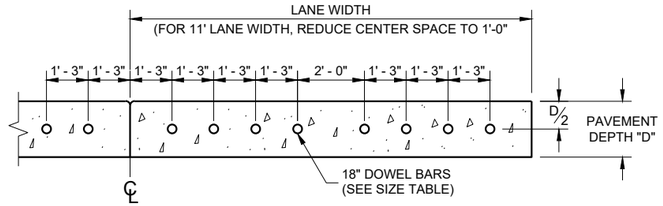
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

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

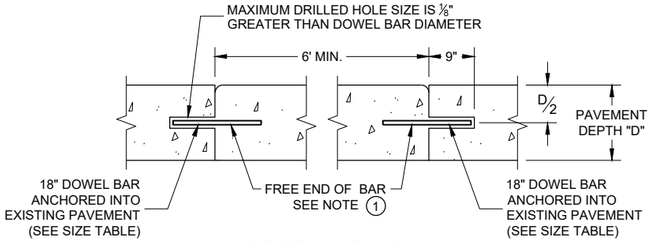


LONGITUDINAL JOINTS



SECTION E - E

DRILLED DOWEL BAR CONSTRUCTION JOINT



SECTION D - D

TIE BAR TABLE

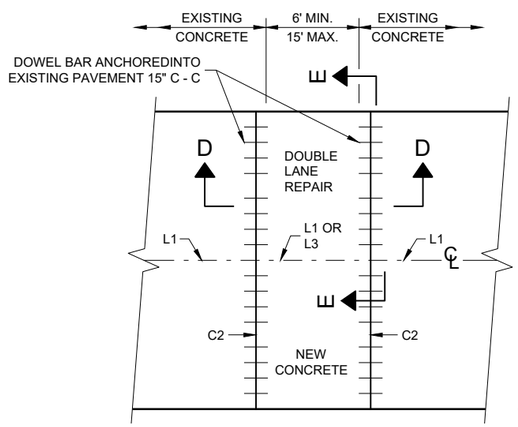
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

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

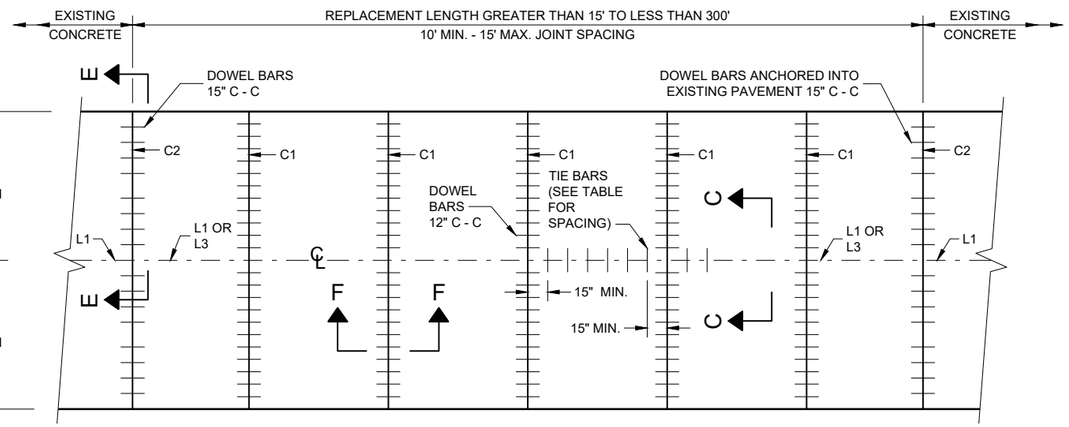
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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



PLAN VIEW

MULTILANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

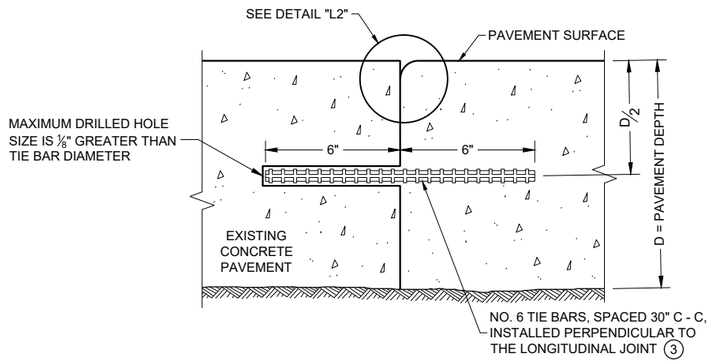
MULTILANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 13C09 - 17b
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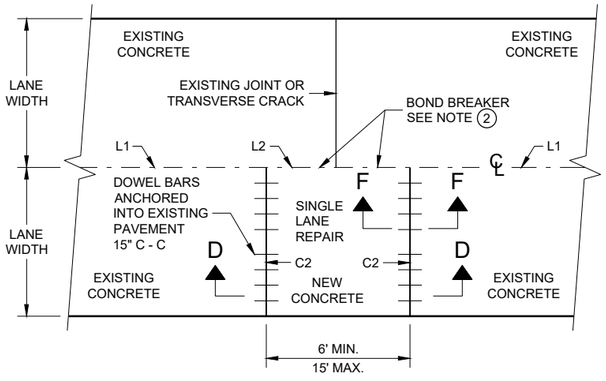


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

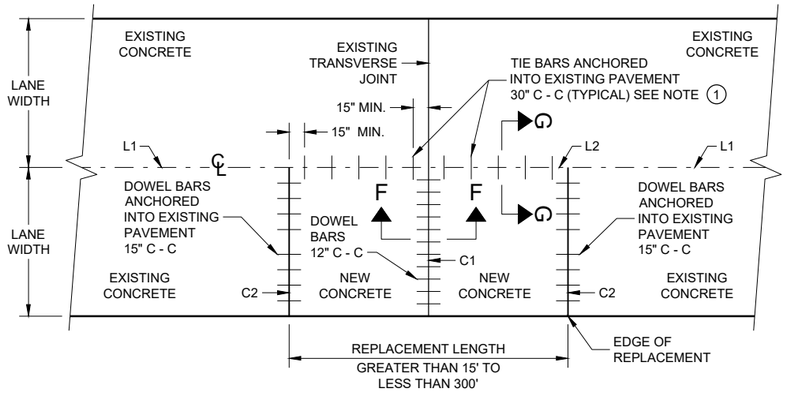
GENERAL NOTES

1. WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
2. USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
3. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE REPAIR AND REPLACEMENT

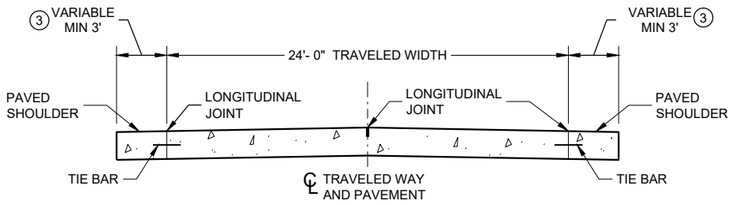
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

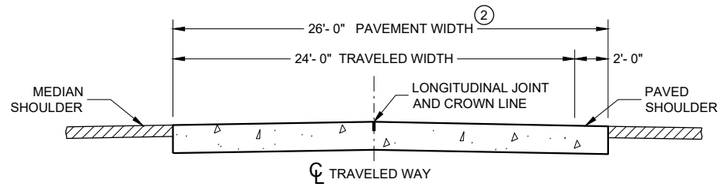
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SDD 13C09 - 17c

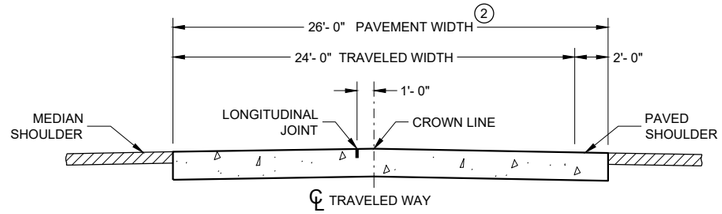


SECTION A - A

TWO-LANE TWO-WAY HIGHWAY (1)



SECTION B - B



ALTERNATIVE SECTION B - B

DIVIDED HIGHWAY (1)

GENERAL NOTES

CONTRACTION JOINTS

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

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

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

CONSTRUCTION JOINTS

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

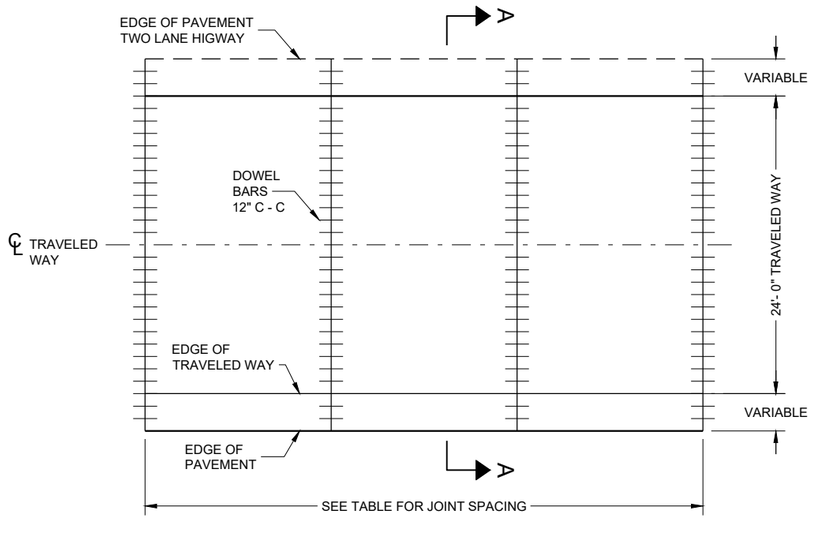
(1) REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

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

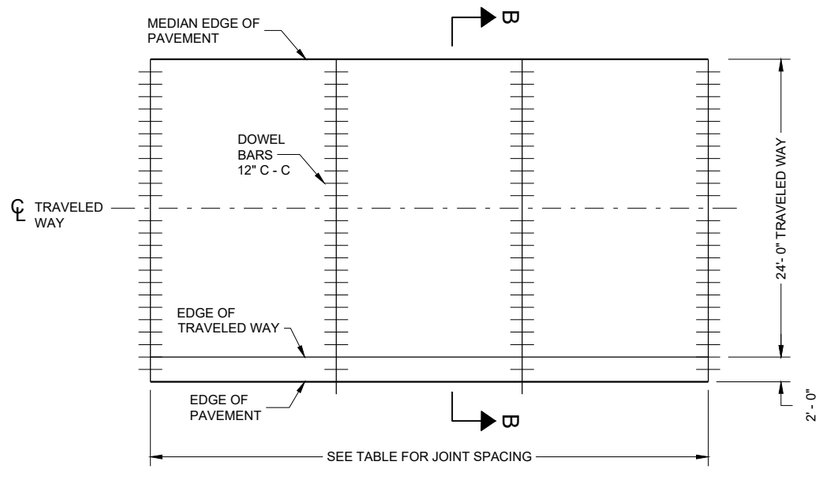
(3) SHOULDER WIDTHS LESS THAN 3 FEET SHALL BE PAVED INTEGRAL TO THE MAINLINE CONCRETE PAVEMENT, SEE SECTION B-B.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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



CONTRACTION JOINT LAYOUT FOR TWO-LANE TWO-WAY HIGHWAY



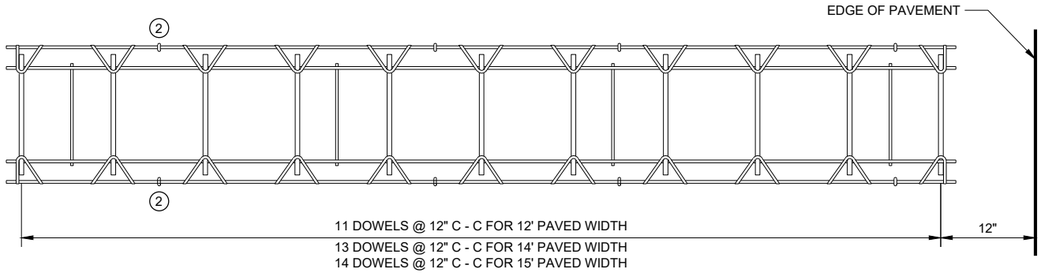
CONTRACTION JOINT LAYOUT FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTAT 200

SDD 13C11 - 14a

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PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY (1)

GENERAL NOTES

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

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

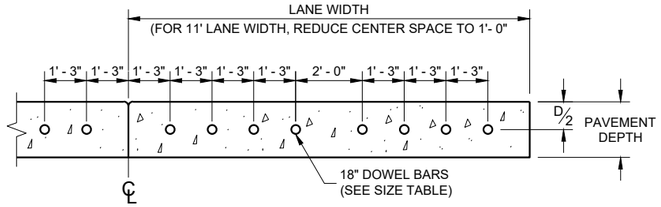
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

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

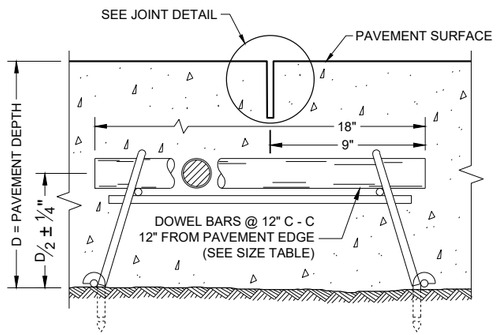
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED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

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

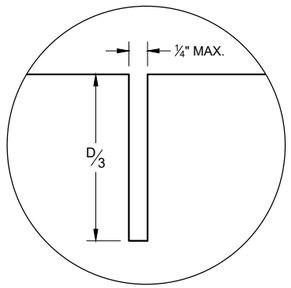
(7) ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



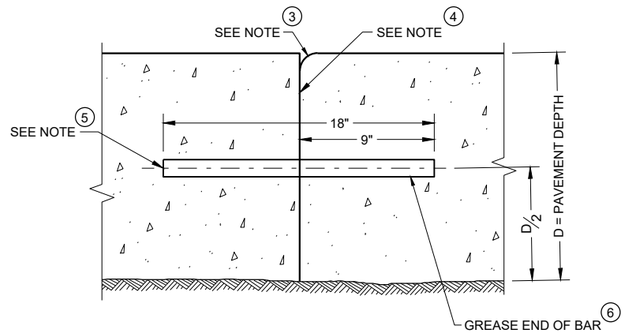
DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



DOWELED CONTRACTION JOINT



JOINT DETAIL



TRANSVERSE CONSTRUCTION JOINT

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

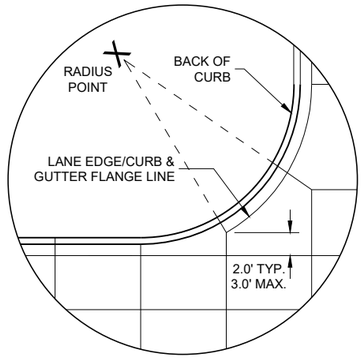
/S/ Peter Kemp P.E.
PAVEMENT SUPERVISOR

FHWA

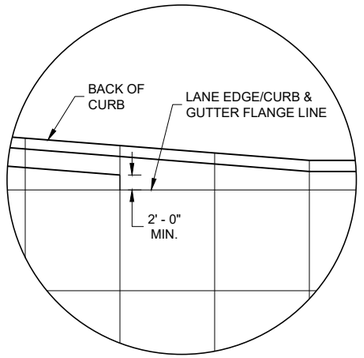
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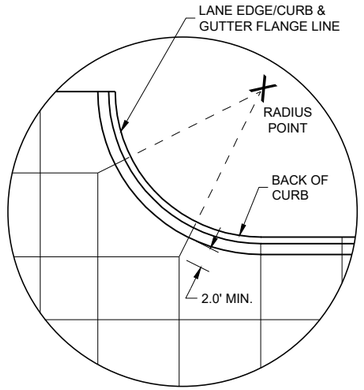
SDD 13C11 - 14b



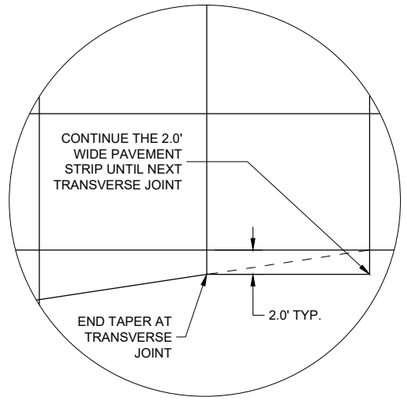
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

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

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

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

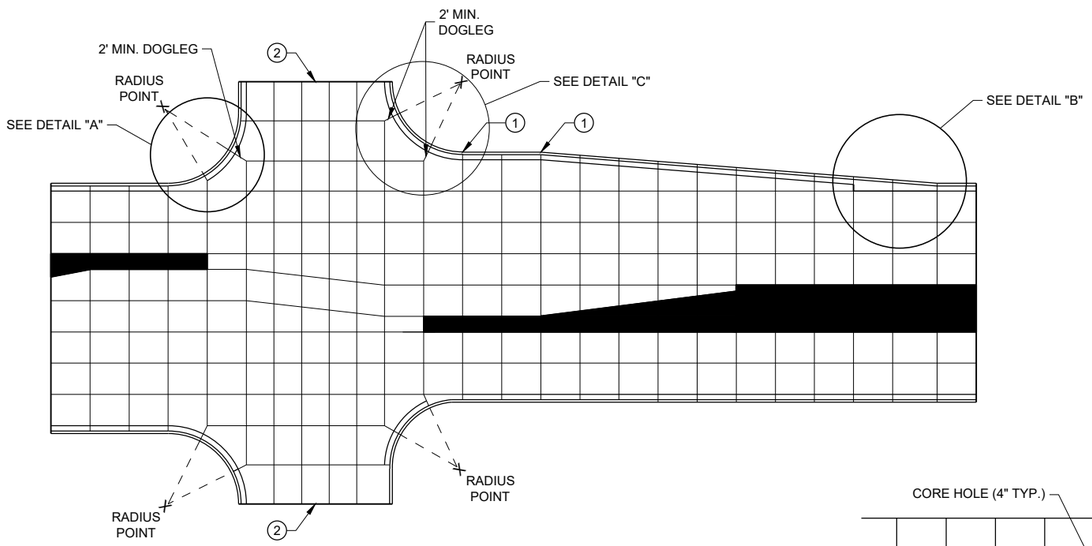
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.

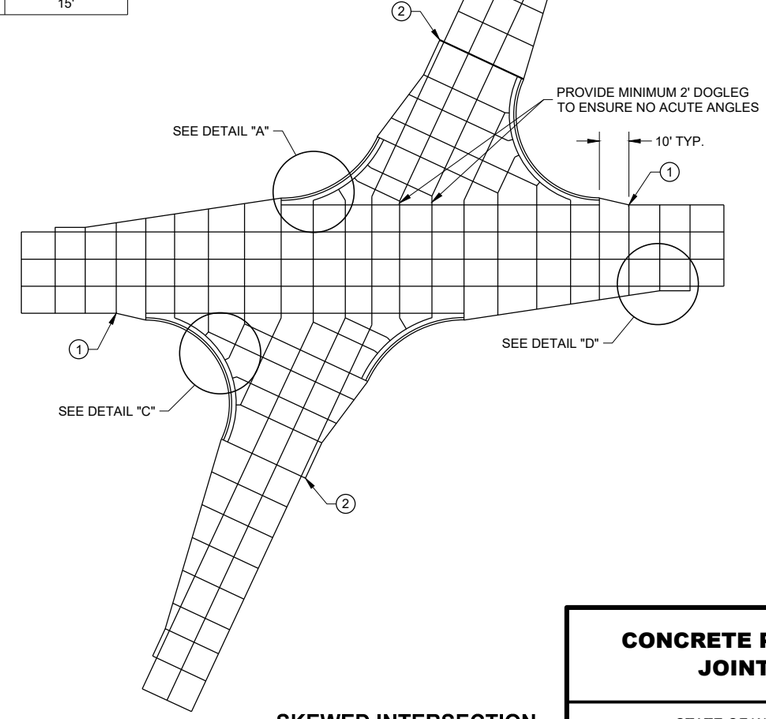
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



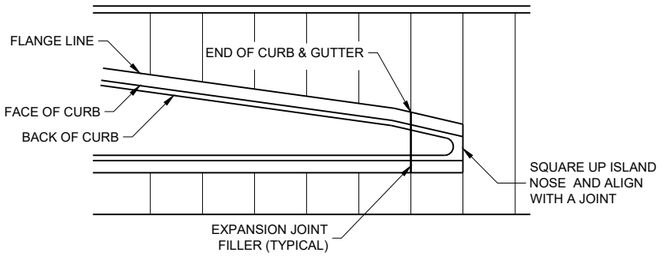
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

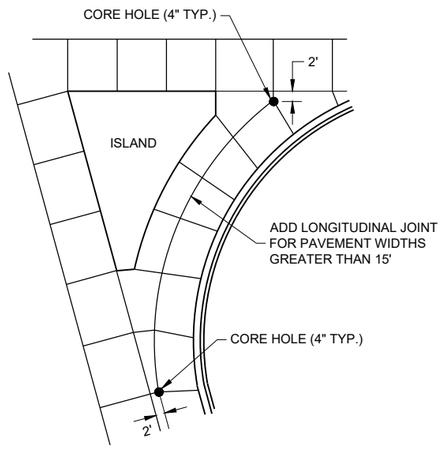
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

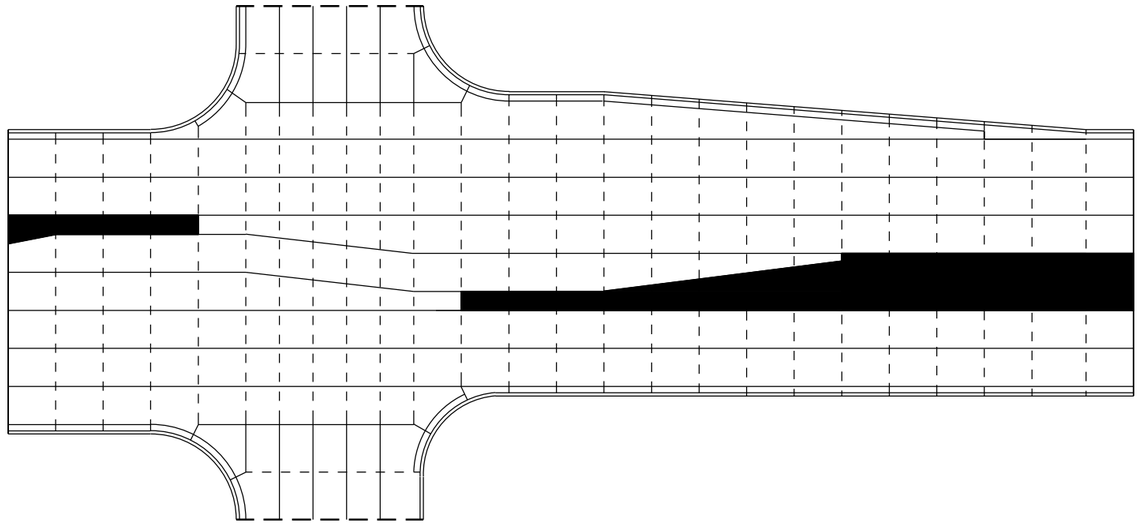
6
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

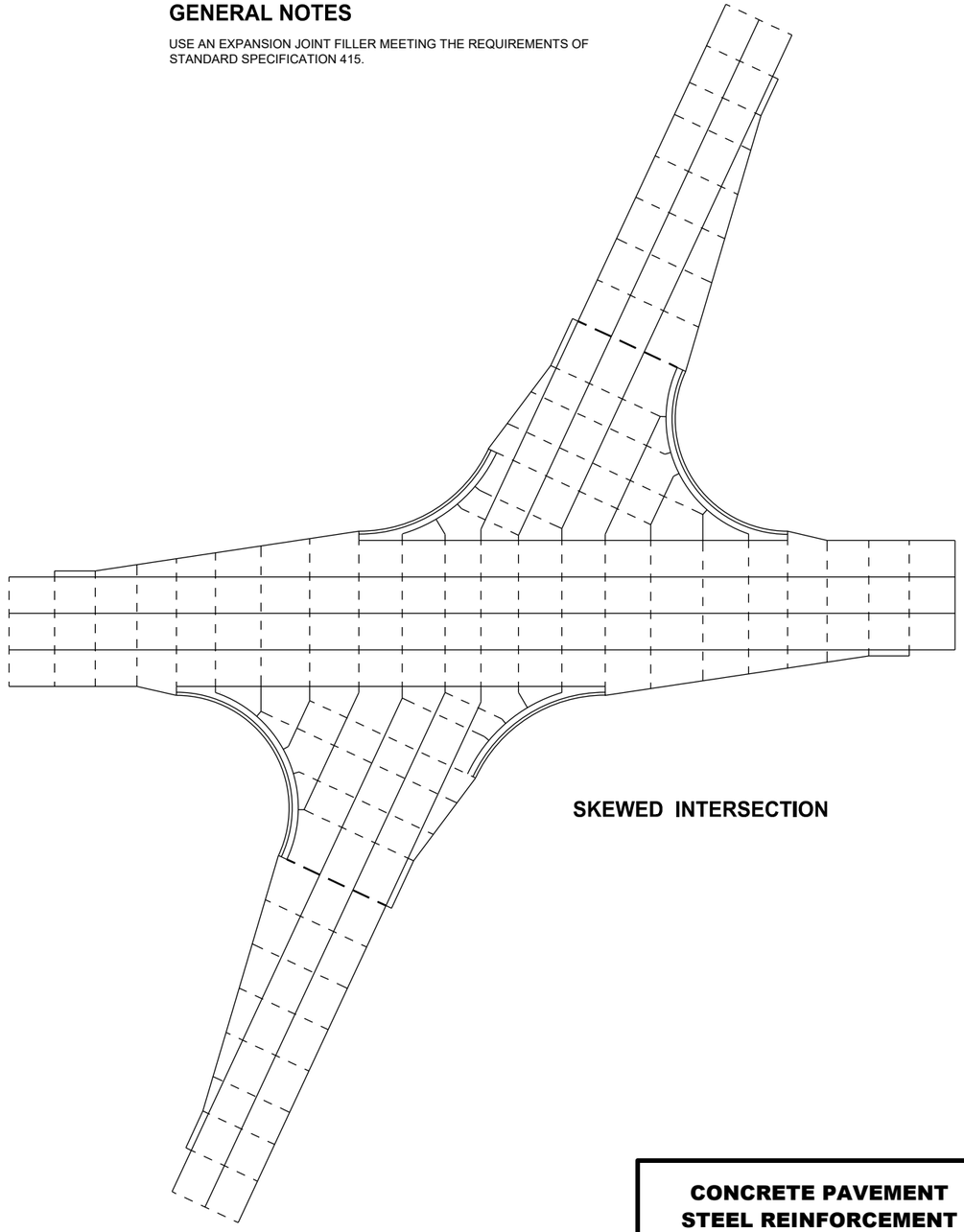
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

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



SKEWED INTERSECTION

6

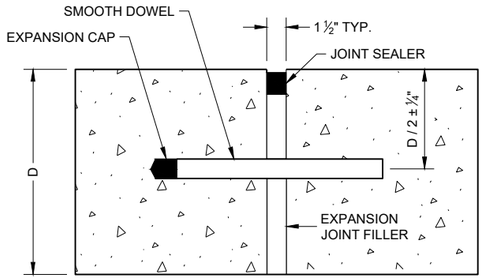
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

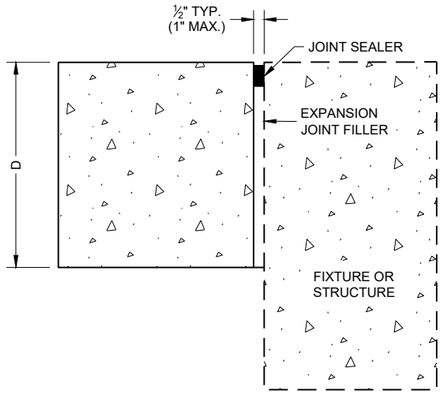
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

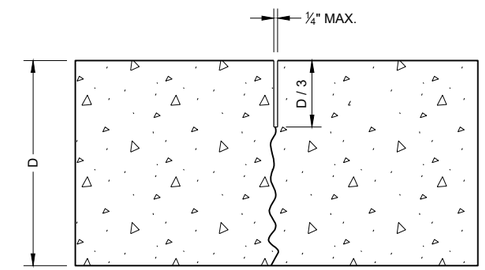
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

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

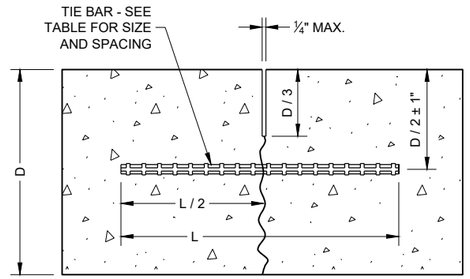
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

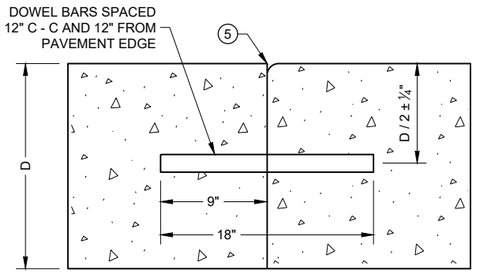
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM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



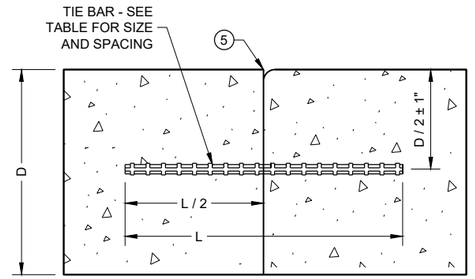
UNDOWELED TRANSVERSE



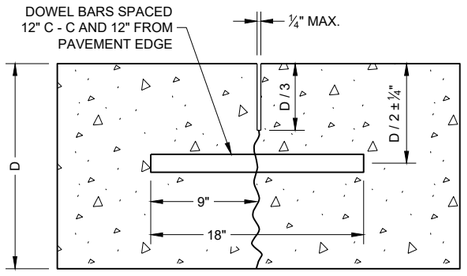
TIED LONGITUDINAL



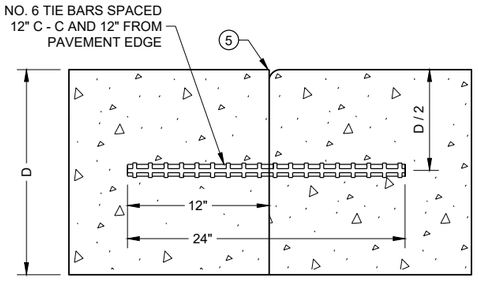
DOWELED TRANSVERSE (3)



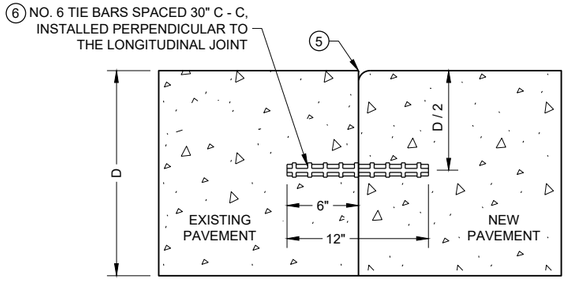
TIED LONGITUDINAL



DOWELED TRANSVERSE



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

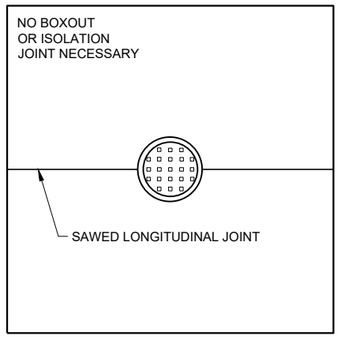


TIED LONGITUDINAL TO EXISTING

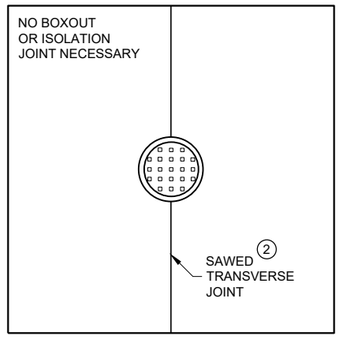
CONTRACTION JOINTS (2)

CONSTRUCTION JOINTS (4)

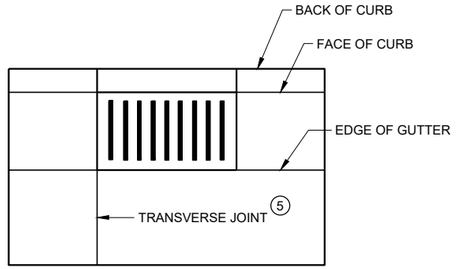
CONCRETE PAVEMENT JOINT TYPES



MANHOLE WITH LONGITUDINAL JOINT



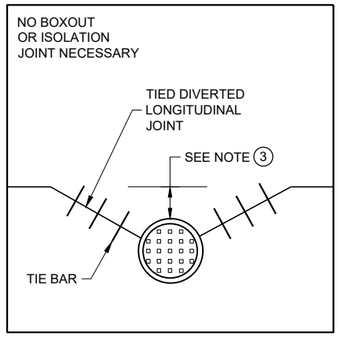
MANHOLE WITH TRANSVERSE JOINT



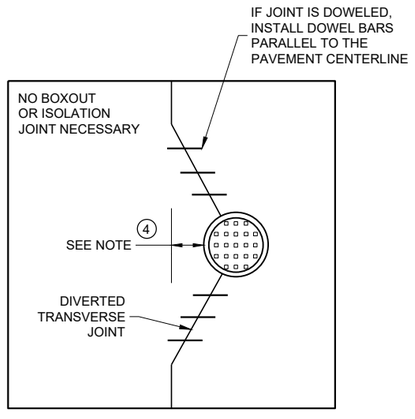
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

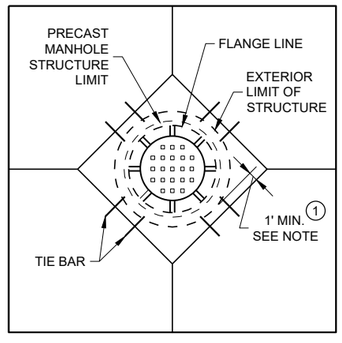
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISO

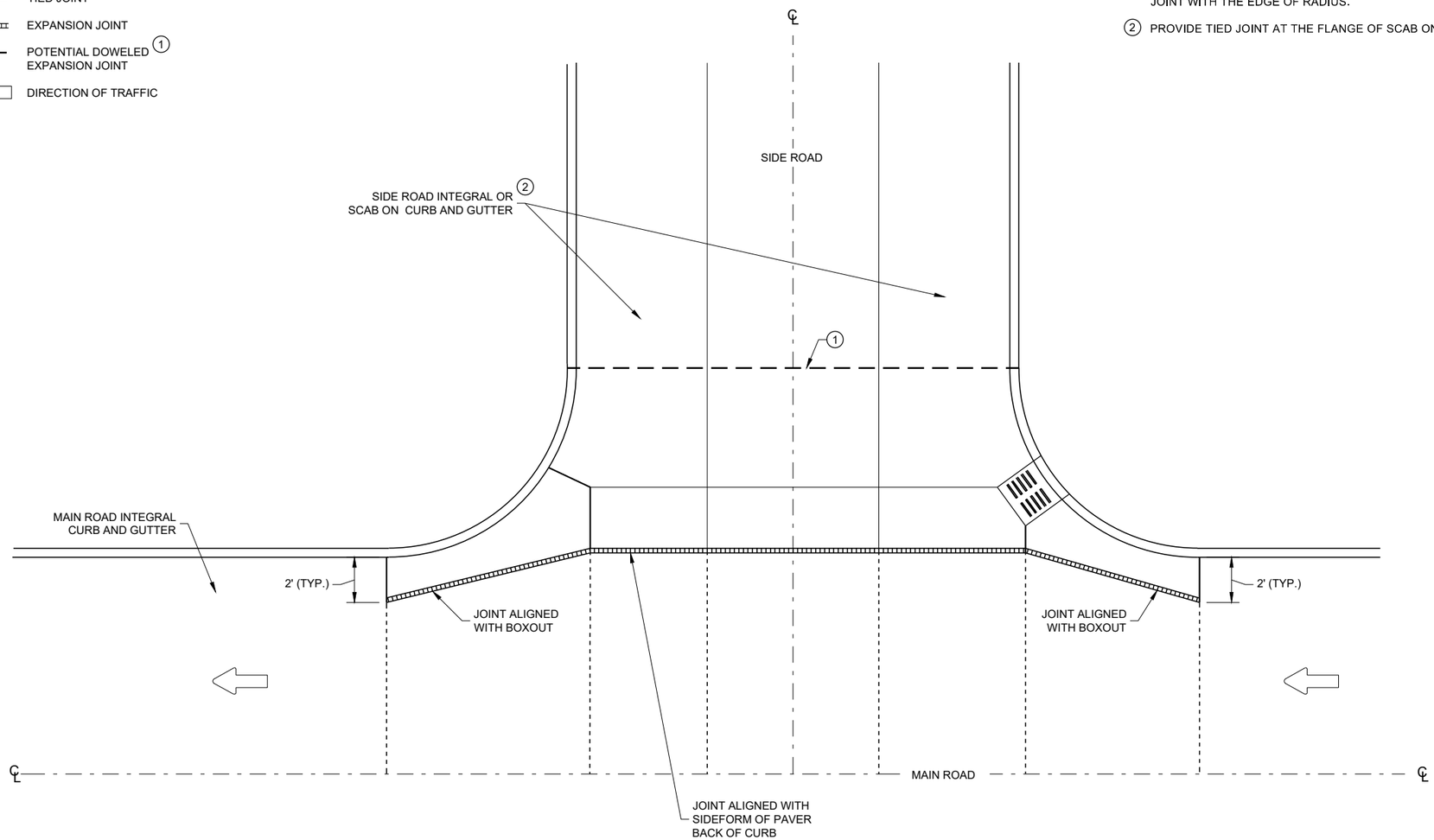
FHWA

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SDD13C18 - 08d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

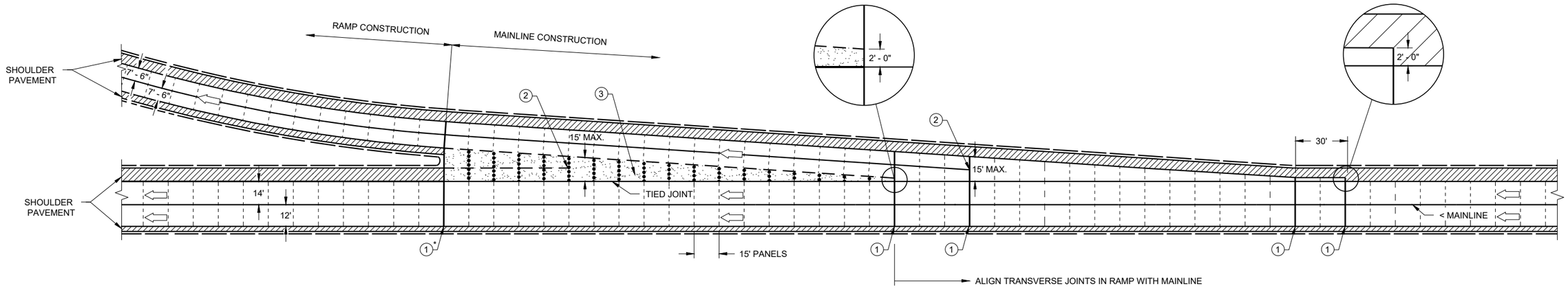
FHWA

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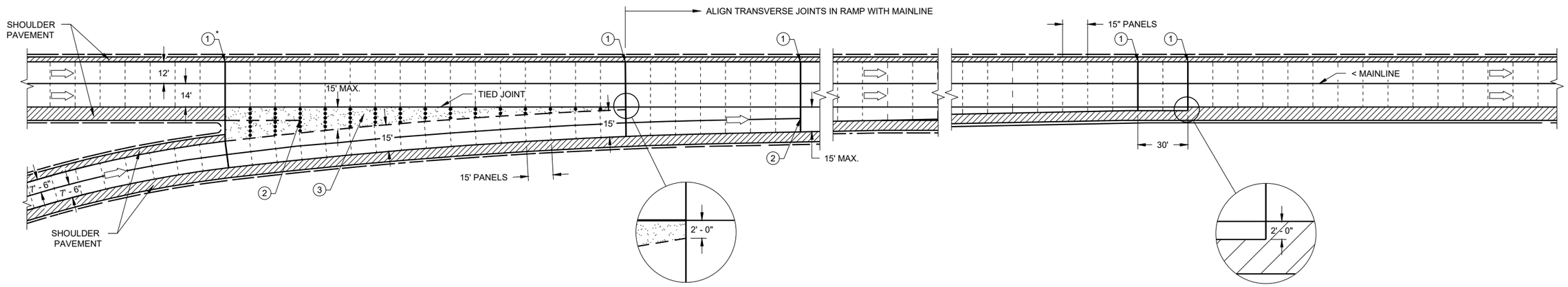
SDD 13C18 - 08f

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SDD 13C18 - 08f



DECELERATION LANE



ACCELERATION LANE

GENERAL NOTES

PAVEMENT AND BASE THICKNESS, PANEL LENGTHS, JOINTS AND REINFORCEMENT FOR THE DECELERATION AND ACCELERATION LANES, INCLUDING TAPERS, SHALL BE THE SAME AS THE MAINLINE, EXCEPT WHERE OTHERWISE NOTED.

ALL REINFORCEMENT BARS SHALL BE EPOXY COATED CONFORMING TO SUBSECTION 505.2.6 OF THE STANDARD SPECIFICATIONS.

LANE AND SHOULDER WIDTHS MAY VARY FROM SHOWN. SEE CONSTRUCTION PLANS FOR ACTUAL PROPOSED WIDTHS.

(1) CRITICAL TRANSVERSE JOINT LOCATIONS AT PAVEMENT WIDTH CHANGES. ((1)* IS NOT A CRITICAL TRANSVERSE JOINT WHEN ASPHALTIC GORE IS INSTALLED).

(2) STOP LONGITUDINAL JOINT WITH CORE HOLE (2" TYP.) WHEN IT MEETS THE FIRST TRANSVERSE JOINT LESS THAN 15' WIDE OR STOP LONGITUDINAL JOINT WHEN IT MEETS 2' AWAY FROM THE TIED JOINT OF THE MAINLINE.

(3) DISREGARD THE JOINT DETAILS IN AND AROUND THE GORE WHEN ASPHALTIC GORE IS INSTALLED.

LEGEND

- DOWELED JOINT
- UNDOWELED JOINT
- TIED JOINT
- UNTIED JOINT
- GORE
- DIRECTION OF TRAVEL

CONCRETE PAVEMENT JOINTING ACCELERATION/ DECELERATION LANE

STATE OF WISCONSIN
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APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

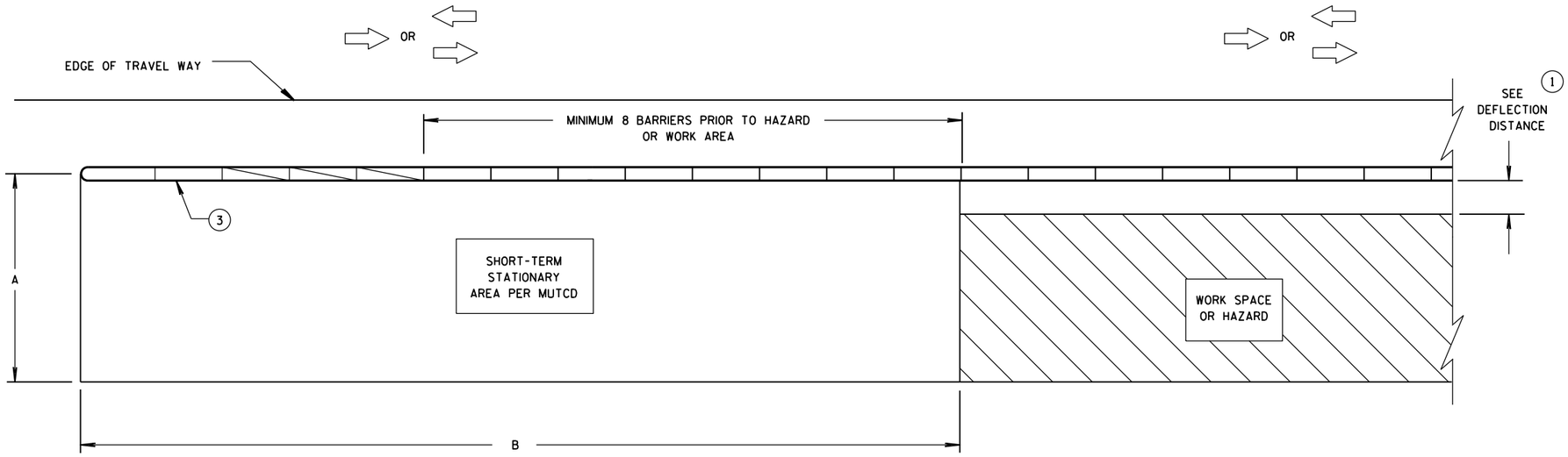
FHWA

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SDD13C18 - 08g

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SDD13C18 - 08g



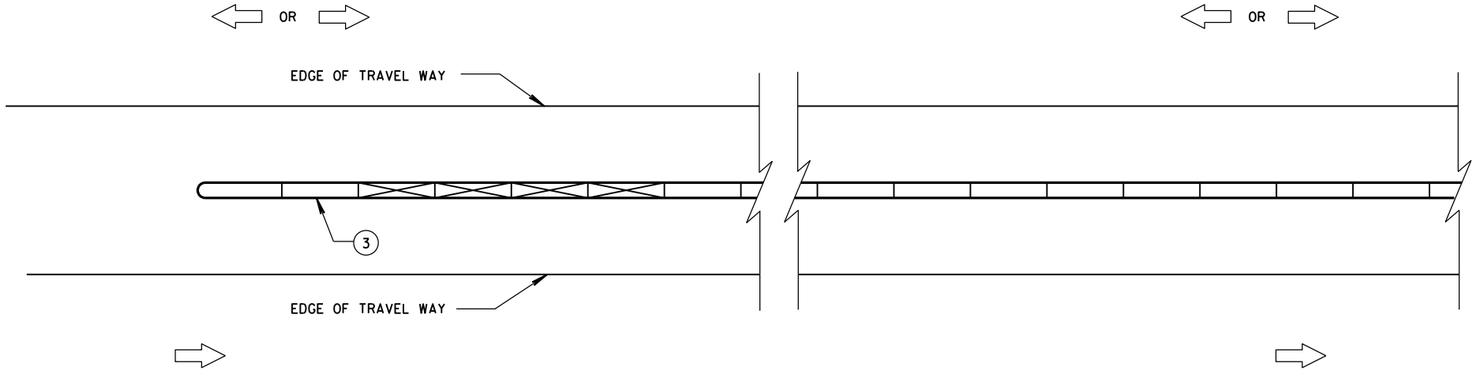
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

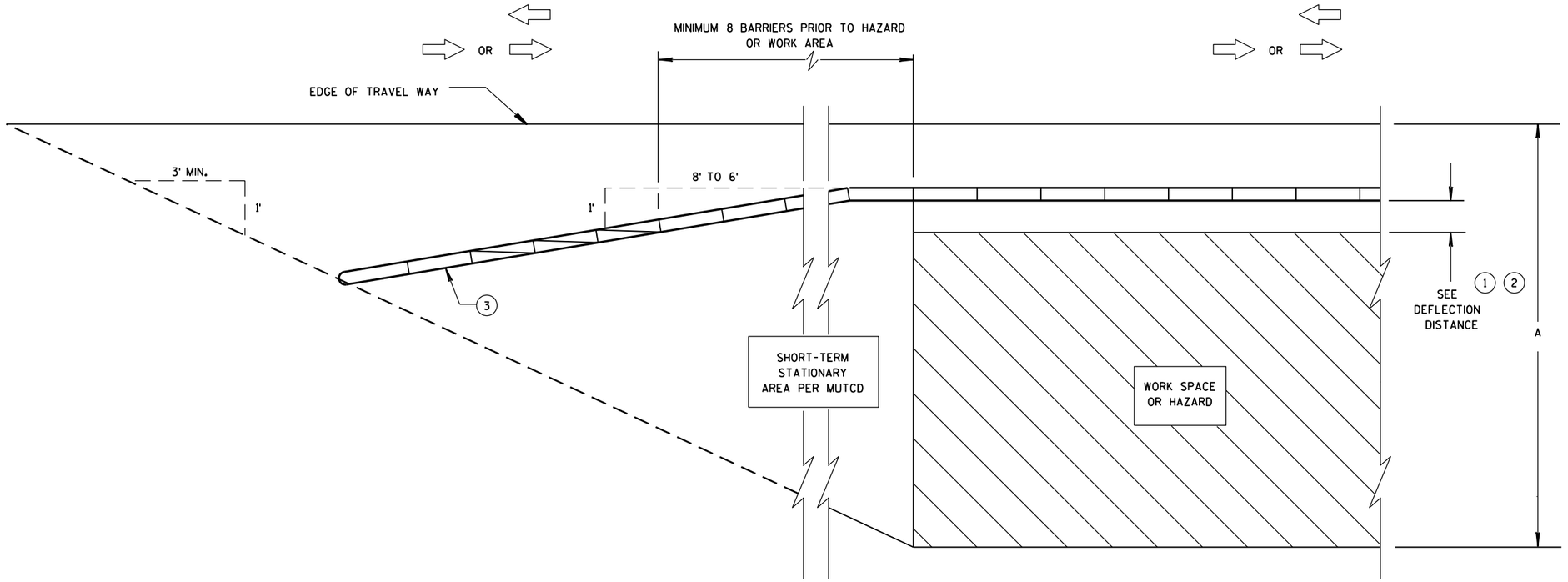
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

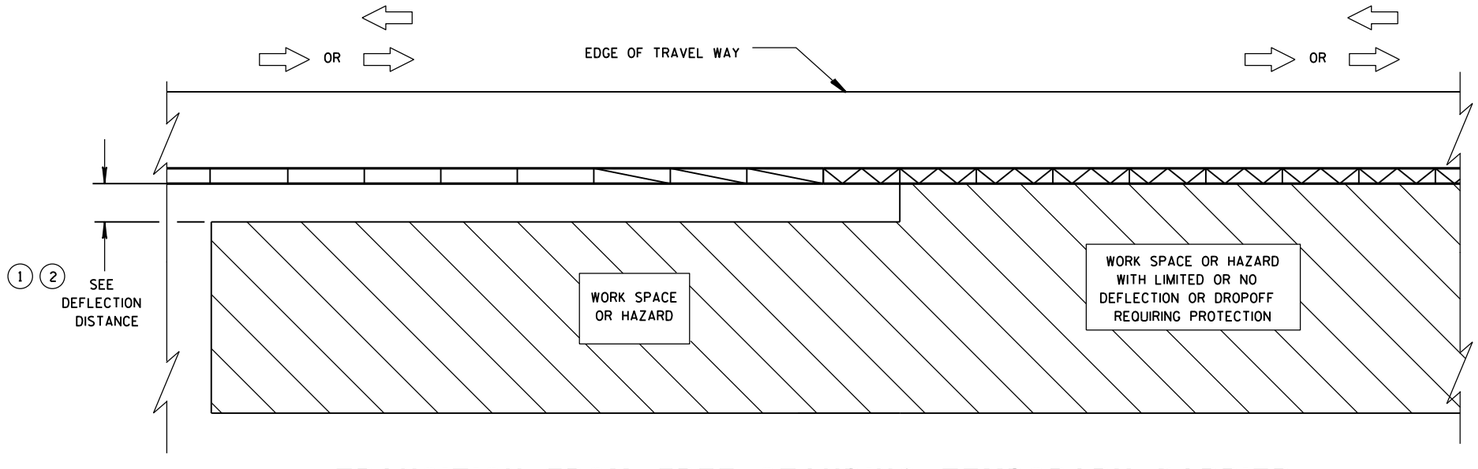
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 8-2a
S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

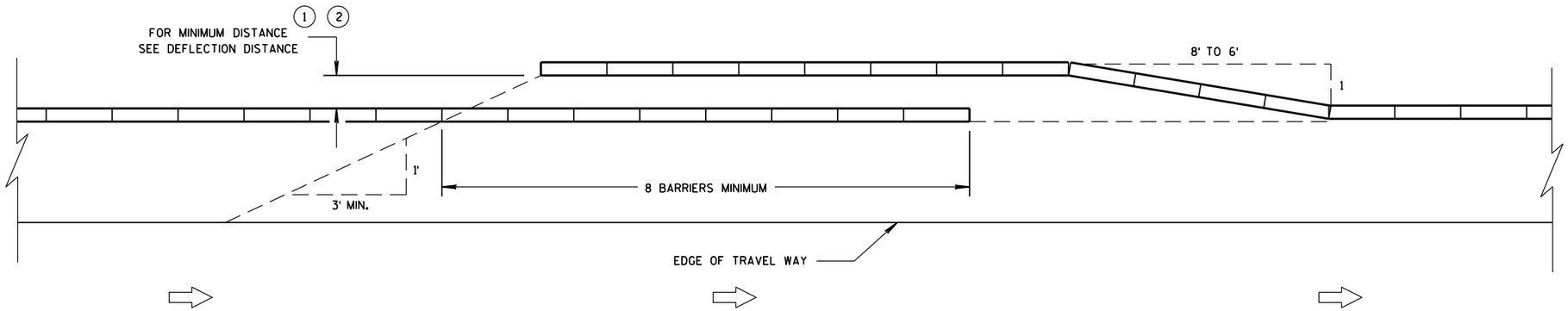
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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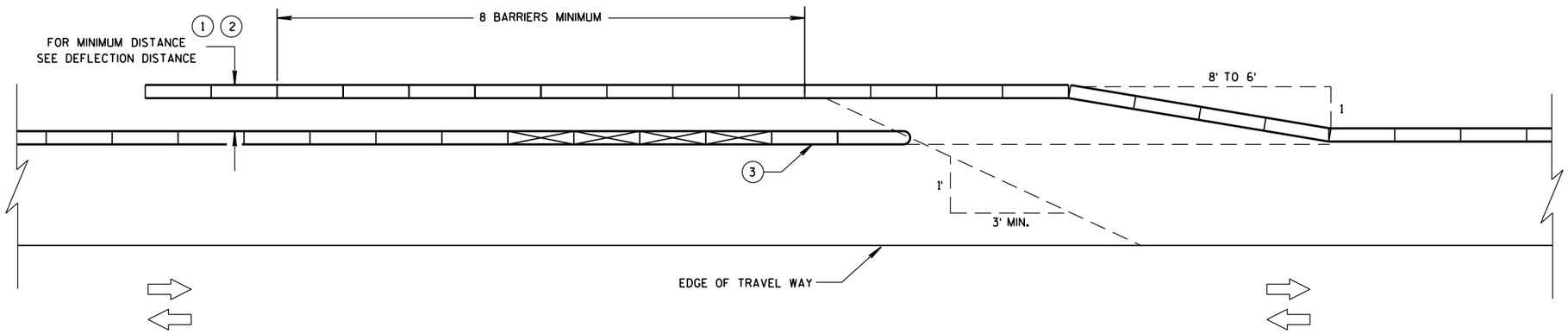
S.D.D. 14 B 8-2b

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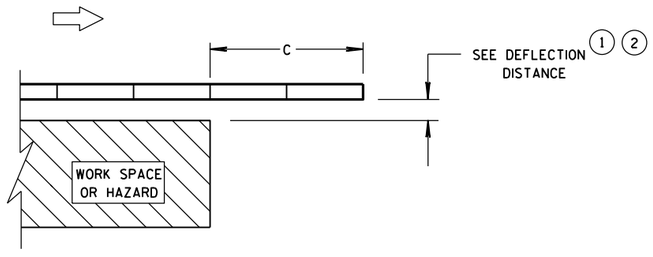
S.D.D. 14 B 8-2b



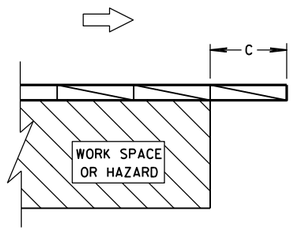
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

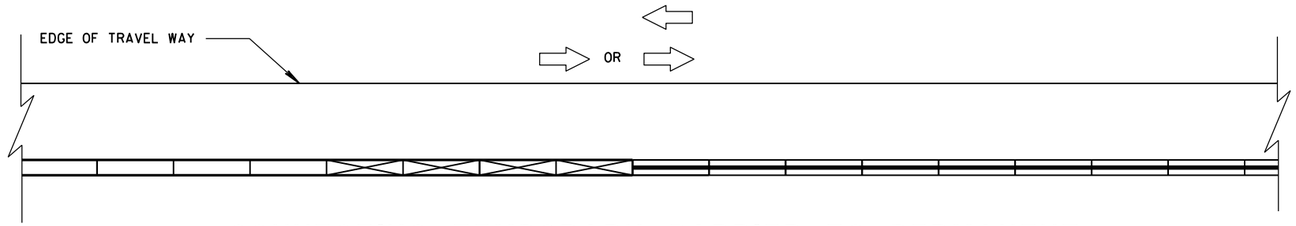
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

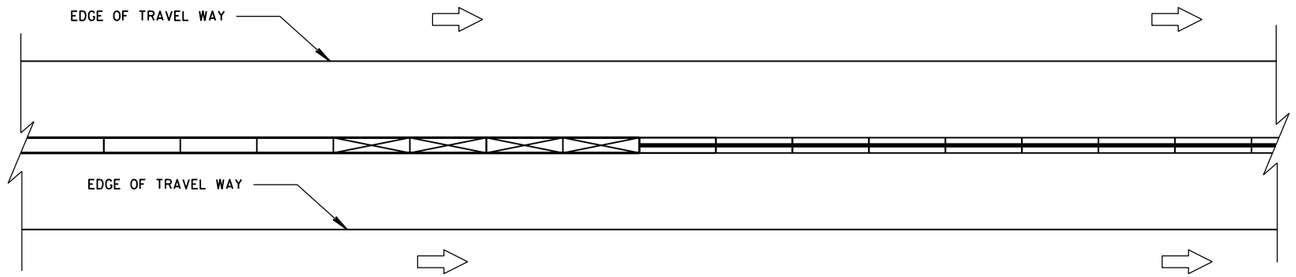
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

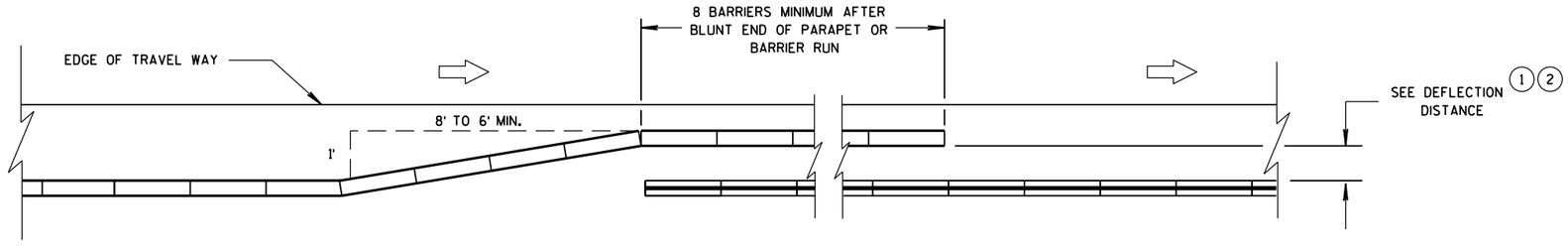
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

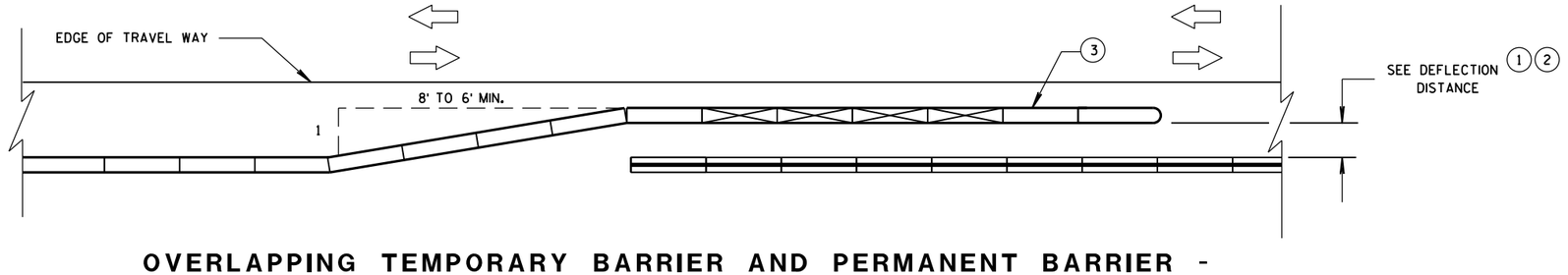
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

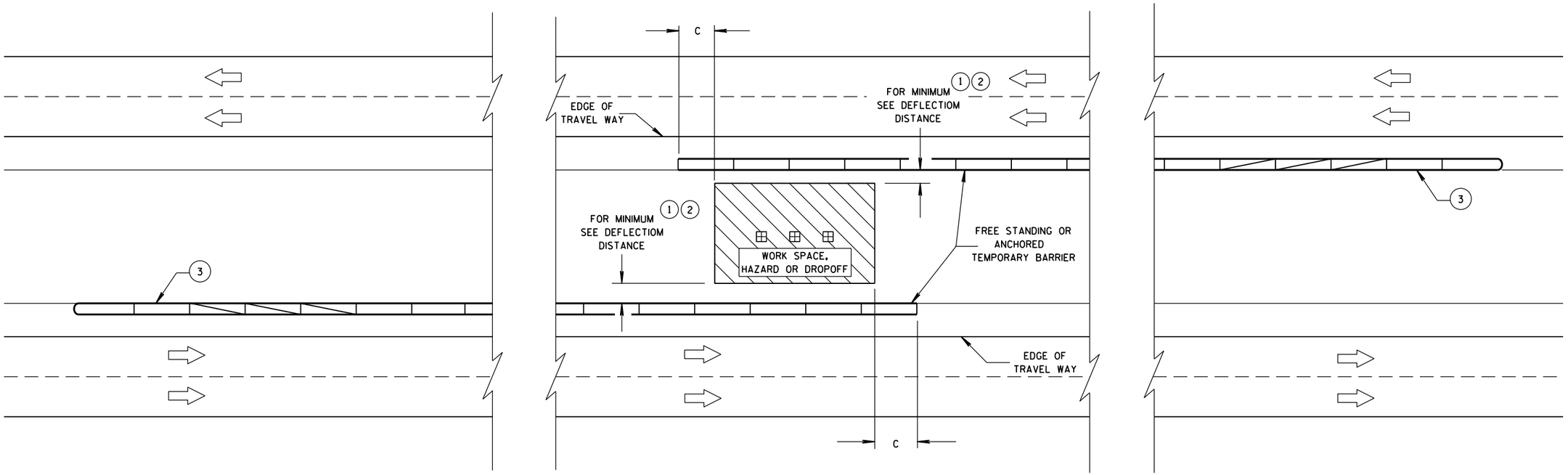
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

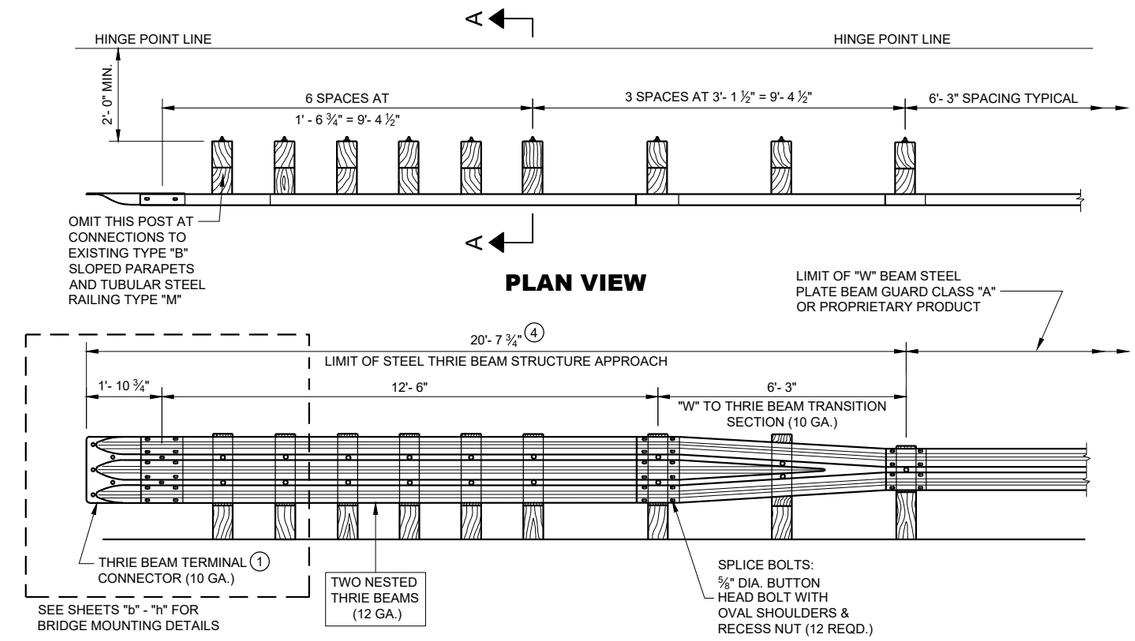
APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
FHWA

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S.D.D. 14 B 8-2e



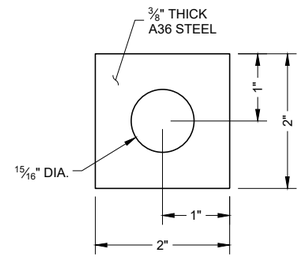


PLATE WASHER DETAIL

GENERAL NOTES

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

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

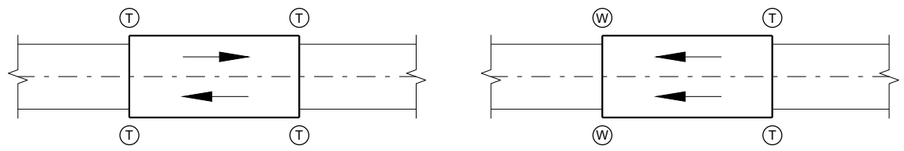
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

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

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

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

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



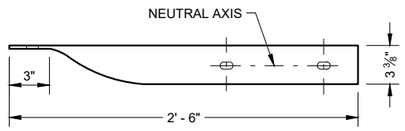
TWO WAY TRAFFIC

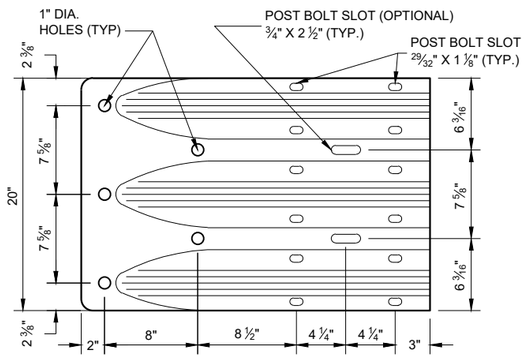
ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

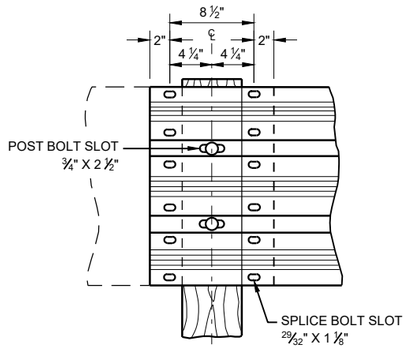
(W) W-BEAM CONNECTION WHEN REQUIRED

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

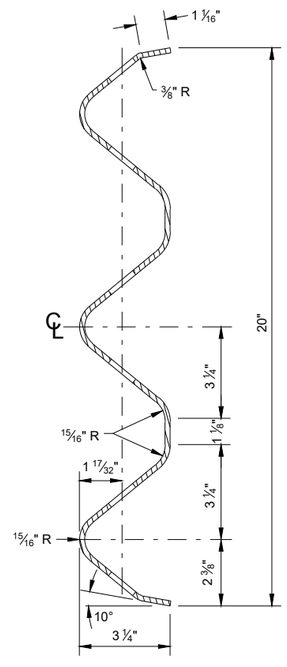




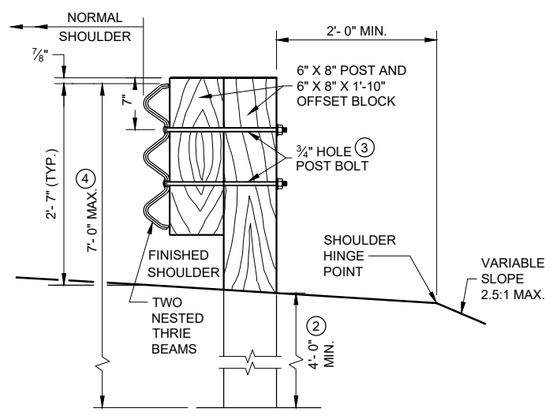
THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE



SECTION THRU BEAM RAIL ELEMENT



SECTION A-A

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

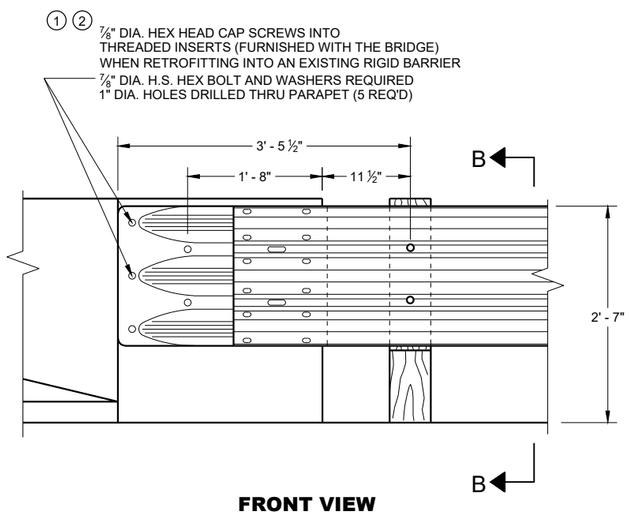
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/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

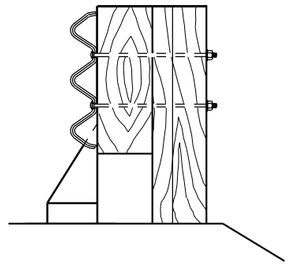
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SDD 14B20 - 12a

SDD 14B20 - 12a



FRONT VIEW



SECTION B - B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

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

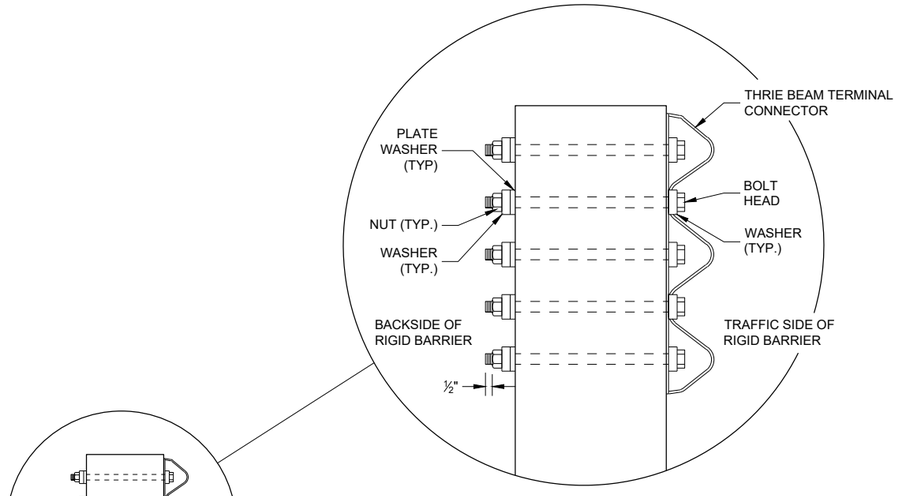
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

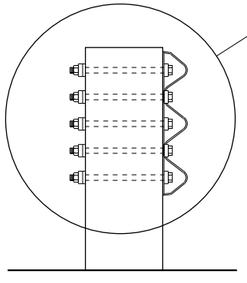
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR.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

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

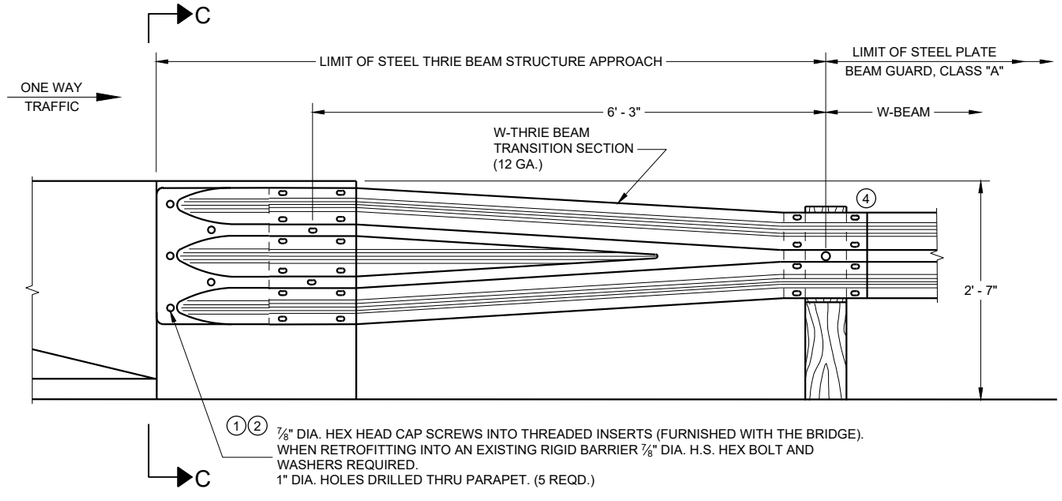
④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

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





SECTION C - C



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE). WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED.
1" DIA. HOLES DRILLED THRU PARAPET. (5 REQD.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 14B20 - 12b

6

SDD 14B20 - 12b

GENERAL NOTES

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

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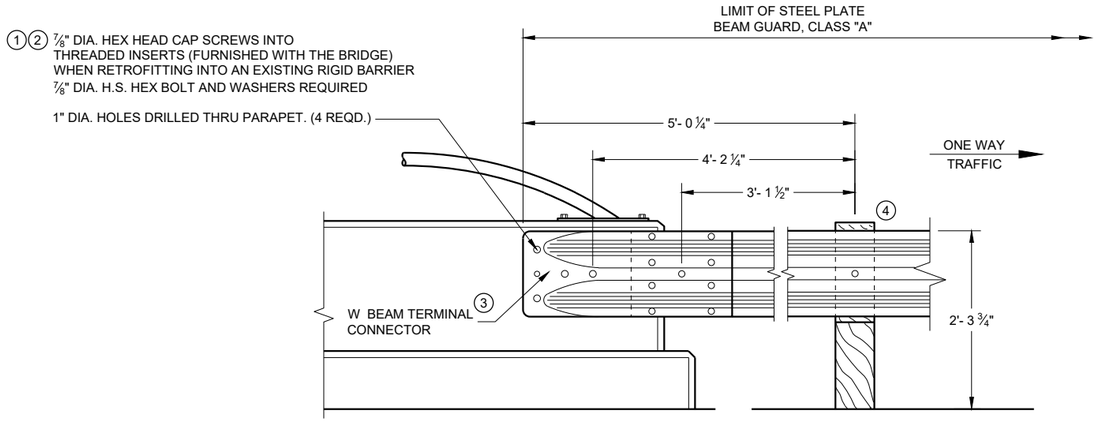
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(3) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

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

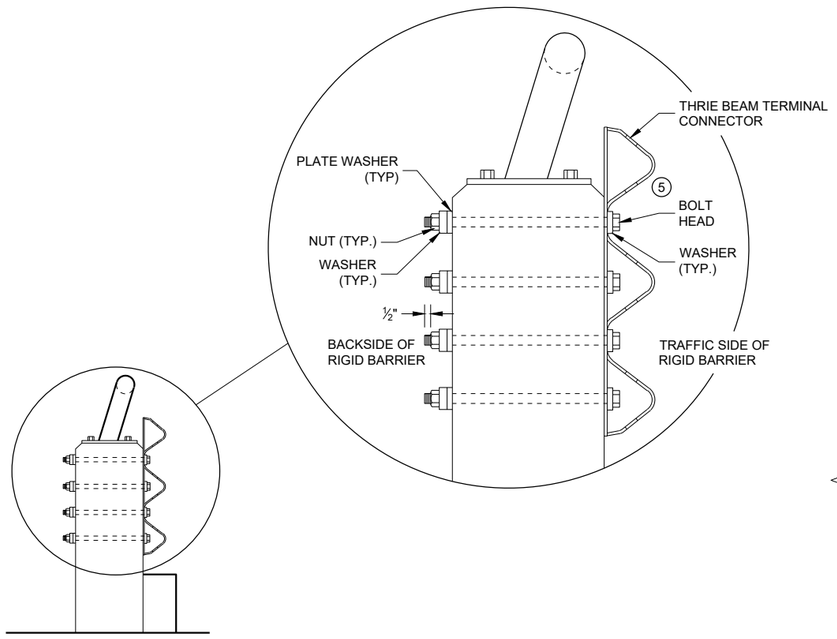
(5) BOLT, NUT AND WASHERS NO REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PARAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE THE EDGE OF PARAPET.

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

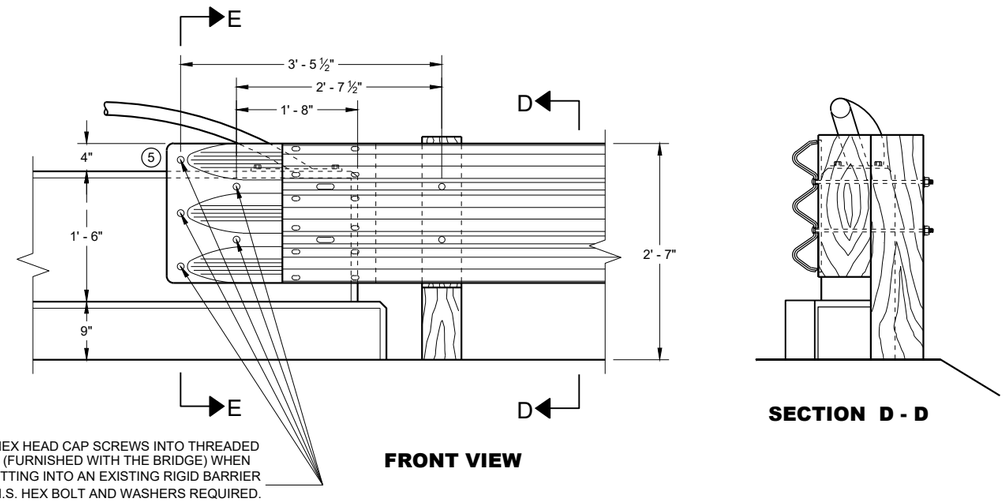


FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



SECTION E - E



FRONT VIEW

SECTION D - D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

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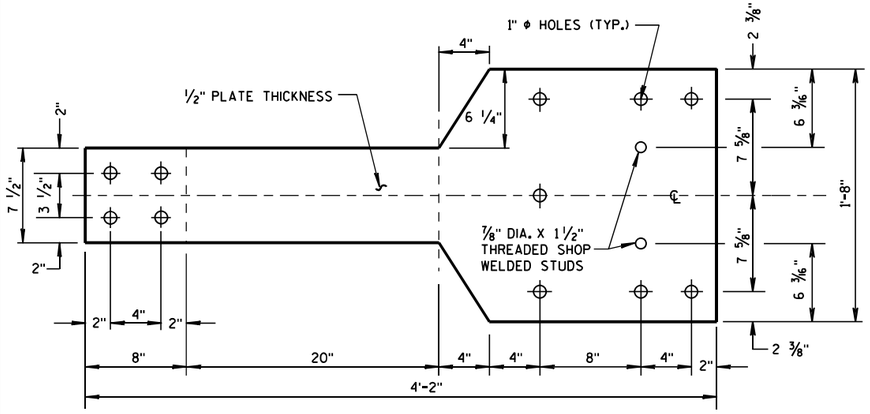
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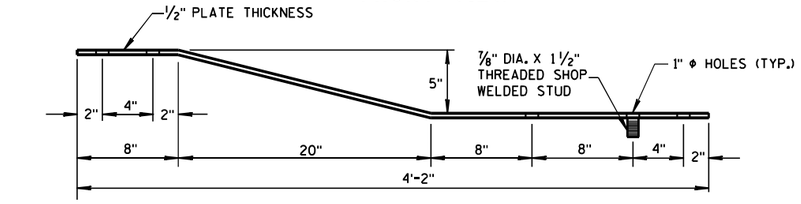
SDD 14B20 - 12c

GENERAL NOTES

① VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL BE AS CLOSE AS FEASIBLE TO THE STEEL END POST.

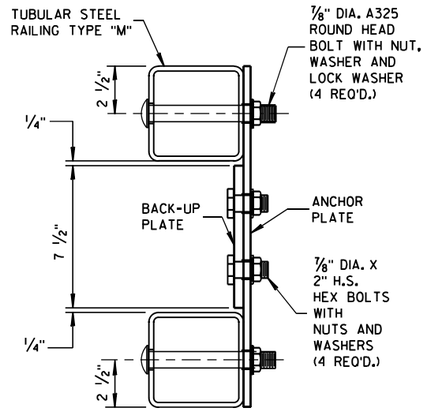


FRONT VIEW

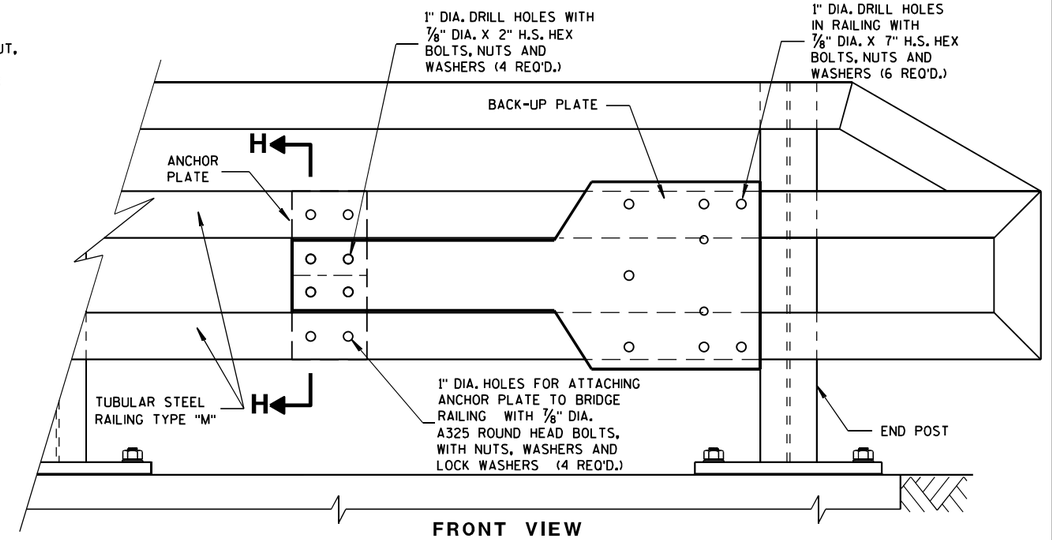


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

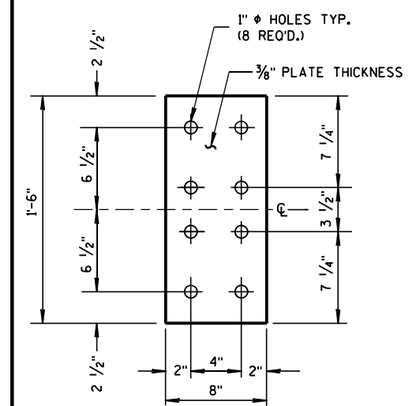


SECTION H-H



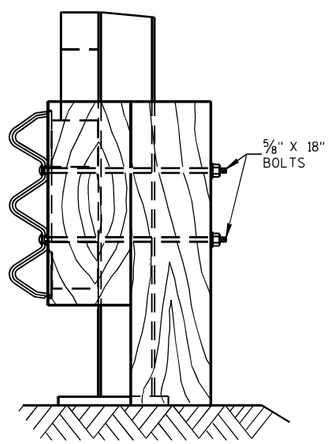
FRONT VIEW

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

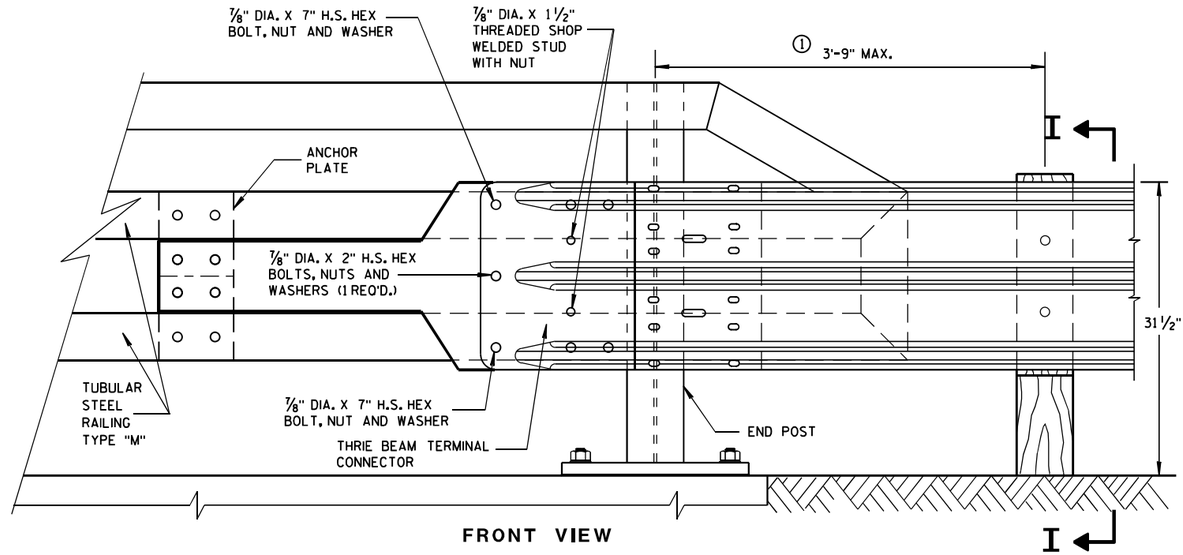


FRONT VIEW

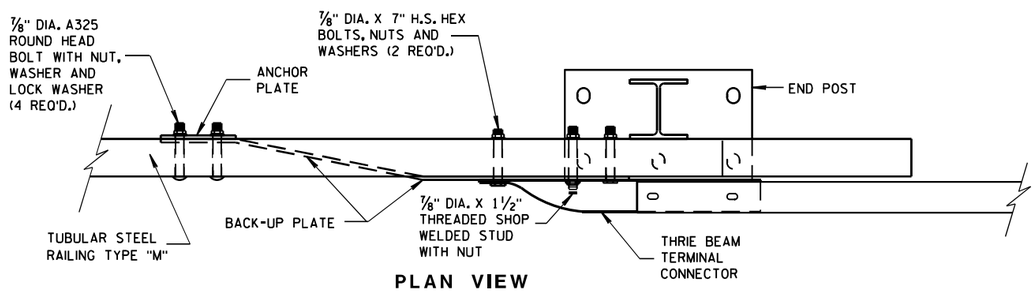
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

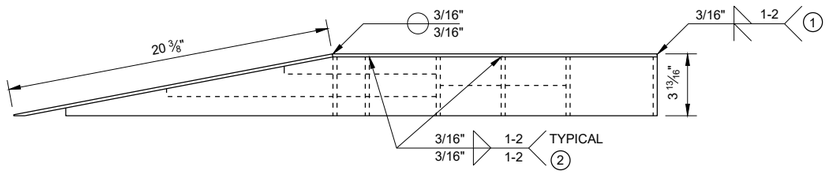
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FHWA

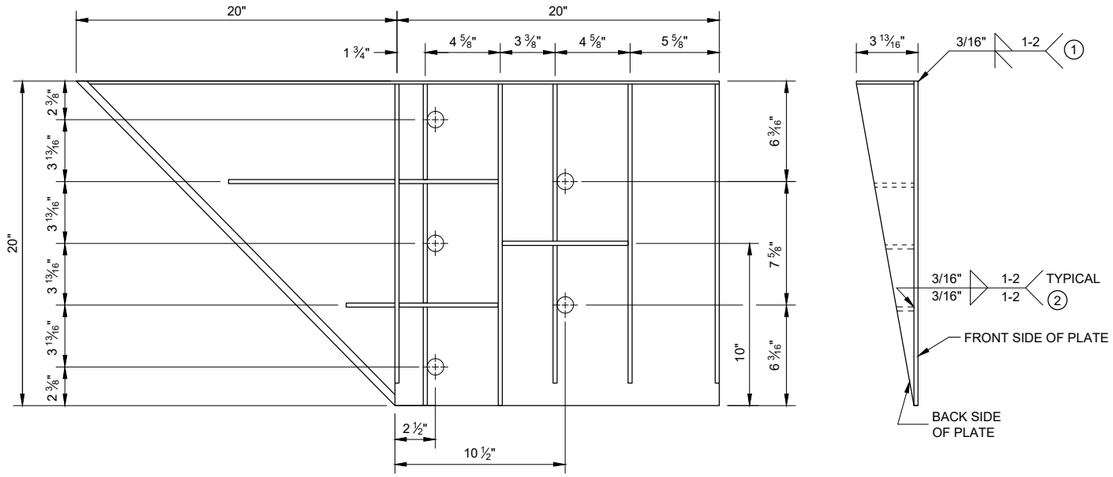
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SDD 14B20 - 12f

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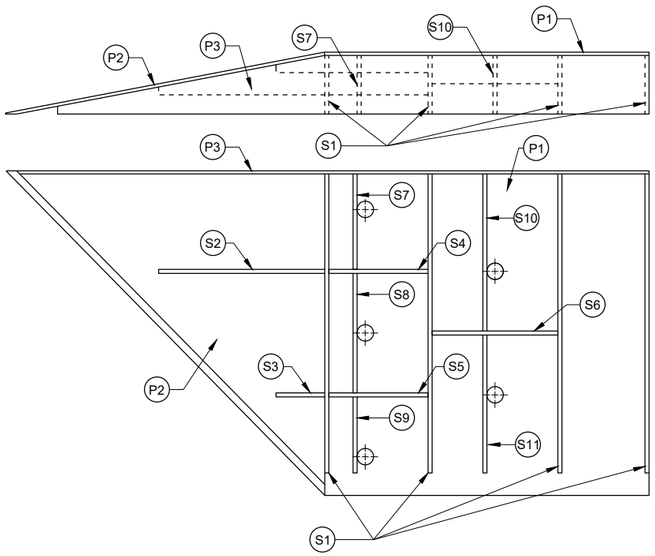
SDD 14B20 - 12f





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)



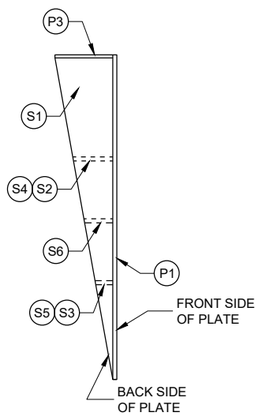


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK

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

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

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION, MIRROR DRAWINGS.

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

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

CONNECTOR PLATED DIMENSION (PER ASSEMBLY)

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

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

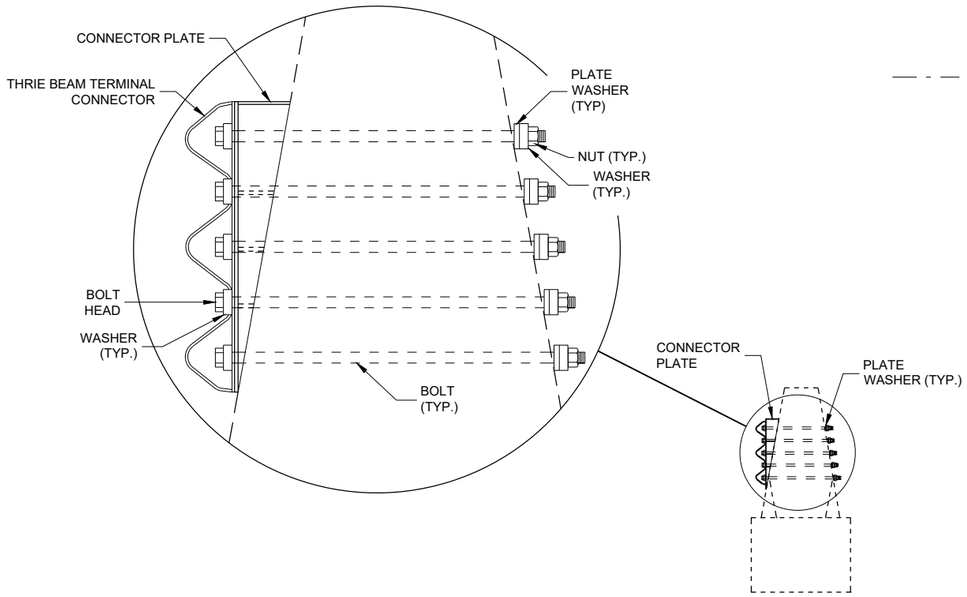
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

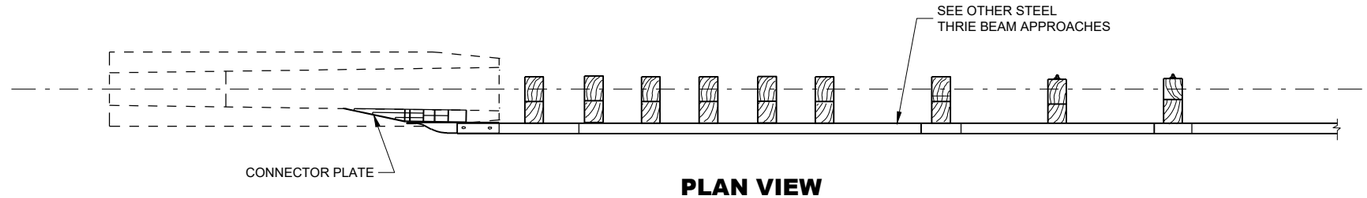
FHWA

SDD 14B20 - 12g

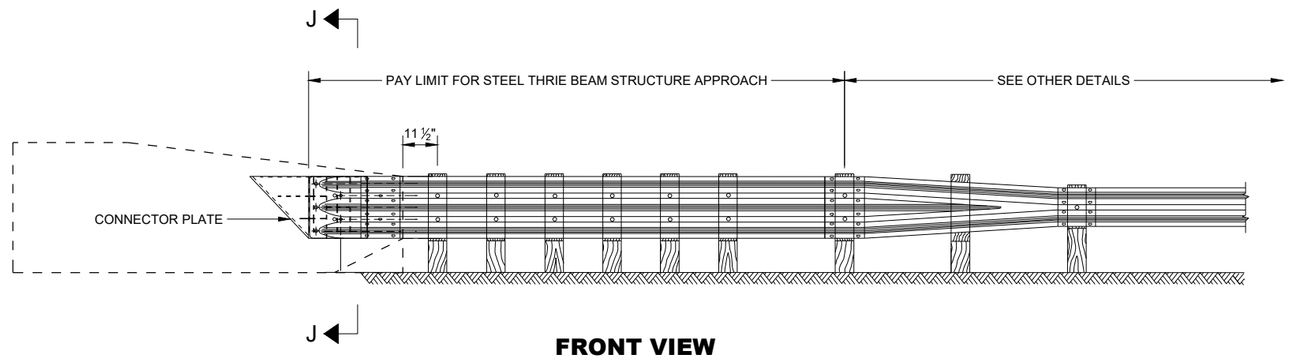
SDD 14B20 - 12g



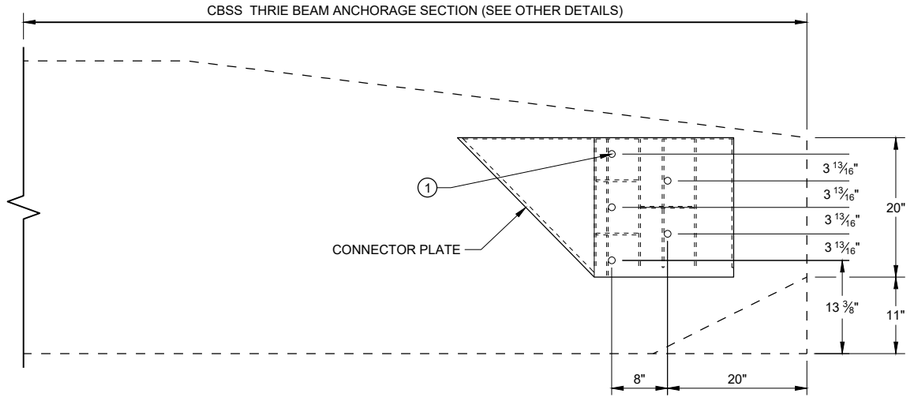
SECTION J - J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE PLACEMENT

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

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

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

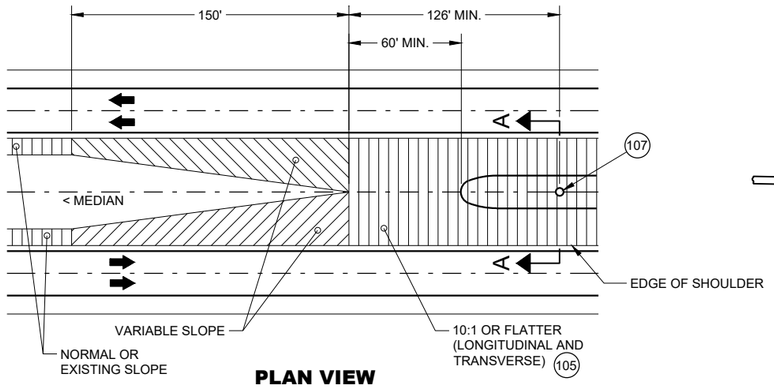
STEEL THRIE BEAM STRUCTURE APPROACH

MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION

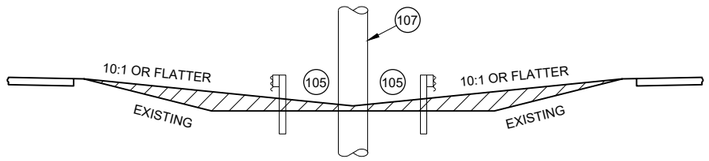
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
SDD 14B20 - 12h



PLAN VIEW
GRADING AT BULLNOSE
(ALL INSTALLATIONS)



SECTION A -A
MEDIAN GRADING
(ALL INSTALLATIONS)

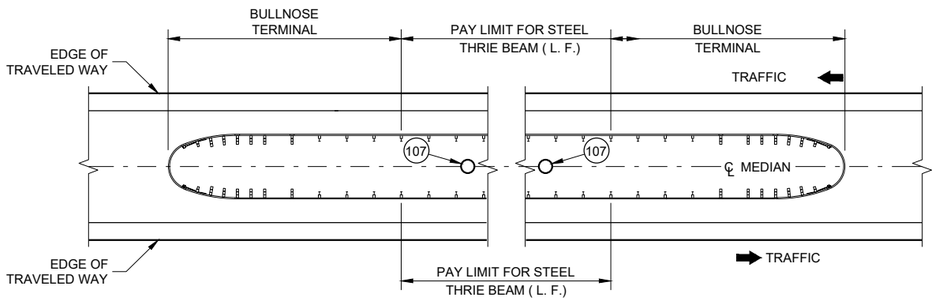
GENERAL NOTES

THRIE BEAM RAILS MAY NEED TO BE FIELD BENT TO FIT THE LOCATION.

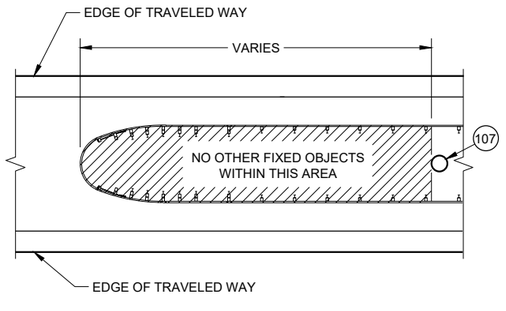
SEE STANDARD DETAIL DRAWINGS 14B26 SHEETS a-h.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER

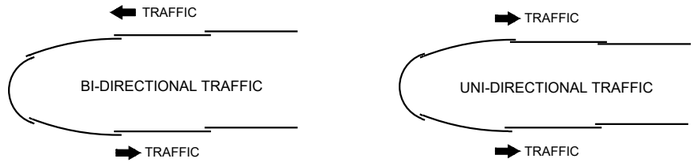
- E1 UNBENT STANDARD THRIE BEAM RAIL B1 (POST 8 TO POST 10 AND POST 10 TO POST 12)
- E2 SLOTTED THRIE BEAM RAIL E1 (POST 1 TO POST 1)
- E3 SLOTTED THRIE BEAM RAIL B3 (POST 5 TO POST 8)
- E4 SLOTTED THRIE BEAM RAIL E4 (POST 1 TO POST 5)
- 5 BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.
- (100) DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.
- (101) U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
- (102) NOSE CABLE WITH SWAGGED END BUTTONS.
- (103) NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).
- (104) THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.
- (105) MINIMUM WORKING WIDTH 4' - 2".
- (106) MAX. WIDTH OF SYSTEM IS 14' - 2 ½" MEASURED FROM THE BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.
- (107) FIXED OBJECT OR OTHER HAZARD.
- (108) PLAN IS TO PROVIDE STATION OFFSET TO CENTER OF POST 5 IN PLANS.



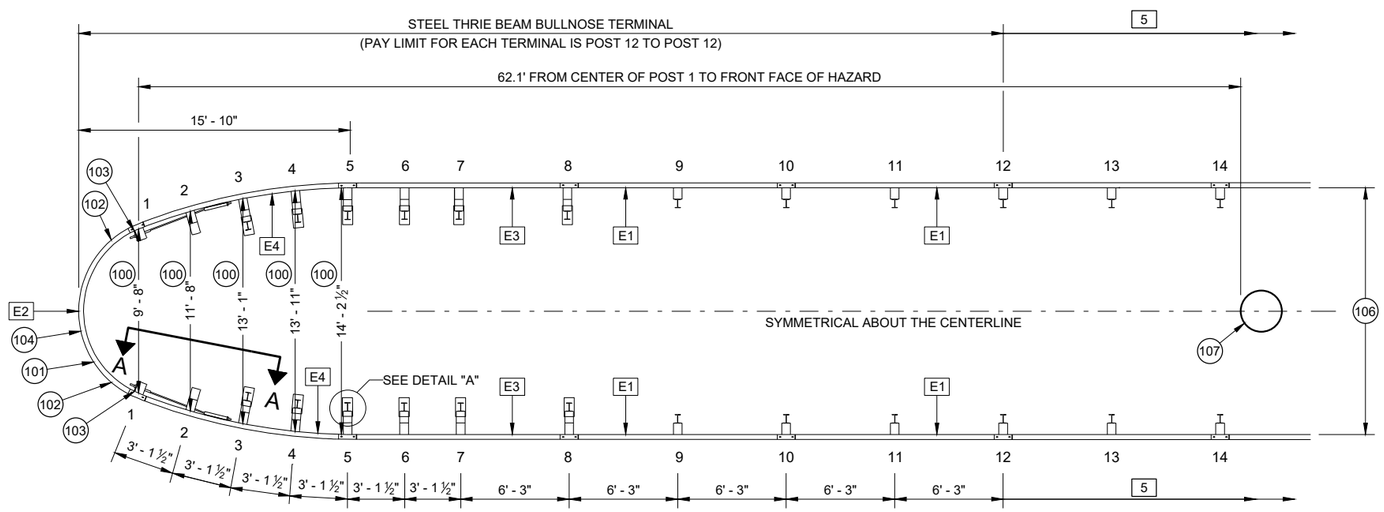
MEDIAN HAZARD PROTECTION PAY LIMITS



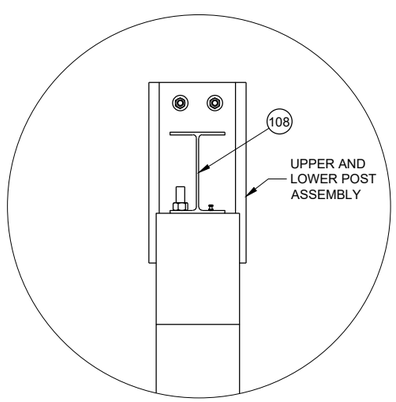
HAZARD FREE AREA
INSIDE BULLNOSE



LAPPING DETAIL



PLAN VIEW
TYPICAL BULLNOSE LAYOUT



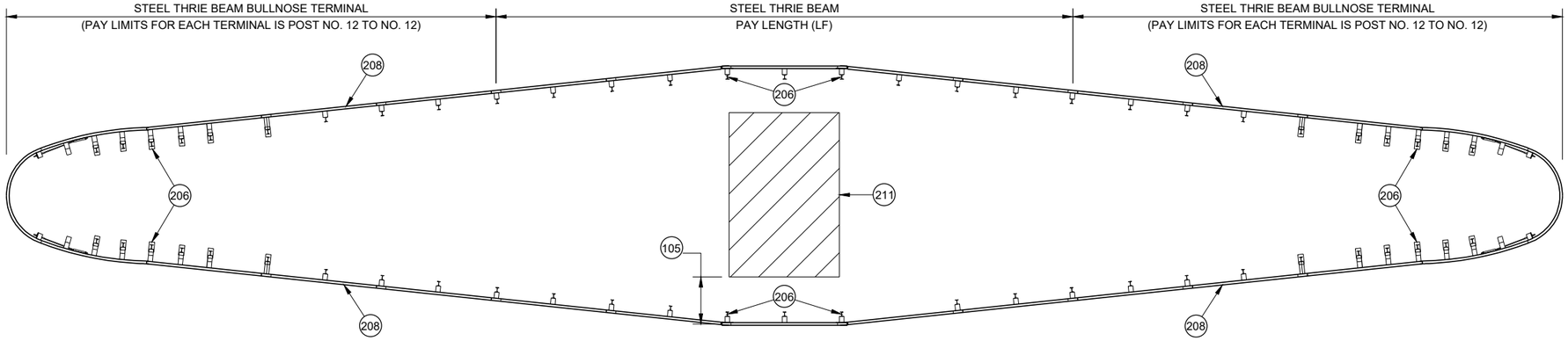
DETAIL "A"

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B26 - 05a

SDD 14B26 - 05a



VARIABLE WIDTH BULLNOSE

GENERAL NOTES

200 6' - 3" ASYMMETRICAL 10-GAUGE W-BEAM TO THRIE BEAM GUARD TRANSITION. SEE SDD 14B45 FOR MORE INFORMATION.

201 W-BEAM RAIL. SEE SDD 14B42 FOR MORE INFORMATION.

202 SEE POST NO. 9 AND ALL STEEL THRIE BEAM POST BEYOND DETAIL.

203 SEE SDD 14B42 FOR INSTALLATION INFORMATION.

204 SEE SDD 14B45 FOR INSTALLATION DETAILS. REPLACE ASYMMETRICAL W-BEAM TO THRIE BEAM TRANSITION AND W-BEAM RAIL WITH E1. PAY FOR MODIFIED THRIE BEAM TRANSITION.

205 CONCRETE BARRIER OR BRIDGE RAIL.

206 SEE PLAN FOR STATION AND OFFSET TO CENTER OF POST.

207 SEE PLAN FOR STATION AND OFFSET TO CENTER OF SPLICE.

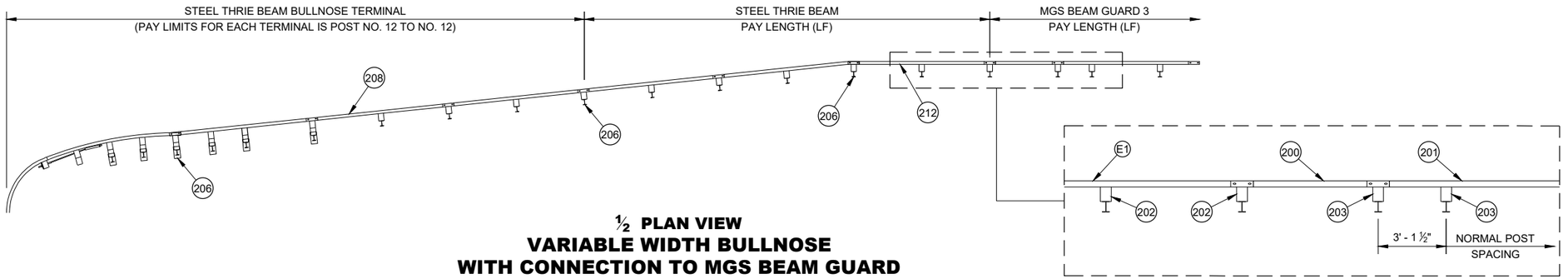
208 SEE PLAN FOR FLARE RATE.

209 A MINIMUM OF 25 FT OF THRIE BEAM TANGENT BEFORE TRANSITIONING TO BEAM GUARD OR THRIE BEAM TRANSITION.

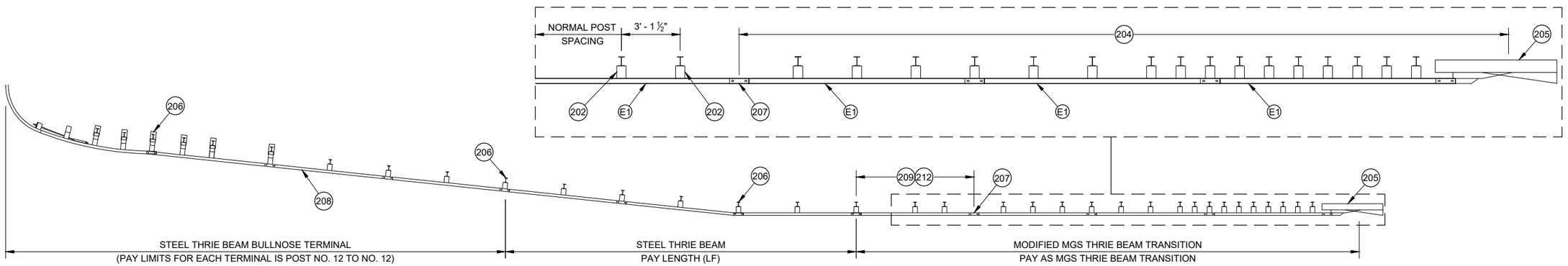
210 NOT ALL BULLNOSE HARDWARE SHOWN. SEE OTHER SHEETS IN 14B26.

211 WIDER HAZARD TO BE SHIELDED.

212 TRANSITION RAIL HEIGHT TO 31" OVER THE LENGTH OF A 12' - 6" BEAM SECTION.



½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO MGS BEAM GUARD



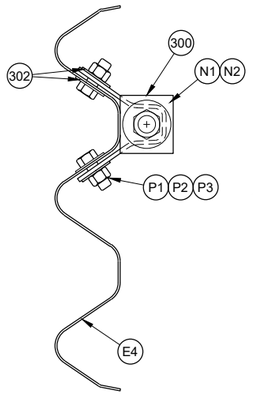
½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO RIGID BARRIER

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

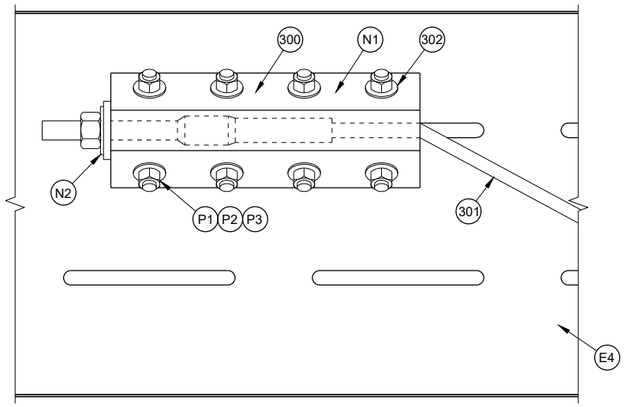
6

SDD 14B26 - 05b

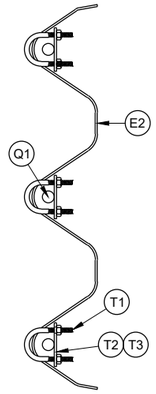


PROFILE VIEW

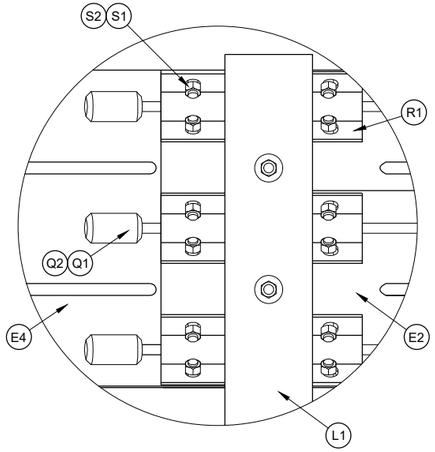
CABLE ANCHOR ASSEMBLY CONNECTION



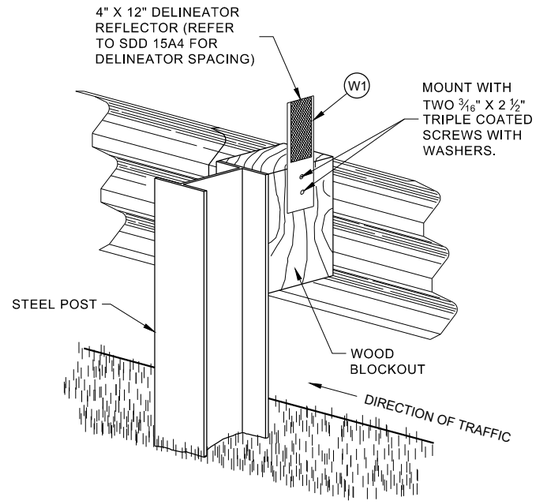
CABLE ANCHOR ASSEMBLY



NOSE CABLE RETAINING CLIP



DETAIL "A"



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

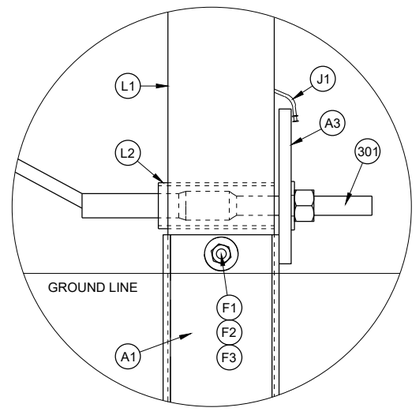
POST 8

POST 3

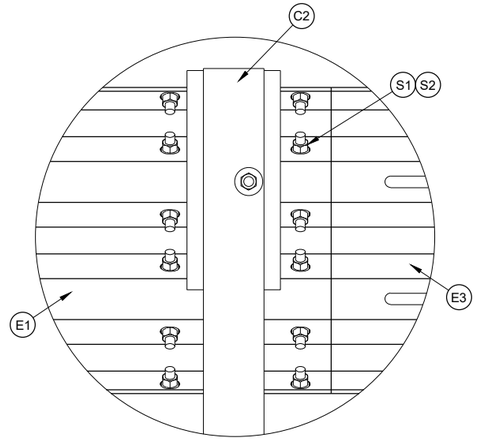
POST 2

POST 1

CROSS SECTION A - A



DETAIL "B"



DETAIL "C" THRIE BEAM SPLICE

GENERAL NOTES

(300) SEE ANCHOR BRACKET ASSEMBLY DETAIL.

(301) SEE ANCHOR CABLE ASSEMBLY DETAIL

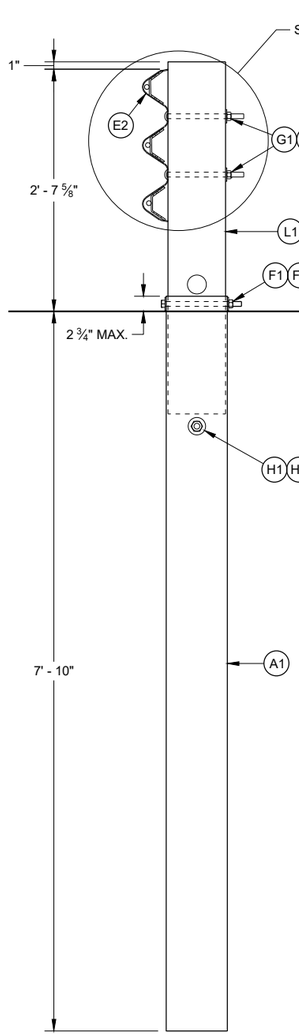
(302) ONE WASHER BETWEEN BOLT HEAD AND RAIL AND BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

(303) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

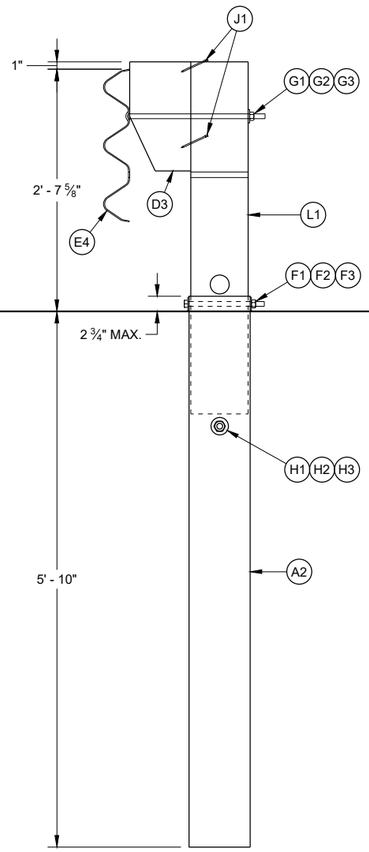
STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

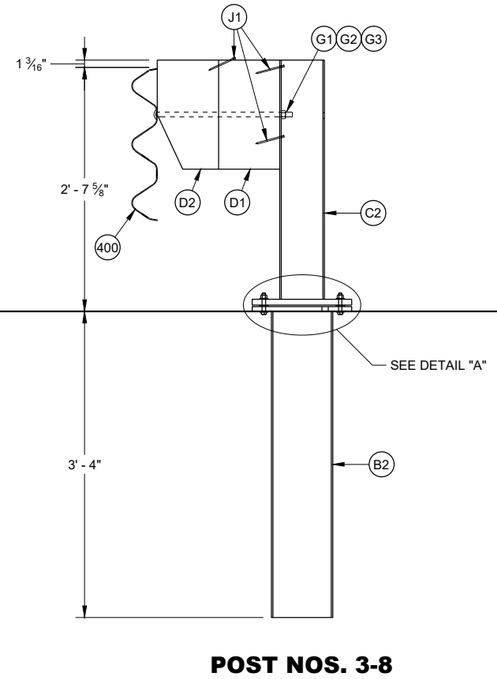
6
SDD 14B26 - 05c



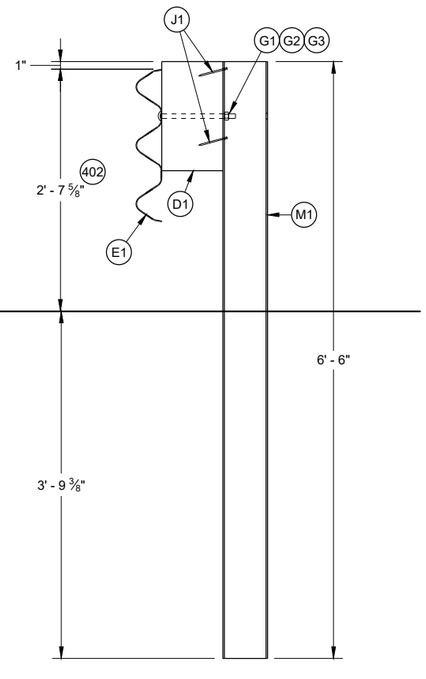
POST NO. 1



POST NO. 2



POST NOS. 3-8



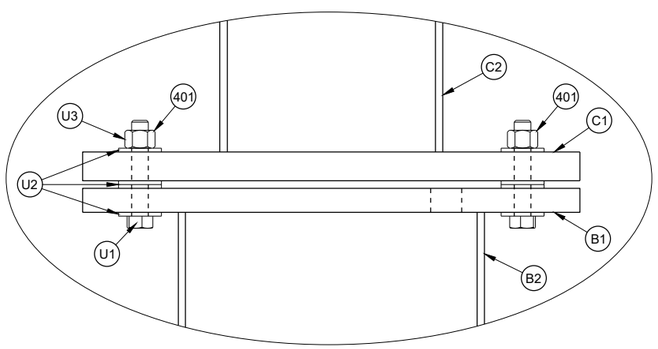
POST NOS. 9 AND ALL STEEL THRIE BEAM POSTS BEYOND

GENERAL NOTES

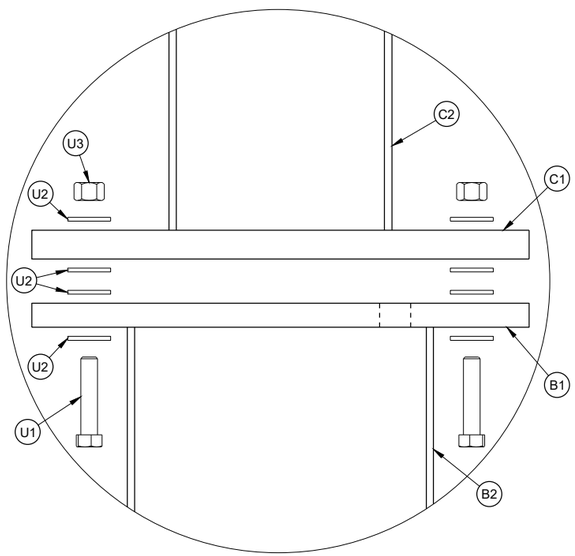
(400) RAIL CAN BE E3 OR E4 DEPENDING ON POST LOCATION.

(401) TORQUE BOLD BETWEEN 60-75 FT-LB

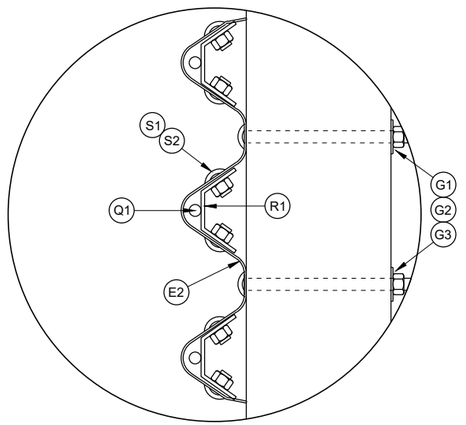
(402) HEIGHT WILL VARY WITHIN HEIGHT TRANSITION TO OTHER HARDWARE. SEE NOTE 213, SHEET "b".



DETAIL "A"



EXPLODED VIEW
DETAIL "A"



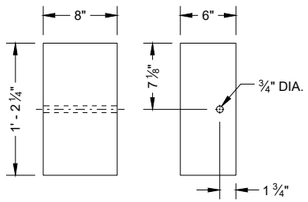
DETAIL "B"

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

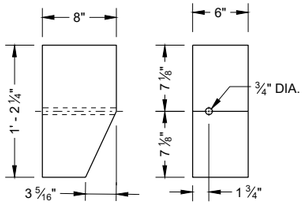
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SDD 14B26 - 05d



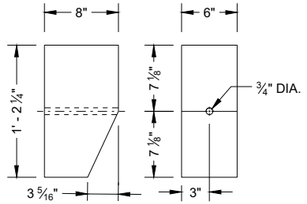
ELEVATION PROFILE

BLOCKOUT (D1)



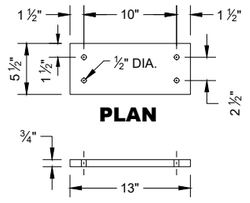
ELEVATION PROFILE

BLOCKOUT (D2)



ELEVATION PROFILE

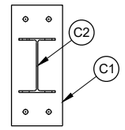
BLOCKOUT (D3)



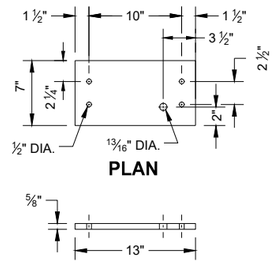
PLAN

PROFILE

UPPER SHEAR PLATE (C1)



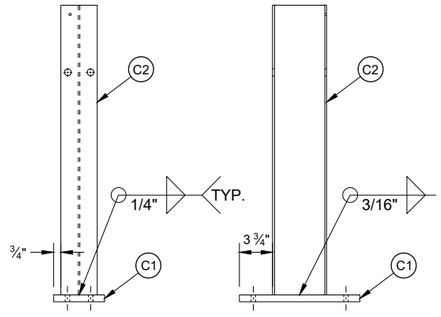
PLAN



PLAN

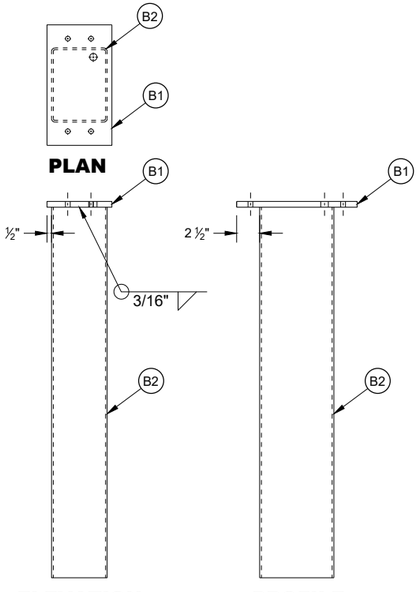
PROFILE

LOWER SHEAR PLATE (B1)



ELEVATION PROFILE

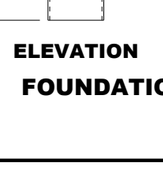
UPPER POST ASSEMBLY



PLAN

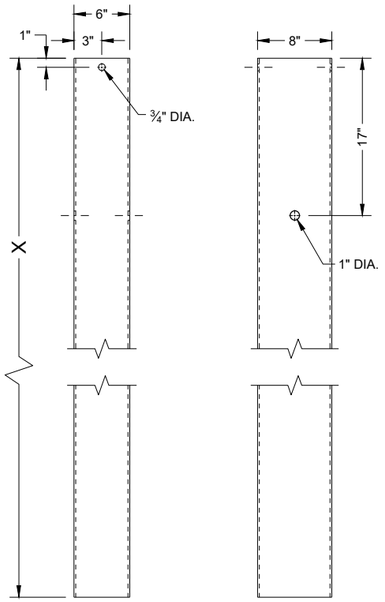
ELEVATION PROFILE

LOWER POST ASSEMBLY



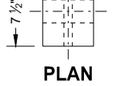
PLAN

PART	LENGTH "X"
A1	8' - 0"
A2	6' - 0"
B2	3' - 4"

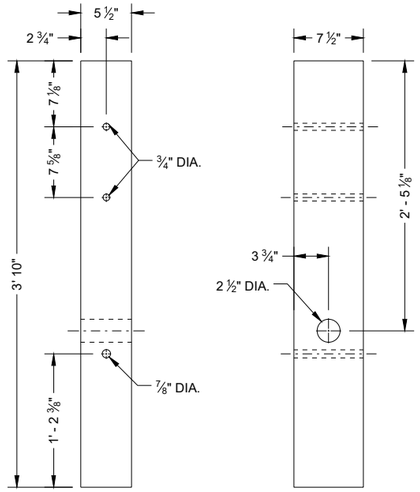


ELEVATION PROFILE

FOUNDATION TUBE

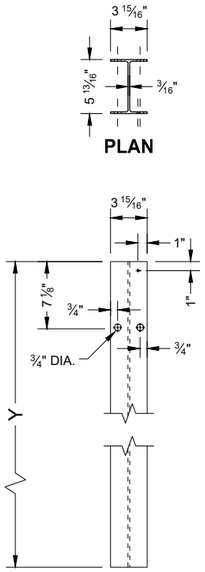


PLAN



ELEVATION PROFILE

BCT POST (L1)



PLAN

ELEVATION

POST

PART	LENGTH "Y"
M1	6' - 6"
M2	5' - 8 5/8"
C2	2' - 7 5/8"

6

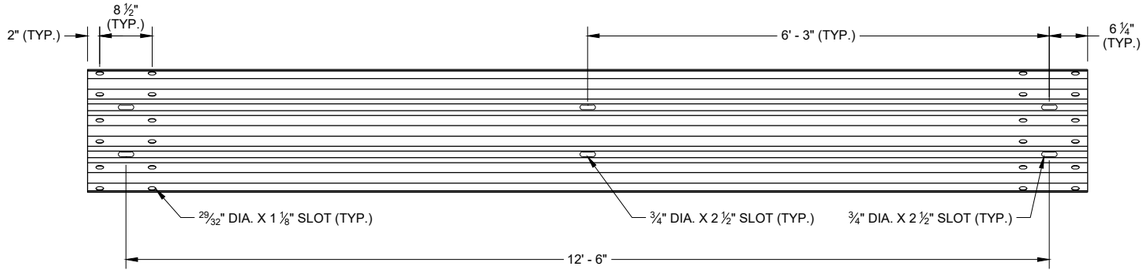
SDD 14B26 - 05e

STEEL THRIE BEAM BULLNOSE TERMINAL

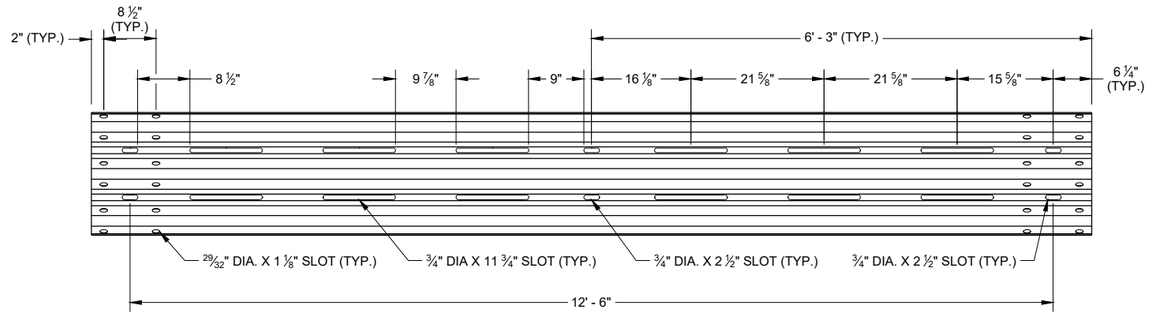
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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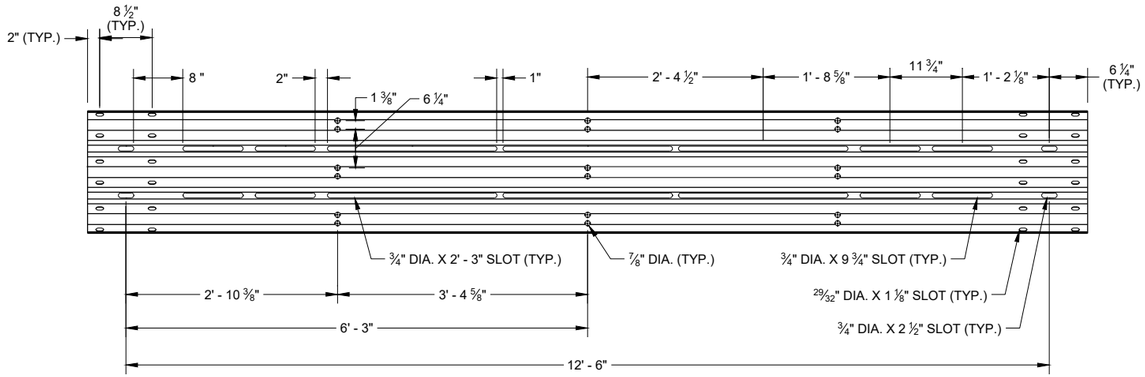
SDD 14B26 - 05e



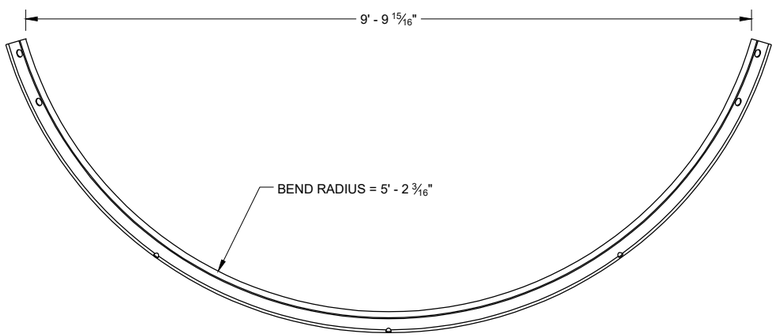
SLOTTED THRIE BEAM RAIL E1



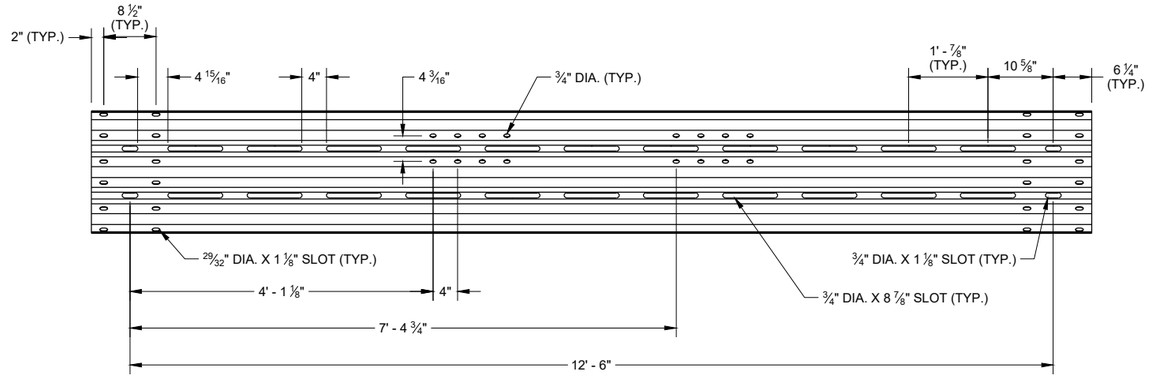
SLOTTED THRIE BEAM RAIL E3



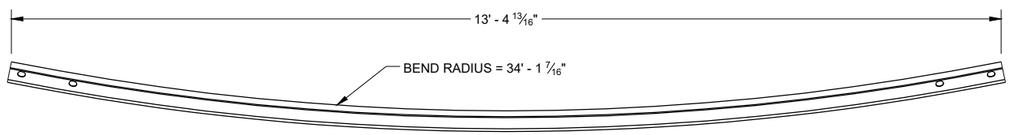
ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E2



PLAN VIEW
SLOTTED THRIE BEAM RAIL E2



ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E4



PLAN VIEW
SLOTTED THRIE BEAM RAIL E4

6

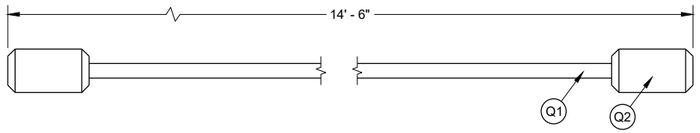
SDD 14B26 - 05f

STEEL THRIE BEAM BULLNOSE TERMINAL

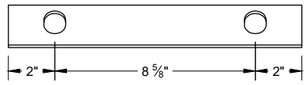
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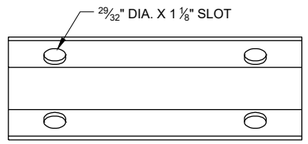
SDD 14B26 - 05f



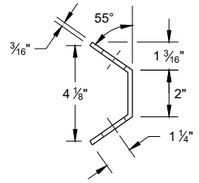
NOSE CABLE AND SWAGE BUTTON



PLAN VIEW

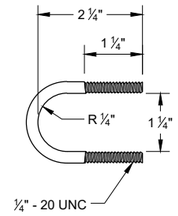


ELEVATION VIEW

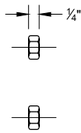


PROFILE VIEW

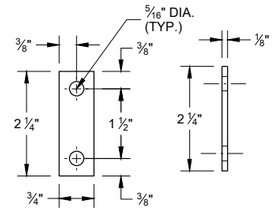
NOSE CABLE ANCHOR (R1)



U - BOLT (T1)

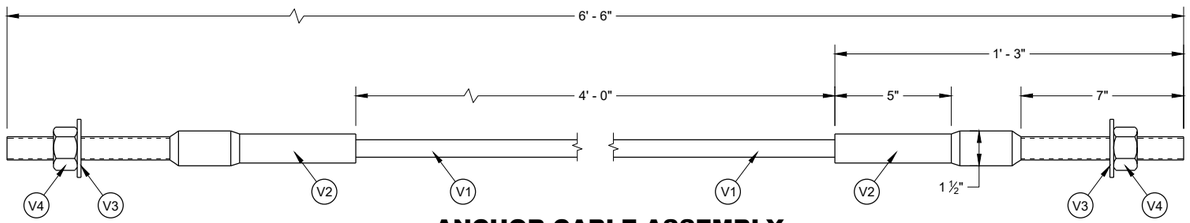


U - BOLT NUT (T3)

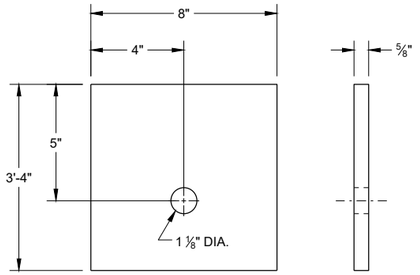


ELEVATION VIEW **PROFILE VIEW**

U - BOLT PLATE WASHER (T2)

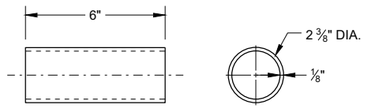


ANCHOR CABLE ASSEMBLY



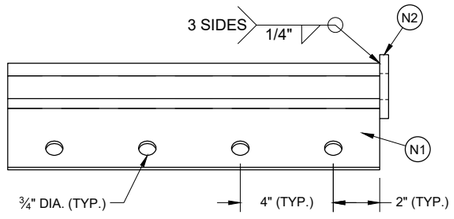
ELEVATION VIEW **PROFILE VIEW**

BCT BEARING PLATE (A3)

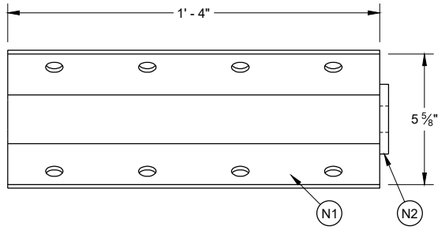


ELEVATION VIEW **PROFILE VIEW**

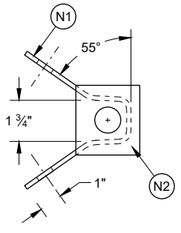
BCT POST SLEEVE (L2)



PLAN VIEW

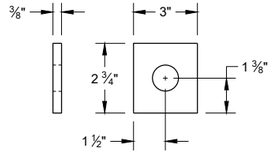


ELEVATION VIEW



PROFILE VIEW

ANCHOR BRACKET ASSEMBLY (N1)



ANCHOR BRACKET END PLATE (N2)

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B26 - 05g

BILL OF MATERIALS LIST

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
A1	LONG FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A2	FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A3	BEARING PLATE AT POST	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
B1	LOWER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
B2	LOWER SLIP POST ASSEMBLY - TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
C1	UPPER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
C2	UPPER SLIP POST ASSEMBLY - POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
D1	BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D2	TAPERED BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D3	TAPERED BLOCK FOR BCT POST - WOOD	WISDOT SPEC. 614
E1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E2	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
E3	THRIE BEAM RAIL - PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E4	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
F1	5/8" DIA. HEX HEAD GROUND STRUT AND YOKE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
F2	5/8" DIA. GROUND STRUT AND YOKE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
F3	GROUND STRUT AND YOKE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
G1	5/8 " DIA. POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G2	POST BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G3	POST BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
H1	7/8" DIA. SOIL TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
H2	SOIL TUBE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDEN WASHER ONLY)
H3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
J1	16D DOUBLE HEAD NAIL	ASTM A153 HOT DIPPED CLASS D DOUBLE HEAD ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)
L1	BCT TIMBER POST	WISDOT SPEC. 614 S4S FINISH ON 4 SIDE
L2	BCT POST SLEEVE	AASHTO M111/ASTM A123 2 3/8" OD ASTM 53 GRADE B
M1	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
M2	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
N1	ANCHOR BRACKET	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
N2	ANCHOR BRACKET - BEARING PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
P1	5/8" DIA. ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
P2	ANCHOR BRACKET BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
P3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
Q1	5/8" DIA. NOSE CABLE	6X19 AASTHO M30 / ASTM A741 XIPS INDEPENDENT WIRE CORE (IWRC) PR 6X25 XIPS, IWRC NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
Q2	NOSE CABLE-SWAGE BUTTON	COLD TUFF BUTTON, S-409 SIZE NO. 12 STOCK NUMBER 1040395 OR ANY OTHER SIMILAR SIZED WAGED-GRIP-BUTTON FERRULES. ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FIELD SWAGED PER MANUFACTURERS RECOMMENDATION. NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
R1	NOSE CABLE ANCHOR BRACKET	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
S1	5/8" DIA. SPLICE BOLT - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
S2	SPLICE - BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD 5/8" ASTM A563DH OR SAE J995 GRADE 5
T1	1/4" DIA. NOSE CABLE - U BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
T2	U-BOLT - PLATE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
T3	U-BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
U1	7/16" DIA. SLIP POST ASSEMBLY - BREAKAWAY BOLT	ASTM A153 OR B695 CLASS 55 OR F2329 UNC FULLY THREADED HEX HEAD TAP BOLT ASTM A449 OR SAE J429 GRADE 5
U2	7/16" DIA. SLIP POST ASSEBLY - BREAKAWAY BOLT - WASHER	ASTM F436 TYPE I (HARDEN TYPICALLY USED WITH STEEL) GALV. AASHTO M111/ASTM A 123 OR GALV. HOT DIP. TO POST BOLT CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 55, F2329
U3	SLIP POST ASSEBLY - BREAKAWAY BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / STM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
V1	¾" DIA. BCT CABLE	AASHTO M30 / ASTM A741 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN BREAKING STRENGTH OF 42.7 KIPS
V2	ANCHOR CABLE-SWAGE FITTING	UNC ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FACTORY SWAGED. MIN. BREAKING STRENGTH OF 42.7 KIPS. ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."
V3	1" DIA. ANCHOR CABLE-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
V4	1" DIA. ANCHOR CABLE-NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
W1	REFLECTOR	SEE SDD 15A4

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SDD 14B26 - 05h

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SDD 14B26 - 05h

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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

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

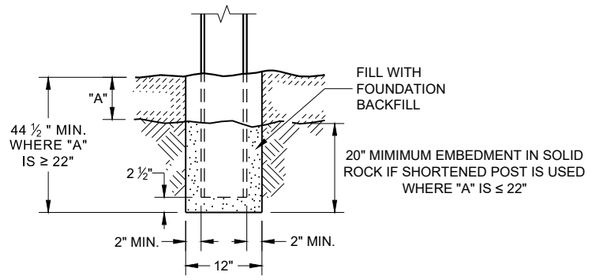
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL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

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

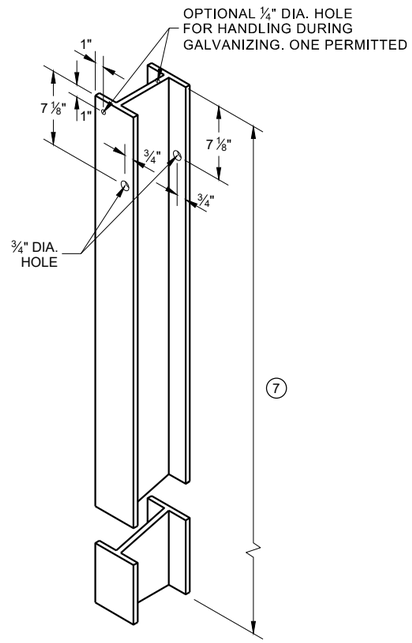
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

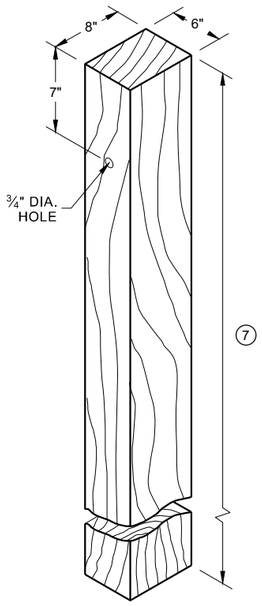
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



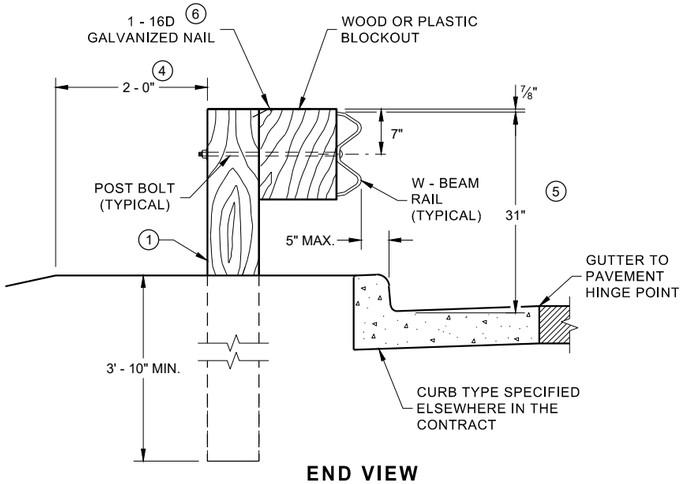
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



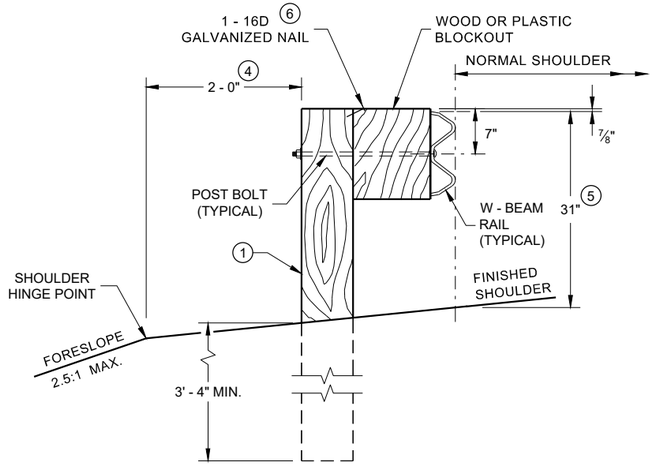
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



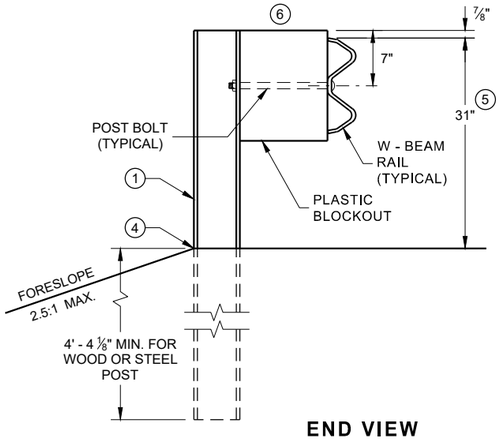
WOOD POST (6" X 8") NOMINAL (1)



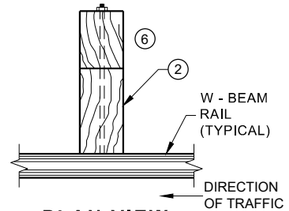
END VIEW
LOCATED ALONG A CURBED ROADWAY



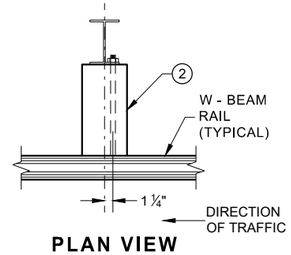
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



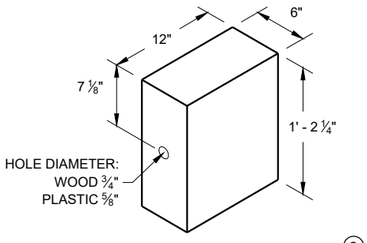
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

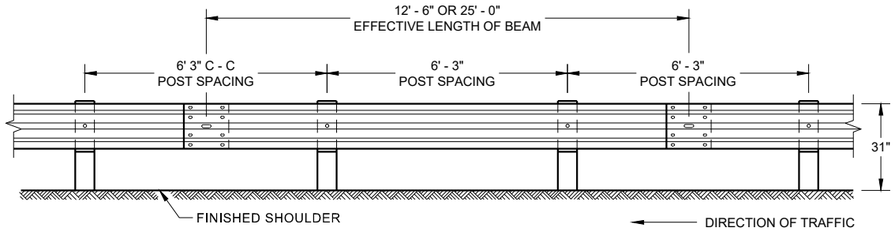
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

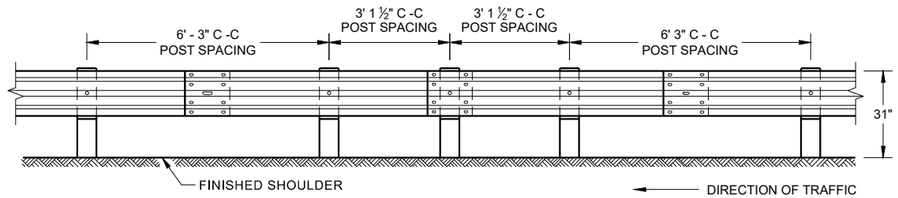
SDD 14B42 - 07a

6

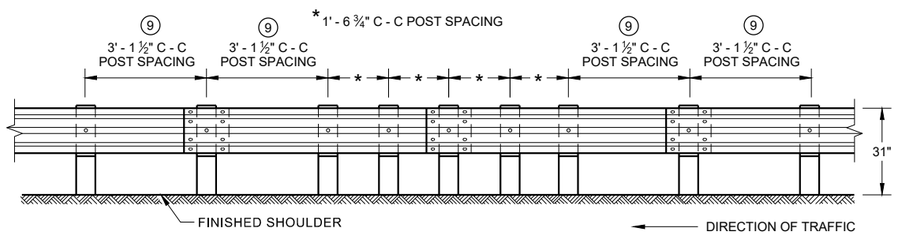
SDD 14B42 - 07a



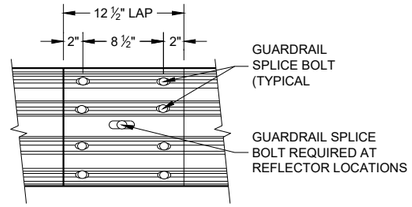
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

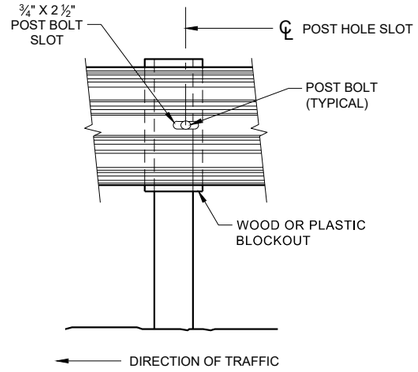
GENERAL NOTES

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

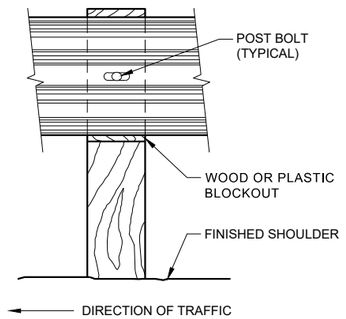
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

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

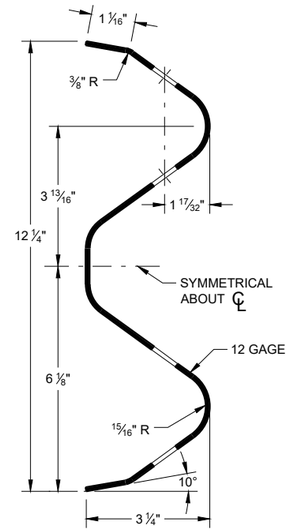
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



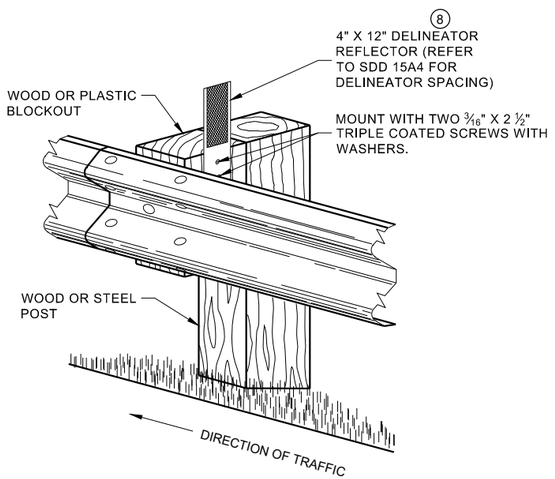
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



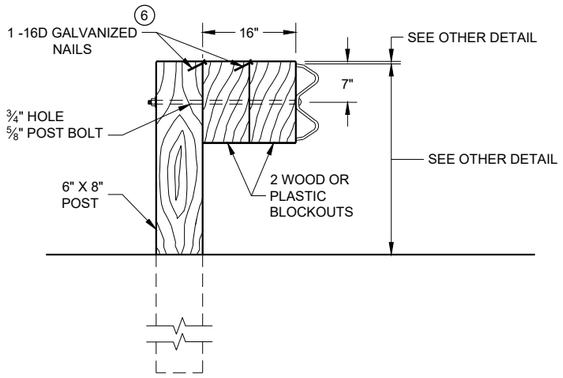
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

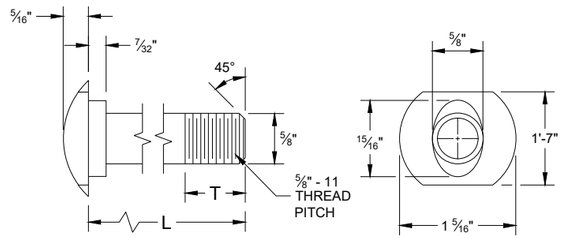


DETAIL FOR 16" BLOCKOUT DEPTH

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

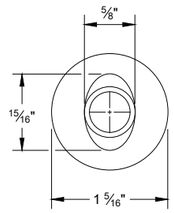
NOTE:

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

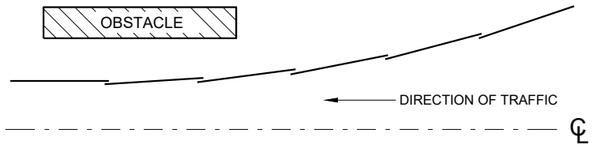


POST BOLT TABLE

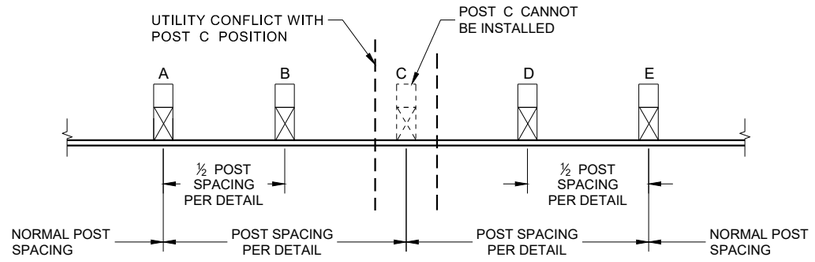
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



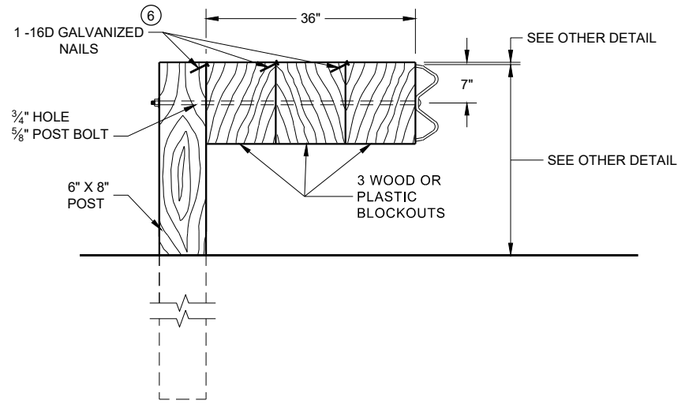
ALTERNATE BOLT HEAD



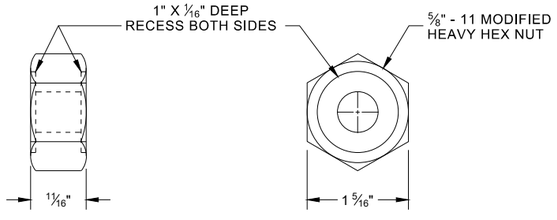
PLAN VIEW
BEAM LAPPING DETAIL



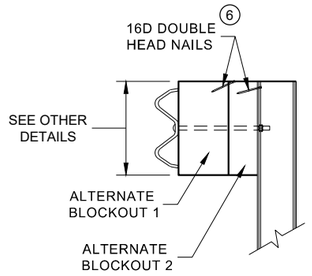
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



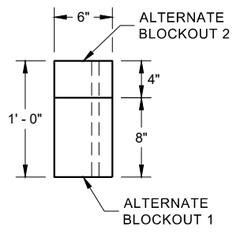
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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

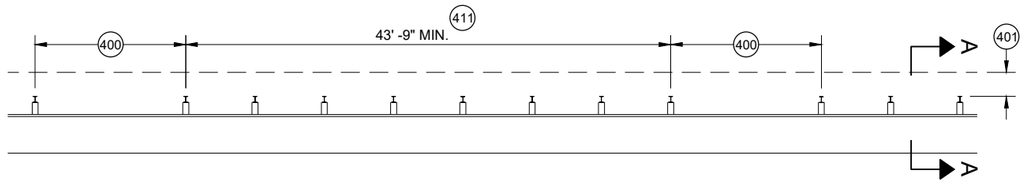
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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

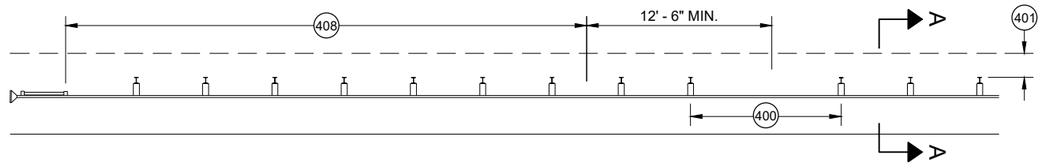
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

6

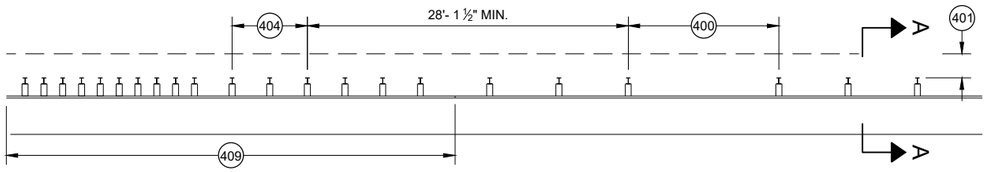
SDD 14B42 - 07c



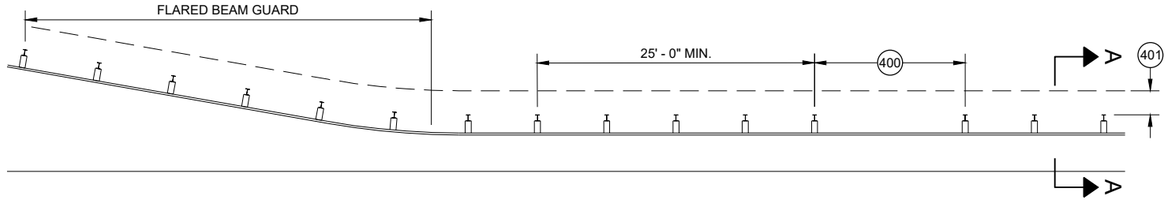
MISSING POST IN MGS GUARDRAIL



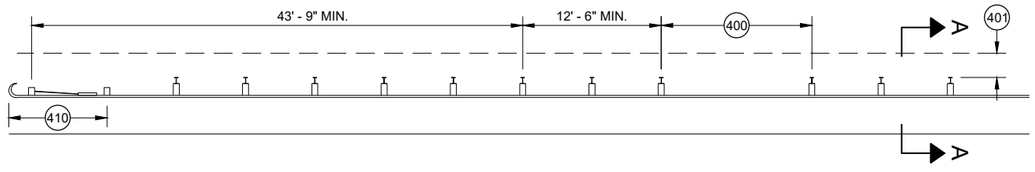
MISSING POST IN MGS GUARDRAIL NEAR EAT



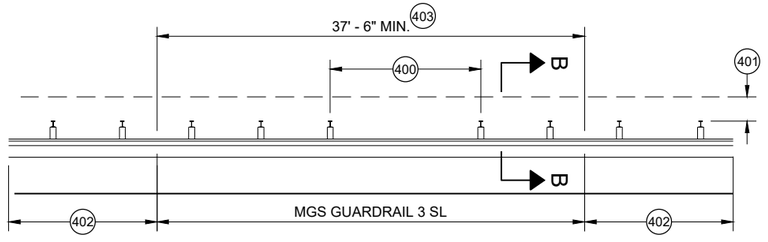
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

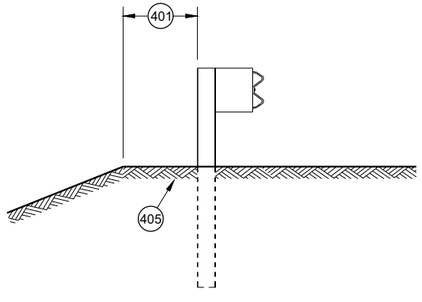


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

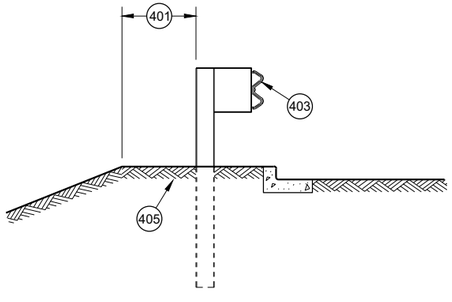


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

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



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B42 - 07d

GENERAL NOTES

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

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

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

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

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

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

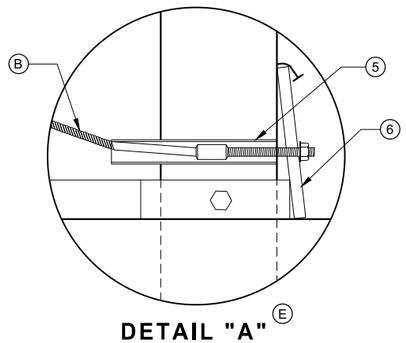
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

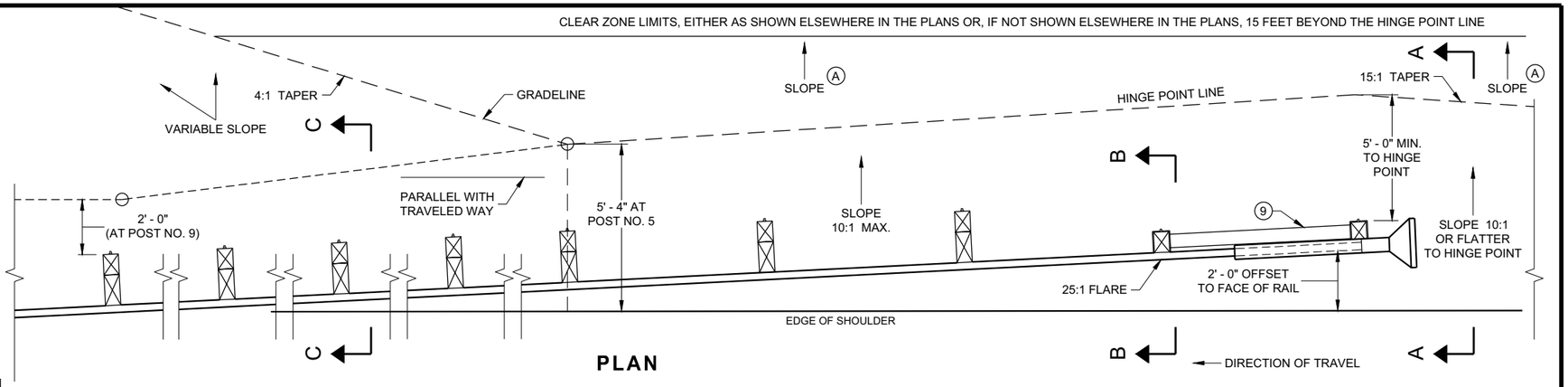
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

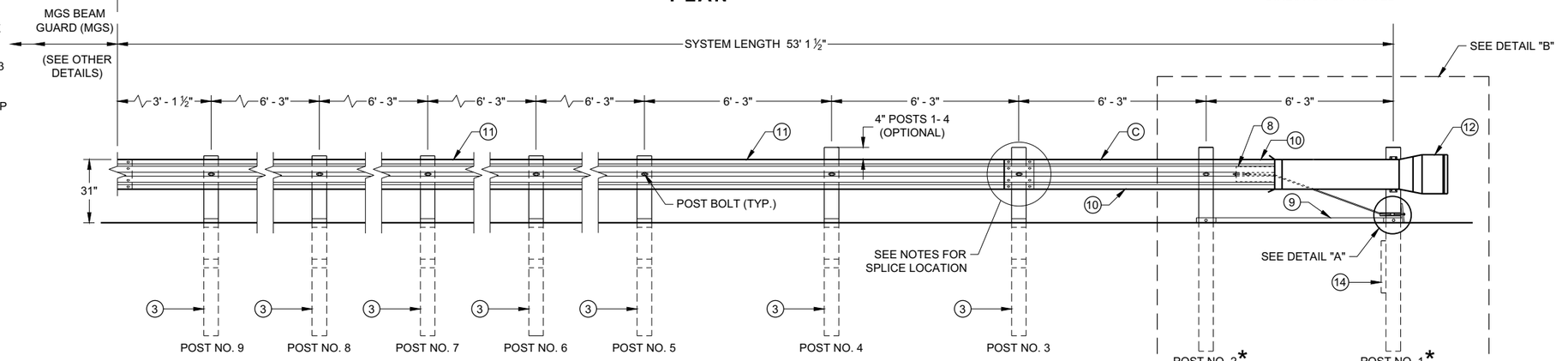
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



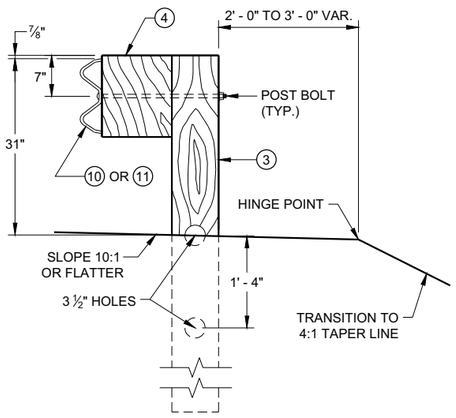
DETAIL "A" (E)



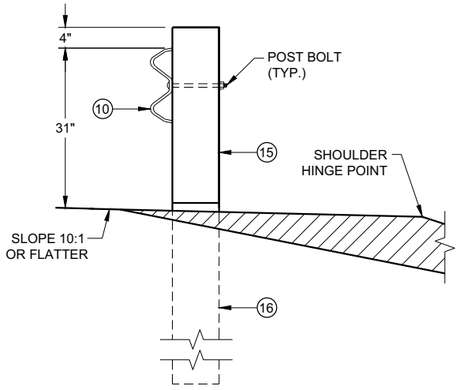
PLAN



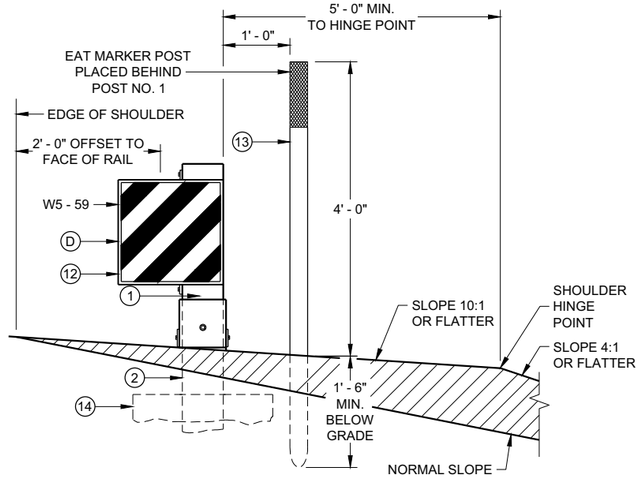
ELEVATION



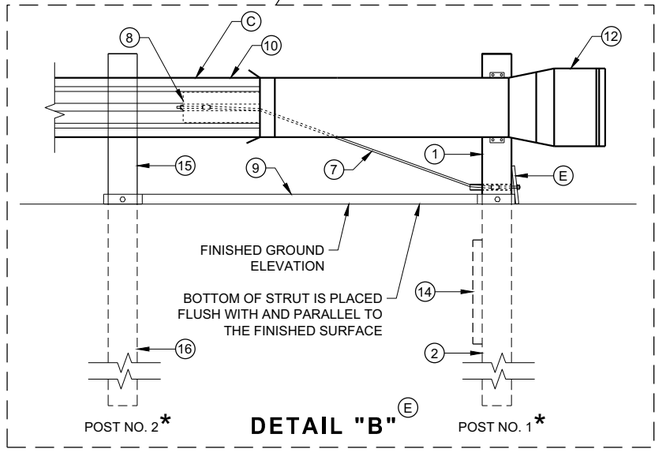
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



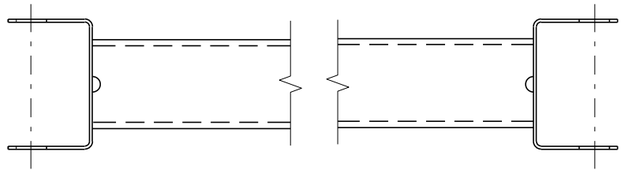
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

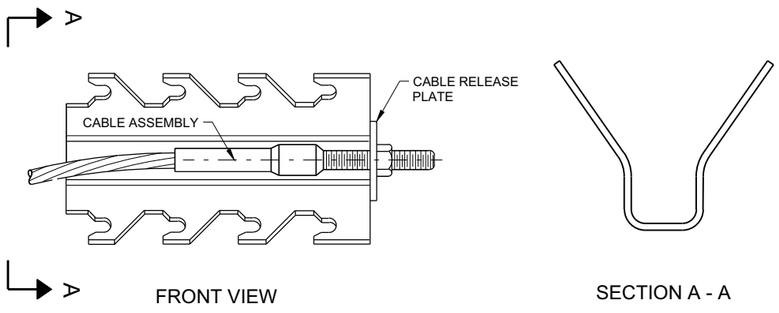
SDD 14B44 - 04a



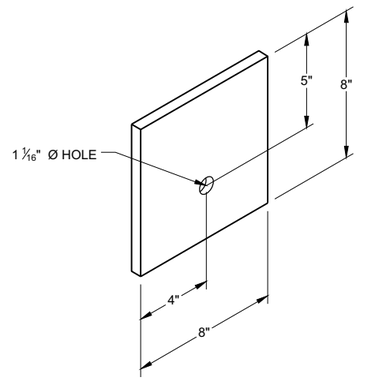
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

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



GENERIC ANCHOR CABLE BOX ⑧ Ⓔ



BEARING PLATE ⑥ Ⓔ

6

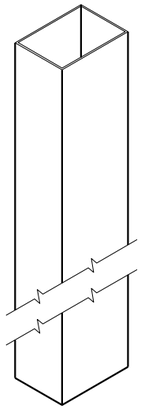
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SDD 14B44 - 04b

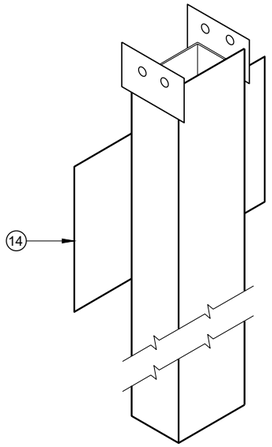
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

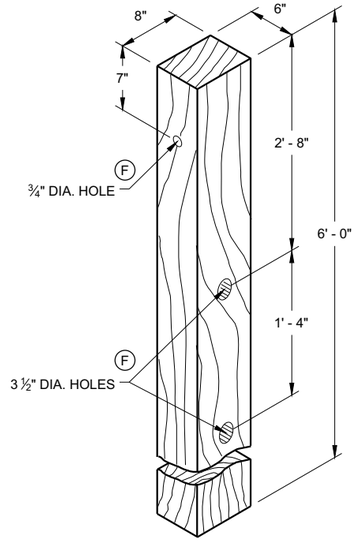
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



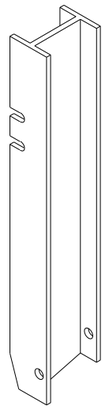
UPPER POST NO. 1 (1) (E)



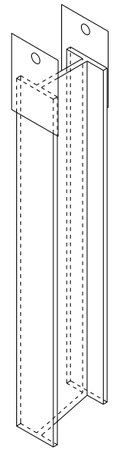
LOWER POST NO. 1 (2) (E)



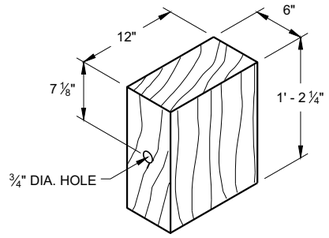
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



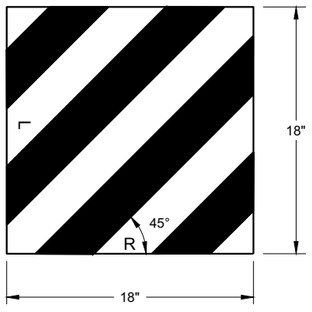
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

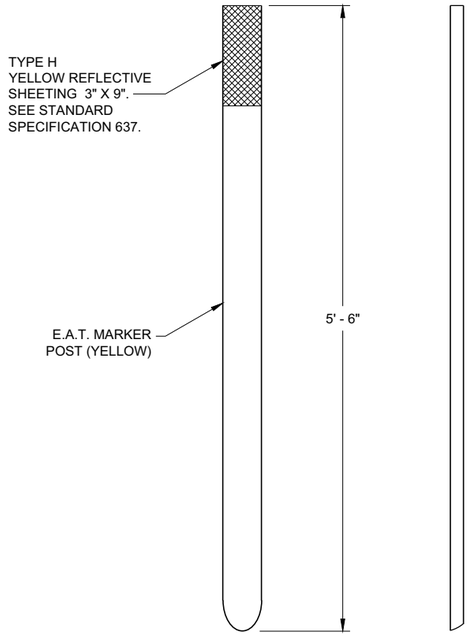


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



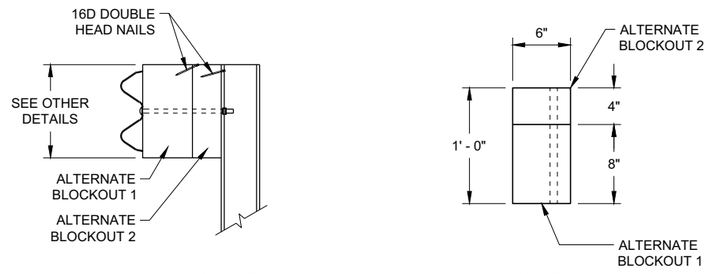
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

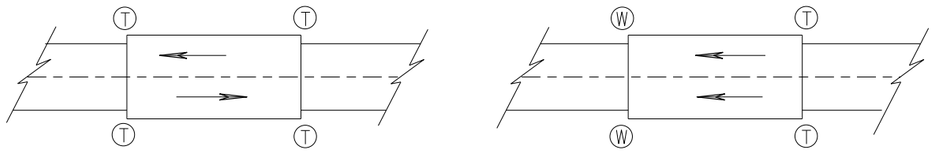
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

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

TRANSITION USES STEEL POSTS ONLY.

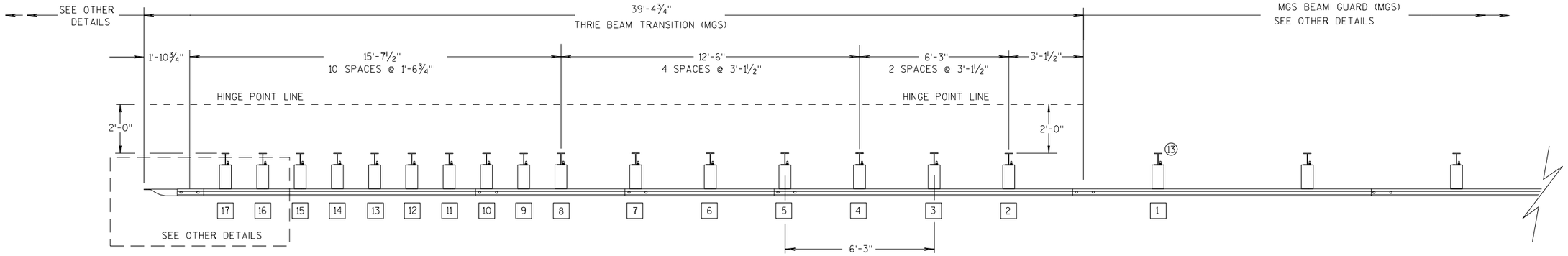
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

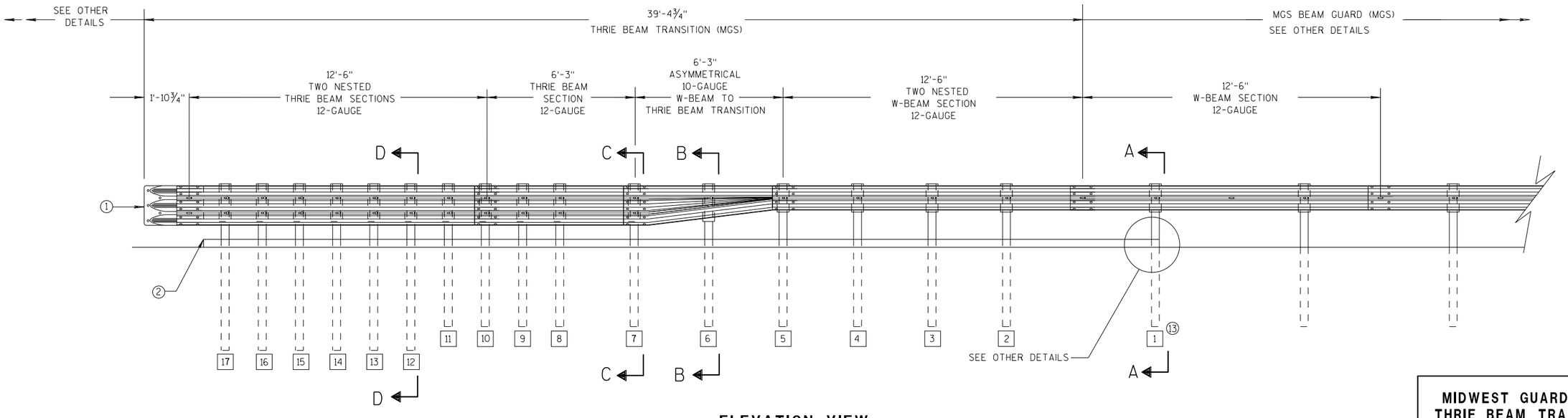
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

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

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



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

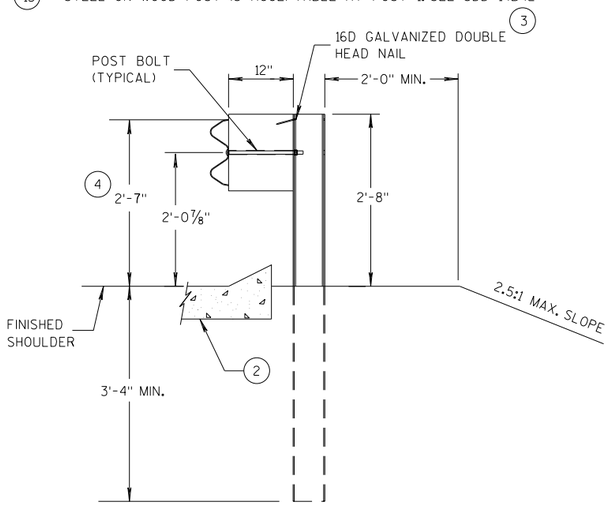
GENERAL NOTES

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

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

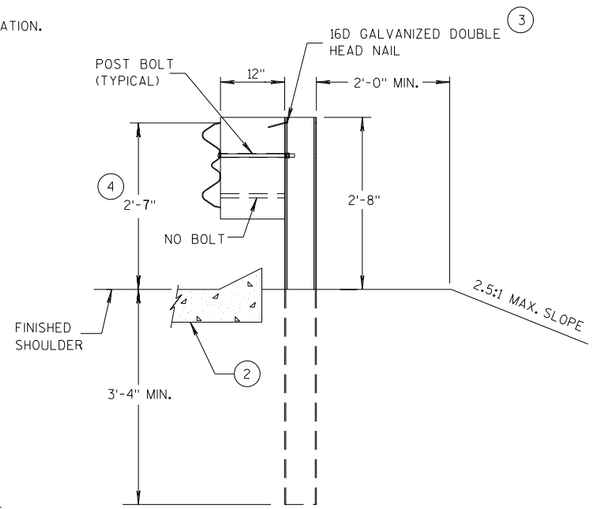
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



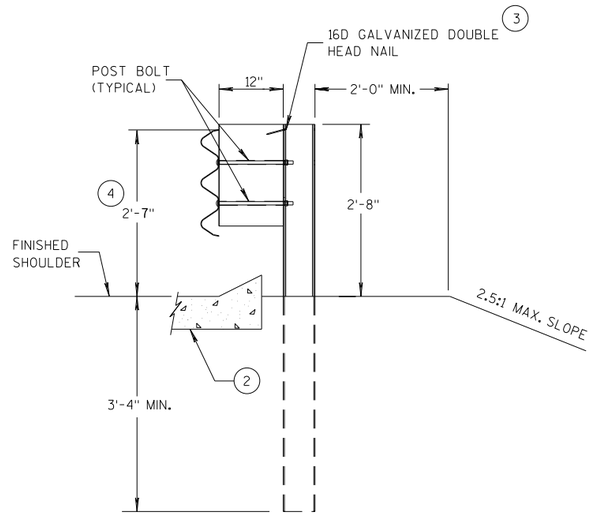
SECTION A-A (13)

POSTS 1-5



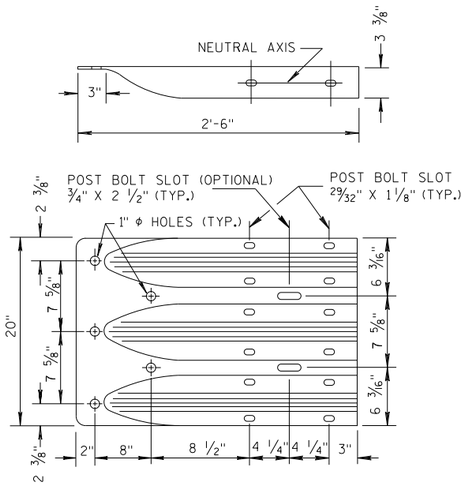
SECTION B-B

POST 6

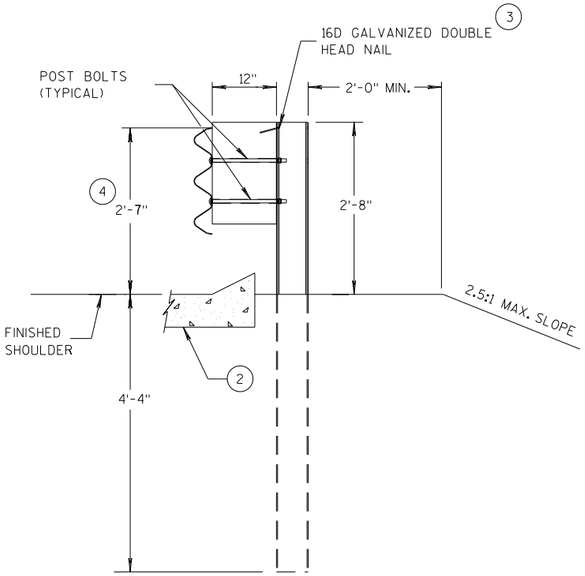


SECTION C-C

POSTS 7-11

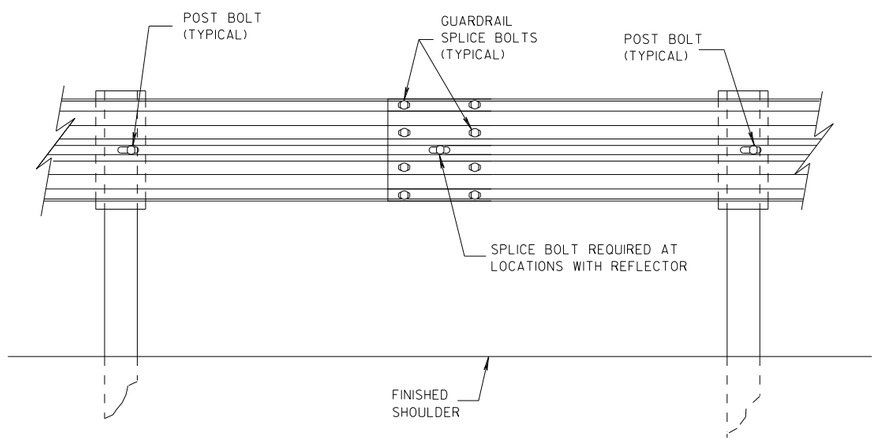


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

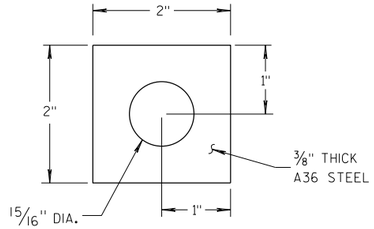
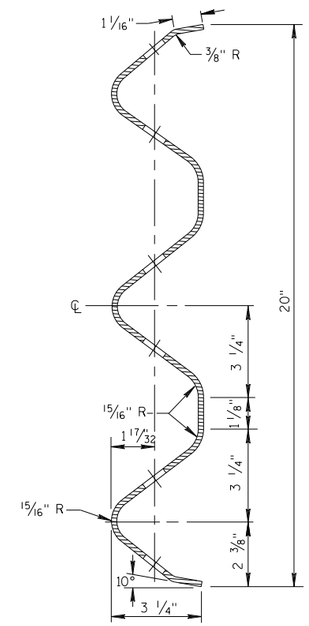


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

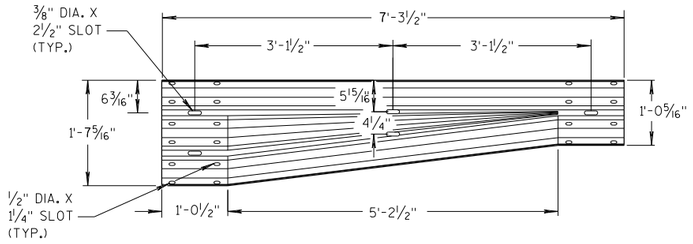
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF 235

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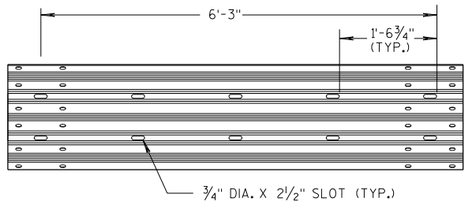
S.D.D. 14 B 45-5b

6

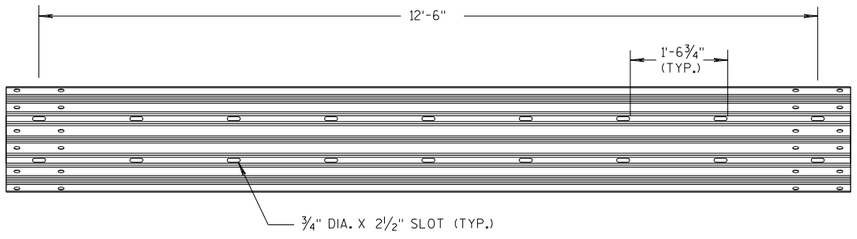
S.D.D. 14 B 45-5b



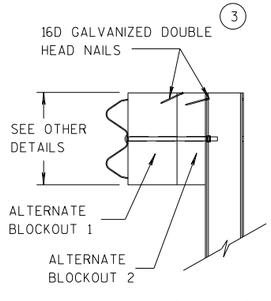
W-BEAM TO THRIE BEAM TRANSITION SECTION



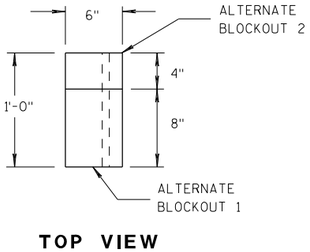
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

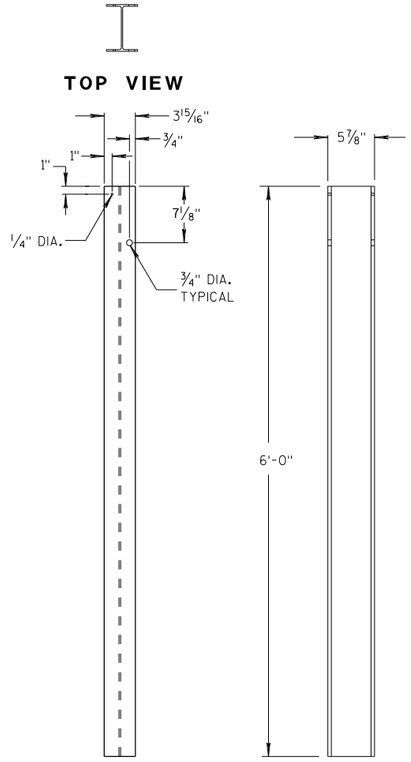


SIDE VIEW



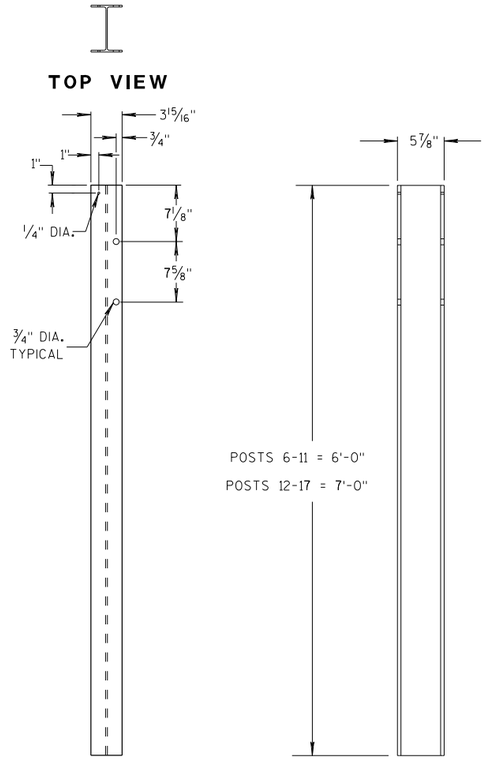
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



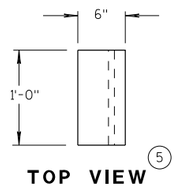
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

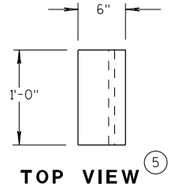


FRONT VIEW SIDE VIEW

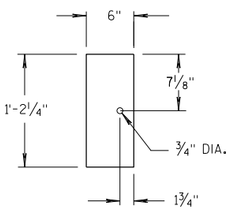
STEEL POSTS 6-17



TOP VIEW (5)

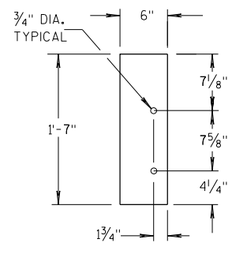


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

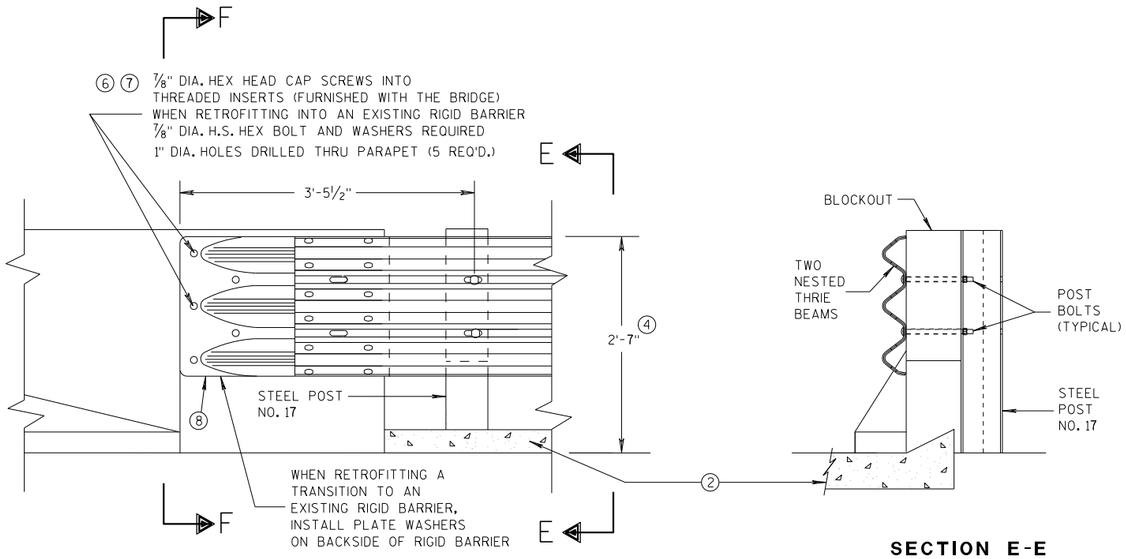
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 236

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



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

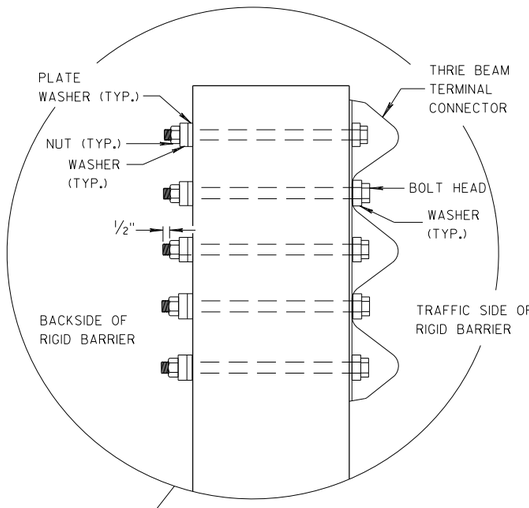
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

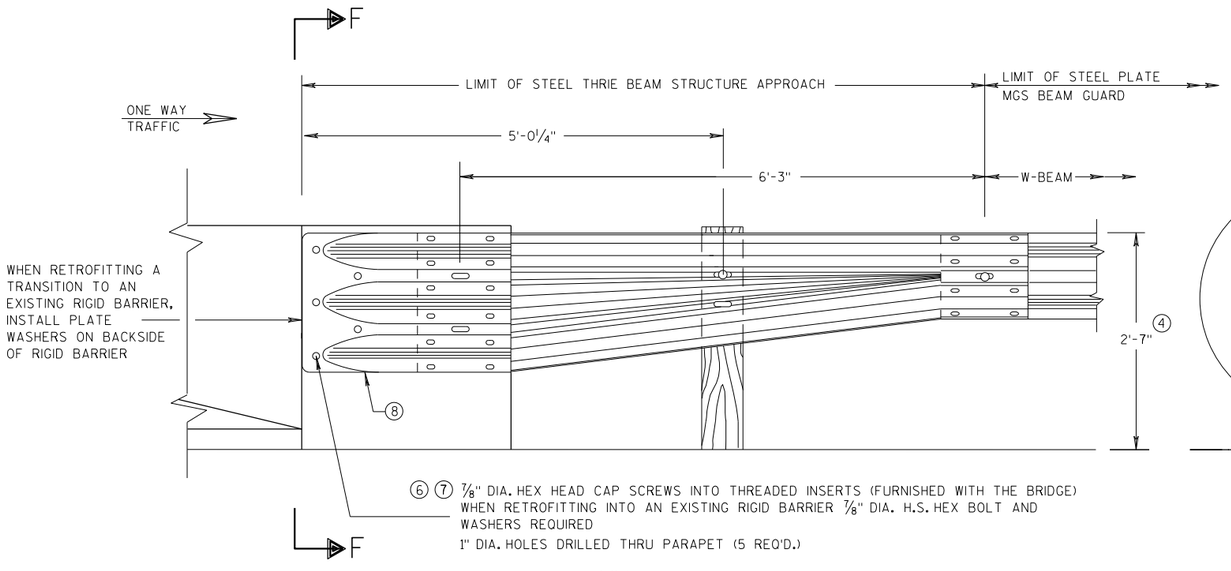
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

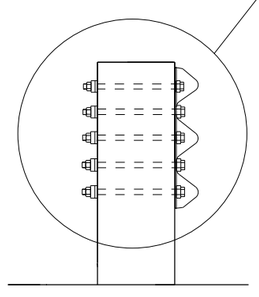
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE.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

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

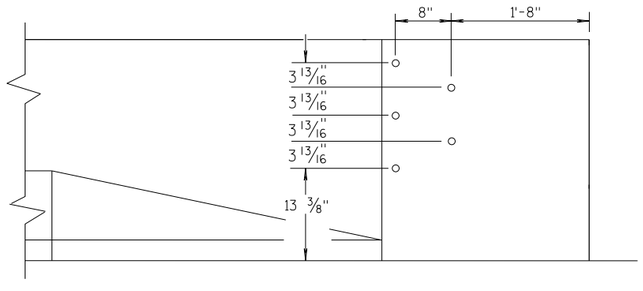




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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

GENERAL NOTES

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

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

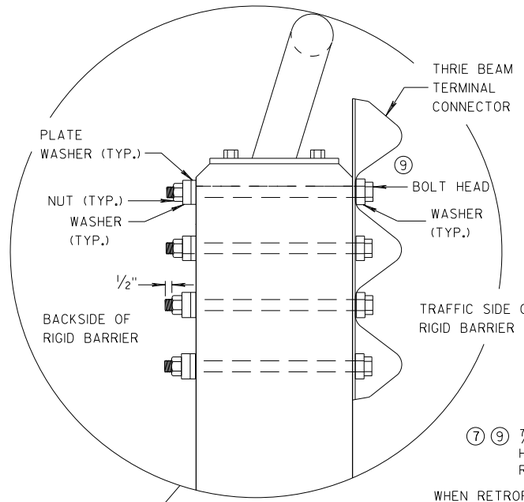
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

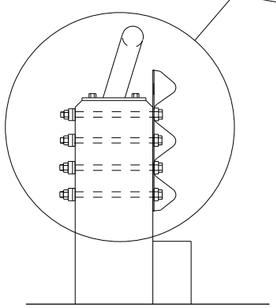
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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

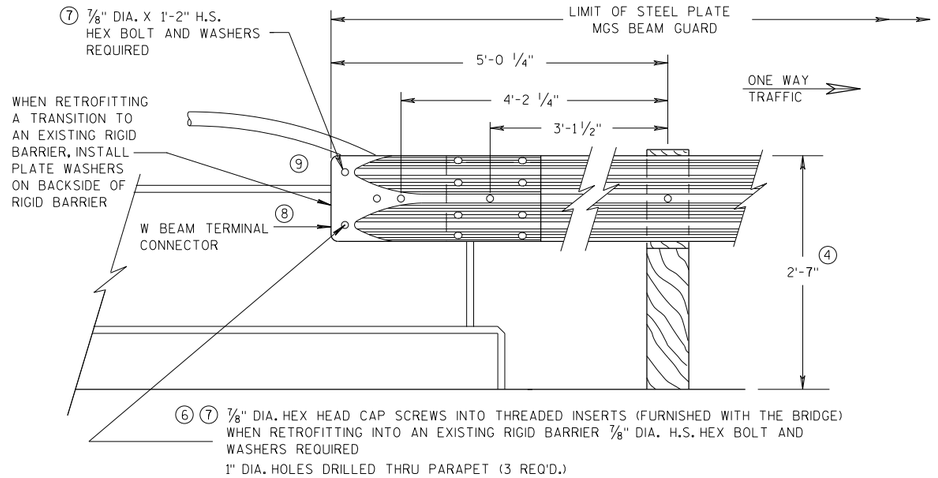
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

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





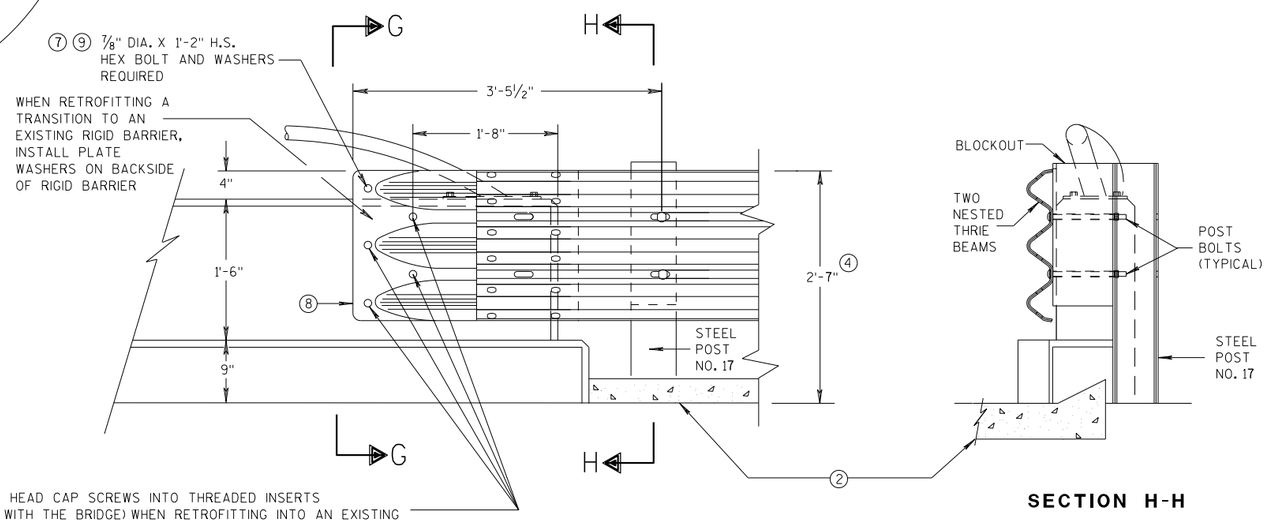
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

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



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

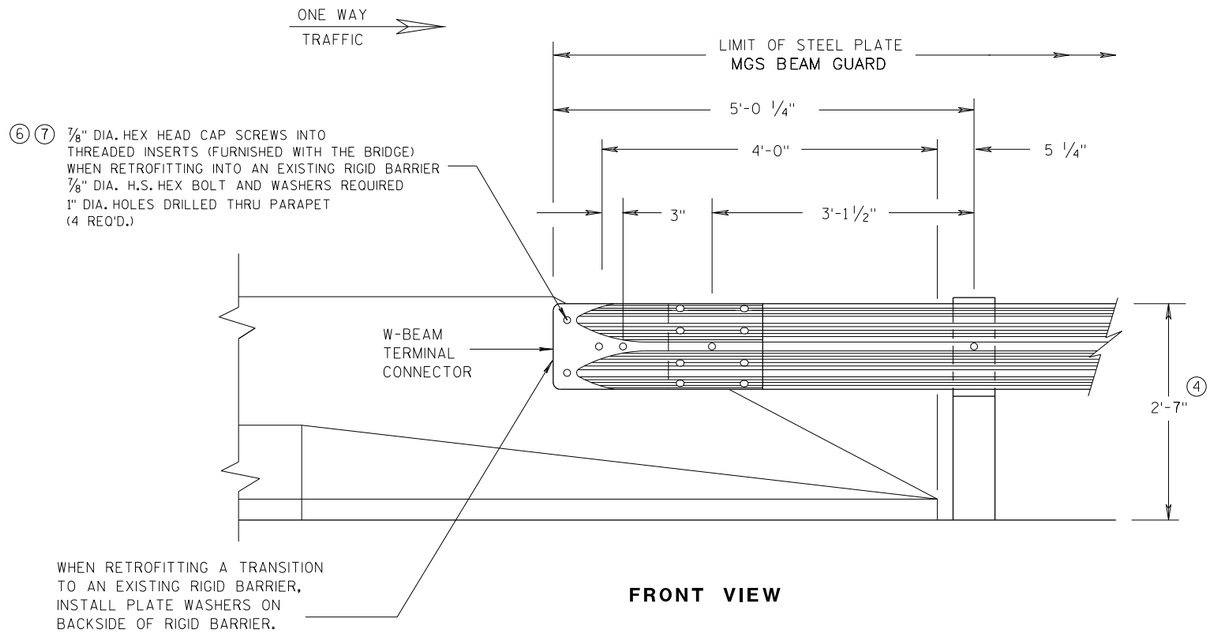
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FHWA

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

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



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

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

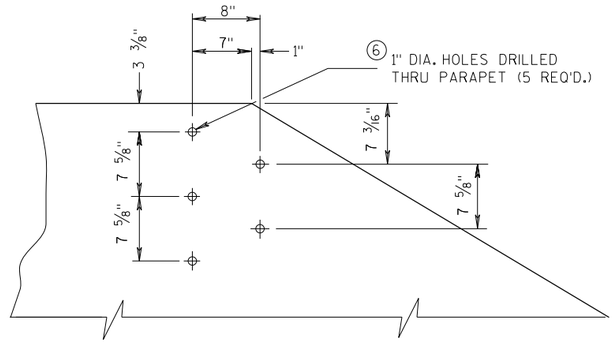
GENERAL NOTES

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

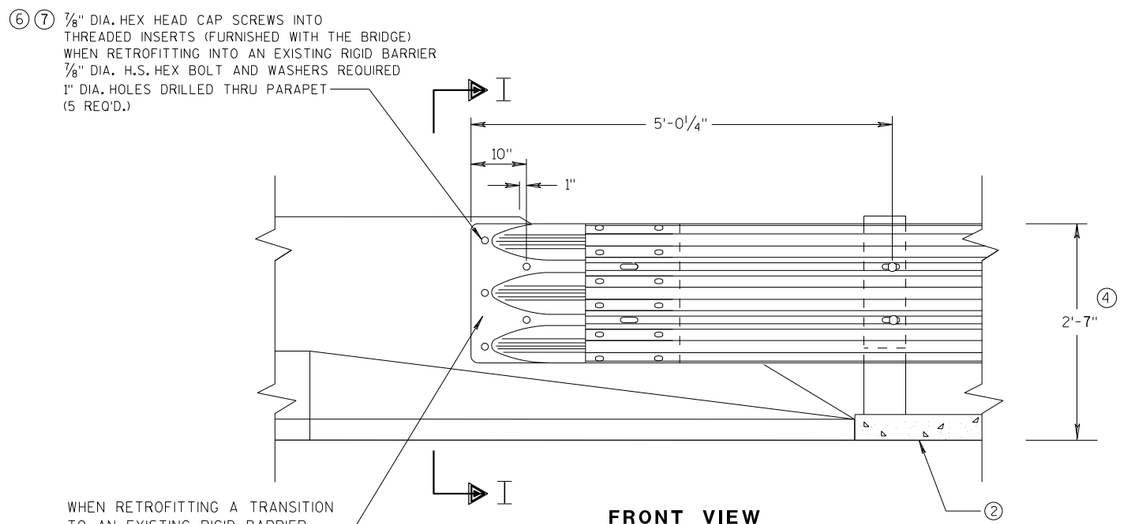
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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

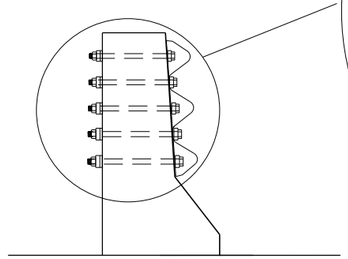
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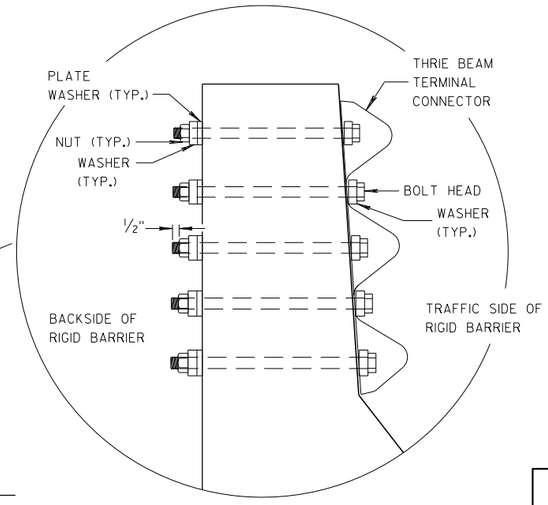
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

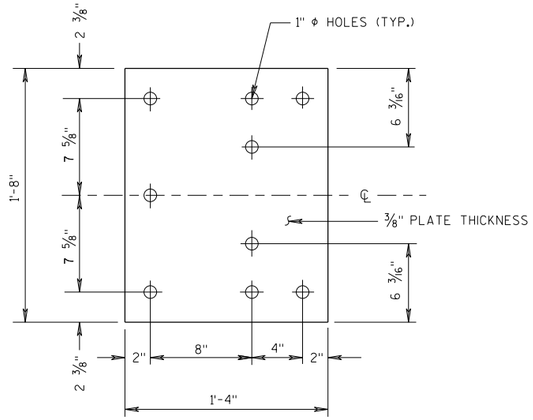
APPROVED
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FHWA

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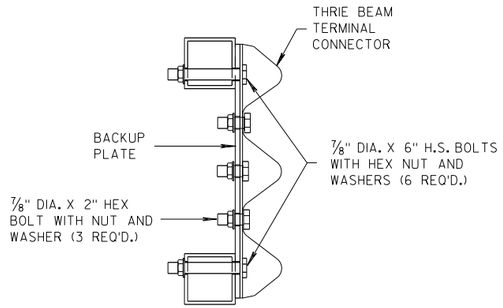
S.D.D. 14 B 45-5f

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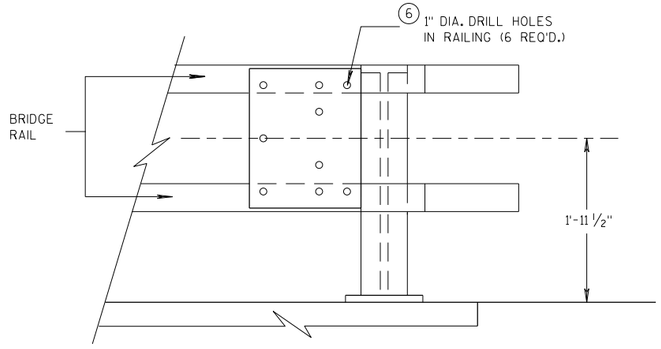
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BACK-UP PLATE DETAIL



SECTION J-J

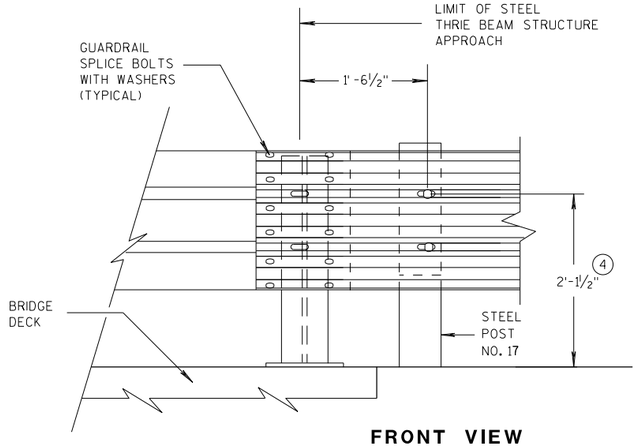


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

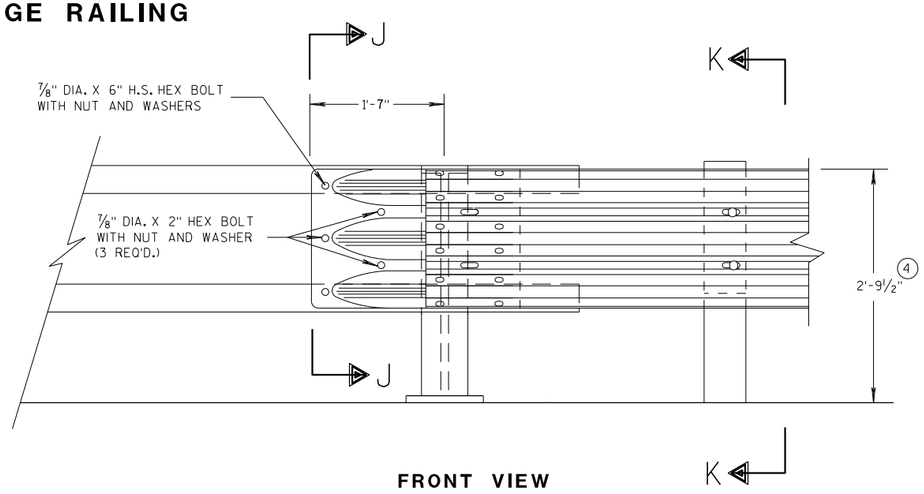
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

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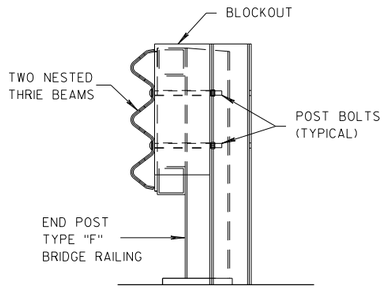


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

/S/ Rodney Taylor 240
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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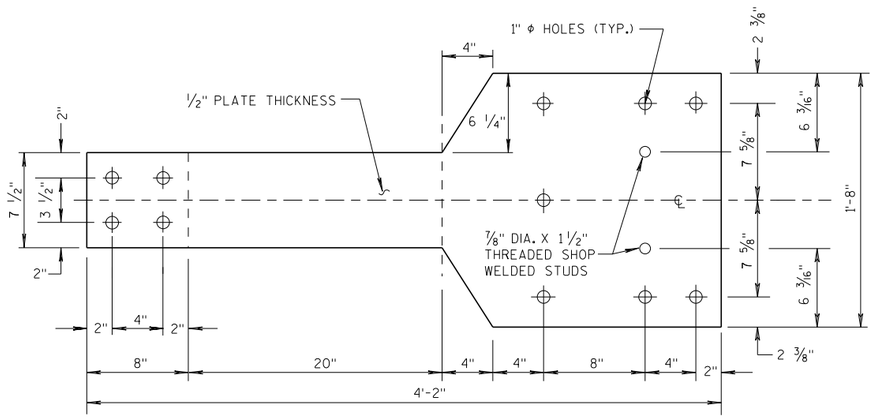
S.D.D. 14 B 45-5g

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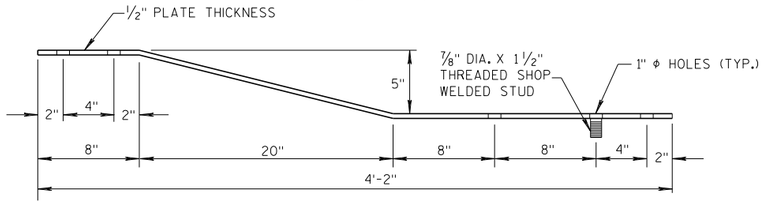
S.D.D. 14 B 45-5g

GENERAL NOTES

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

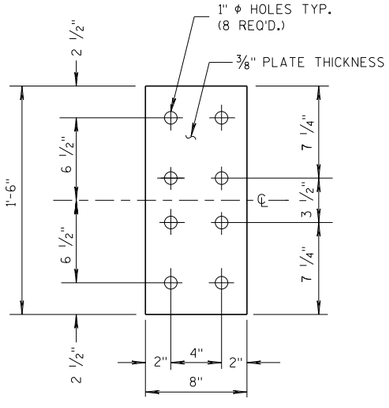


FRONT VIEW



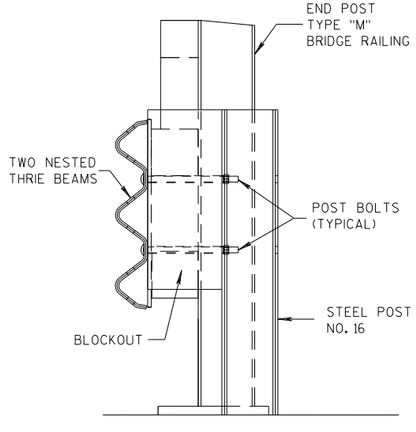
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

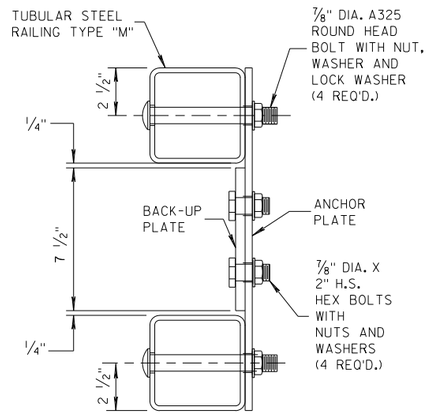


FRONT VIEW

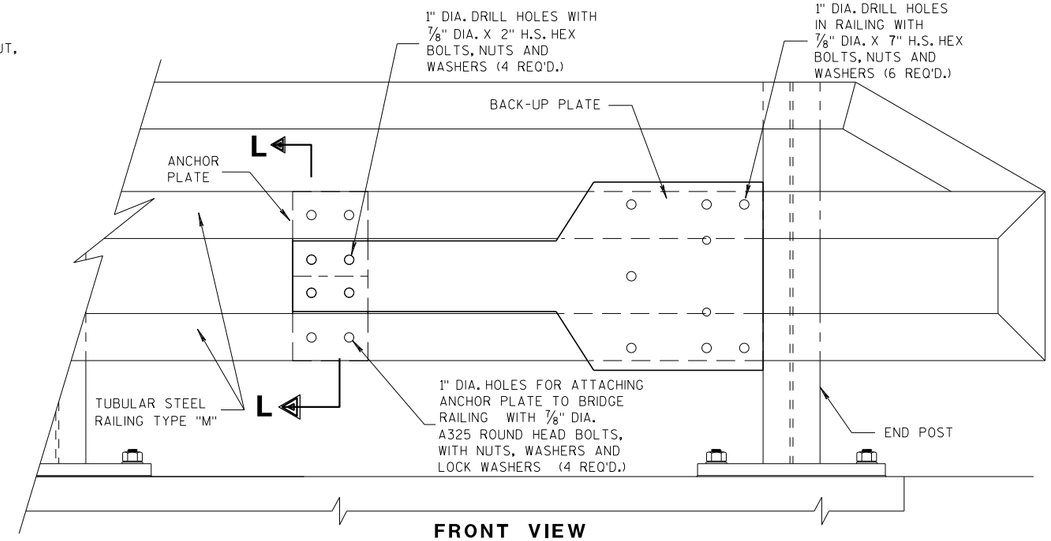
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

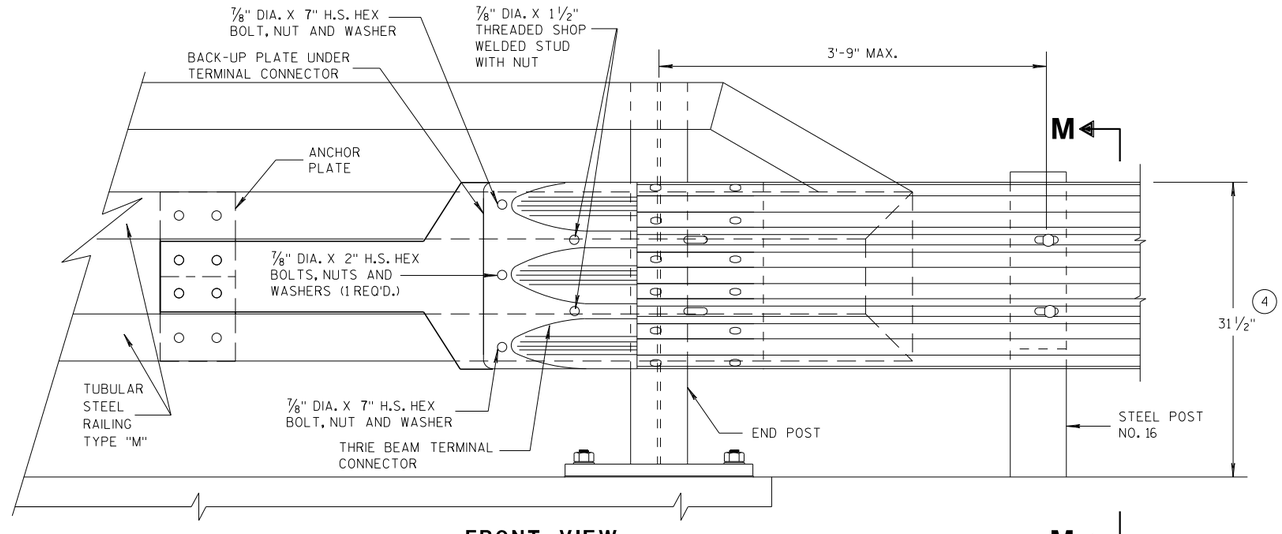


SECTION L-L

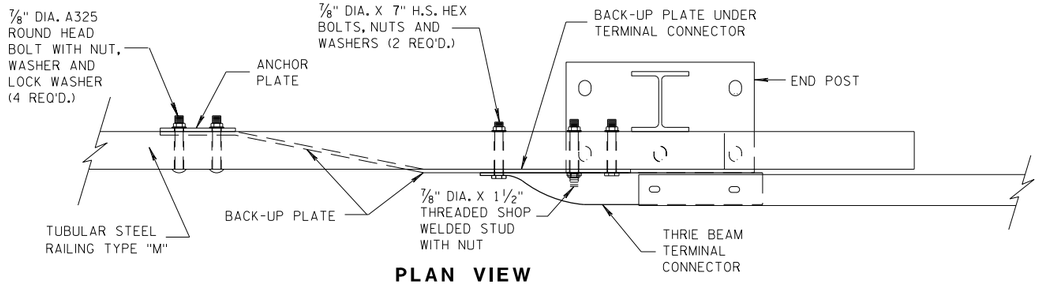


FRONT VIEW

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



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

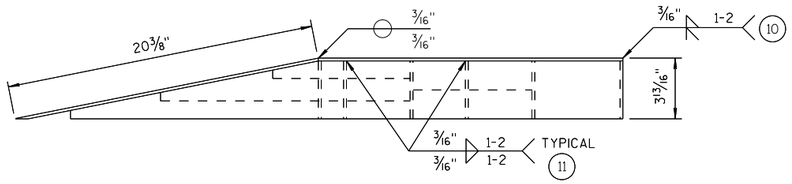
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FHWA

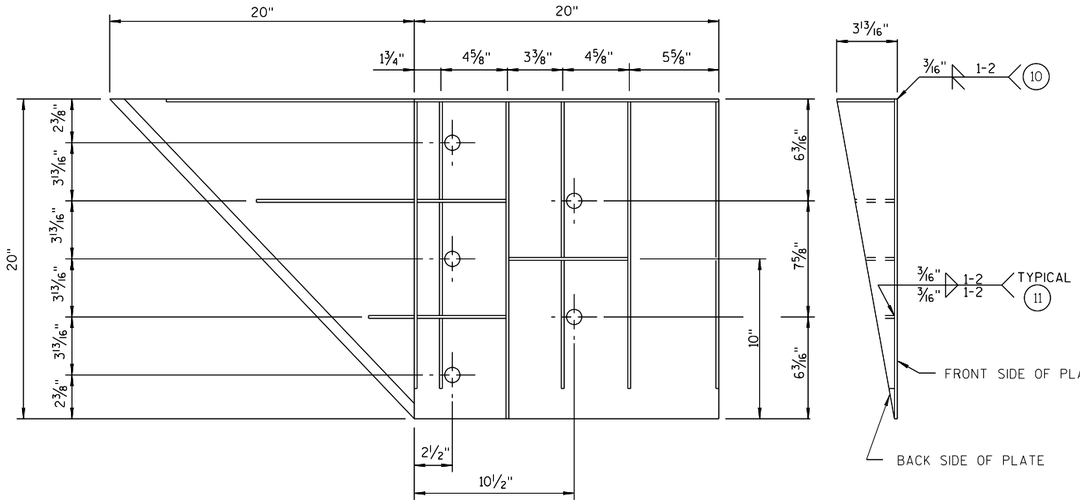
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S.D.D. 14 B 45-5h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

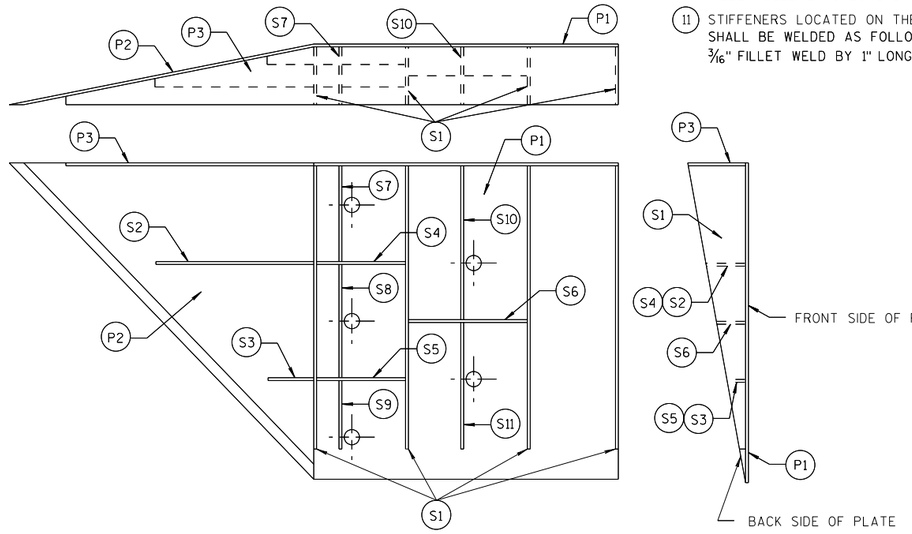


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

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

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

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

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

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

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

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

SINGLE SLOPE CONNECTION PLATE

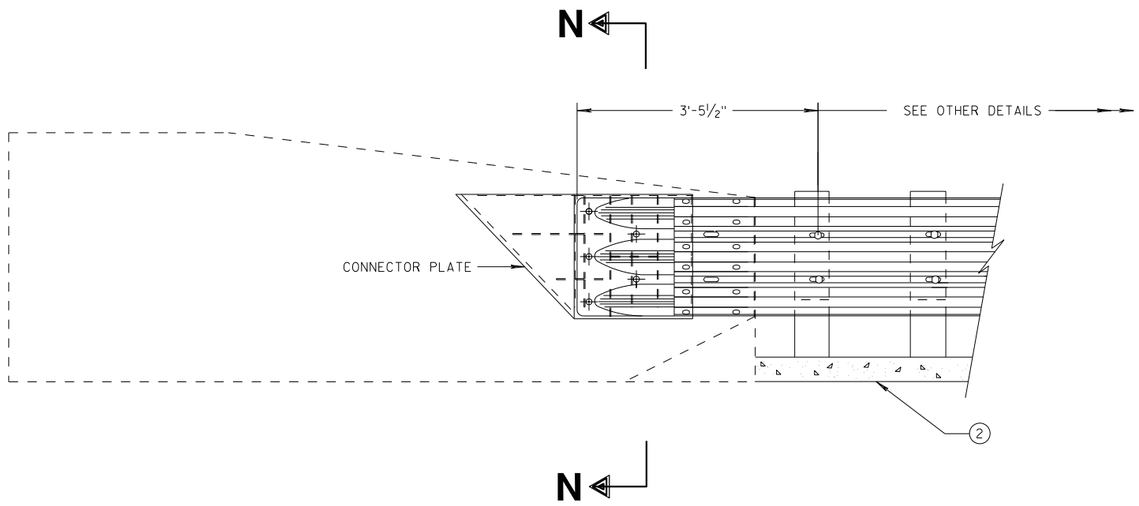
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

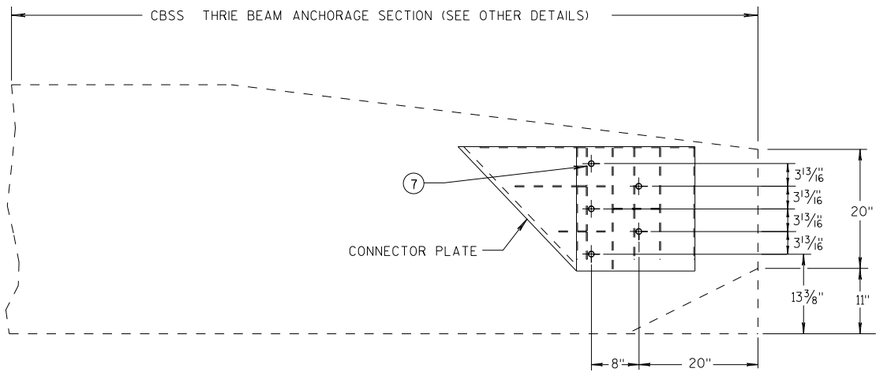
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THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



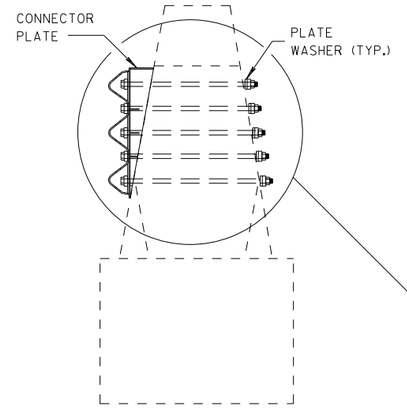
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

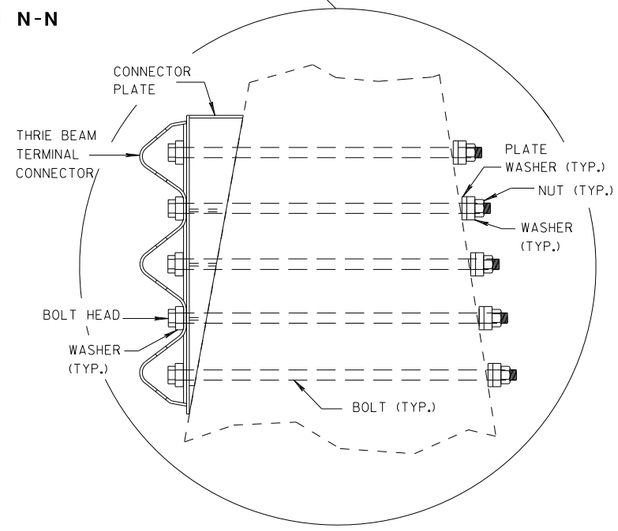
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

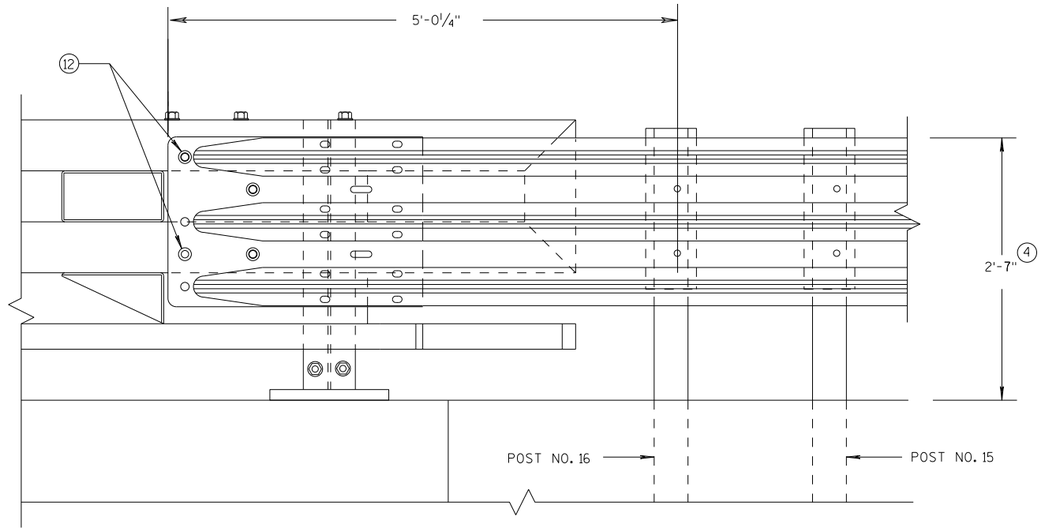
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7/2018
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S.D.D. 14 B 45-5j

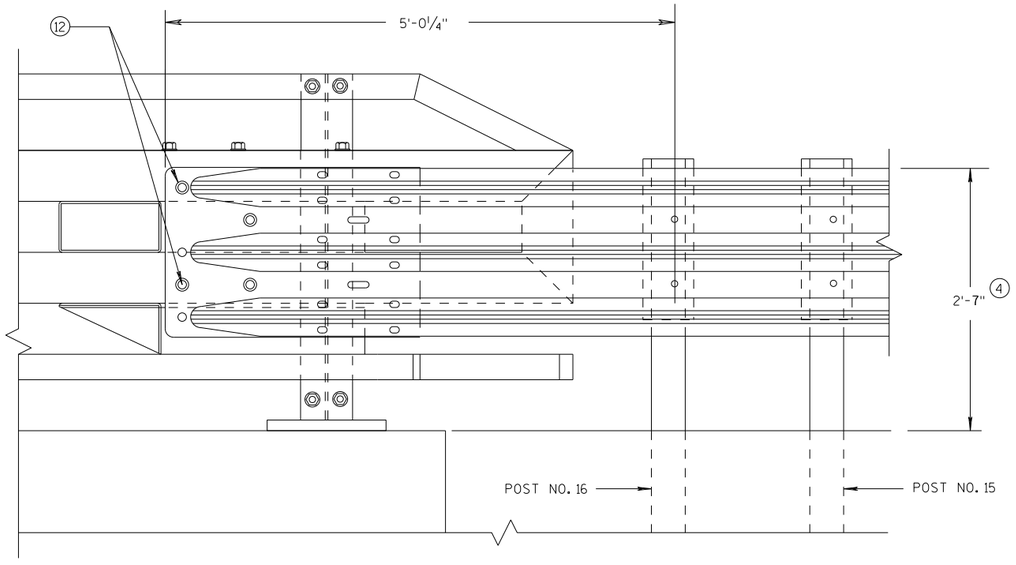
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S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

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

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

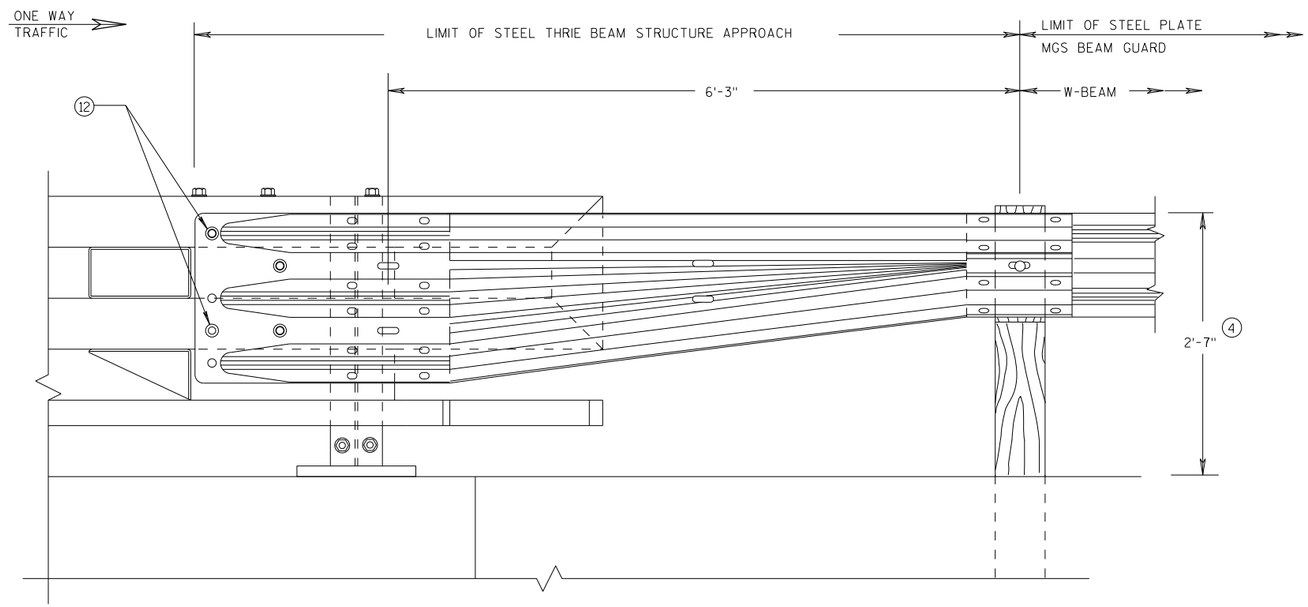
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S.D.D. 14 B 45-5k



FRONT VIEW

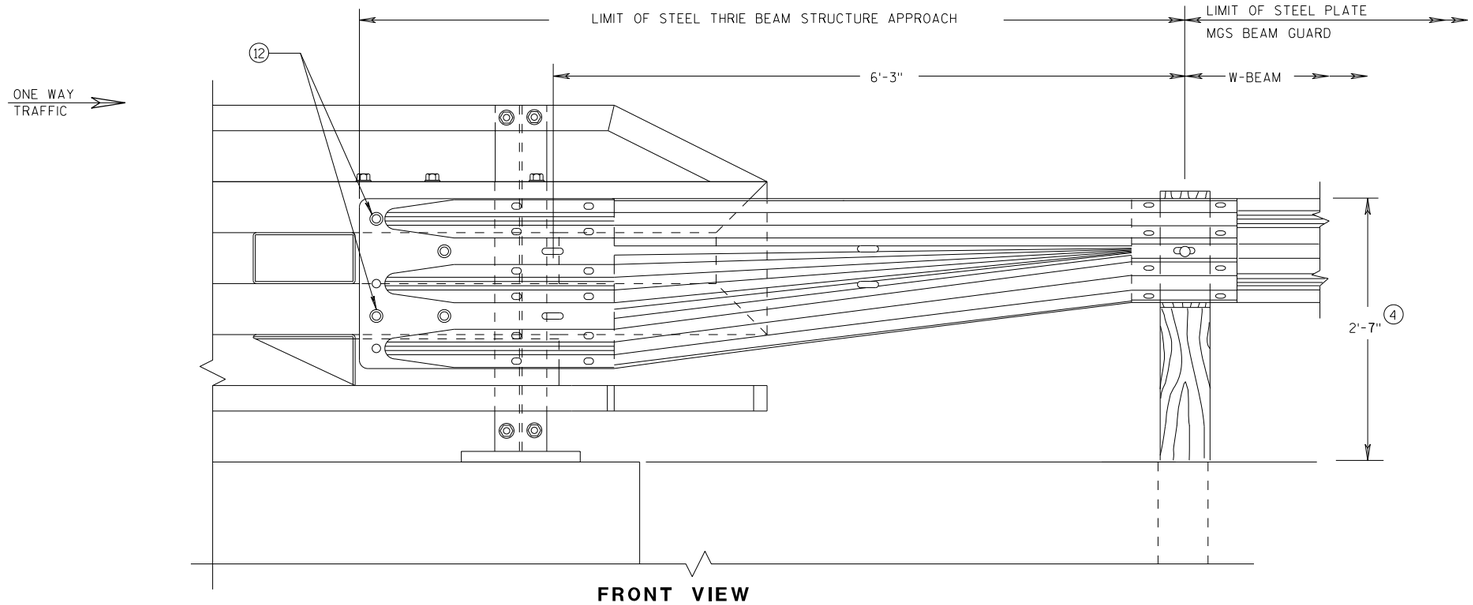
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

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

GENERAL NOTES

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

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FRONT VIEW

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

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS D
UNIT SUPERVIS

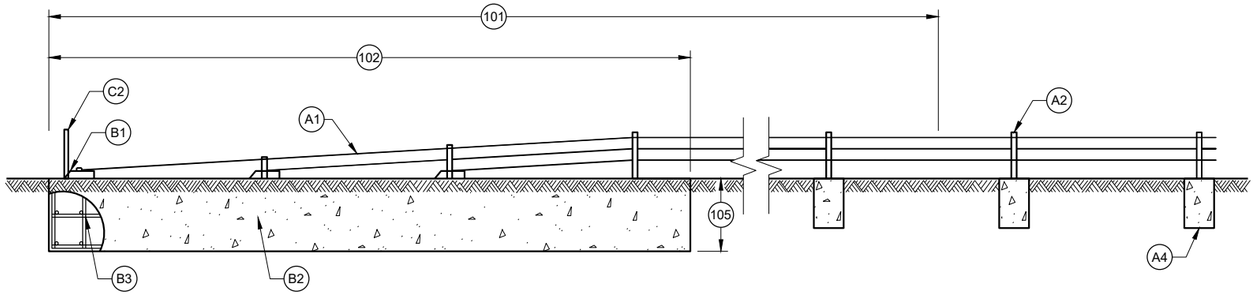
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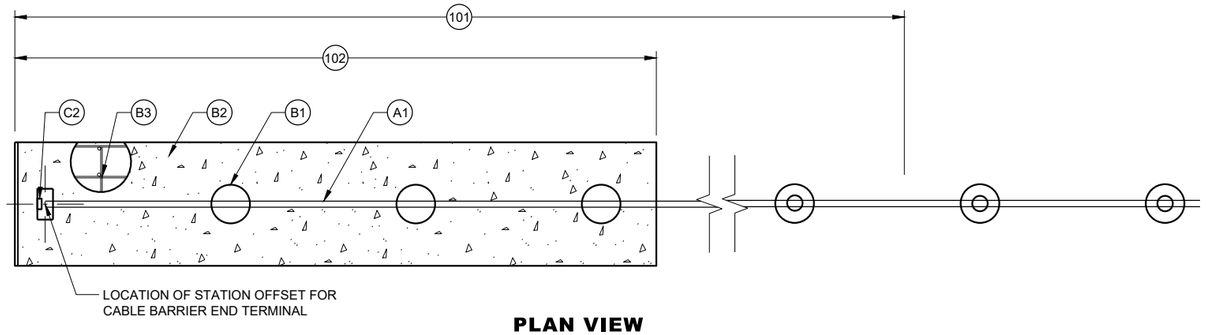
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S.D.D. 14 B 45-5L

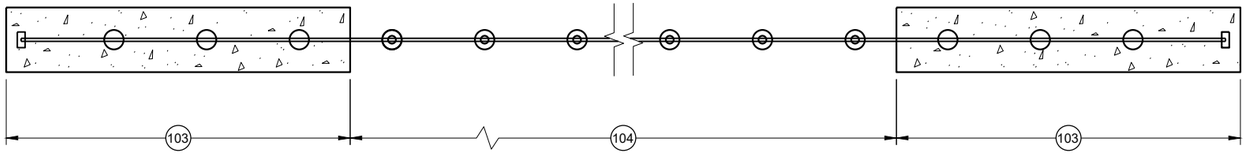


PROFILE VIEW

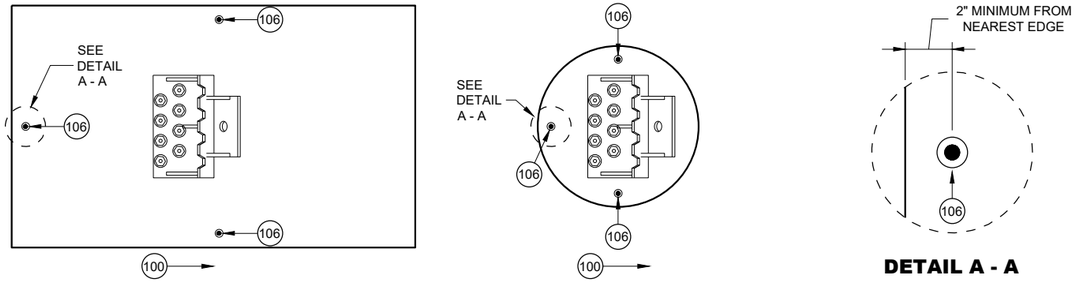


PLAN VIEW

TRANSITION FROM CABLE BARRIER TERMINAL TO CABLE BARRIER LINE POSTS



TYPICAL PLAN VIEW



DETAIL A - A

ANCHOR MONITOR POINTS FOR CABLE BARRIER END TERMINAL ANCHORS

GENERAL NOTES

DRAWINGS ARE GENERAL IN NATURE. SEE MANUFACTURER'S INFORMATION FOR MORE DETAIL.

PROVIDE 2 INCH CLEAR COVER FROM OUTER EDGE OF CONCRETE FOOTINGS TO REINFORCEMENT.

INSTALL LINE POSTS PLUMB. LINE POSTS ARE TO BE EASILY REMOVED BY HAND AND HOLD CABLES AT THE PROPER ELEVATION.

PROVIDE CABLE BARRIER SYSTEM FROM APPROVED PRODUCT LIST.

PROVIDE A SYSTEM TO HAVE THE WORKING WIDTH INDICATED IN PLAN.

PROVIDE DOCUMENTATION HOW POST SPACING, RADIUS OF CURVE AND ANCHOR SPACING INFLUENCES WORKING WIDTH TO CONSTRUCTION STAFF.

CONSTRUCT SHAFTS VERTICALLY. VERTICAL TOLERANCE OF SHAFT IS $\frac{1}{8}$" PER FOOT OF DEPTH. SHAFTS ARE TO MINIMIZE DISTURBANCE TO ADJACENT SOILS.

SECURE STEEL REINFORCEMENT AND STEEL SLEEVE PRIOR TO PLACEMENT OF CONCRETE. MAINTAIN CLEAR DISTANCE BETWEEN SOIL AND REINFORCEMENT CAGE.

PLACE CONCRETE IN ONE CONTINUOUS POUR FOR EACH FOOTING. USE VIBRATION TO CONSOLIDATE CONCRETE.

PROVIDE CASING AS NECESSARY TO PREVENT INTRUSION OF UNCONSOLIDATED MATERIALS OR WATER. USE CASINGS WHEN THERE IS 3 OR MORE INCHES OF WATER IN EXCAVATION.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN USING A CASING AND CONSTRUCTION SEQUENCE. PROJECT ENGINEER WILL REVIEW AND APPROVED CASING DESIGN AND CONSTRUCTION SEQUENCE. CASING IS TO HAVE INTIMATE CONTACT WITH SHAFT SIDEWALL. CASING IT TO WITHSTAND INSERTION STRESS, REMOVAL STRESS, CONCRETE PRESSURE AND SOIL PRESSURE. REMOVE CASING DURING CONCRETE PLACEMENT OR IMMEDIATELY AFTER CONCRETE PLACEMENT. NO TEMPORARY CASING MAY REMAIN IN-PLACE.

PROVIDE WISCONSIN PROFESSIONAL ENGINEER SIGNED AND APPROVED FOOTING DESIGN AND CONSTRUCTION SEQUENCE WHEN OVER EXCAVATION IS REQUIRED NEAR A FOOTING. PROJECT ENGINEER WILL REVIEW AND APPROVED DESIGN AND CONSTRUCTION SEQUENCE.

FINISH TOP OF FOOTINGS TO THE DIMENSIONS INDICATED IN PLAN. REMOVE EXCESS CONCRETE.

DESIGN POST FOOTINGS SO THAT LINE POST FOOTING MOVE LESS THAN 1 INCH WHEN LINE POST IS IMPACTED BY A NCHRP 350 TL-3 SMALL CAR.

USE MARINE GRADE ANTI-SEIZE LUBRICANT FOR THREADING FITTINGS THAT IS ACCEPTABLE FOR USE ON GALVANIZED STEEL.

(100) DIRECTION THAT THE CABLE PULLS THE END ANCHOR FOOTING

(101) LOCATION OF LENGTH OF NEED POINT FOR CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(102) PAY LIMIT FOR CABLE BARRIER END TERMINAL. LENGTH OF CABLE BARRIER END TERMINAL VARIES. (SEE MANUFACTURER'S INFORMATION)

(103) CABLE BARRIER END TERMINAL

(104) CABLE BARRIER AND LINE POSTS

(105) IN SOIL MINIMUM DEPTH OF CABLE BARRIER END TERMINAL FOOTING IS 60 INCHES. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

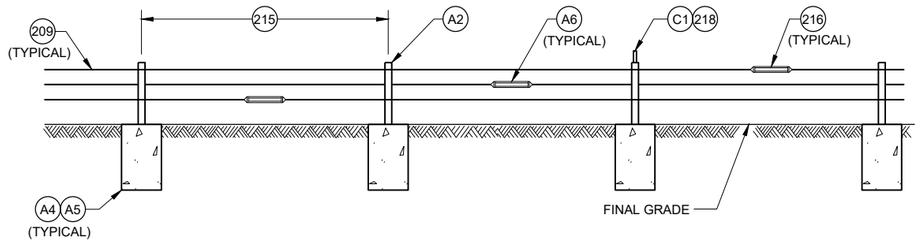
(106) ANCHOR MONITOR POINTS ARE GALVANIZED SURVEY NAIL, OR MASONRY NAIL, PLACED INTO CONCRETE FOOTING BEFORE HARDENING. IF THERE ARE MULTIPLE ANCHOR POINTS WITHIN A PAY LIMIT FOR A CABLE BARRIER END TERMINAL, EACH ANCHOR POINT NEEDS THREE ANCHOR MONITOR POINTS.

CABLE BARRIER TYPE 1 LAYOUT

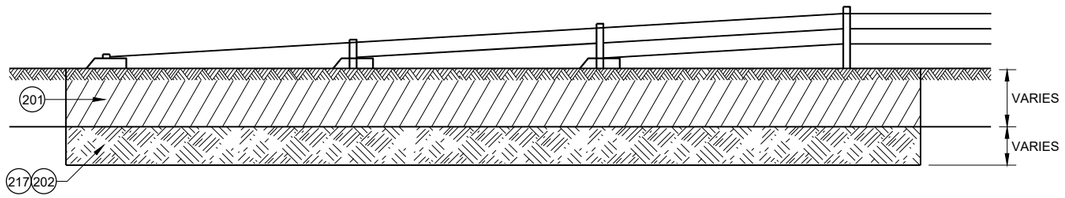
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PROFILE VIEW
LINE POST INSTALLATION



CABLE BARRIER END TERMINAL
ROCK EXCAVATION DETAIL

GENERAL NOTES

201 SOIL TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

202 ROCK TO BE EXCAVATED FOR CABLE BARRIER END TERMINAL (VARIES)

203 SOIL TO BE EXCAVATED FOR LINE POST (VARIES)

204 ROCK TO BE EXCAVATED FOR LINE POST (VARIES)

205 EXCAVATE AND GRADE LINE FOR LINE POST FOOTINGS. INSTALL LINE POST FOOTING TO MINIMIZE 4 INCH TALL OBJECT ON 5 FOOT CHORD.

206 2 INCHES OF CLEAR COVER FROM EDGE OF CONCRETE TO REINFORCEMENT.

207 DIAMETER OF LINE POST FOOTING VARIES. SEE MANUFACTURERS' INFORMATION.

208 MINIMUM DEPTH OF LINE POST FOOTING IS 4' - 0" IN SOIL. DEEPER FOOTINGS PER MANUFACTURER'S RECOMMENDATION ARE ACCEPTABLE.

209 NUMBER AND LOCATION OF CABLES VARY. SEE MANUFACTURERS' INFORMATION.

210 LINE POST DIMENSIONS AND CONNECTION HARDWARE VARY. SEE MANUFACTURERS' INFORMATION.

211 LANE OF ROADWAY (VARIES). SEE PLAN FOR MORE INFORMATION.

212 PAVED SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

213 GRAVEL SHOULDER (VARIES). SEE PLAN FOR MORE INFORMATION.

214 CABLE BARRIER OFFSET FROM CENTERLINE OF MEDIAN DITCH (8 FOOT MINIMUM). SEE PLAN FOR MORE INFORMATION.

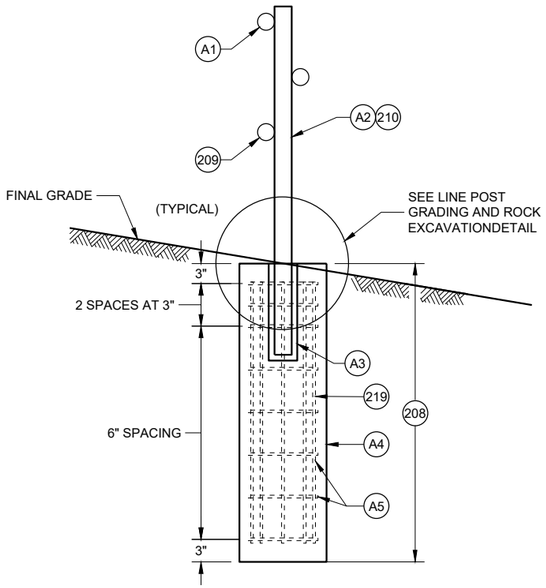
215 MAXIMUM POST SPACING IS 15 FEET.

216 STAGGER TURNBUCKLES (TYPICAL).

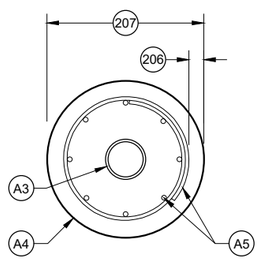
217 SEE MANUFACTURER'S DESIGN WHEN ROCK IS ENCOUNTERED.

218 LINE POST DELINEATOR SPACING IS 100 FEET.

219 MINIMUM LINE POST FOOTING REINFORCEMENT SHOWN. MANUFACTURER IS TO INDICATE REINFORCEMENT IS ADEQUATE FOR THEIR SYSTEM. IF REINFORCEMENT IS NOT ADEQUATE, PROVIDE FOOTING DESIGN WITH A ADEQUATE REINFORCEMENT.

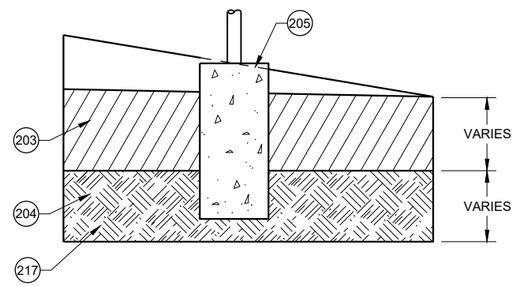


CROSS SECTION

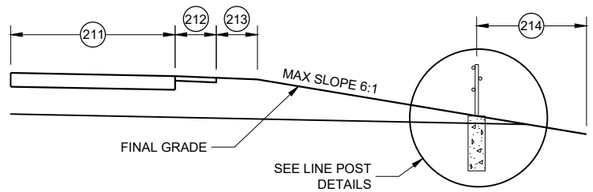


PROFILE VIEW
(LINE POSTS AND CABLES NOT SHOWN)

LINE POST DETAILS



LINE POST GRADING
AND ROCK EXCAVATION DETAIL



CABLE BARRIER OFFSET FROM DITCH LINE

CABLE BARRIER
TYPE 1 LAYOUT

STATE OF WISCONSIN
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BILL OF MATERIALS

PART NUMBER	QTY.	DESCRIPTION	MATERIALS SPECIFICATIONS
A1	3 OR 4	¾" 3x7 PRESTRECHED GALVANIZED STEEL WIRE ROPE	AASHTO M30 TYPE 1 CLASS A OR ASTM A741 TYPE 1 CLASS A WITH MINIMUM BREAKING STRENGTH = 39 KIPS (173.5 KN)
A2	1 PER LINE POST	GALVANIZED REMOVABLE STEEL LINE POST	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
A3	1 PER LINE POST	GALVANIZED STEEL SLEEVE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
			ASTM A123 (GALVANIZATION).
A4	VARIES	CONCRETE FOR LINE POST FOOTING	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2 OR AS MANUFACTURER SPECIFIES.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
			SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
A5	MINIMUM REINFORCEMENT: 8 HORIZONTAL LOOP BARS 8 VERTICAL BARS	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
			ALL BARS ARE NO. 4 BARS
A6	VARIES	TURNBUCKLES AND OTHER CABLE CONNECTING HARDWARE	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS.
			MINIMUM BREAKING STRENGTH OF TURNBUCKLES AND CONNECTION HARDWARE IS EQUAL TO CABLE.
			TURNBUCKLES AND OTHER CABLE CONNECTION HARDWARE IS FIELD SWAGED PER MANUFACTURER'S RECOMMENDATION AND DETAILS.
			PROVIDE DOCUMENTATION THAT THE FITTINGS ARE STRONGER THAN THE CABLE BARRIER. DOCUMENTATION IS TO INCLUDE: MANUFACTURER NAME, TESTING RESULTS, AND DATE OF TESTING.
B1	VARIES	CABLE CONNECTION TO CABLE BARRIER END TERMINAL	SEE MANUFACTURER'S INFORMATION ON DIMENSIONS AND MATERIAL REQUIREMENTS.
B2	VARIES	CONCRETE FOR CABLE BARRIER END TERMINAL	A, A-FA.A-T, OR A-IP OF STANDARD SPECIFICATION 501.2.
			STANDARD SPECIFICATION 716 QMP FOR CLASS II ANCILLARY CONCRETE
B3	VARIES	EPOXY COATED STEEL REINFORCEMENT	STANDARD SPECIFICATION 505.
C1	VARIES	LINE POST DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST YELLOW.
C2	VARIES	CABLE BARRIER END TERMINAL DELINEATOR	REFLECTIVE SHEETING TYPE SH. SEE APPROVED PRODUCT LIST OBJECT MARKER TYPE 3 PATTERN

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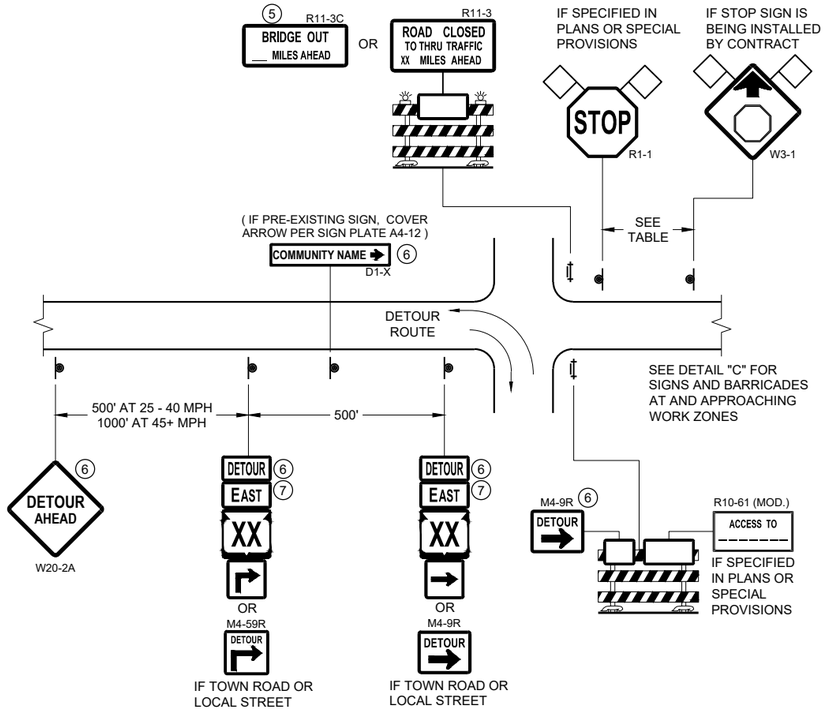
CABLE BARRIER TYPE 1 LAYOUT

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May 2022
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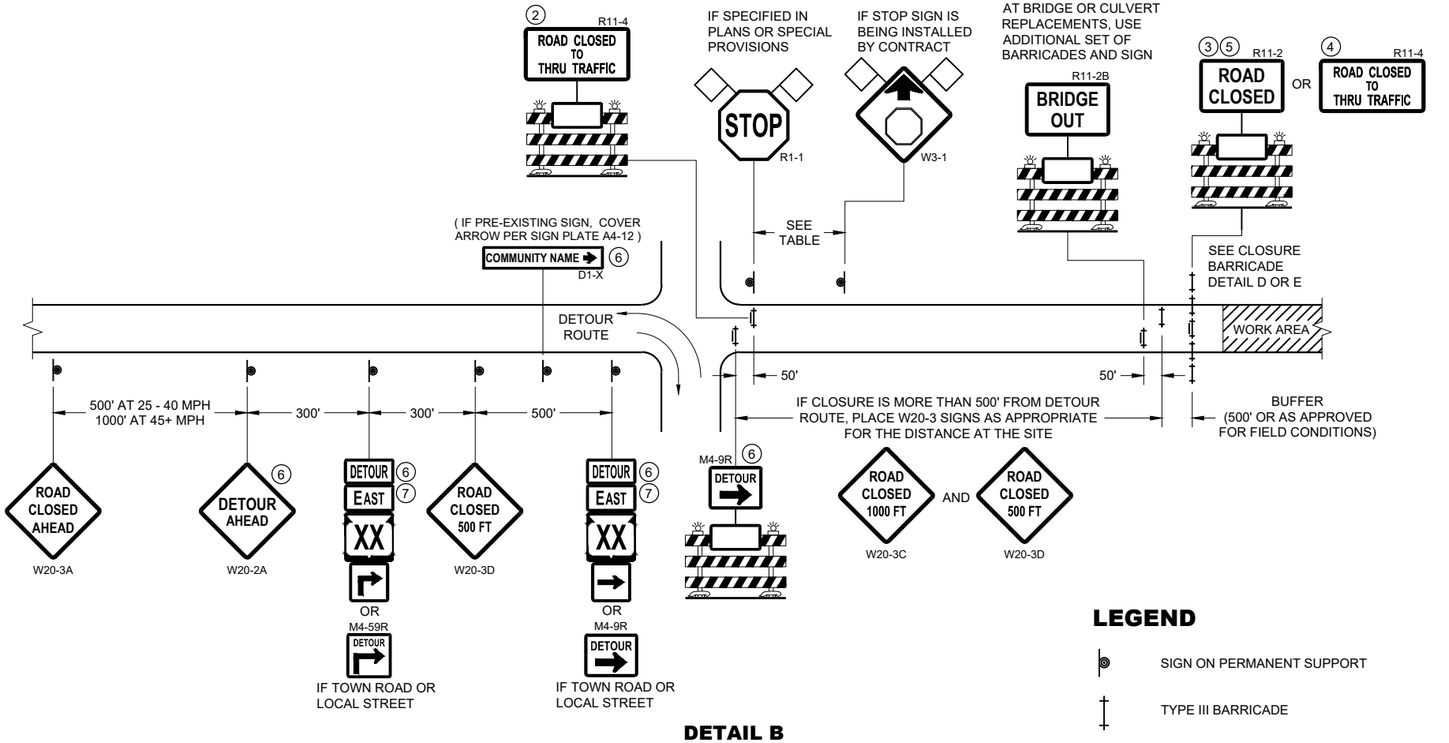
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

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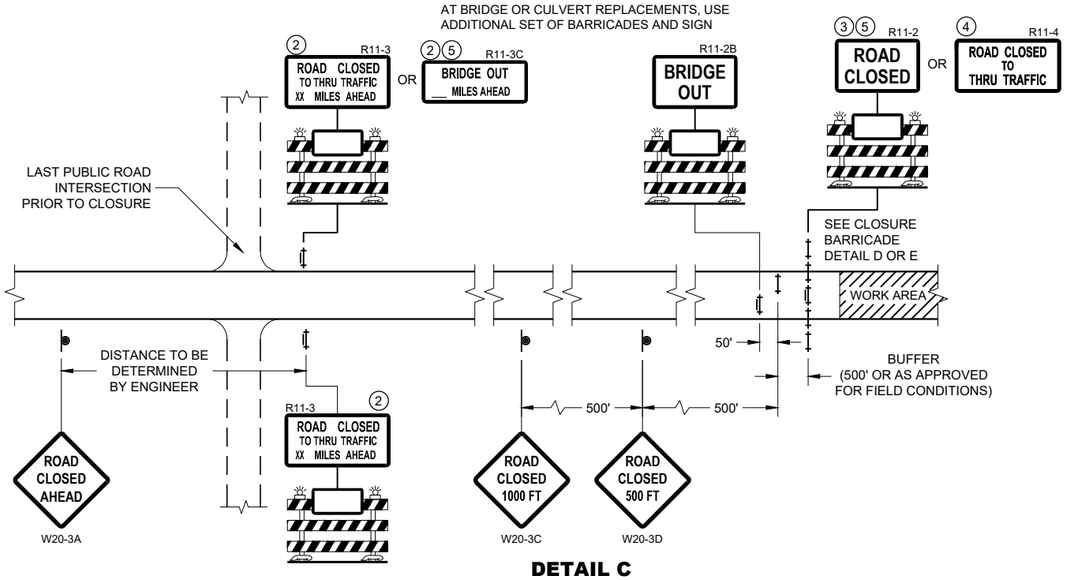
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

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



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

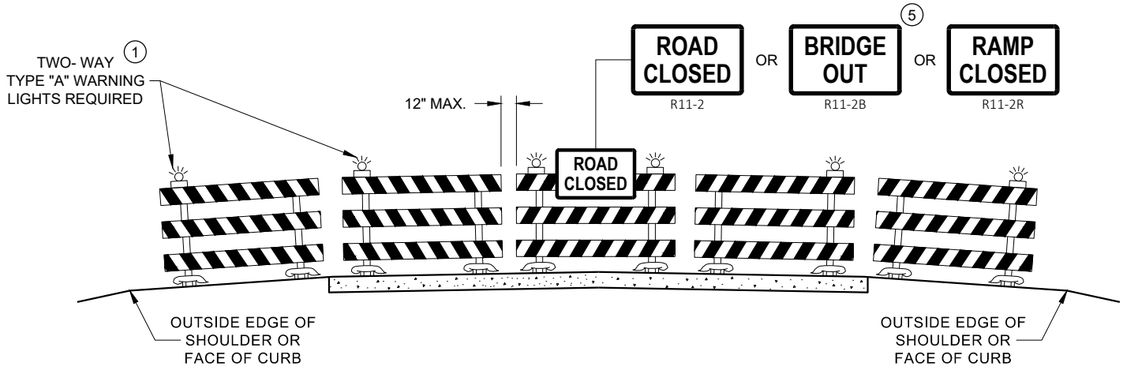
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

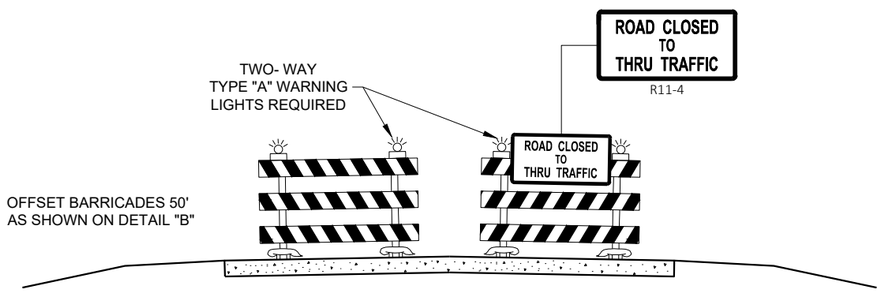
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SDD 15C02 - 09a



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

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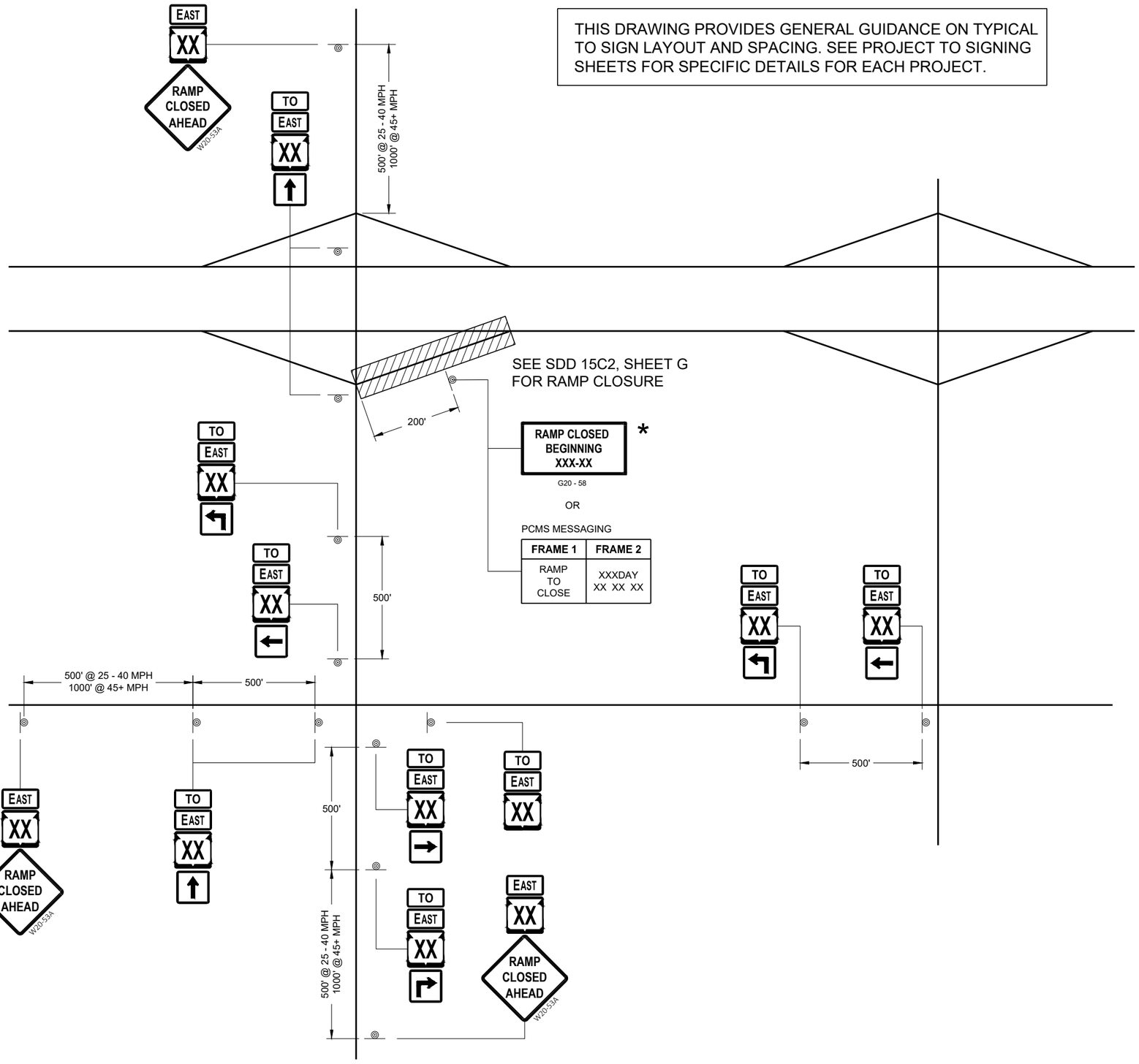
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May 2023
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WORK ZONE ENGINEE
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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL TO SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE TO ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

ON RAMP LANE CLOSURE

STATE OF WISCONSIN
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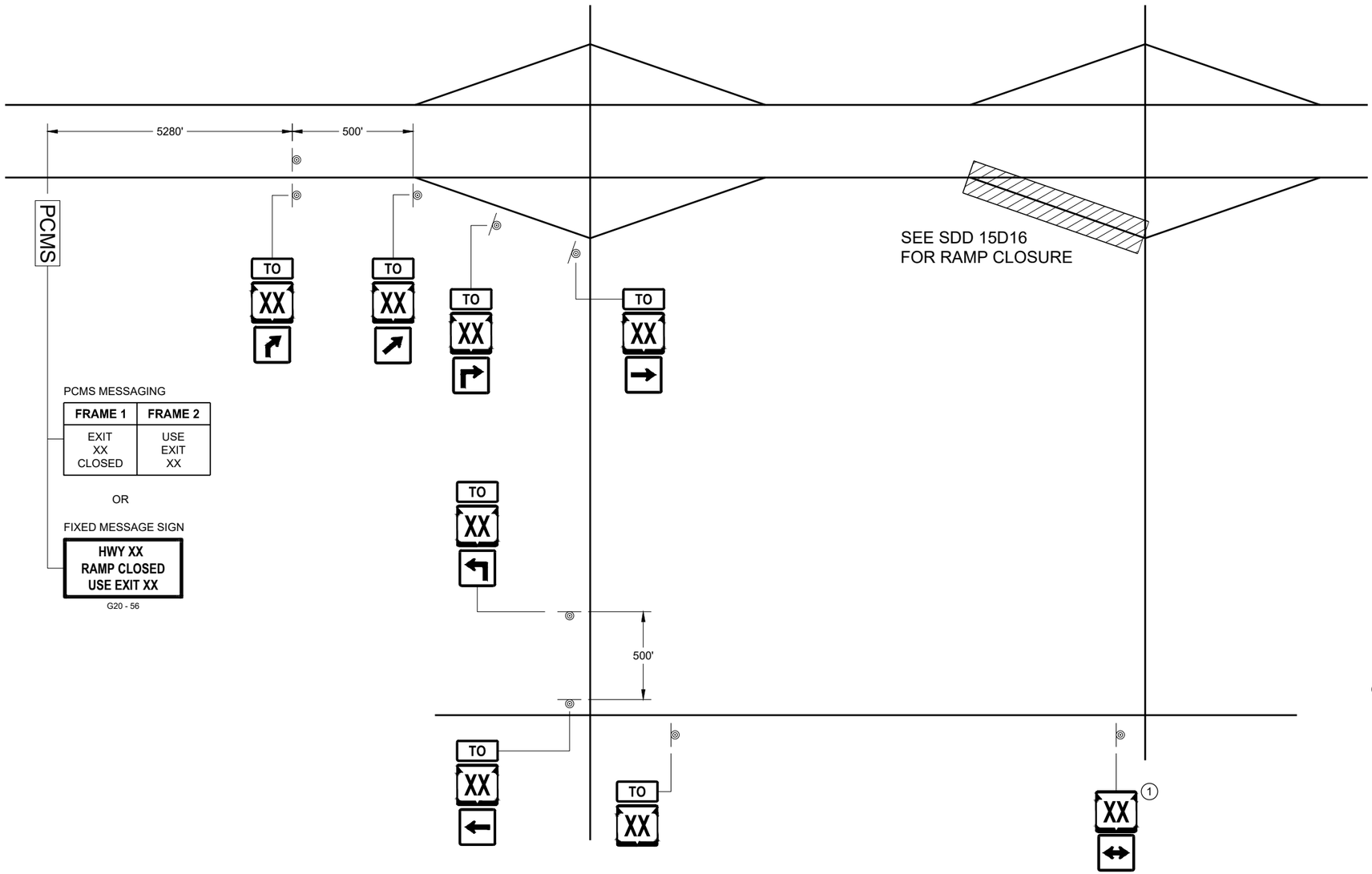
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SDD 15C02 - 09d

SDD 15C02 - 09d

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

SIGN SIZES SHALL BE AS FOLLOW:
- MO4 - 5 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, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

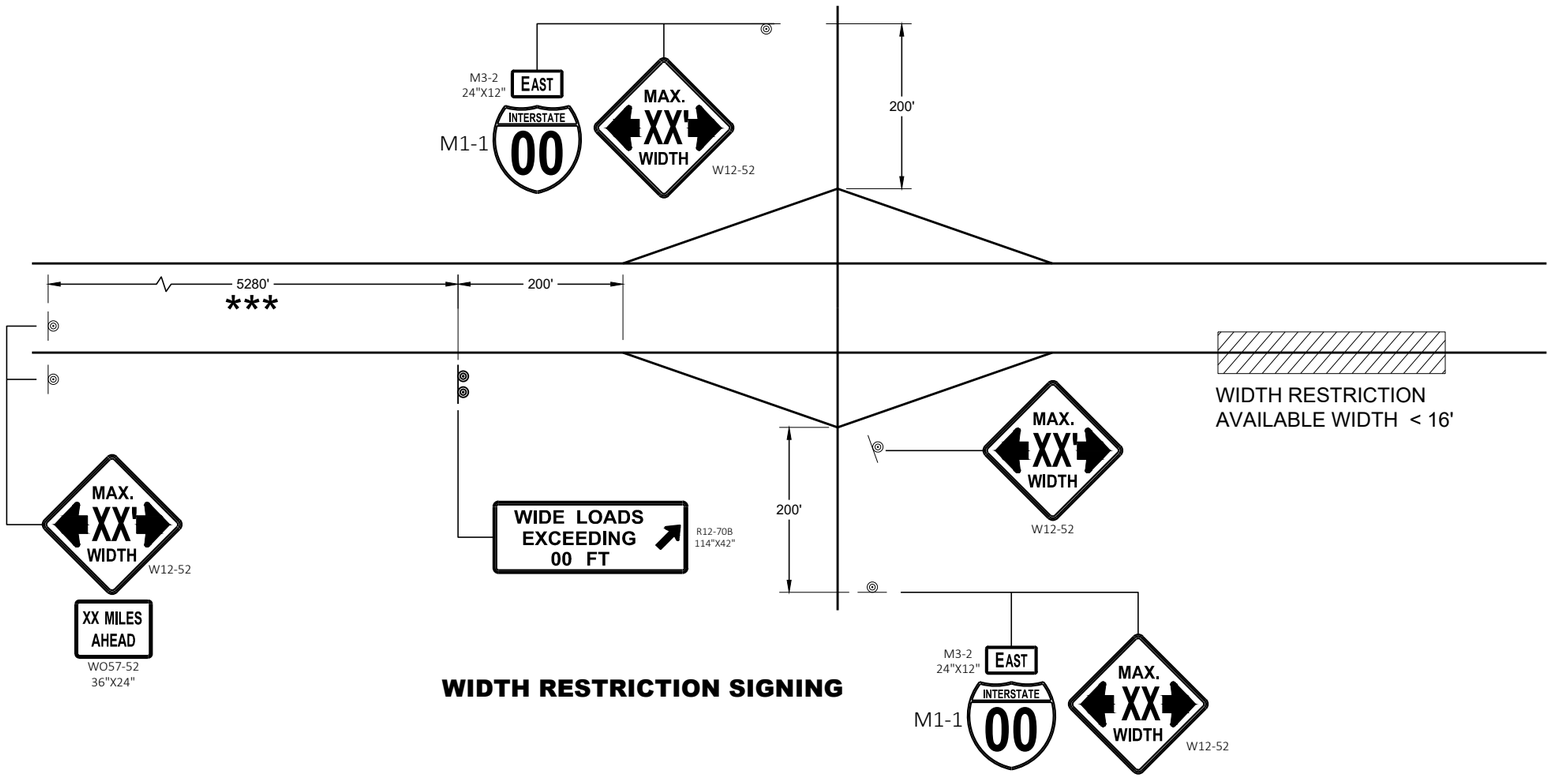
OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

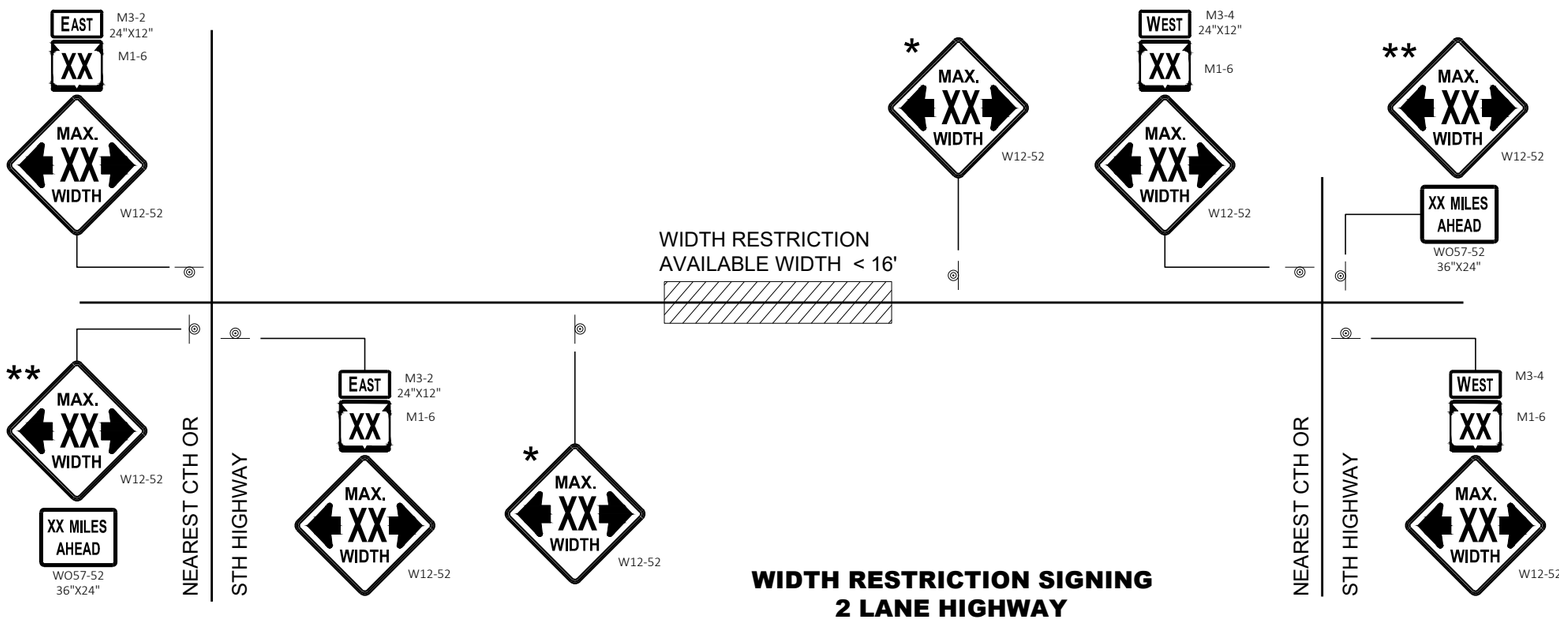
APPROVED
May 2023 DATE
/S/ Andrew Heidtke WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 09e
SDD 15C02 - 09e



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

SIGN ON PERMANENT SUPPORT

GENERAL NOTES

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

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

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

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

ADVANCED WIDTH RESTRICTION SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

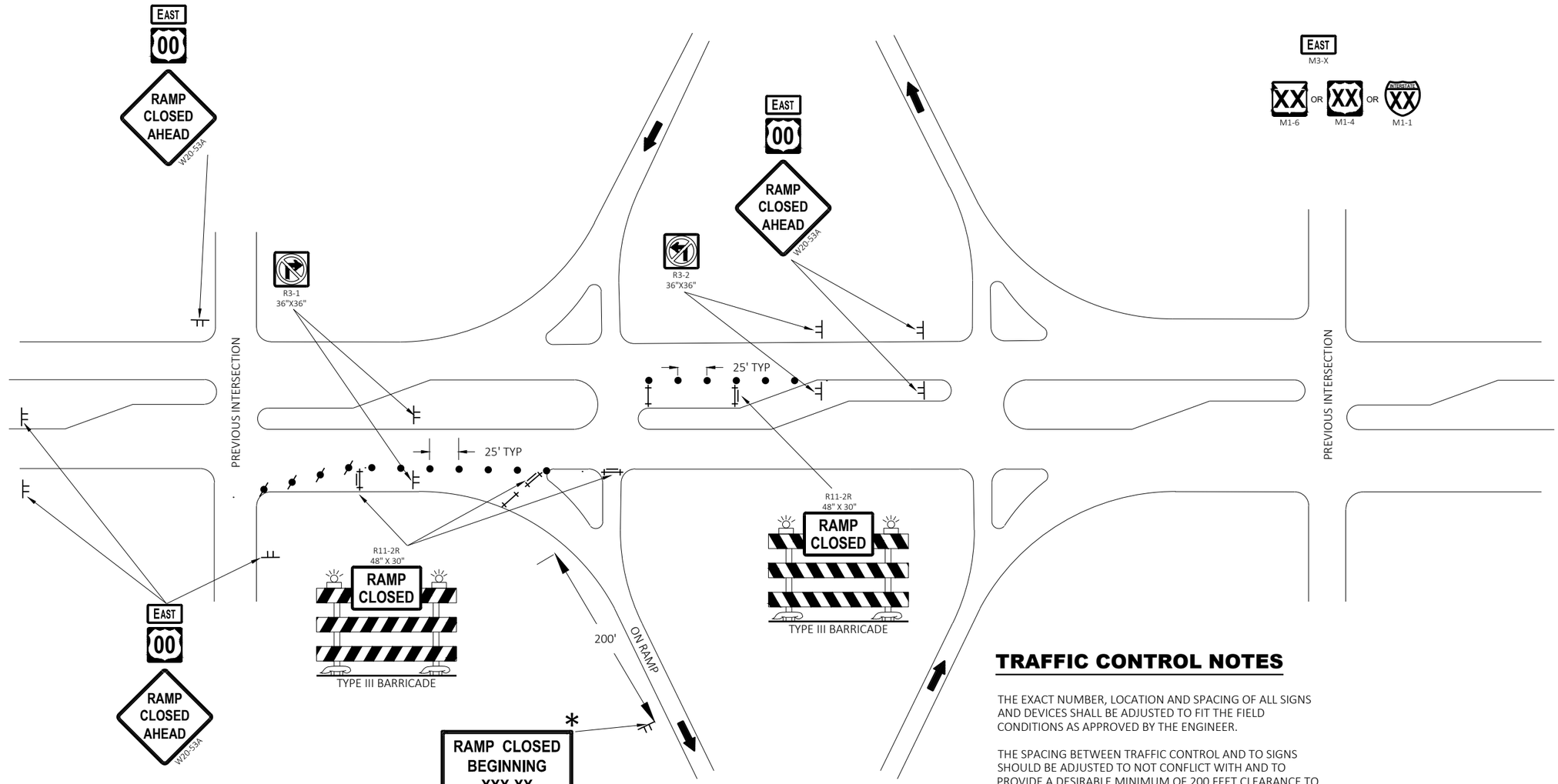
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SDD 15C02 - 09f

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SDD 15C02 - 09f



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL NOTES

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24"x24" (36" x18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-1, M1-4, AND M1-6 SHALL BE 24"x24" (36"x36" IF NEEDED TO MATCH EXISTING SIGNS)
- W20-53A SHALL BE 48"X48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

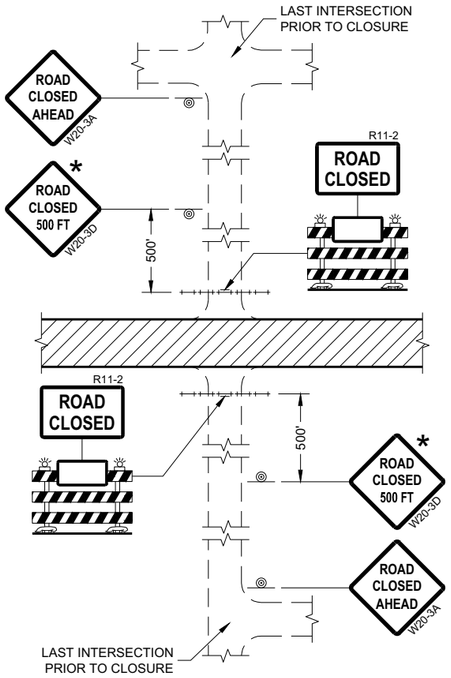
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE

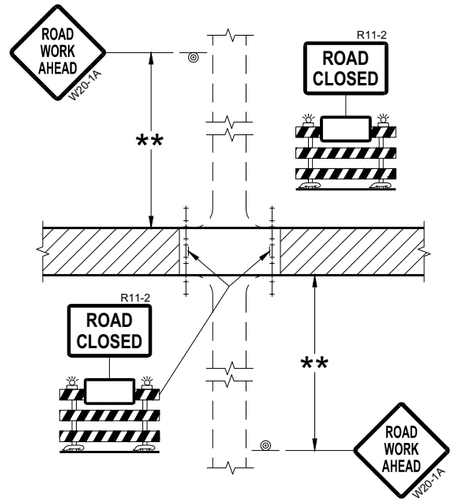
FHWA

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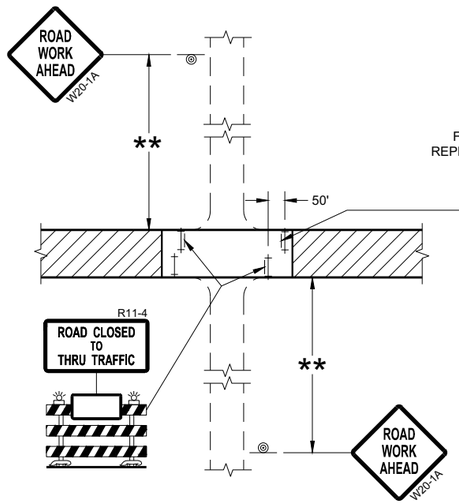
SDD 15C02-09g
SDD 15C02-09g



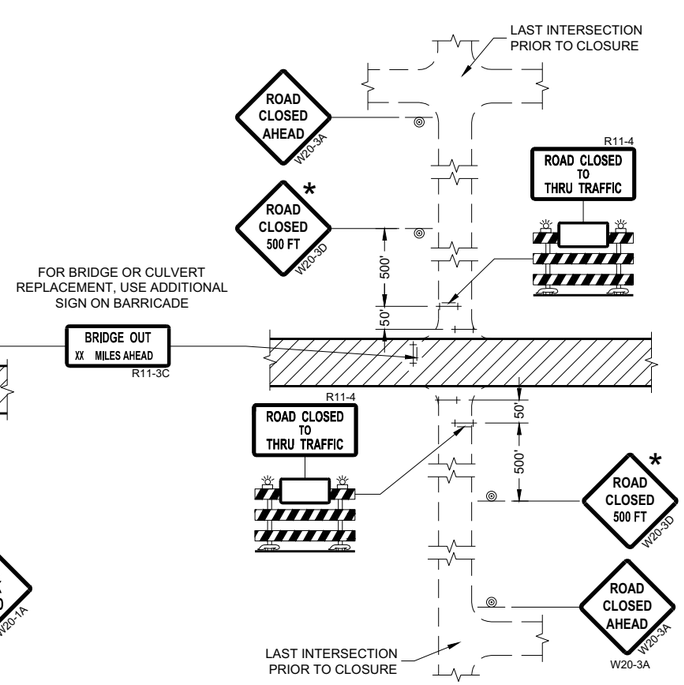
DETAIL 1
(NO ACCESS TO PROJECT)



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 ENGINEER

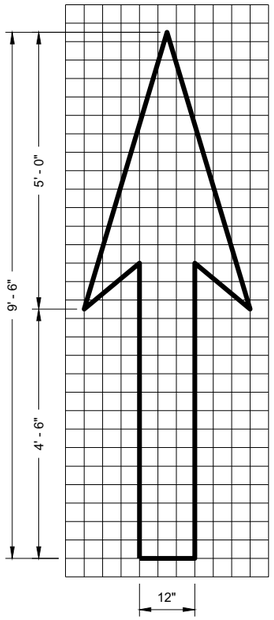
FHWA

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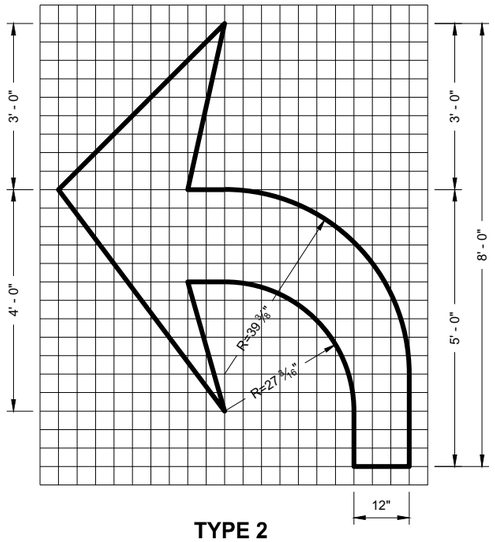
SDD 15C03 - 05

GENERAL NOTES

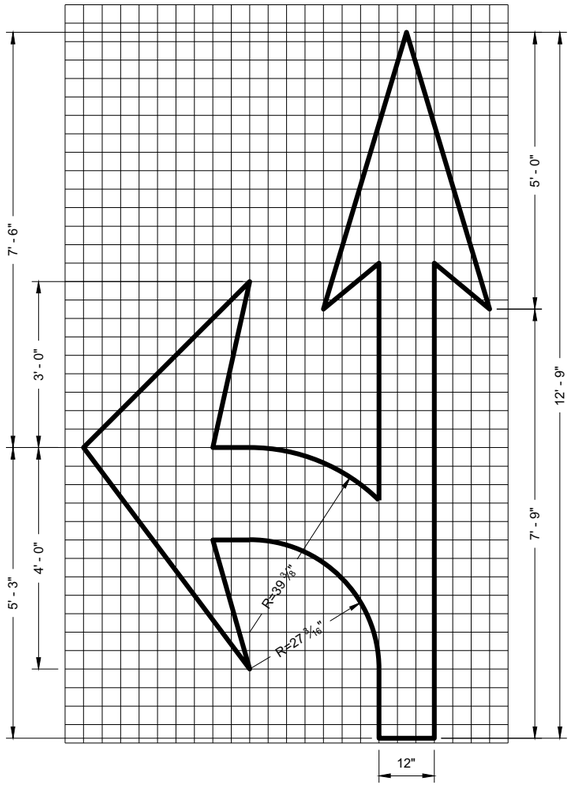
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



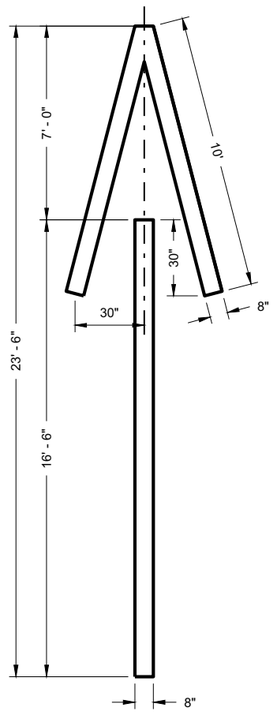
TYPE 1



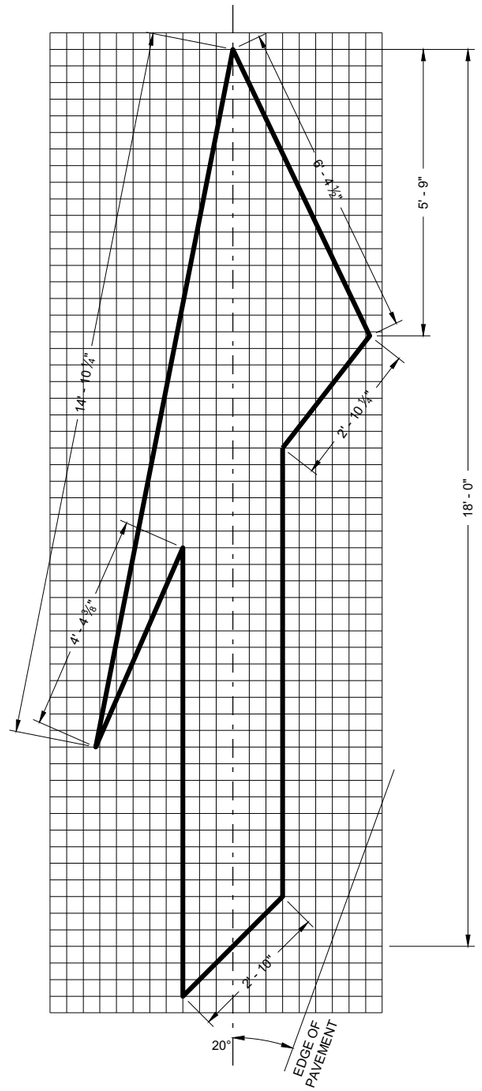
TYPE 2



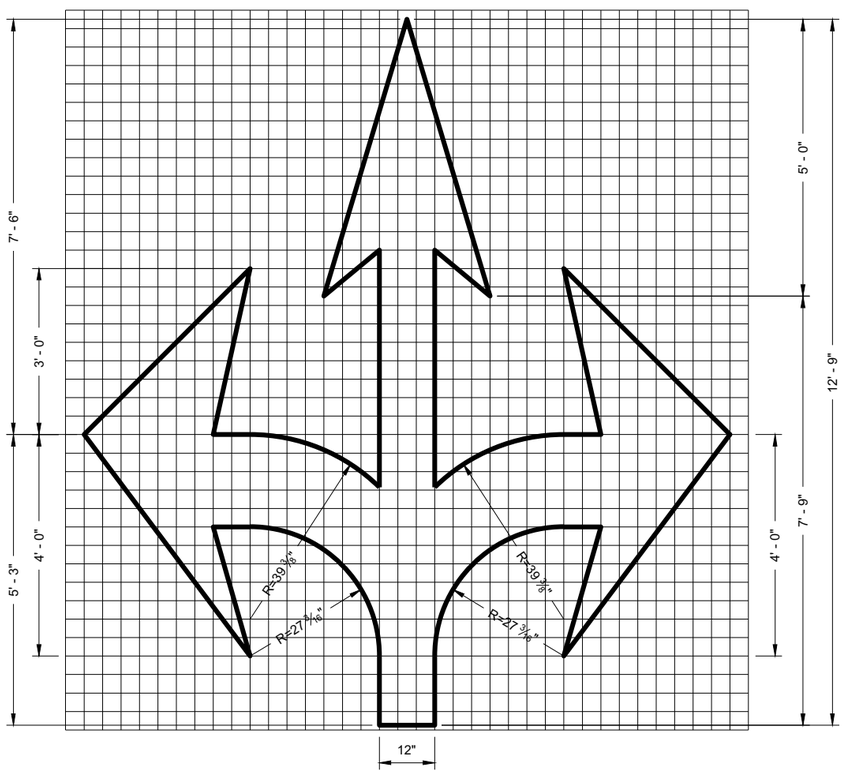
TYPE 3



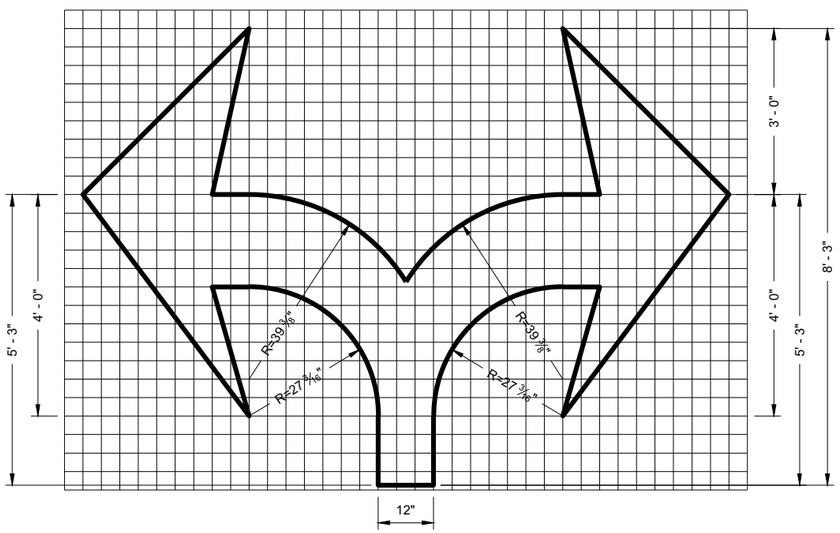
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C07 - 15c

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SDD 15C07 - 15c

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.

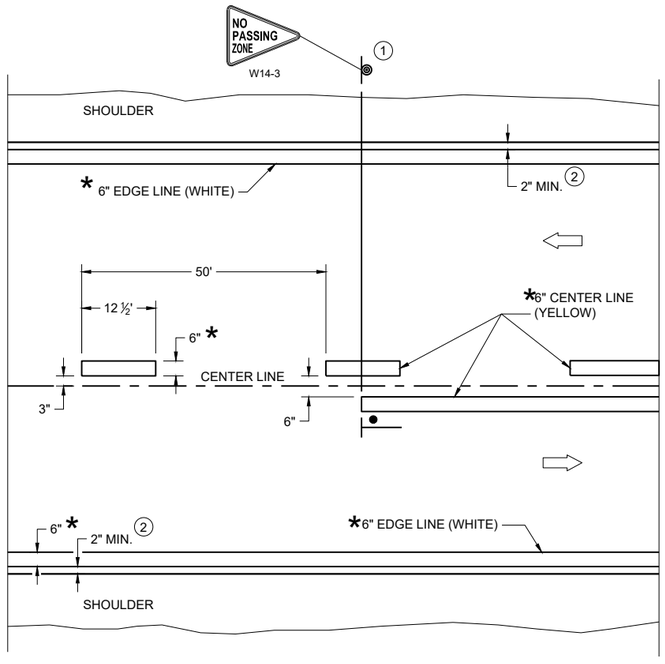
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

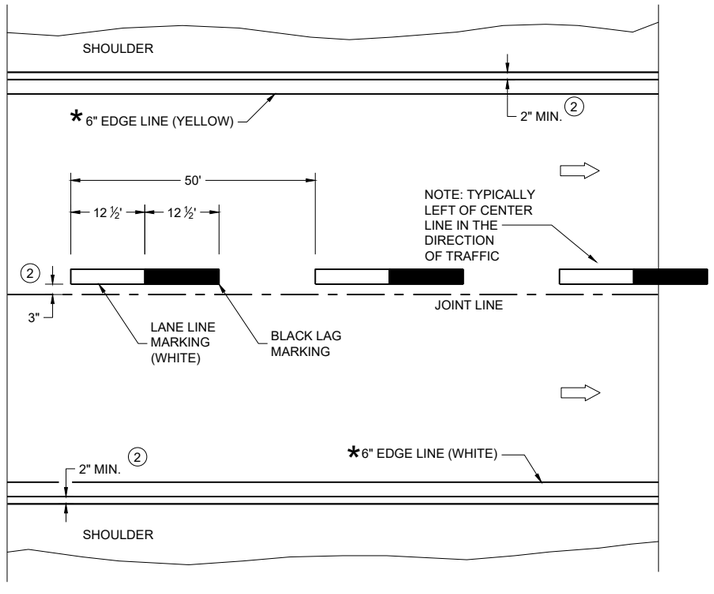
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

SDD 15C08-23a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

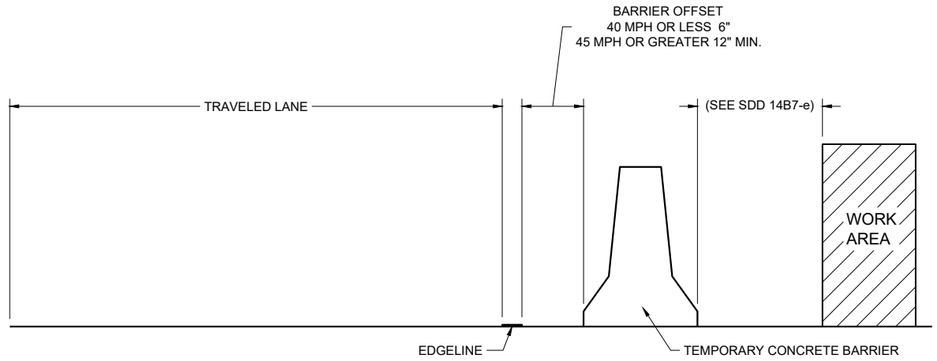
May 2023
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

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SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

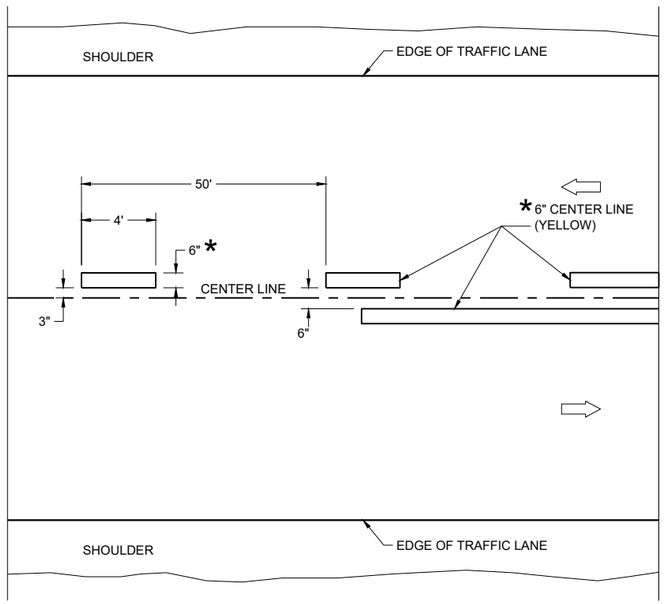
GENERAL NOTES

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

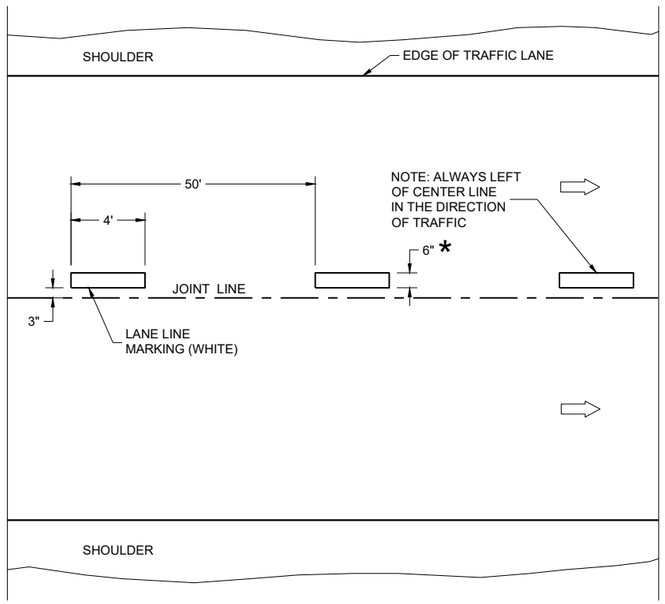
LEGEND

DIRECTION OF TRAFFIC

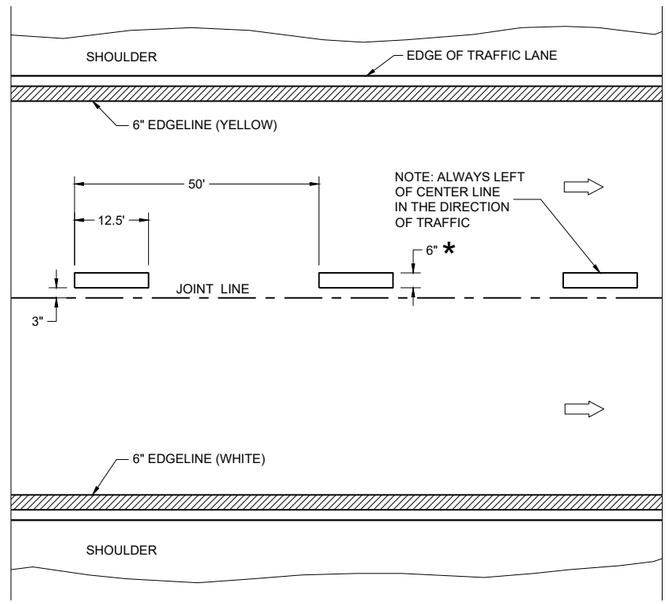
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

6

SDD 15C08-23b

6

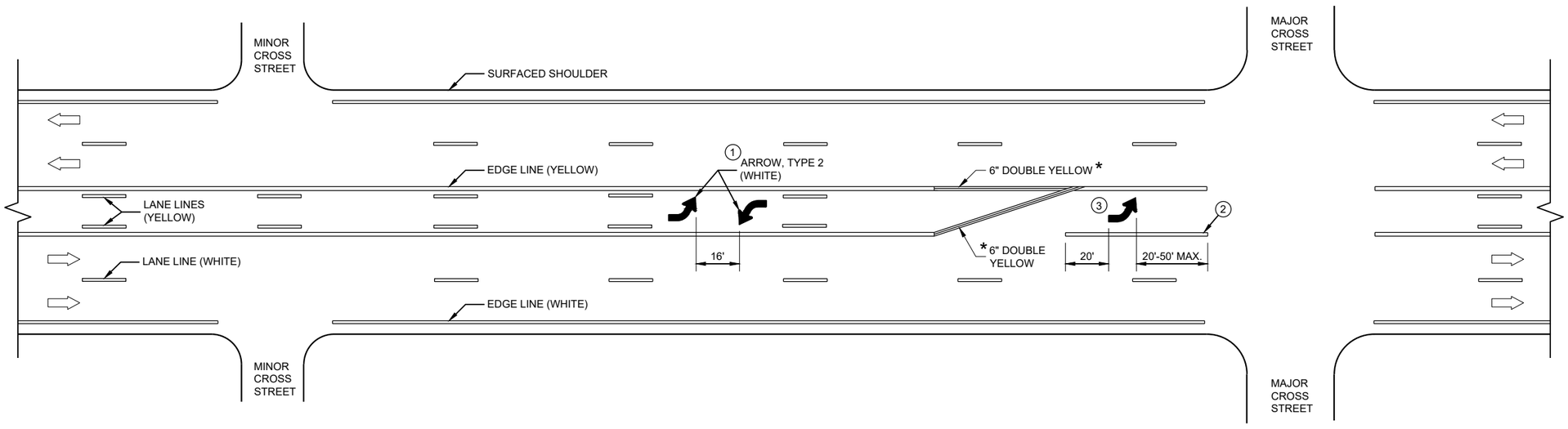
SDD 15C08-23b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 10" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

⇨ DIRECTION OF TRAFFIC

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY LEFT TURN LANE

6

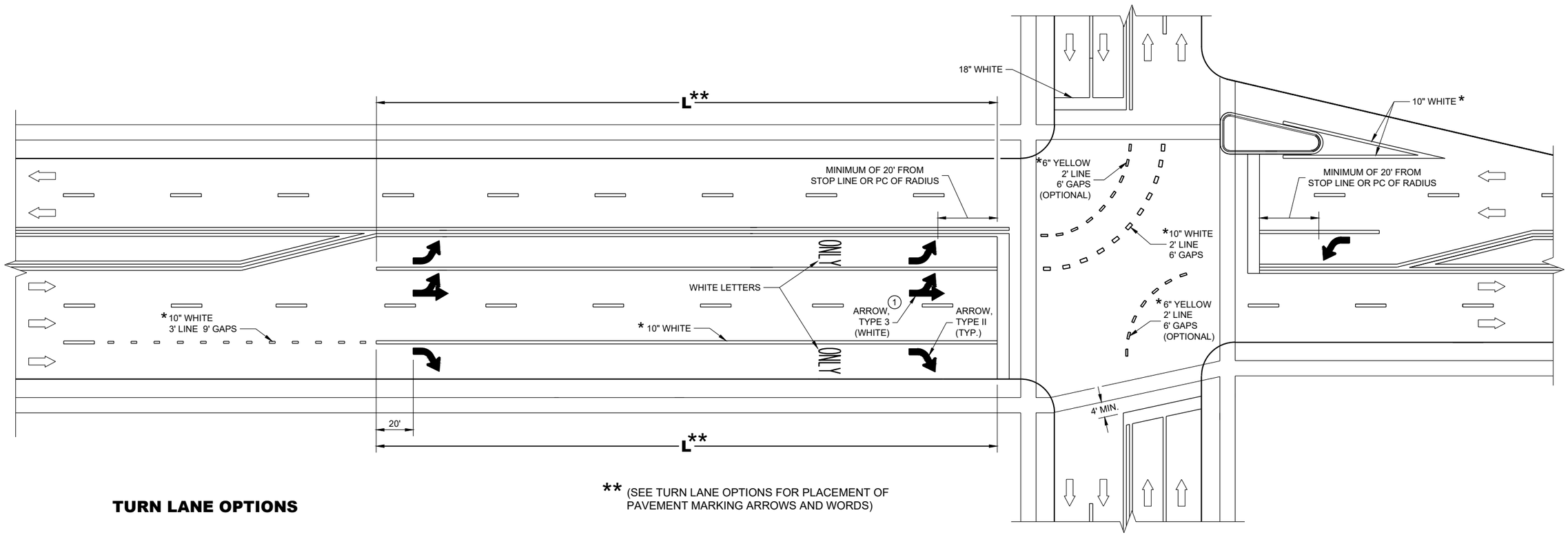
SDD 15C08-23c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA· 259

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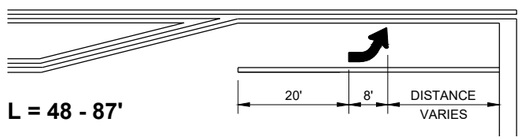
SDD 15C08-23c



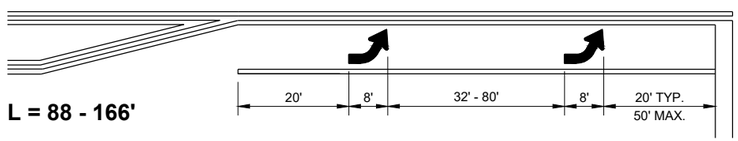
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

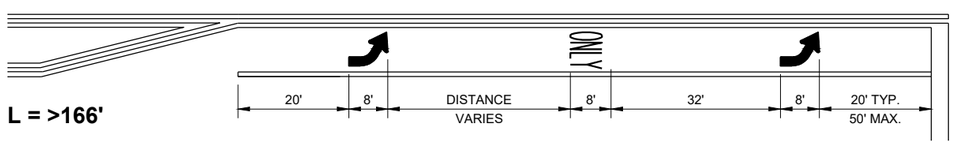
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

(1) QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

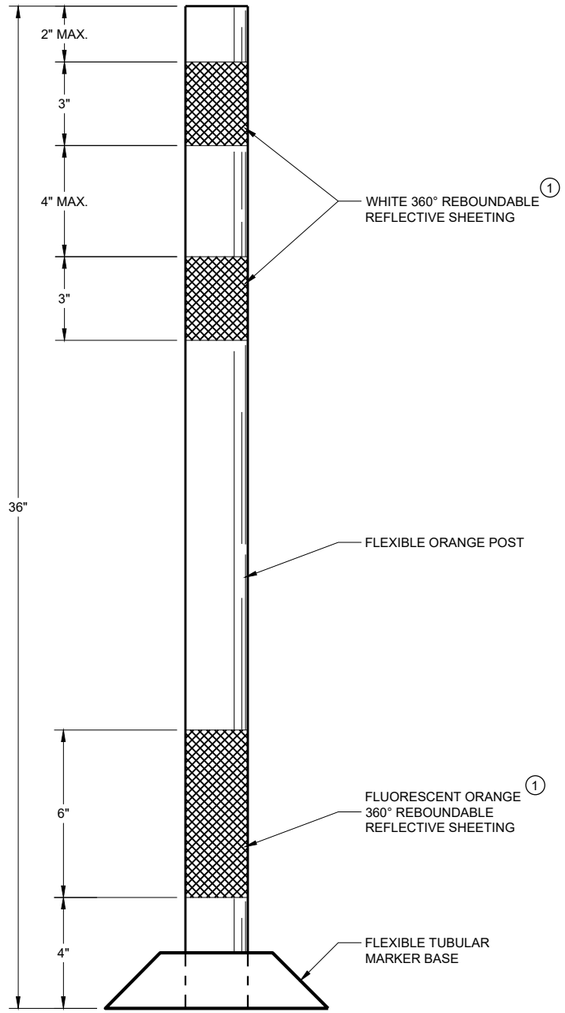
PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08-23d

SDD 15C08-23d



FLEXIBLE TUBULAR MARKER POST WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

6

SDD 15C11 - 10a

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

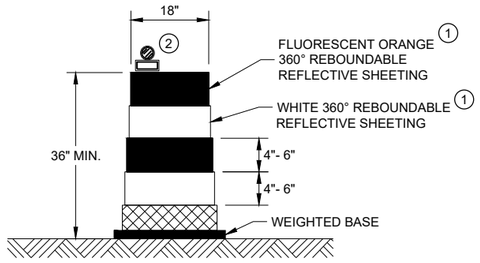
FHWA

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SDD 15C11 - 10a

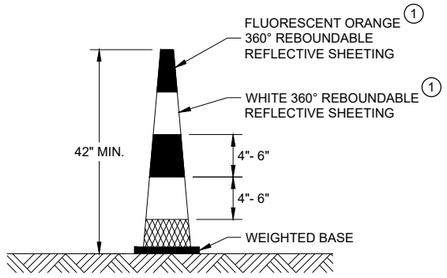
GENERAL NOTES

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



DRUM

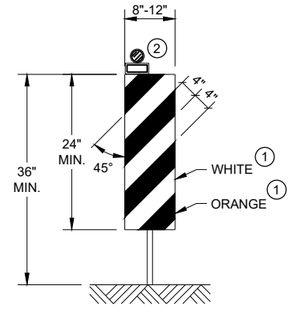
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

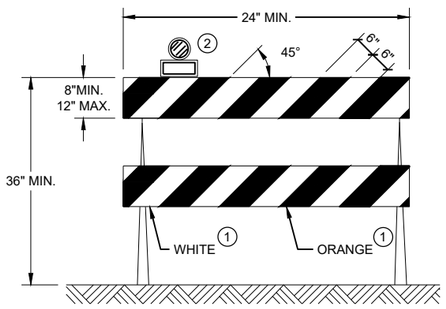
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



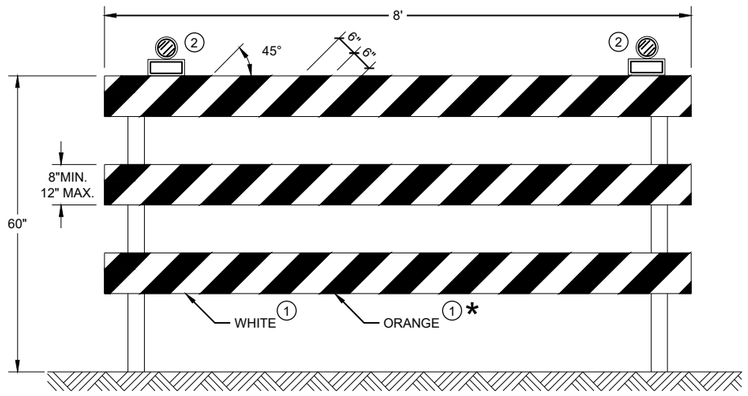
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

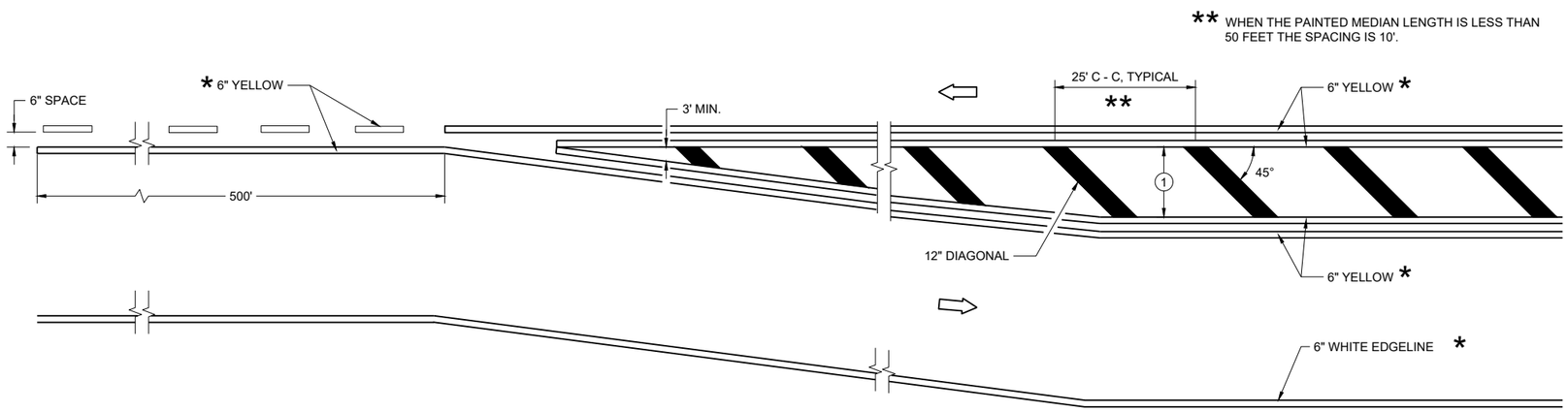
FHWA

6

SDD 15C11 - 10b

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SDD 15C11 - 10b



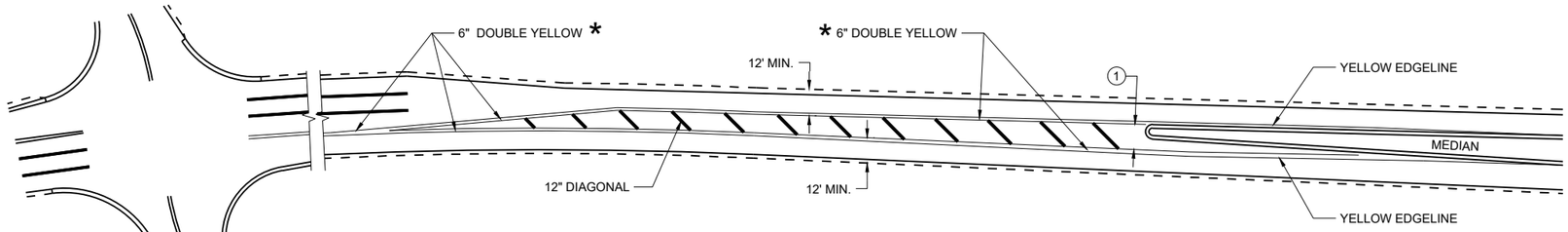
MEDIAN ISLAND DETAIL

GENERAL NOTES

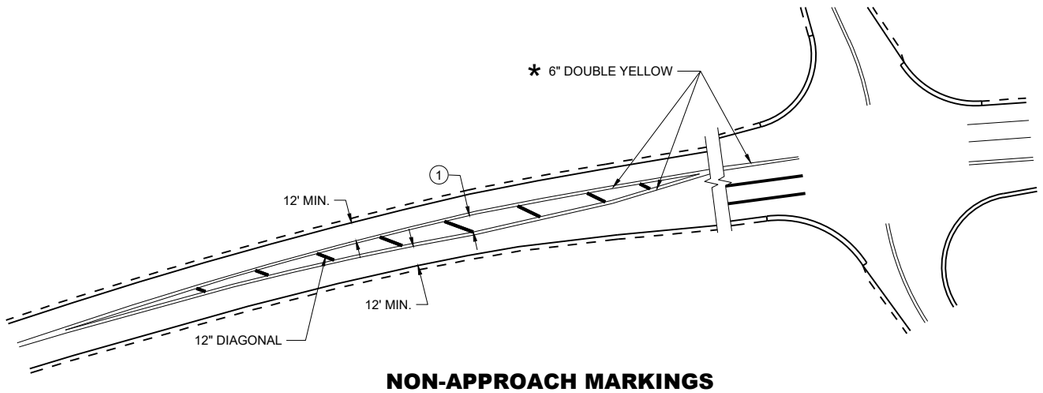
(1) DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024
DATE

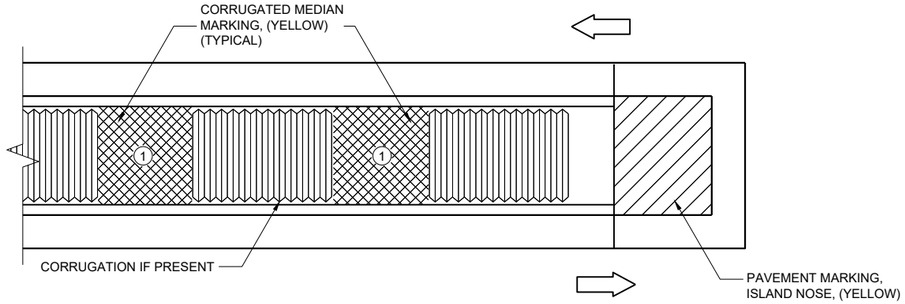
/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

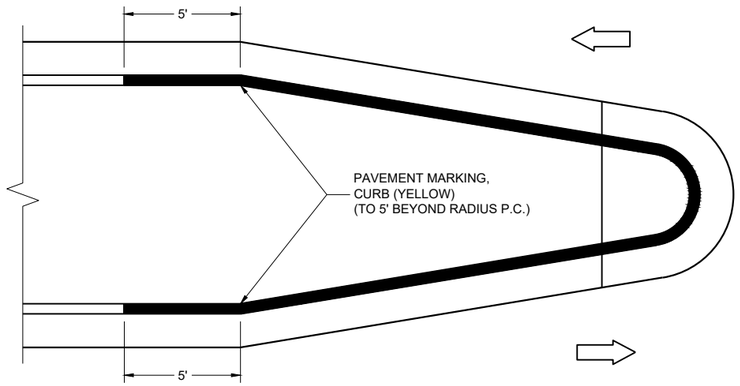
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SDD 15C18-09a

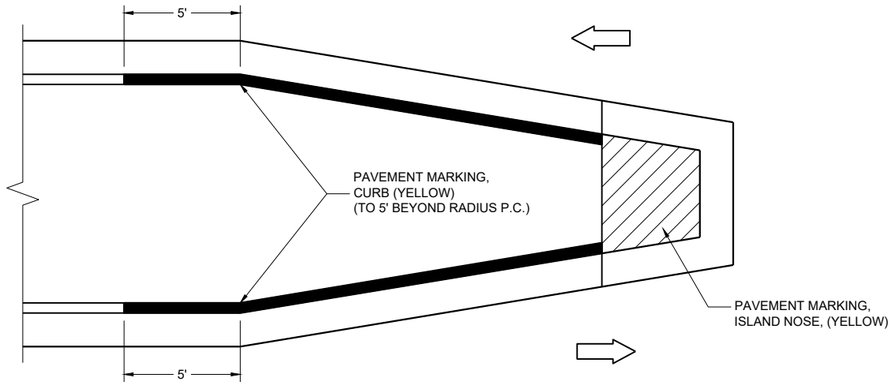
SDD 15C18-09a



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.

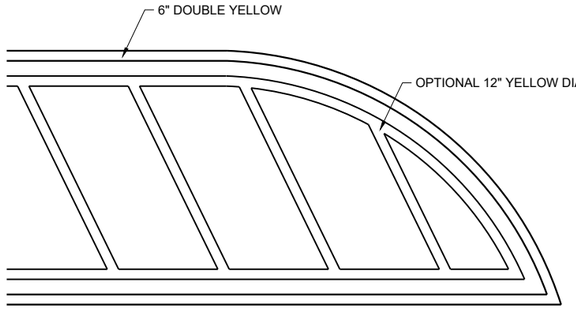
(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

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

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

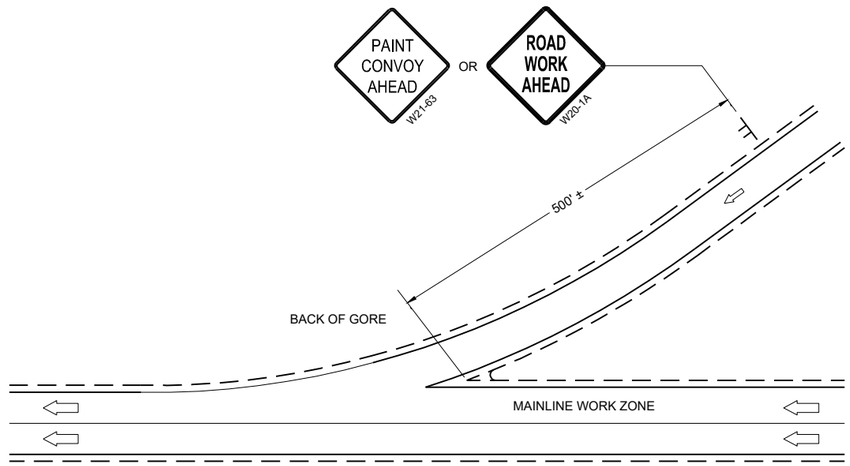
V3 TRAIL VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)



GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

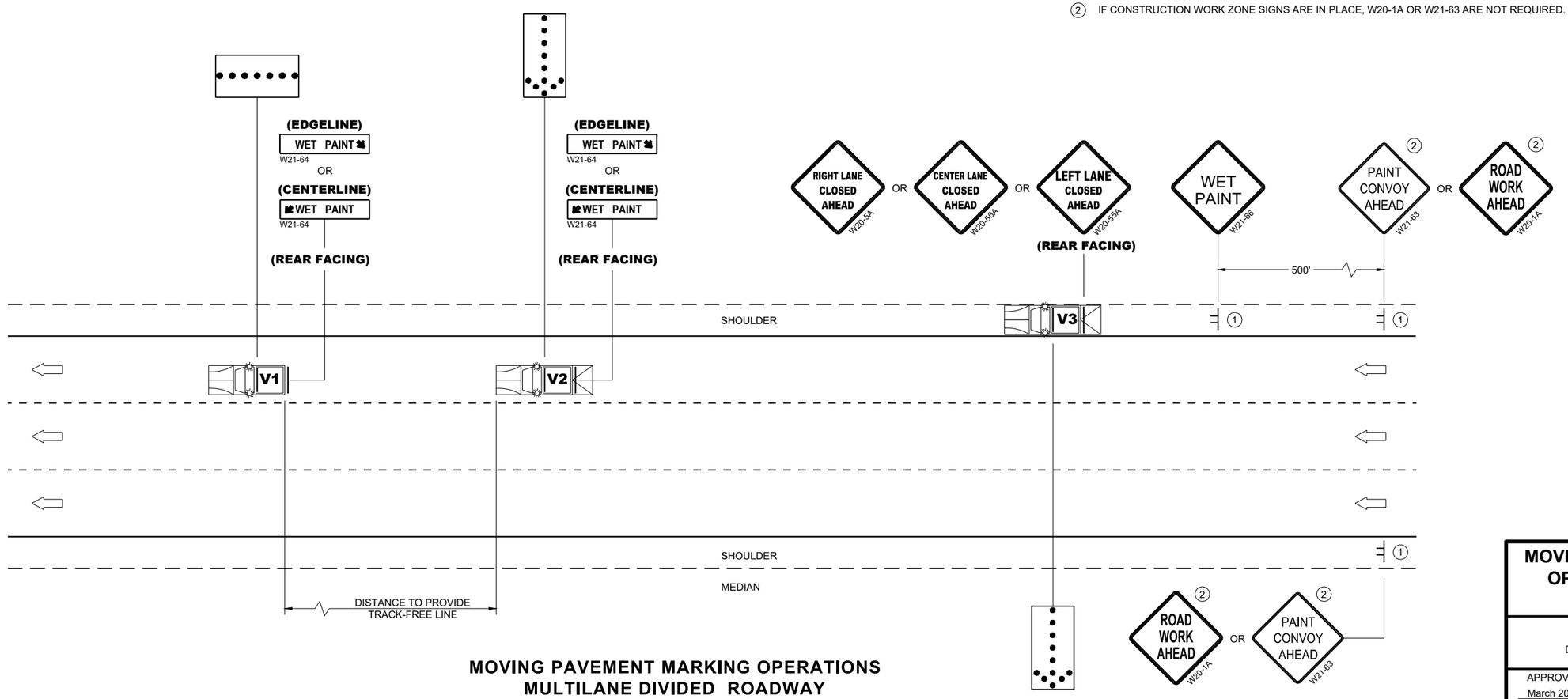
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

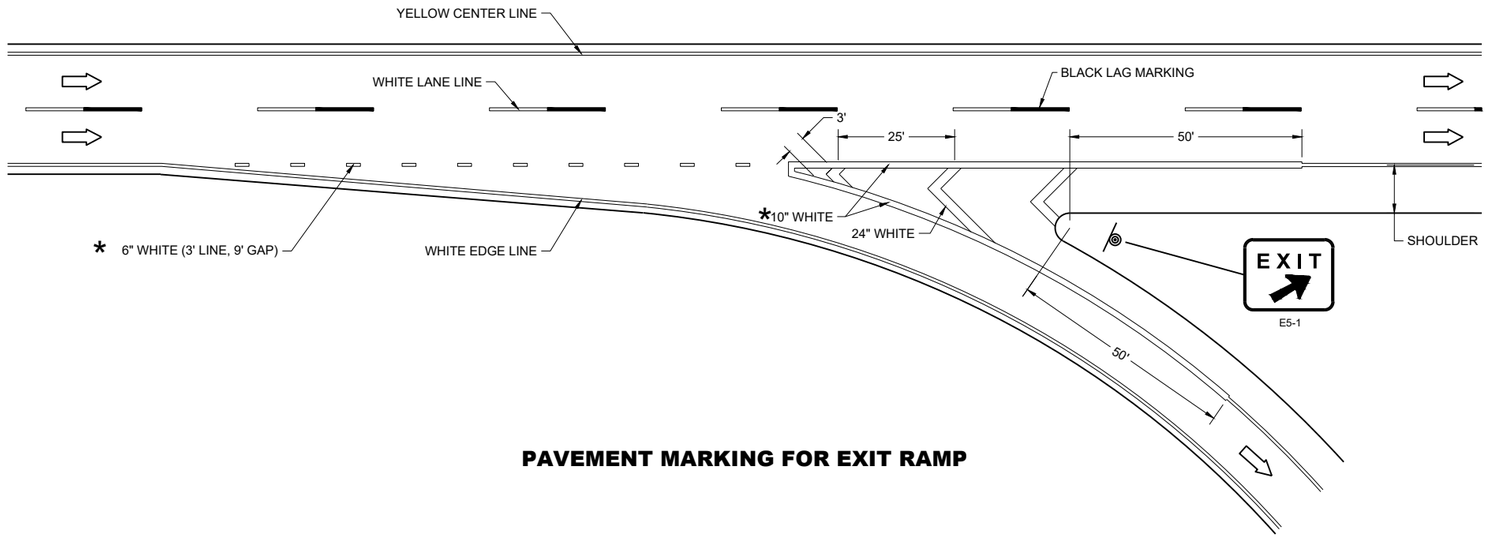
APPROVED
March 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

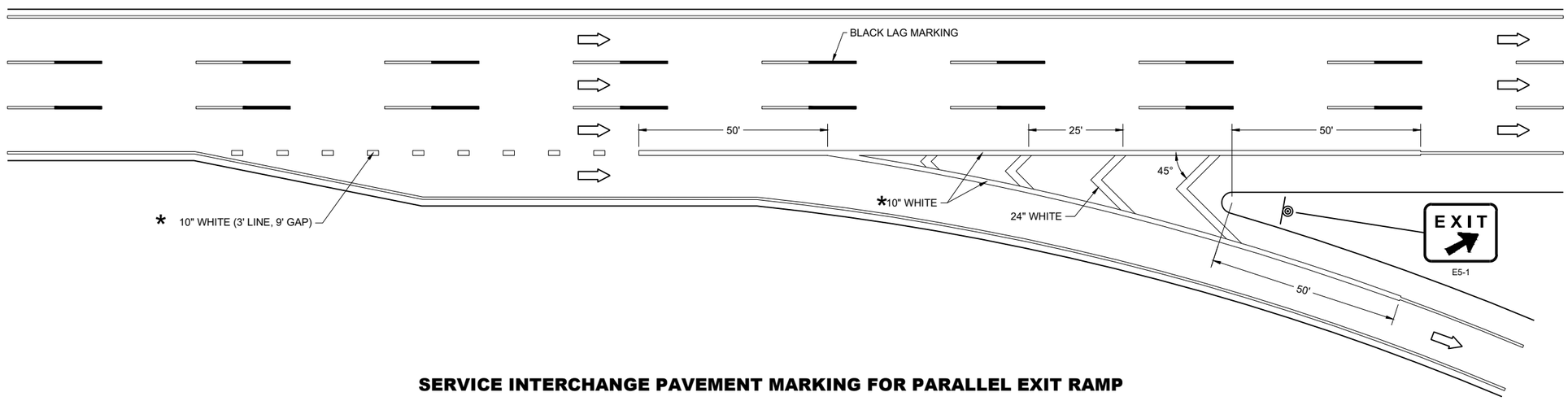
FHWA

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SDD 15C19-9c



PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL

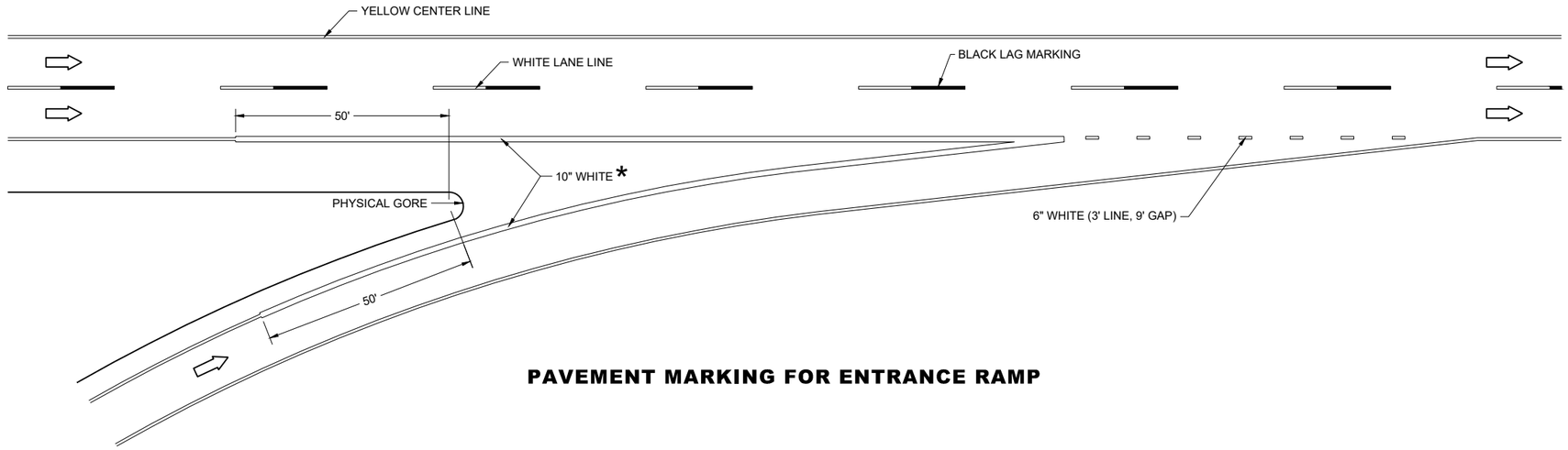
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

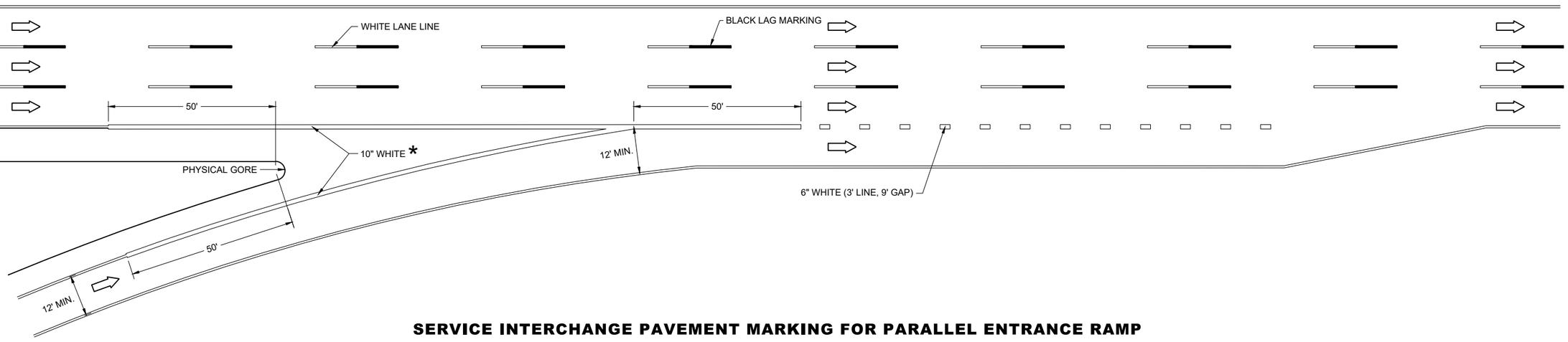


PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

6

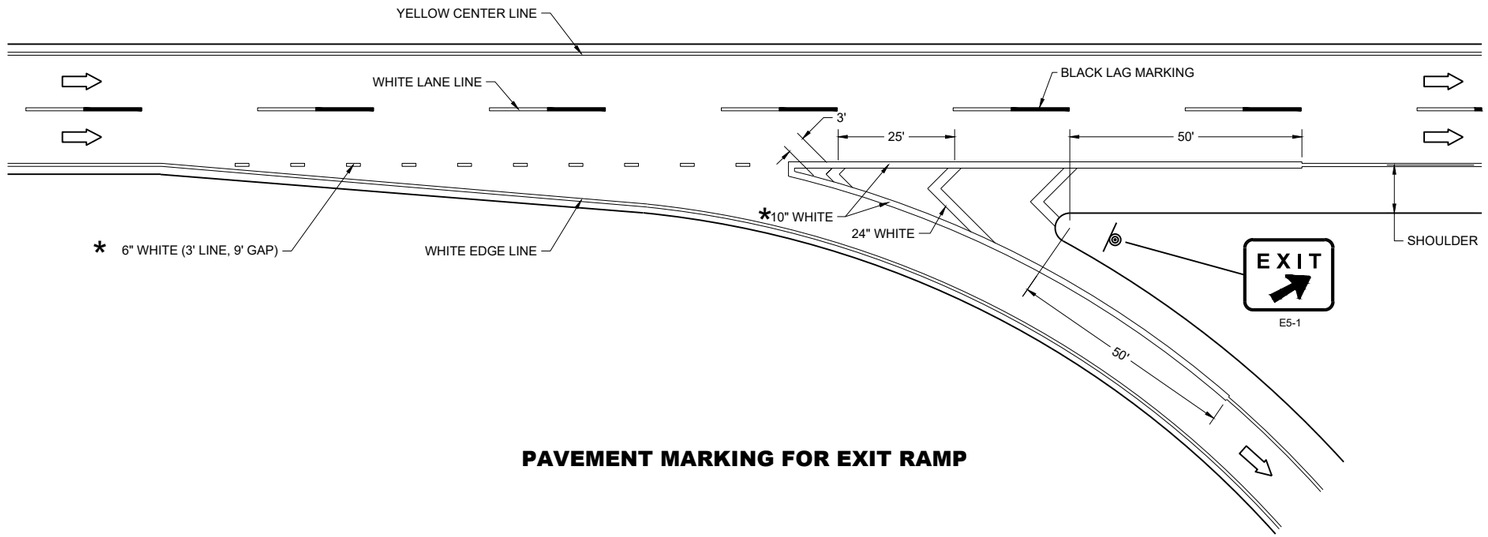
SDD 15C31-07c

PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

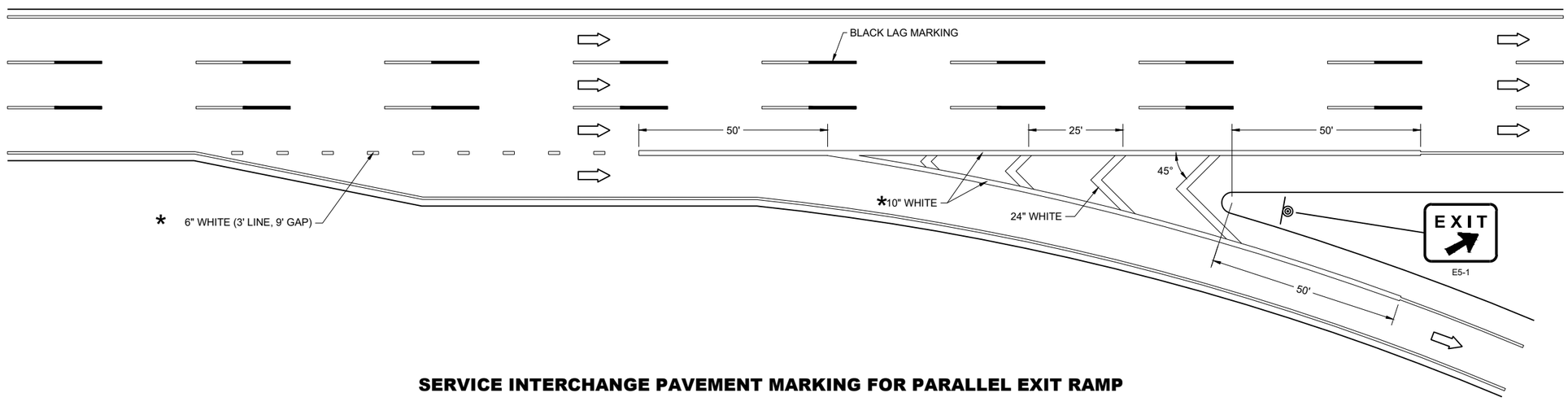
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C31-07c



PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL

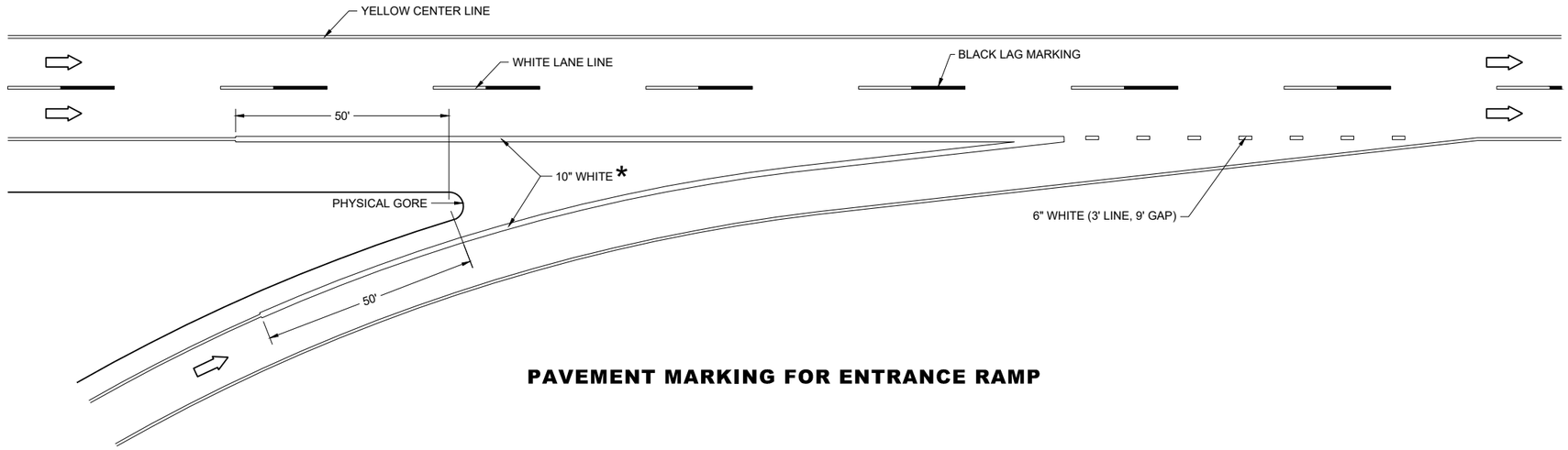
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

PAVEMENT MARKING, EXIT RAMP AND PARALLEL EXIT RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

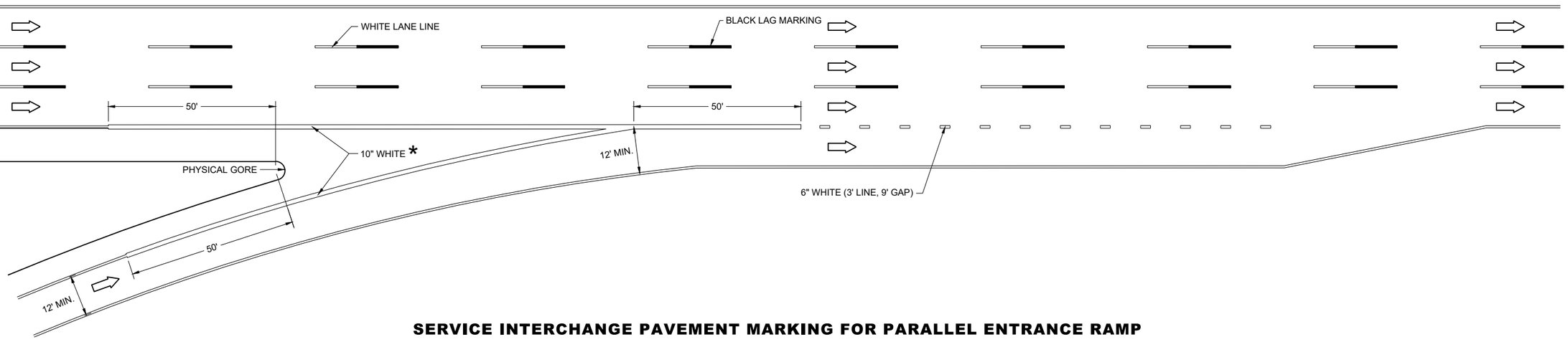


PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

DIRECTION OF TRAVEL

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE RAMP

6

SDD 15C31-08c

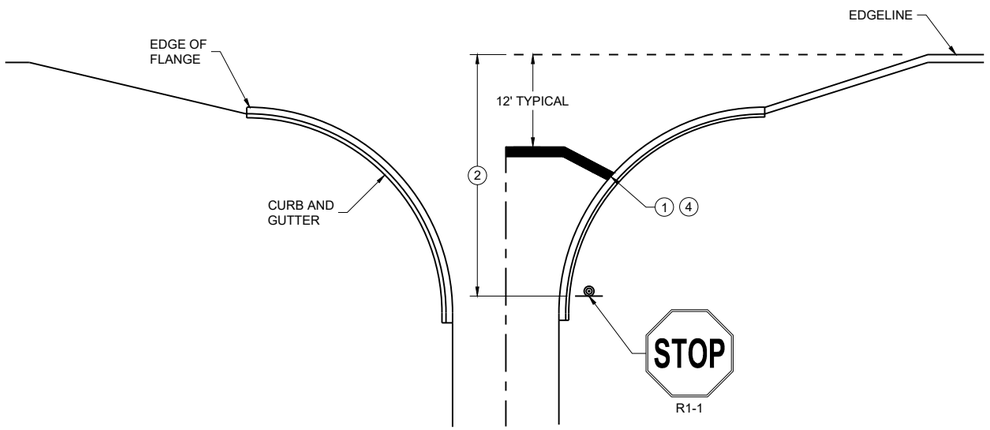
PAVEMENT MARKING, ENTRANCE RAMP AND PARALLEL ENTRANCE RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

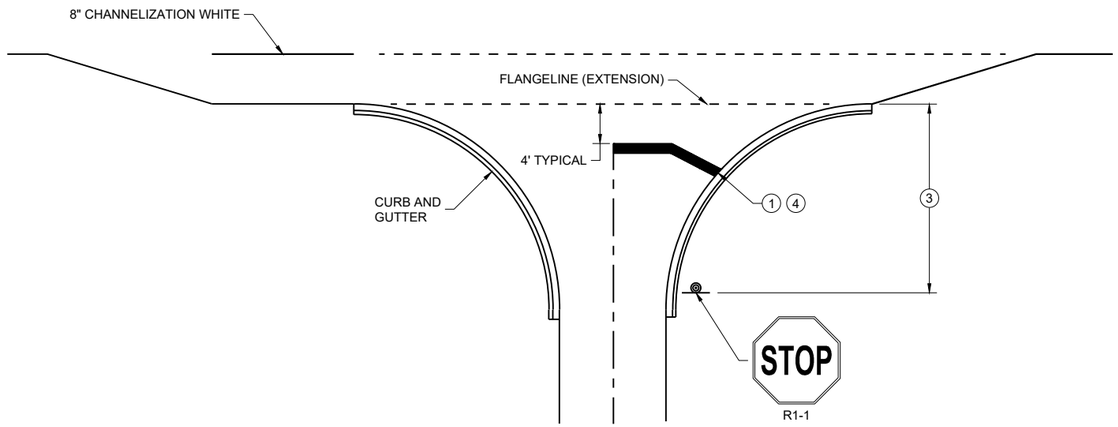
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

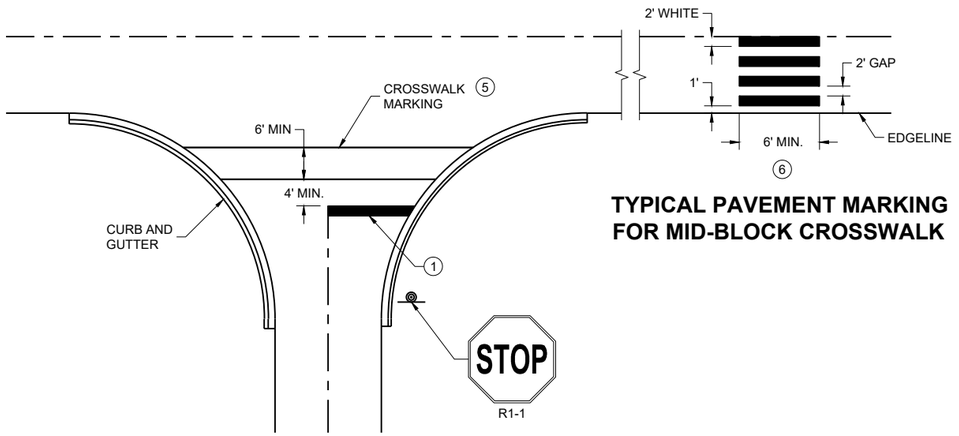
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
6. POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

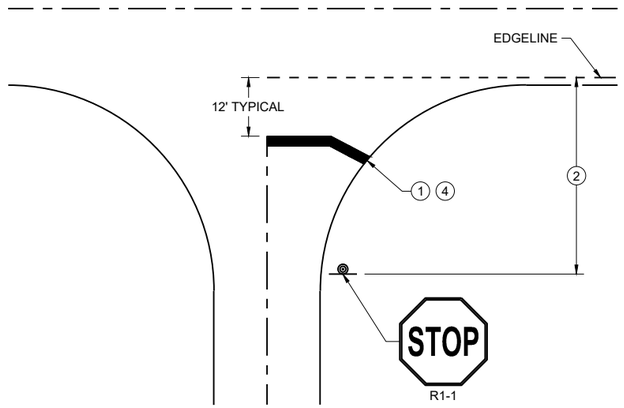


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2024 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

SDD 15C33-05

6

SDD 15C33-05

LEGEND

SIGN ON PERMANENT SUPPORT

DELINEATOR, FLEXIBLE/TUBULAR MARKER

DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50 FOOT SPACING.

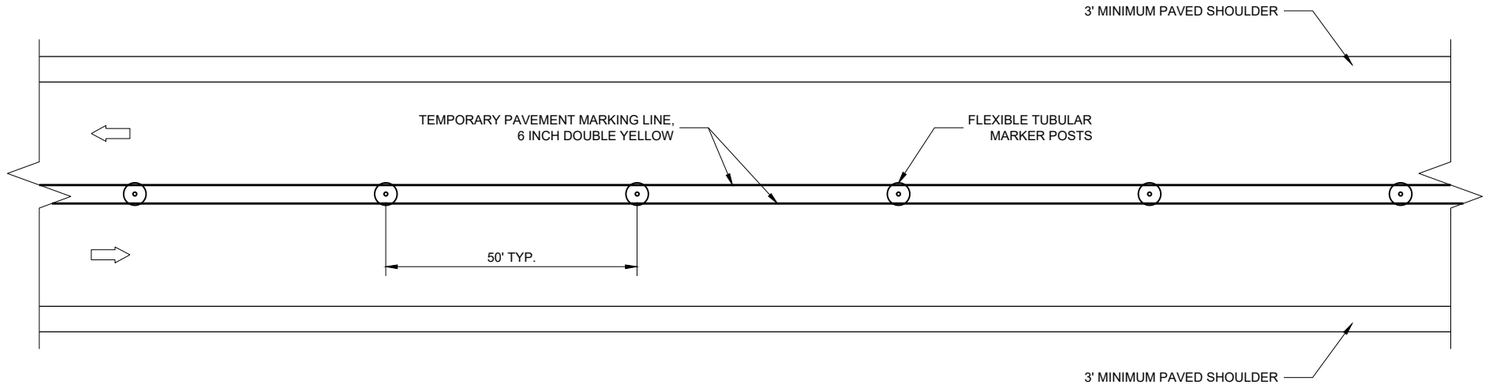
COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING LINE, 6 INCH DOUBLE YELLOW.





1. THE WO6-3 AND WO57-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND / OR 500 FEET BEYOND ANY SIDE ROAD. THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE WO6-3 AND THE WO57-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN THE SIGNS.

2. CONVENTIONAL: 24" X 30"
FREEWAY AND EXPRESSWAY: 36" X 48"



TWO LANE, TWO WAY OPERATION

6

SDD 15D06-06

TRAFFIC CONTROL
TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D06-06

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DELINEATOR FLEXIBLE / TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE RESPECTIVE EDGE LINE MARKING
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS

DO NOT PASS (1) R4-1

INSTALL THE R4-1 SIGN 1000 FEET BEYOND THE WO6-3 SIGN WITH THE WO57-51 AND ALTERNATE THE SEQUENCE OF THESE SIGNS EVERY 1 MILE.

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

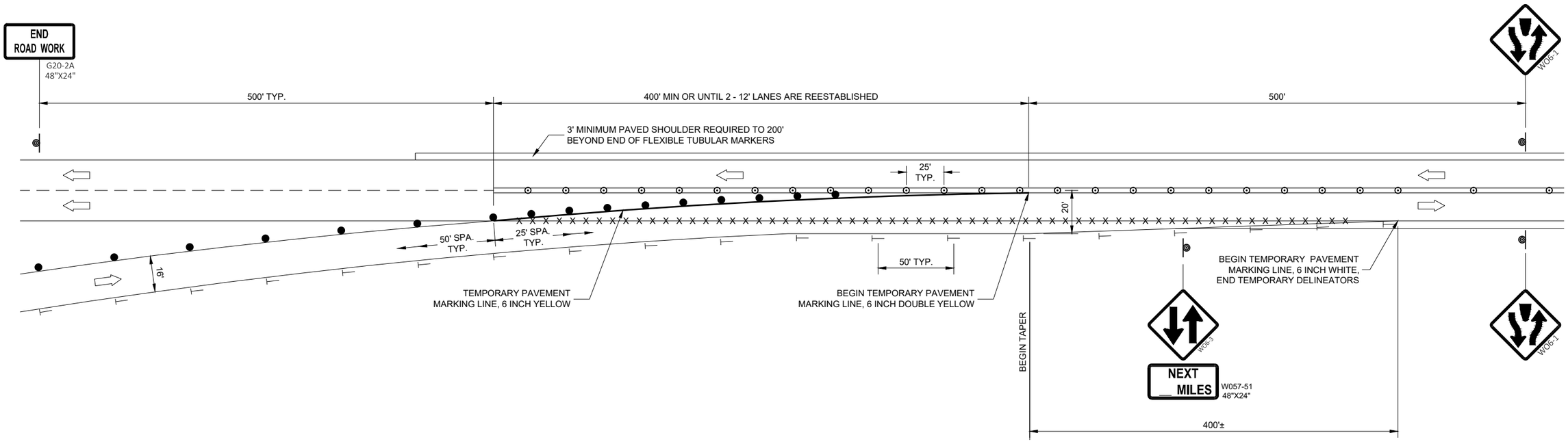
"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

(1) CONVENTIONAL: 24" X 30"
FREEWAY AND EXPRESSWAY: 36" X 48"



TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

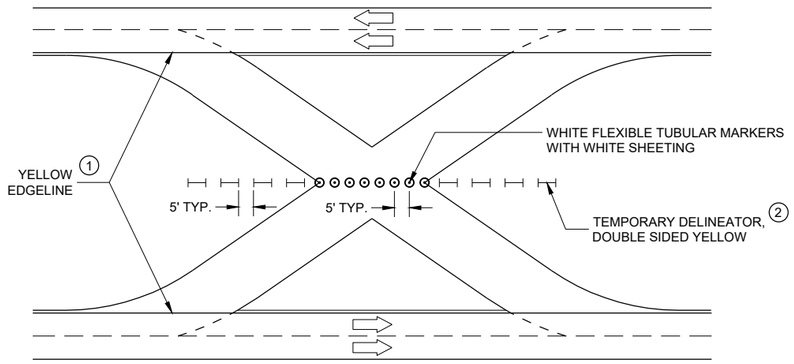
FHWA

SDD 15D09-07

SDD 15D09-07

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- DELINEATOR FLEXIBLE / TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE EDGELINE MARKING
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- TYPE "A" WARNING LIGHT (FLASHING)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

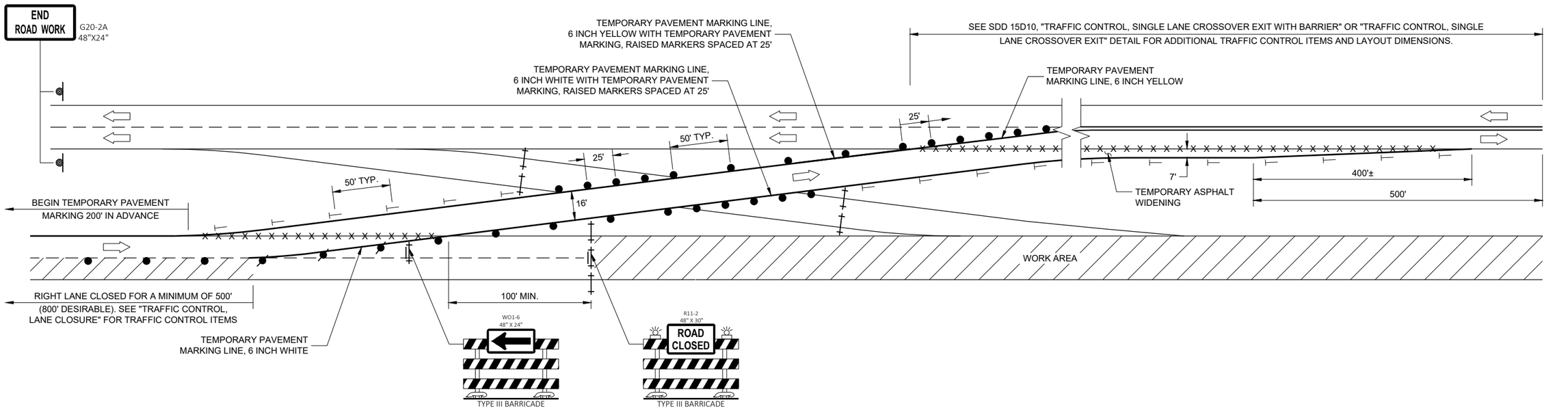
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

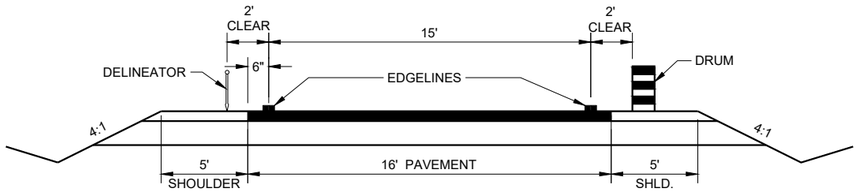
THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.

(1) FOR PERMANENT CROSSOVER, PAVEMENT MARKING SHOULD CONFORM TO SECTION 646 OF THE STANDARD SPECIFICATIONS.

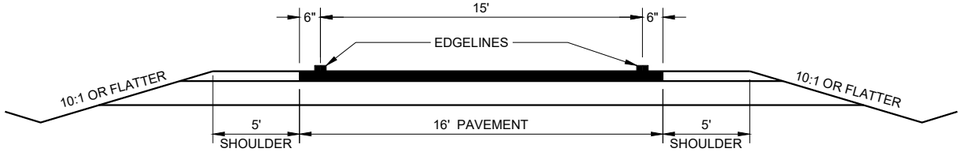
(2) FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.





TYPICAL TEMPORARY CROSSOVER ROADWAY DIMENSIONS

(SEE PLAN FOR ROADWAY DESIGN ELEMENTS)



TYPICAL CROSSOVER TO REMAIN IN PLACE ROADWAY DIMENSIONS

(SEE PLAN FOR ROADWAY DESIGN ELEMENTS)

TRAFFIC CONTROL, SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D11-09

SDD 15D11-09

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GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

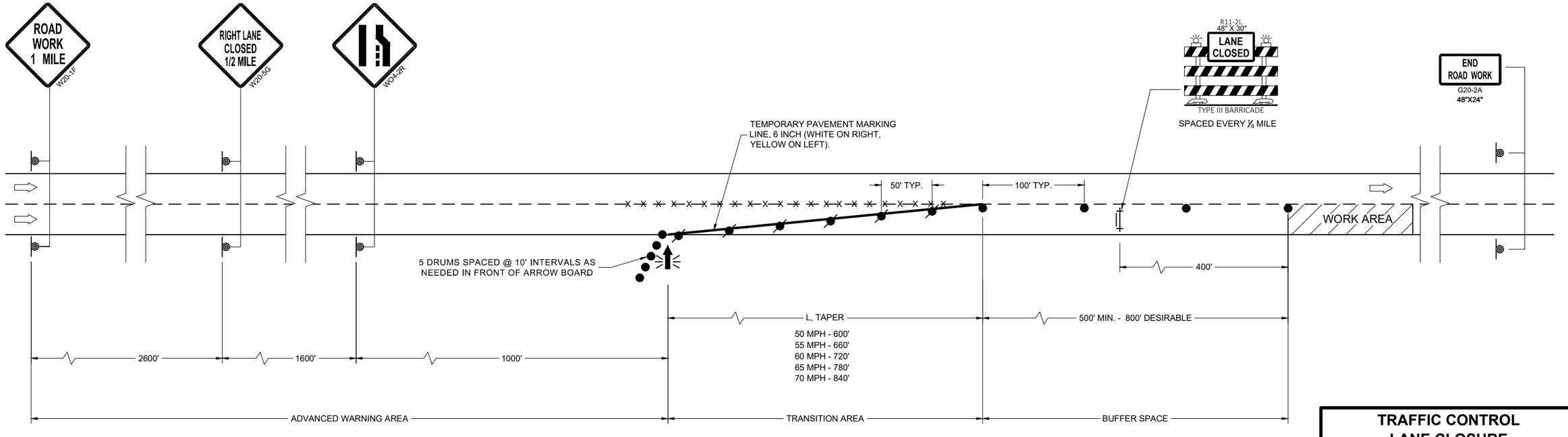
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

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



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE

/S/ Andrew Heidtke
Work Zone Engineer

FHWA

6

SDD 15D12-13a

6

SDD 15D12-13a

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

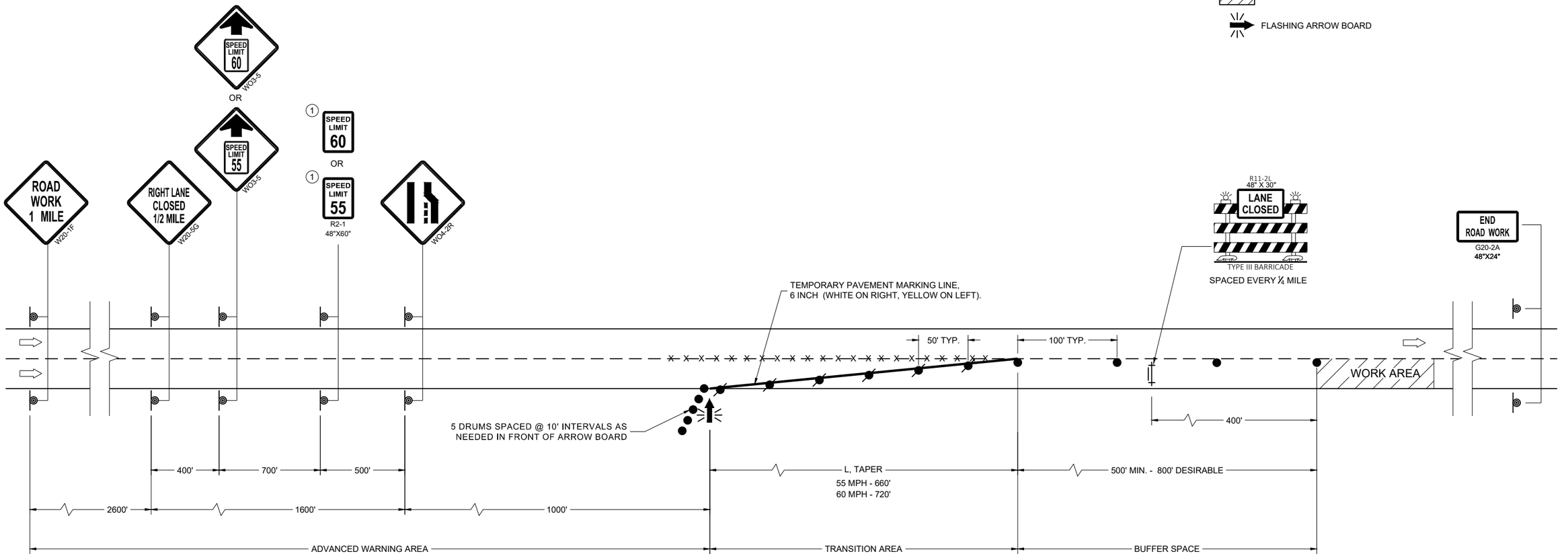
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

(1) A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

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



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

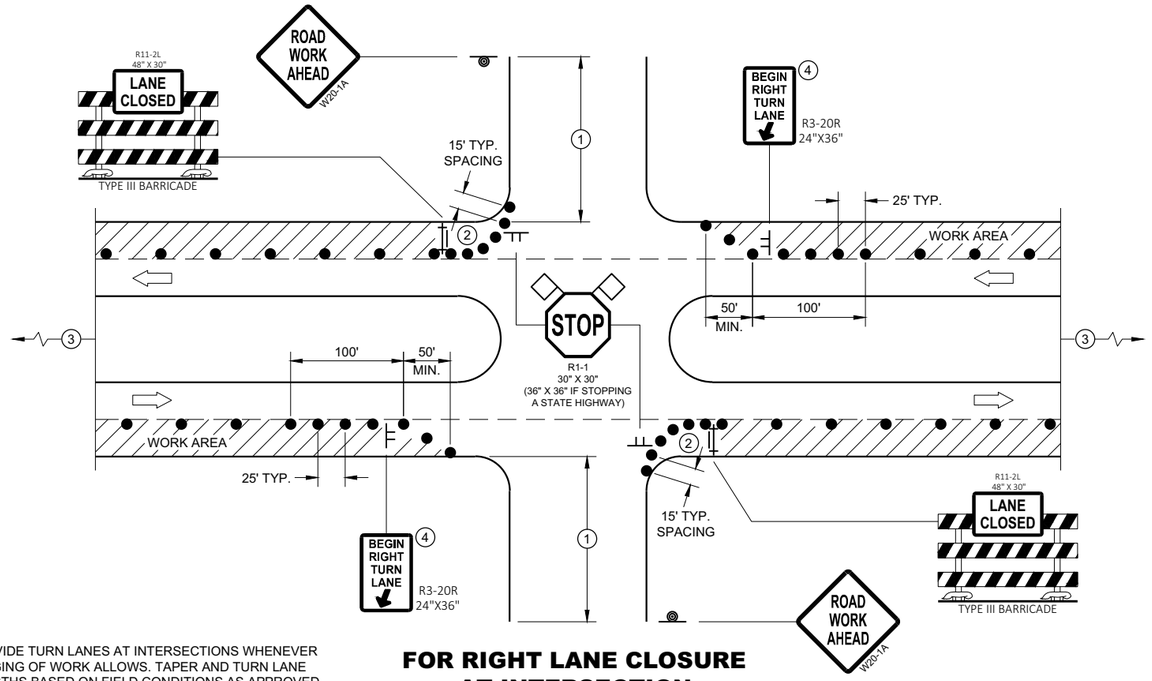
APPROVED
March 2024 — DATE
/S/ Andrew Heidtke — Work Zone Engineer

FHWA

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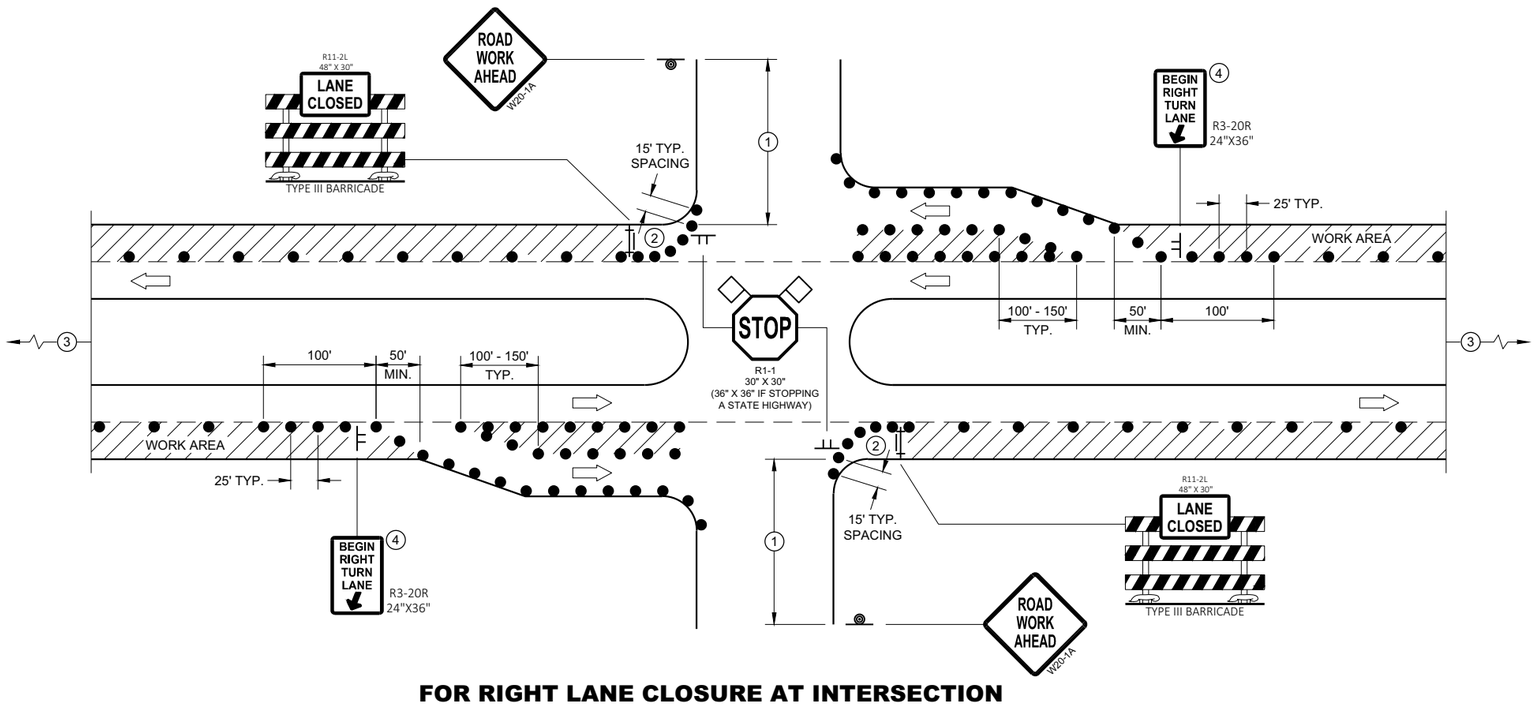
SDD 15D12-13b

SDD 15D12-13b



FOR RIGHT LANE CLOSURE AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

BARRICADES IN A CLOSED LANE 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.

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

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

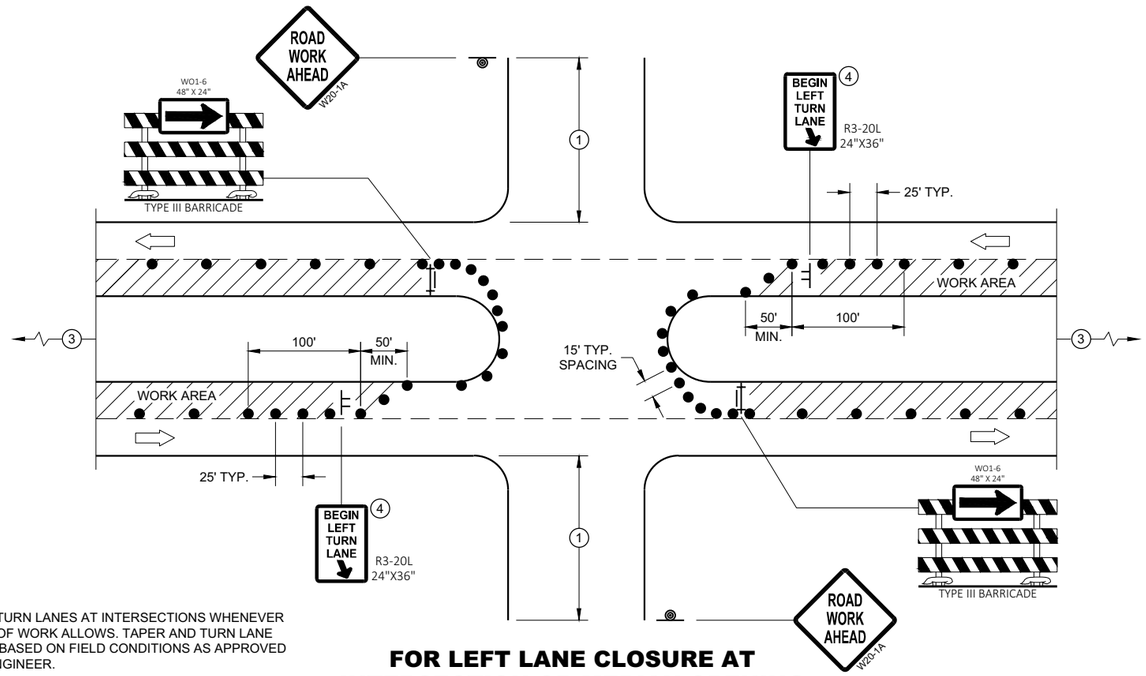
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a

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SDD 15D21 - 07a



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

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

BARRICADES IN A CLOSED LANE 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.

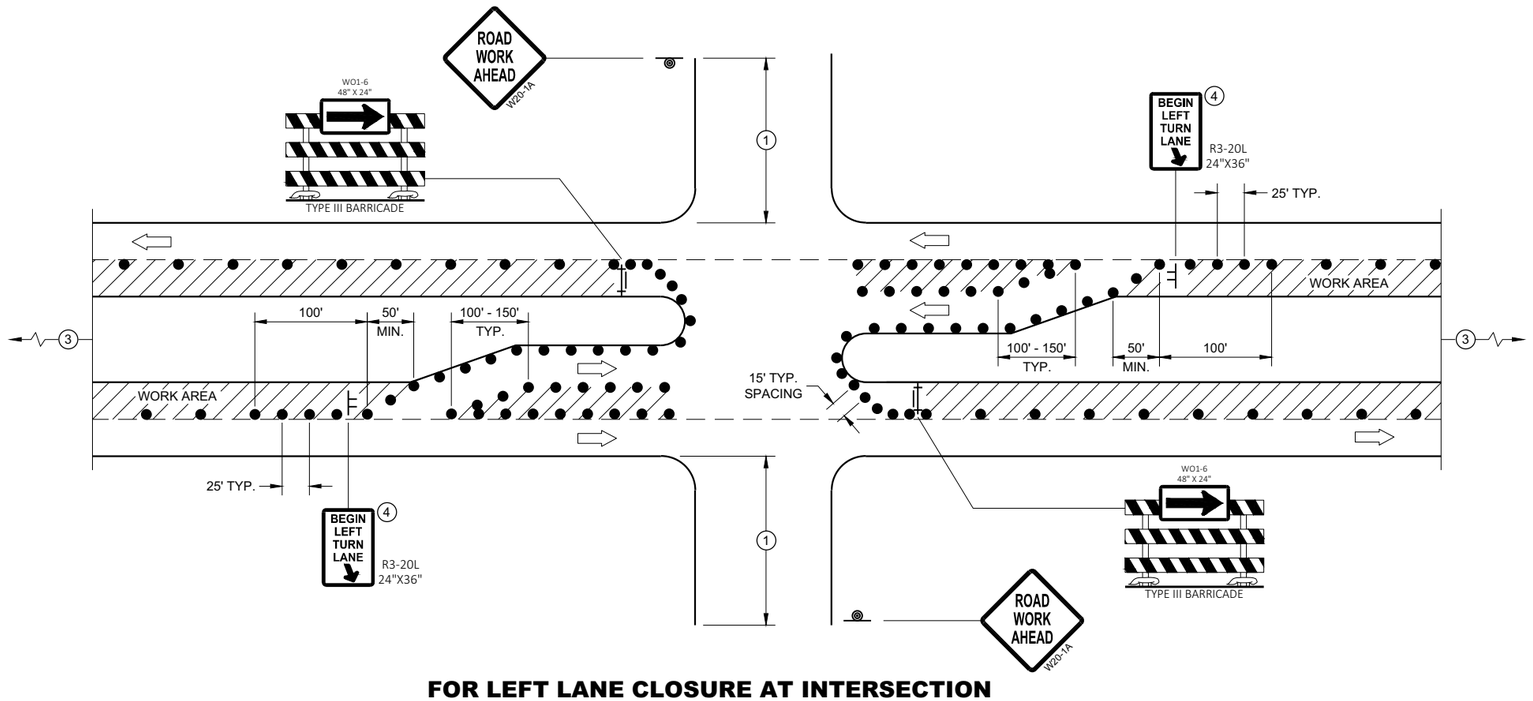
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

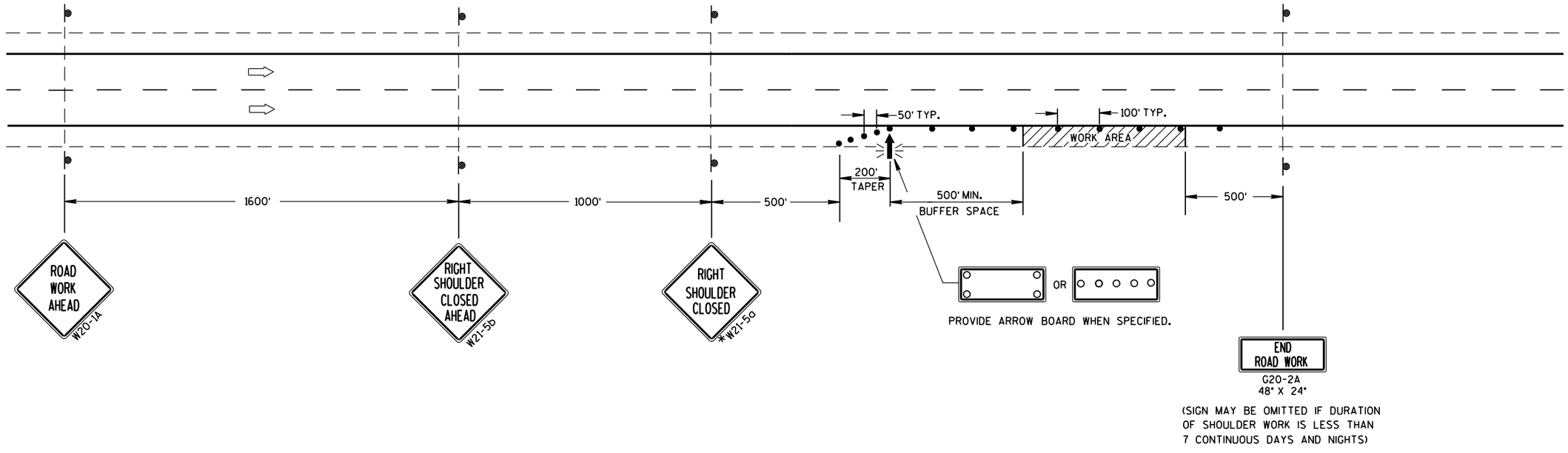
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

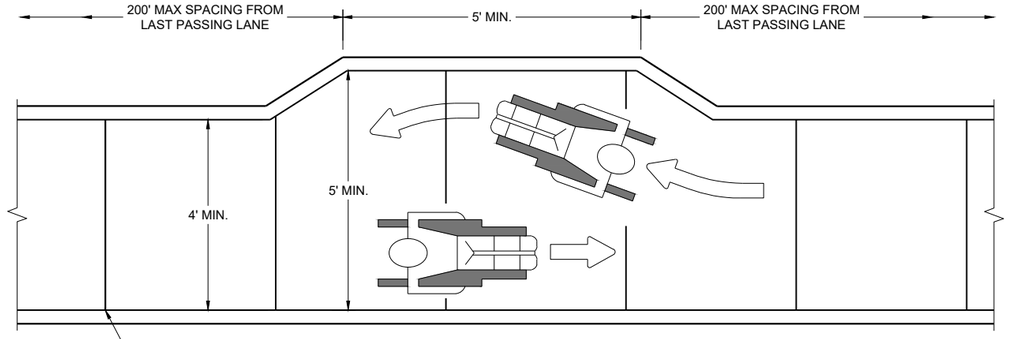
June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

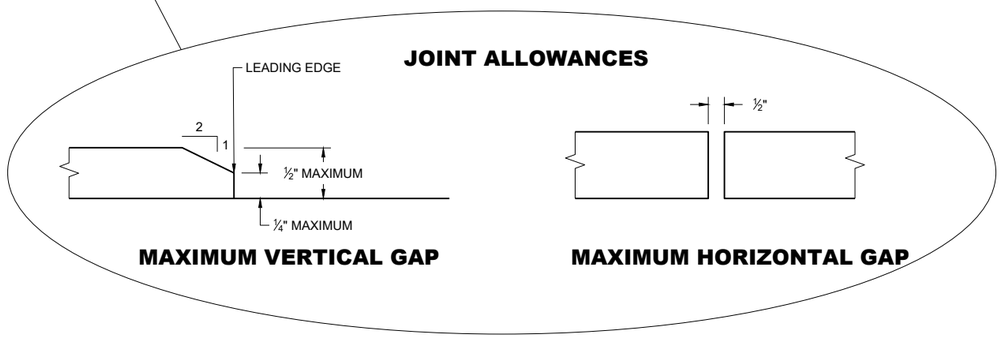
FHWA

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NARROW SIDEWALK PASSING DETAIL



MAXIMUM VERTICAL GAP

MAXIMUM HORIZONTAL GAP

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

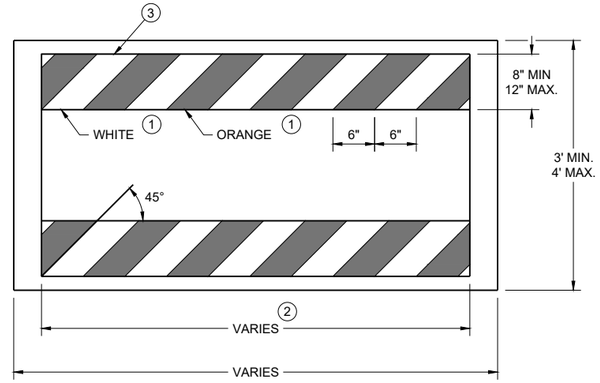
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

(2) SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

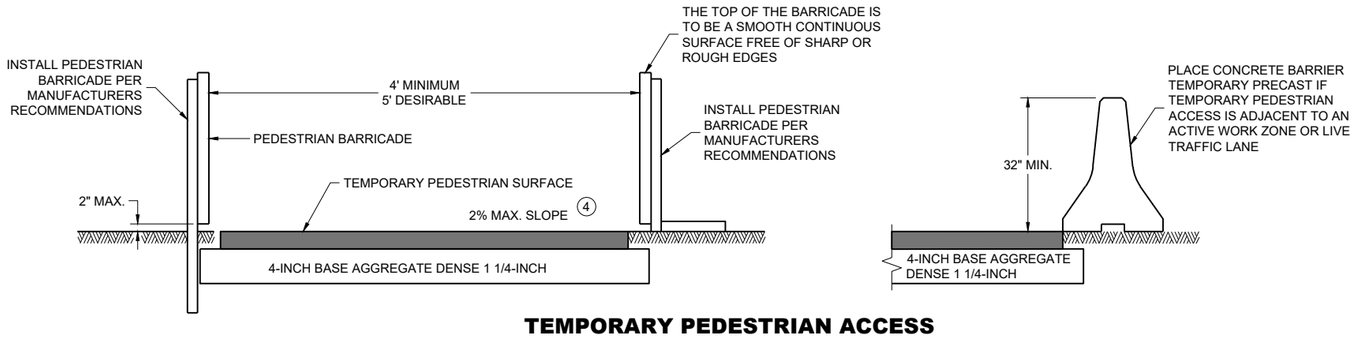
(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

(4) WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.



TEMPORARY PEDESTRIAN BARRICADE *



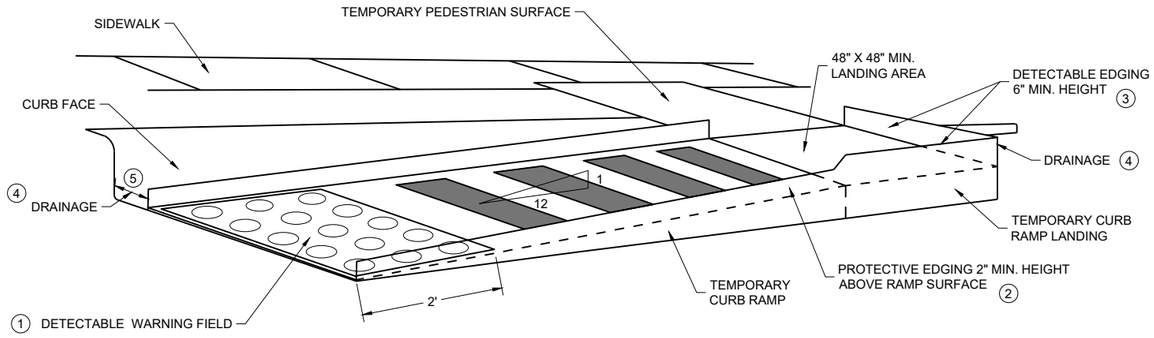
TEMPORARY PEDESTRIAN ACCESS

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-10a



PERSPECTIVE VIEW

GENERAL NOTES

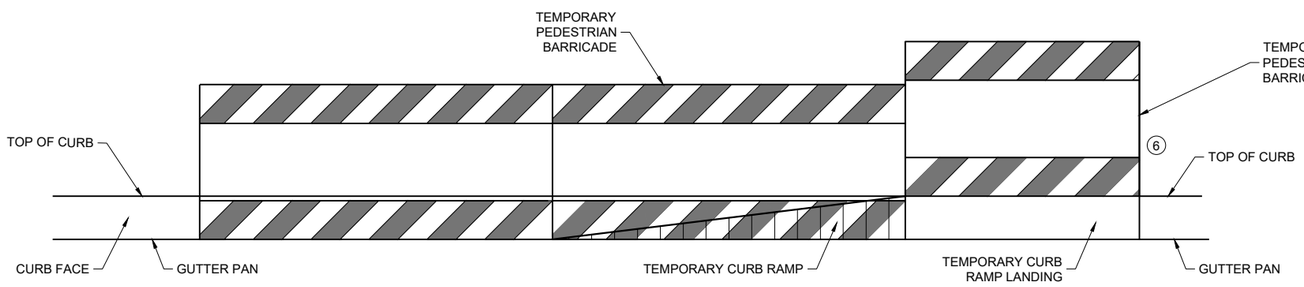
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

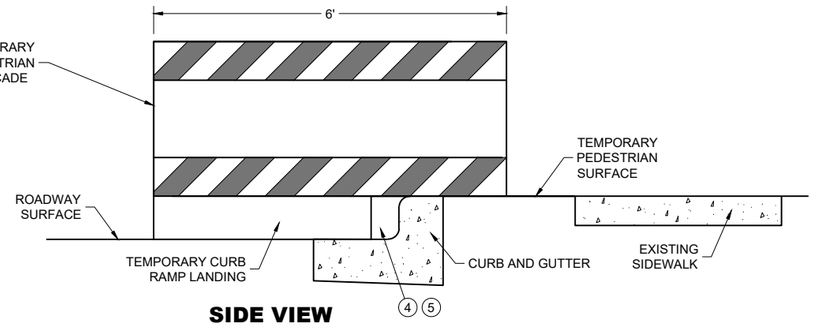
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

1. INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
2. PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
3. DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
4. DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
5. ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
6. IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.



FRONT VIEW



SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

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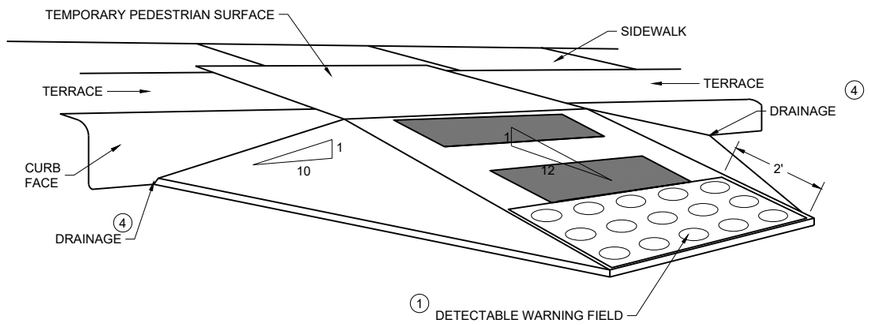
SDD 15D30-10b

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

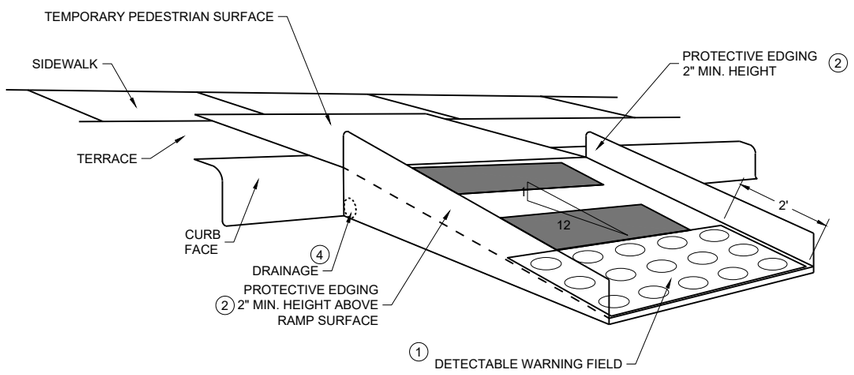
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-10b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

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

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

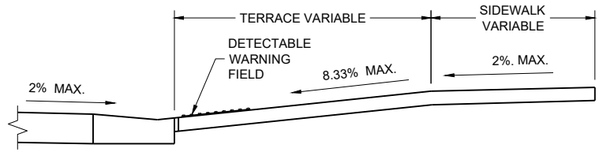
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SDD 15D30-10c

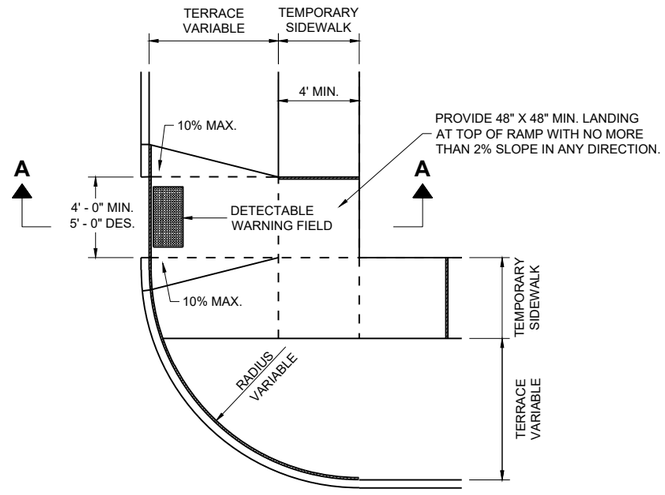
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES



SECTION A - A



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

6

SDD 15D30-10d

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

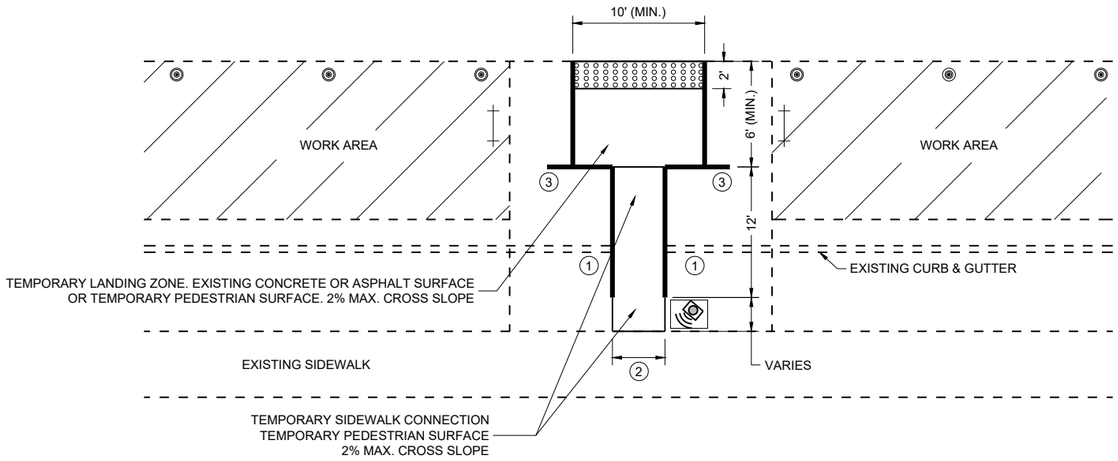
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — <position>

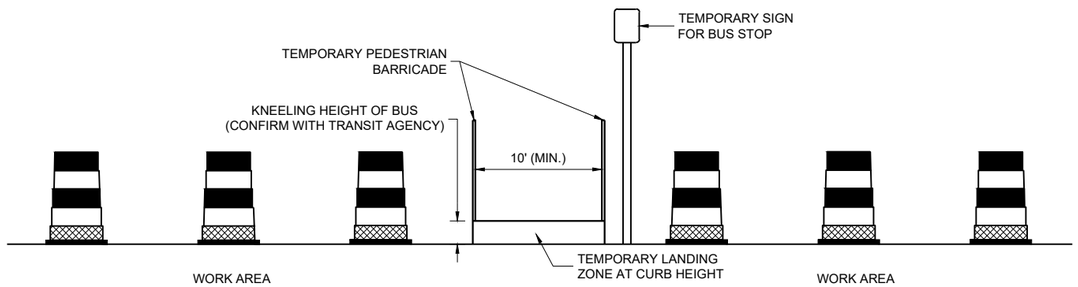
FHWA

6

SDD 15D30-10d



PLAN VIEW



PROFILE VIEW TEMPORARY BUS STOP PAD

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

(1) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(2) 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.

(3) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- TEMPORARY DETECTABLE WARNING FIELD
- WORK AREA
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

6

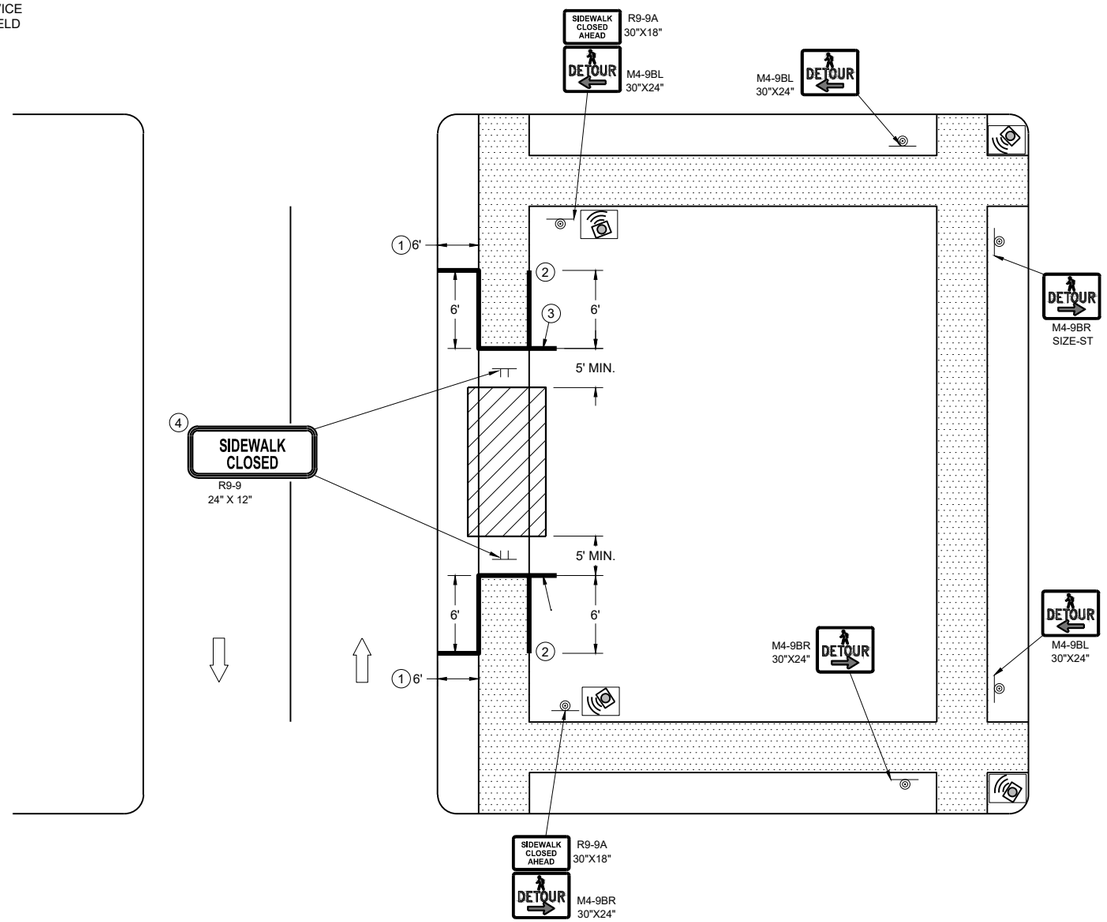
SDD 15D30-10e

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

GENERAL NOTES

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15D30-10f

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

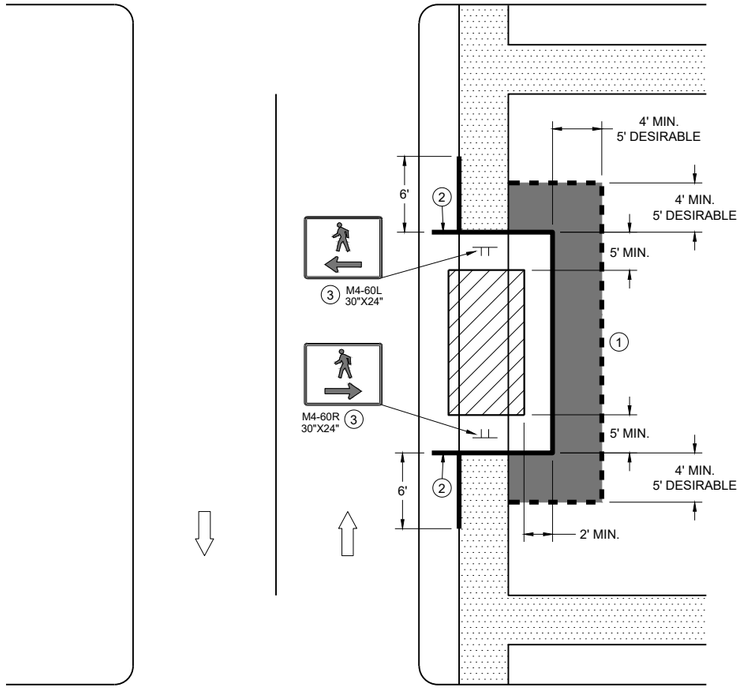
WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

(1) USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.

(2) IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.

(3) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK BYPASS
SINGLE SIDE

6

SDD 15D30-10g

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

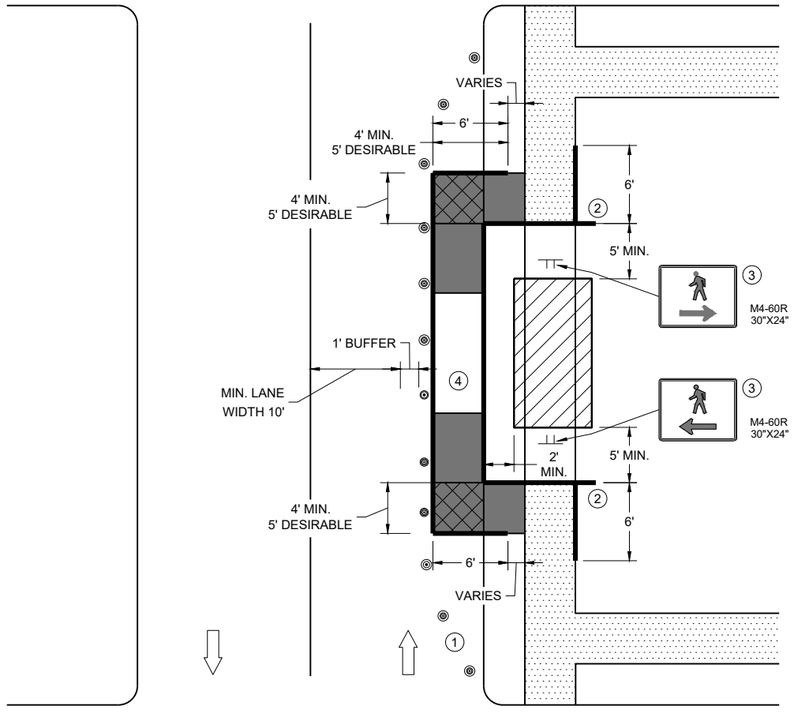
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-10g

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC



SIDEWALK BYPASS, SINGLE SIDE

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

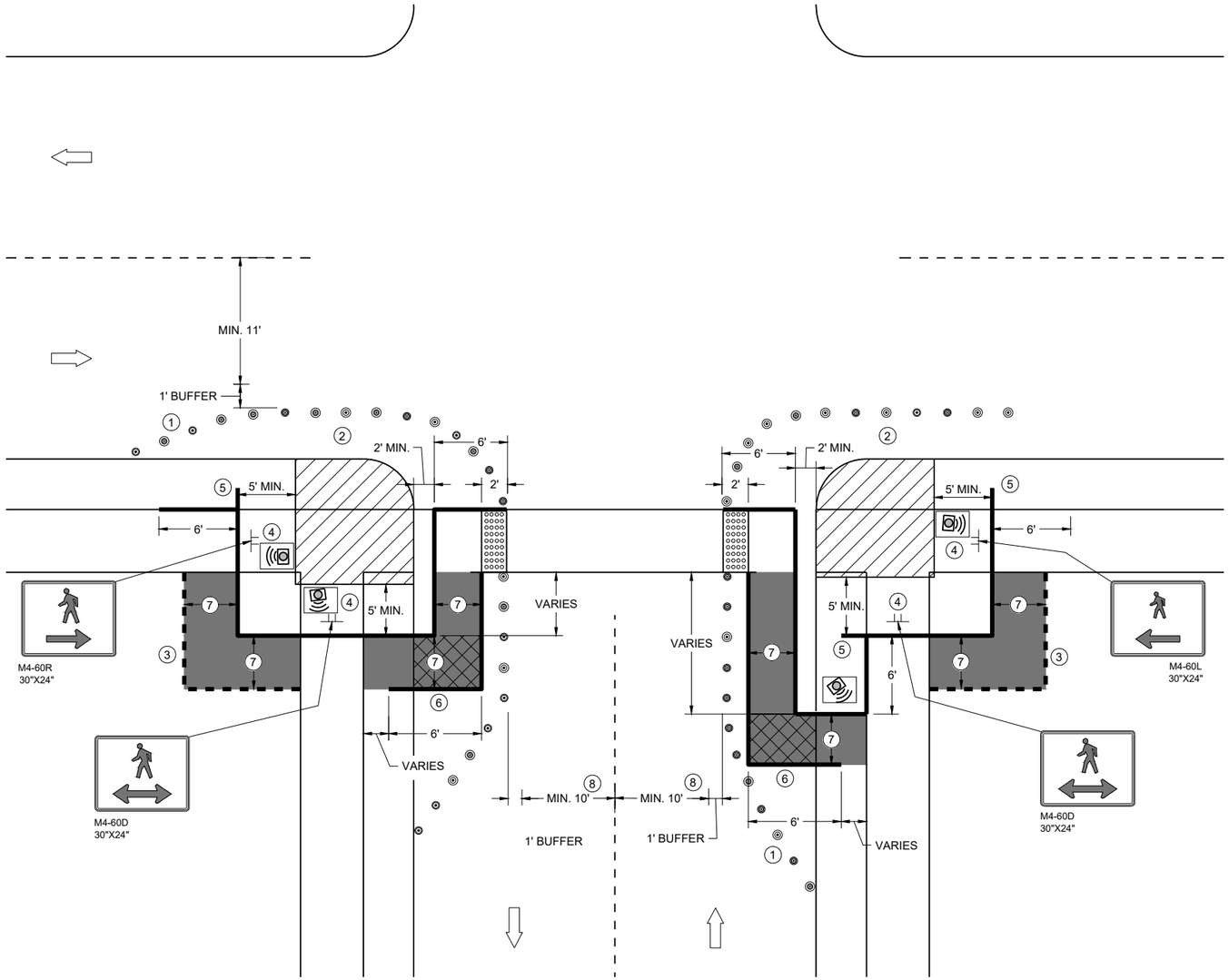
1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
2. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
3. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
4. USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURFACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

6

SDD 15D30-10h

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

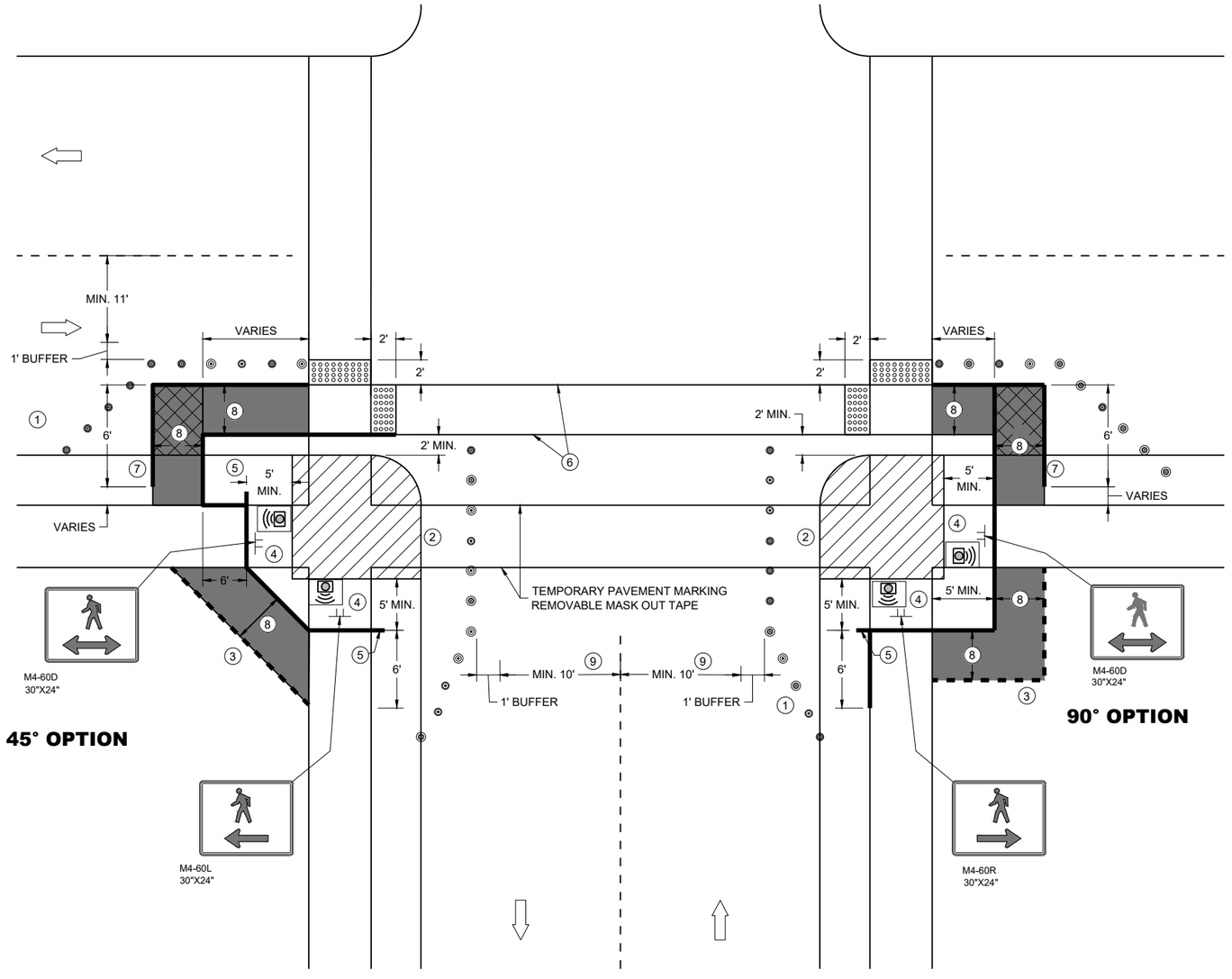
1. SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
2. PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
3. USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
4. MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
5. PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
6. IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
7. 4 FEET MINIMUM, 5 FEET DESIRABLE
8. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

(1) SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS

(3) USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.

(4) MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.

(5) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.

(6) WHITE 6" TEMPORARY PAVEMENT MARKING

(7) IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.

(8) 4 FEET MINIMUM, 5 FEET DESIRABLE

(9) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

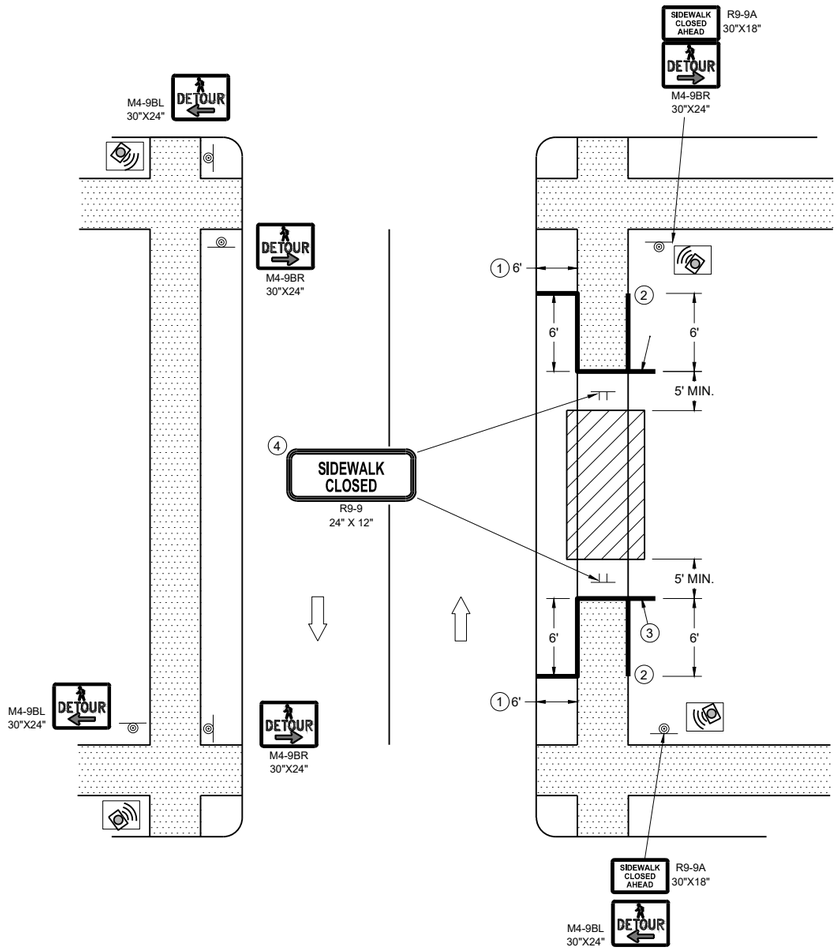
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15D30-10j

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

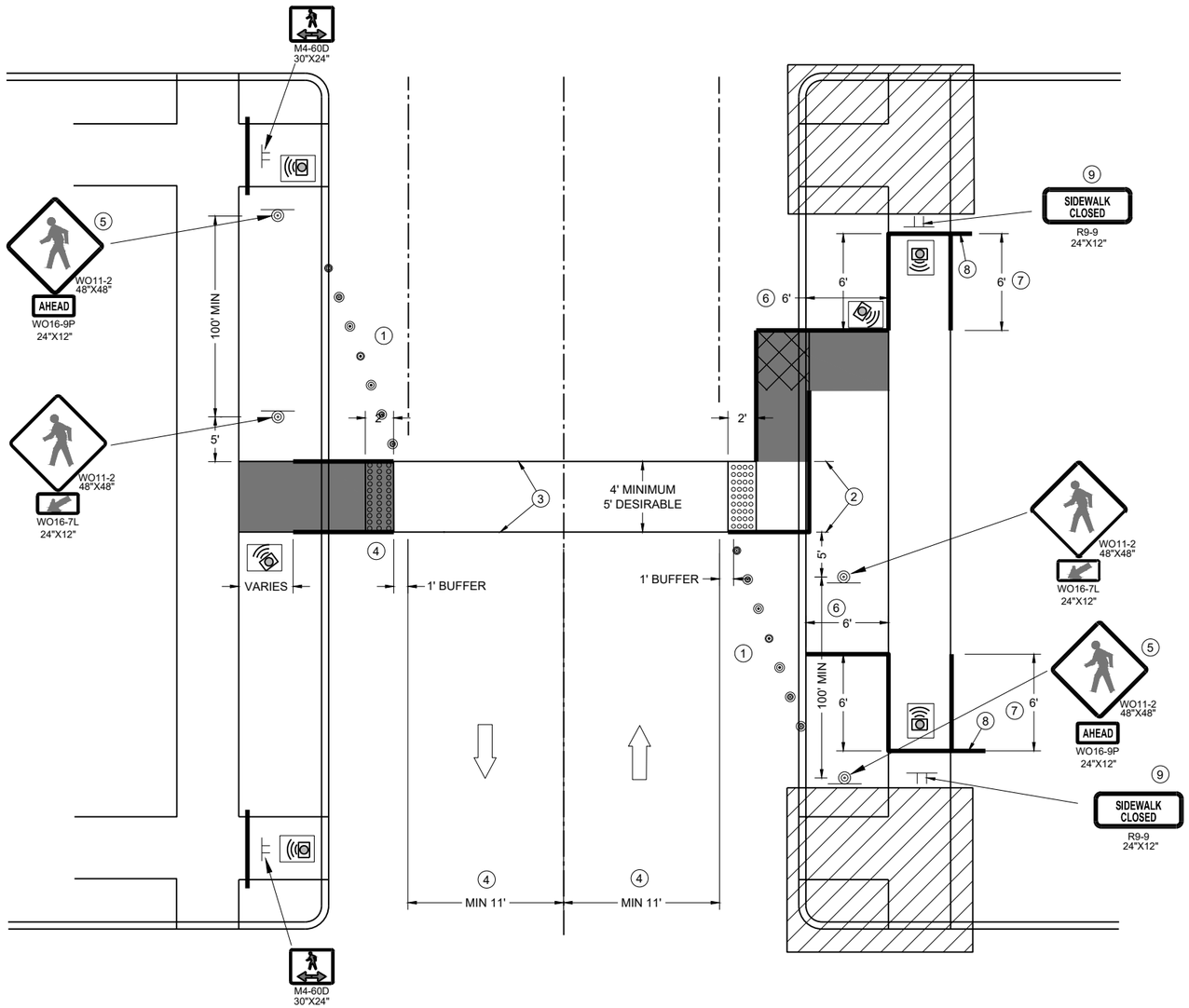
1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
4. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-10k



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

1. SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
2. 4 FEET MINIMUM, 5 FEET DESIRABLE.
3. WHITE 6" TEMPORARY PAVEMENT MARKING.
4. IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.
5. IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
6. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
7. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
8. IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
9. MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.

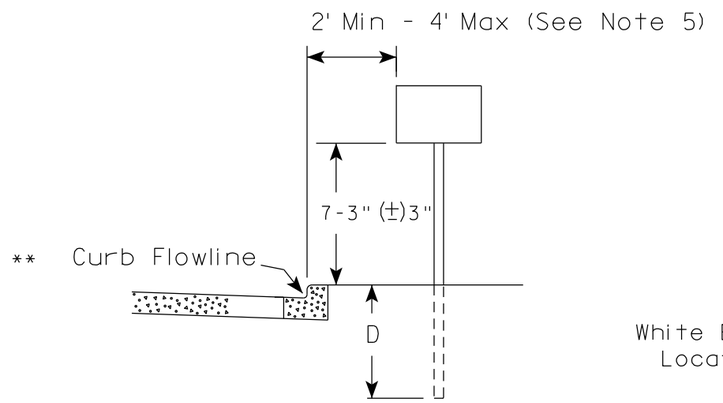
LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON TEMPORARY SUPPORT
- TEMPORARY CURB RAMP
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

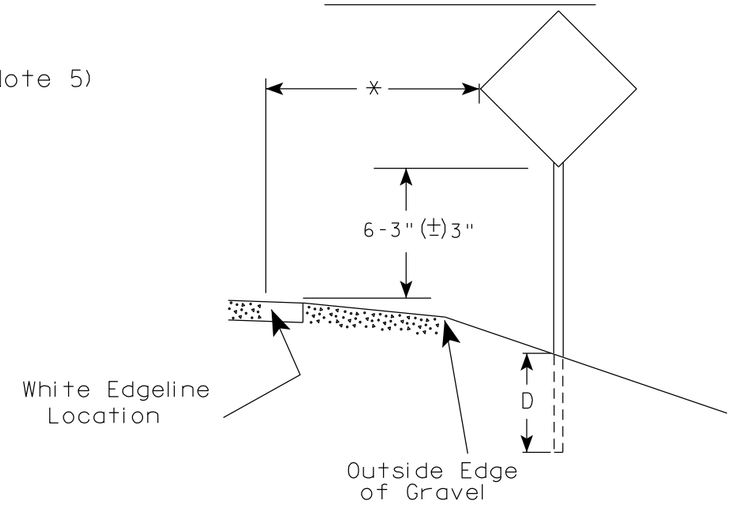
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

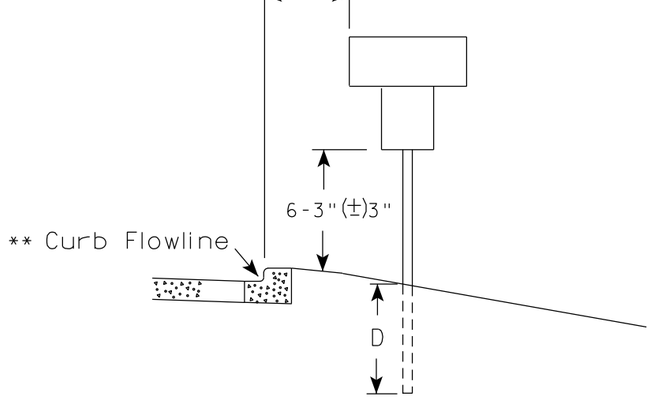
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

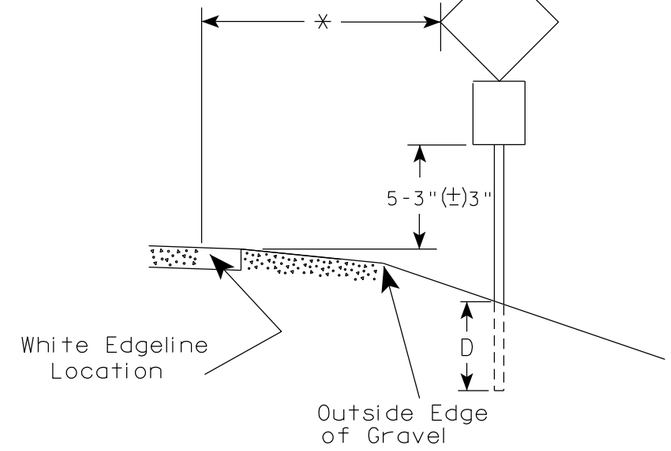
URBAN AREA



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'

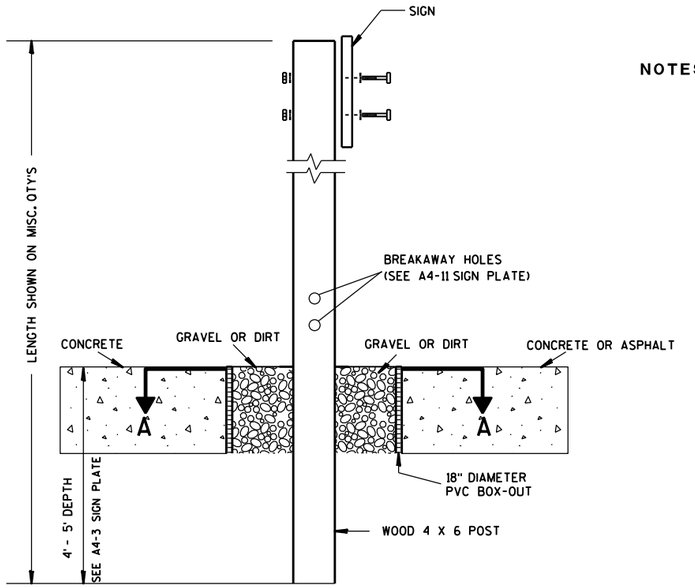
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

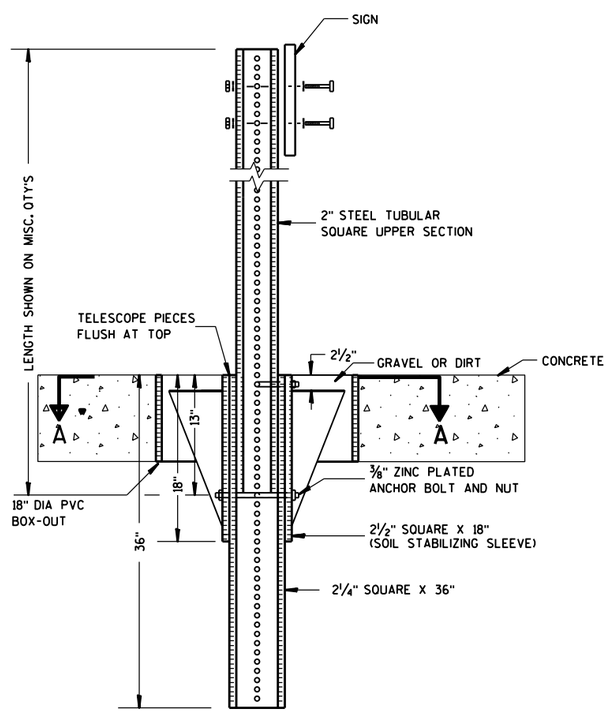
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 291	E



ELEVATION VIEW

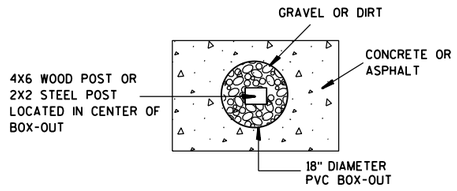
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

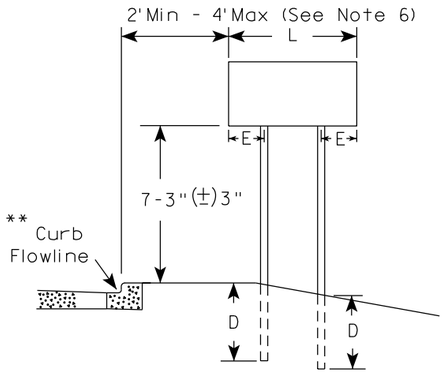
APPROVED Matthew R Rauch
for State Traffic Engineer

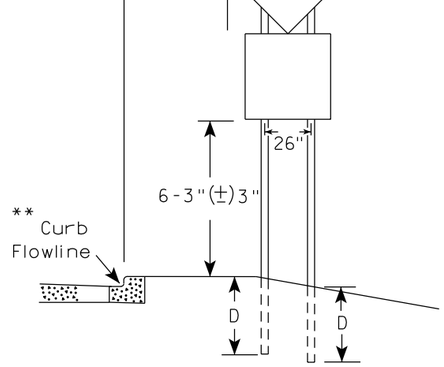
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

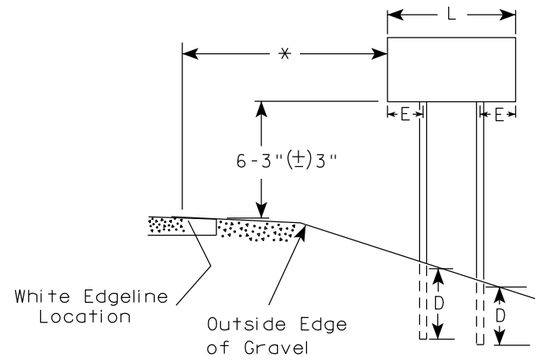
URBAN AREA

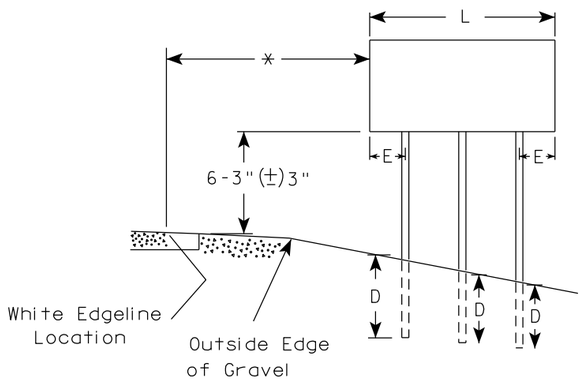


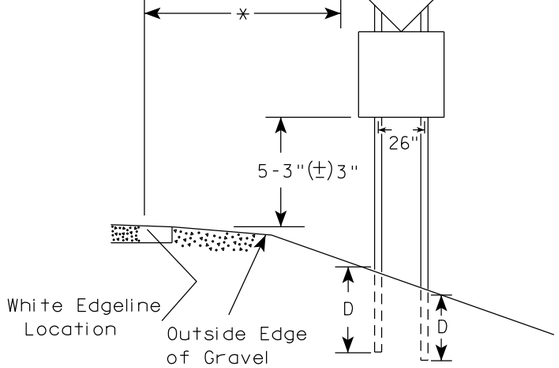


48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN

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

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

GENERAL NOTES

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

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

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

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

POST EMBEDMENT DEPTH

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

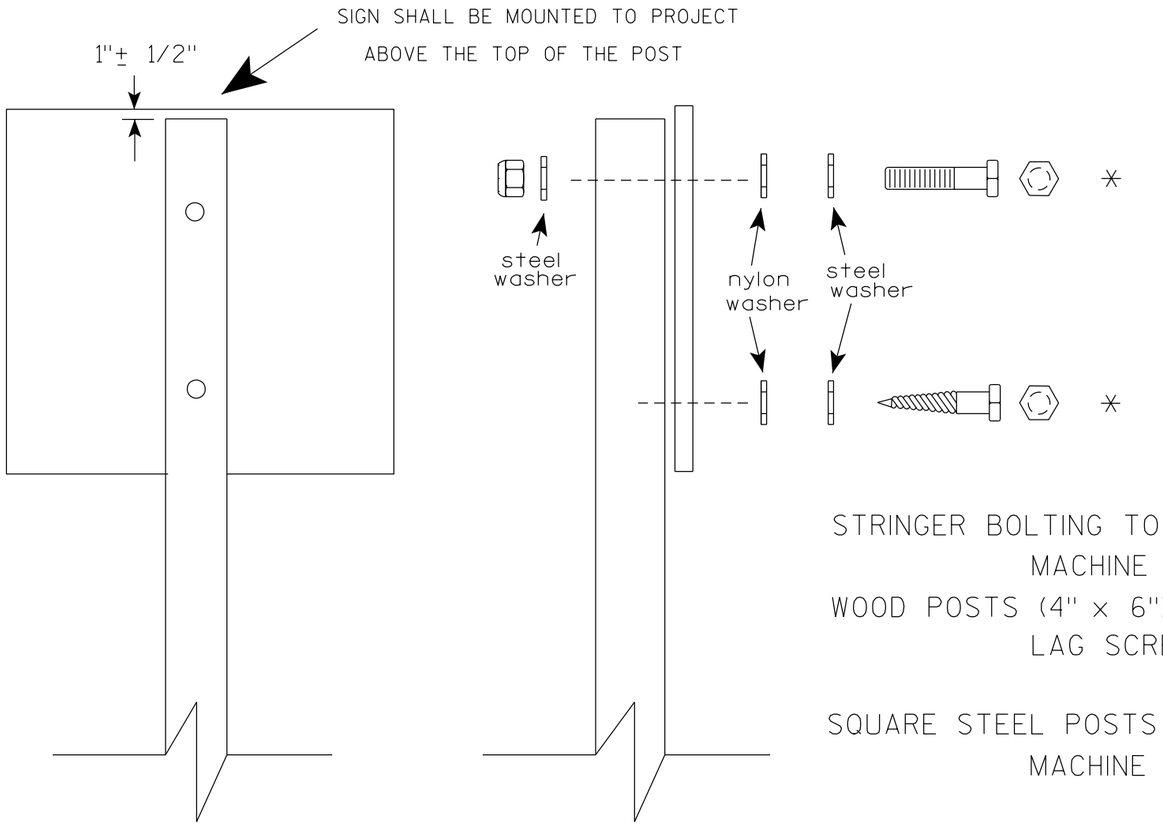
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 293	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

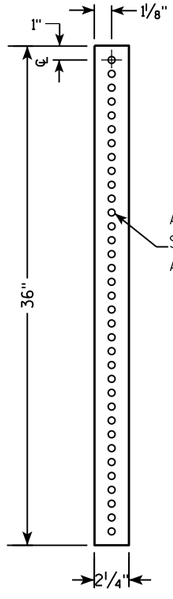
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

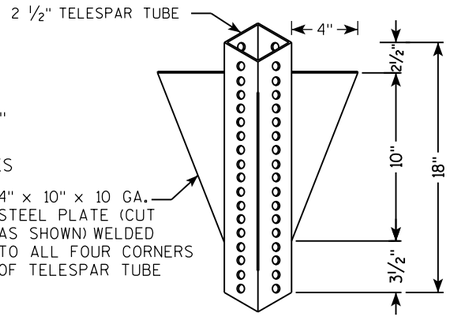
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

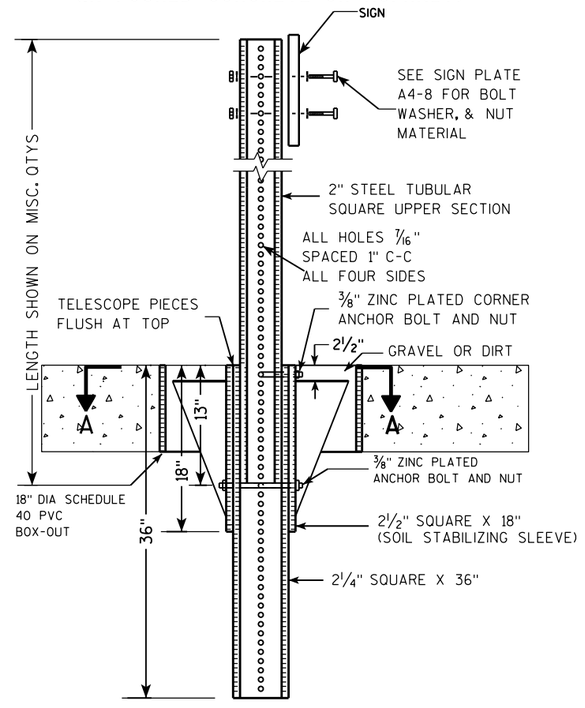
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



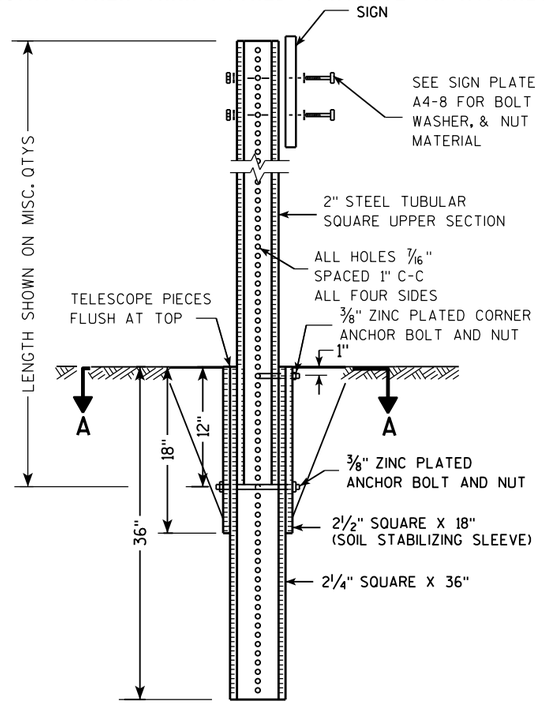
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

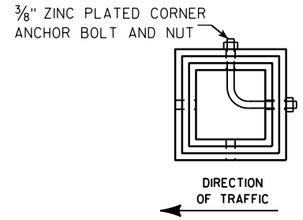


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

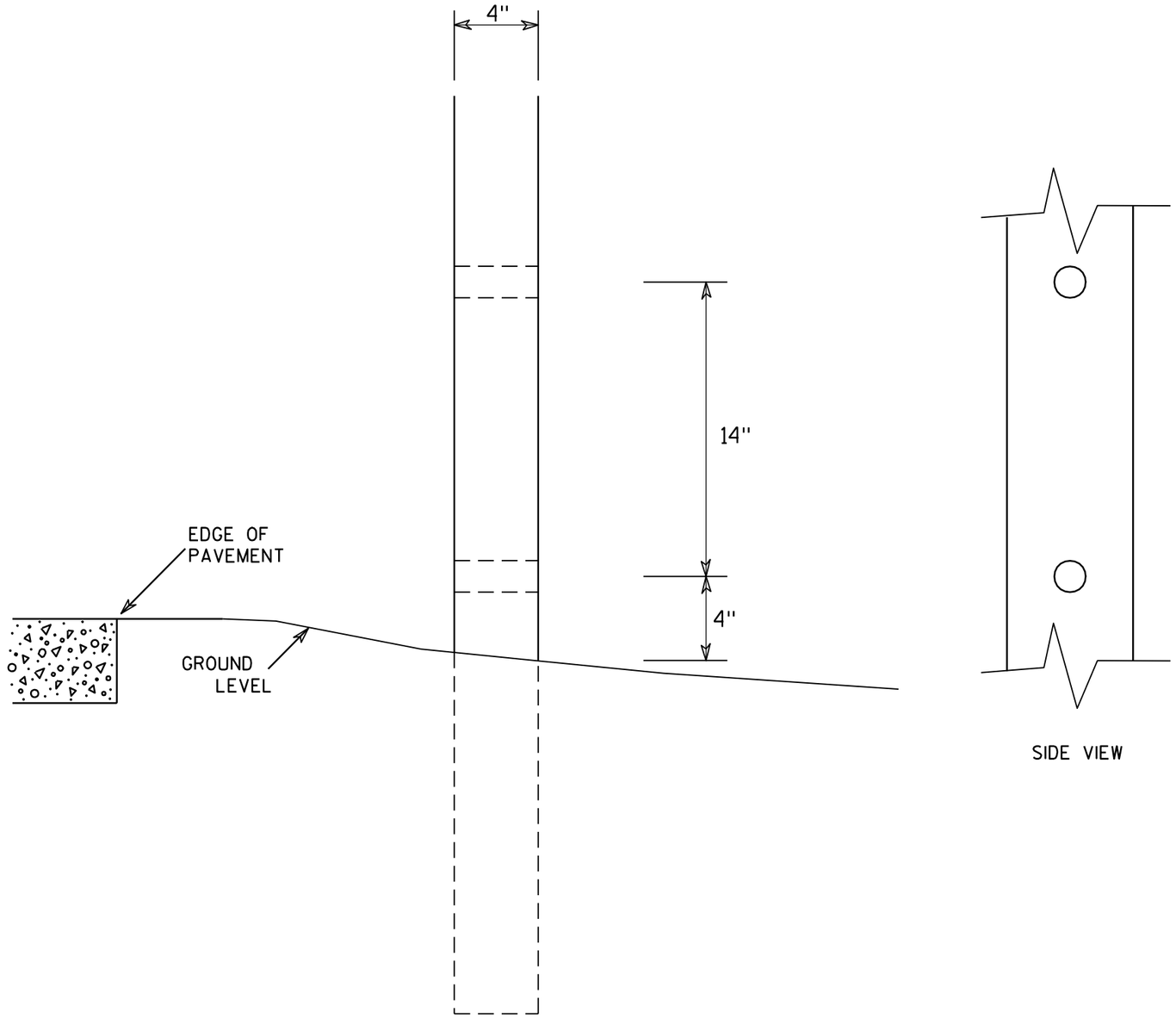
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 295 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

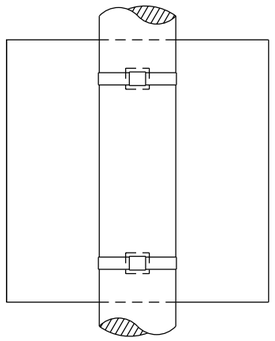
APPROVED Chester J Spang for State Traffic Engineer

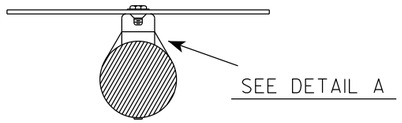
DATE 3/27/97 PLATE NO. A4-11.2

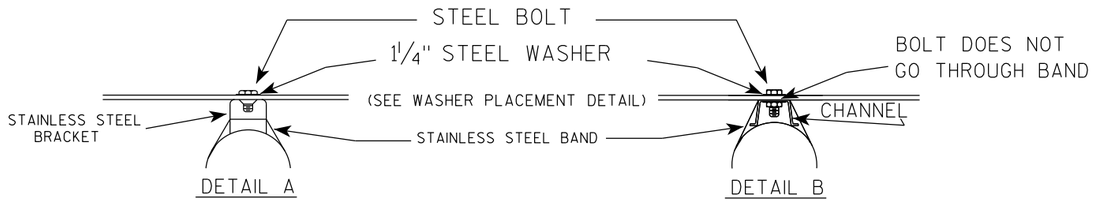
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 296	E

BANDING

SINGLE SIGN



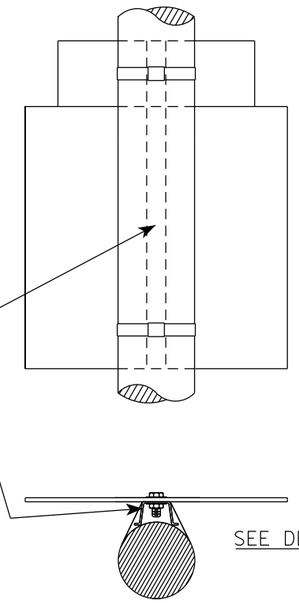




GENERAL NOTES

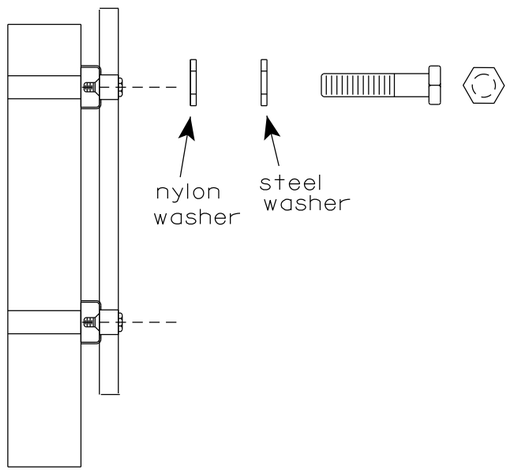
1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel.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

"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL INSTALLATION SHEET

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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

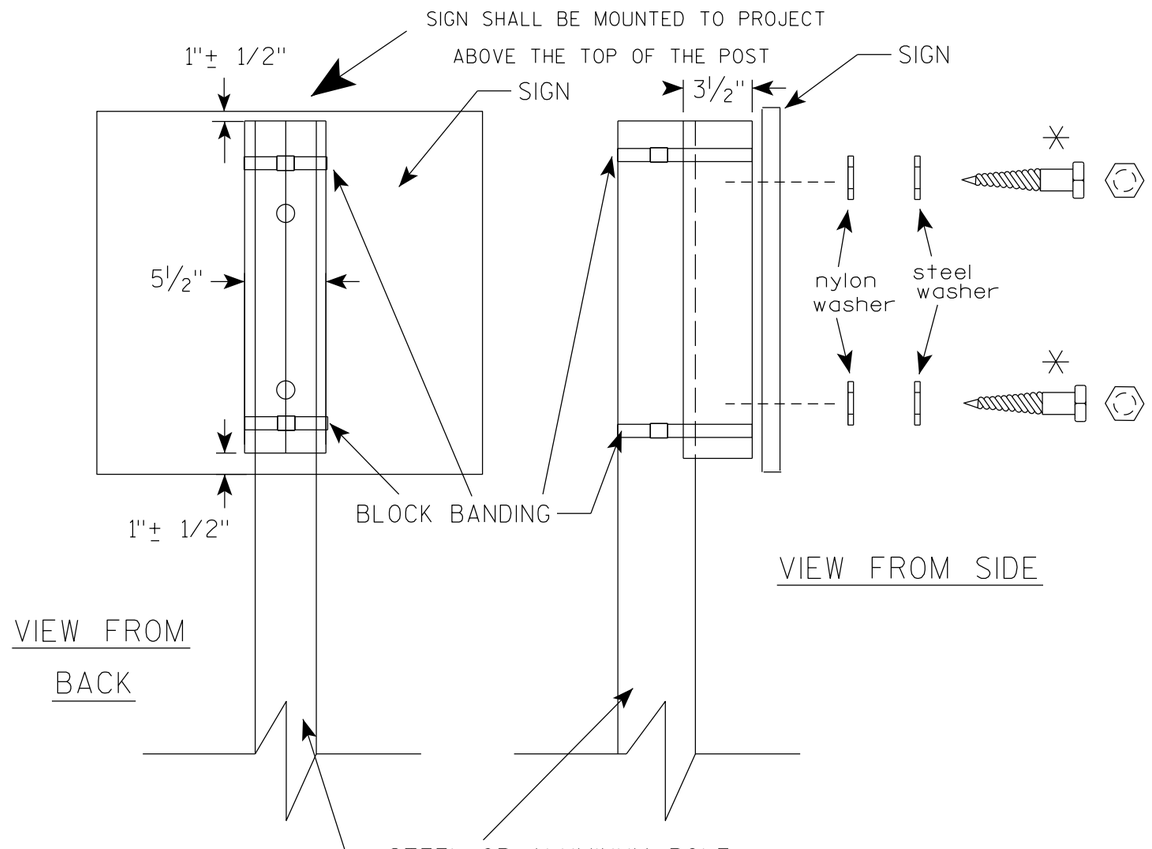
DATE 6/10/19 PLATE NO. A5-9.4

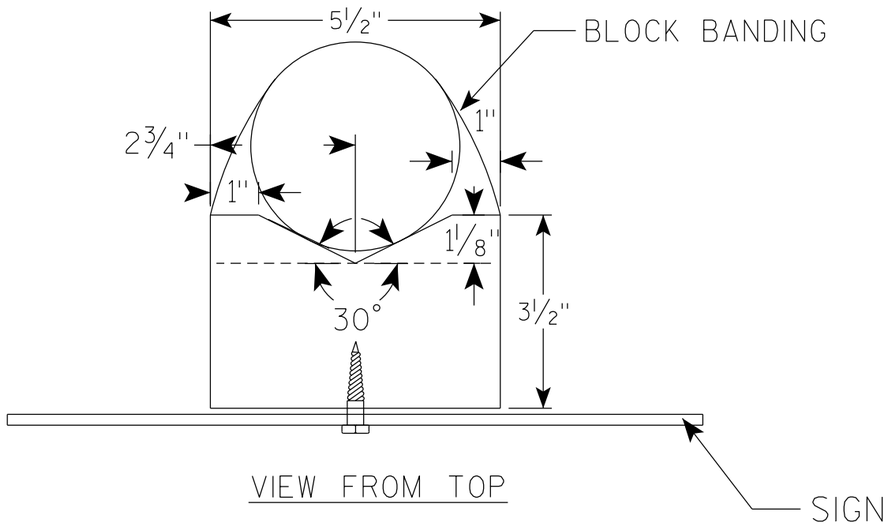
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 297	E

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)

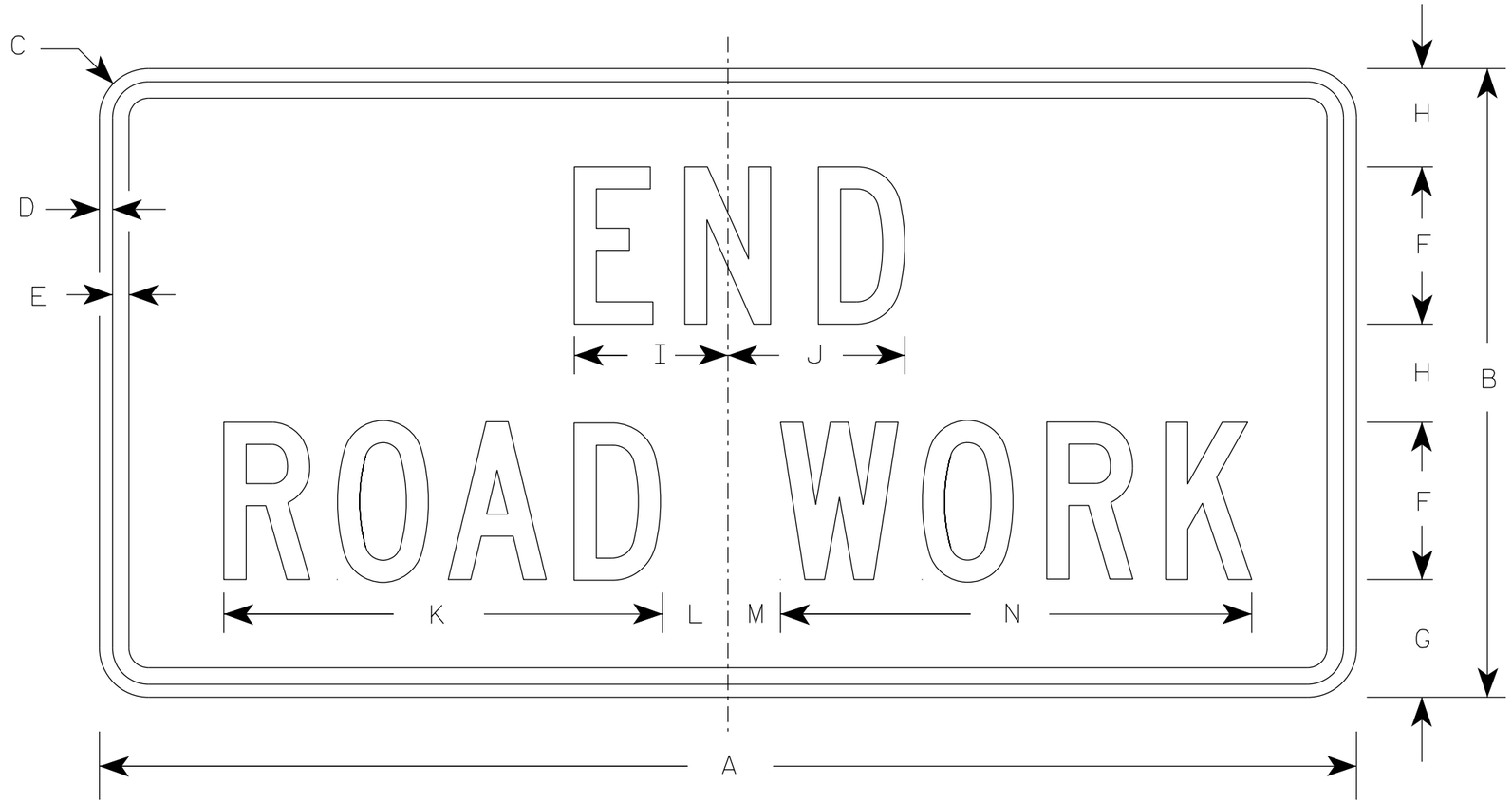
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 298 E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5
2	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
2M	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
3	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
4	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0
5	48	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0

STANDARD SIGN

G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

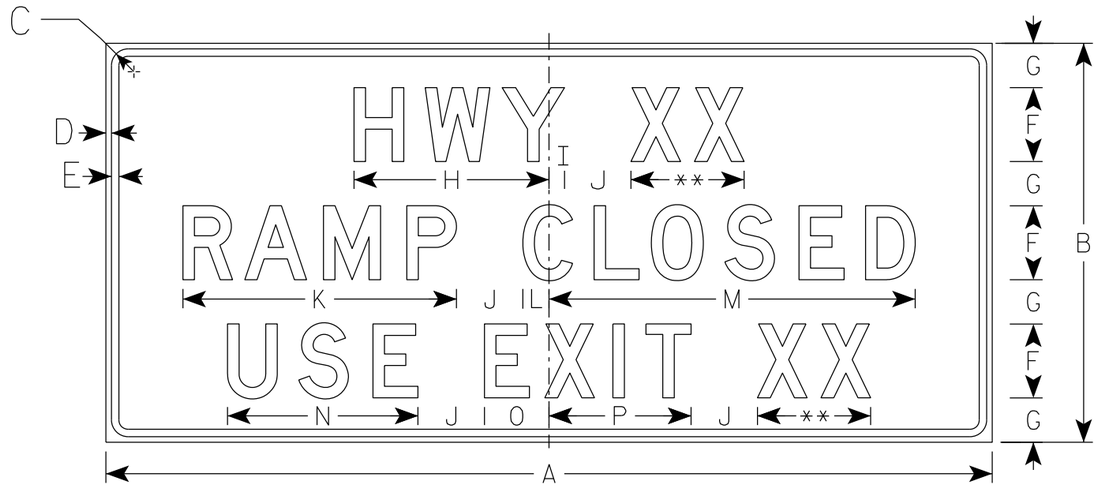
DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 299 E

7

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate Highway Number and Exit Number and optically center message



G20-56

** See Note 4

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3																											
4	120	54	3	¾	1	10	6	26 ⅜	2 ⅛	9	37	3 ½	49 ⅝	25 ¾	8 ¾	19 ¼											45.0
5	120	54	3	¾	1	10	6	26 ⅜	2 ⅛	9	37	3 ½	49 ⅝	25 ¾	8 ¾	19 ¼											45.0

STANDARD SIGN
G20-56

WISCONSIN DEPT OF TRANSPORTATION

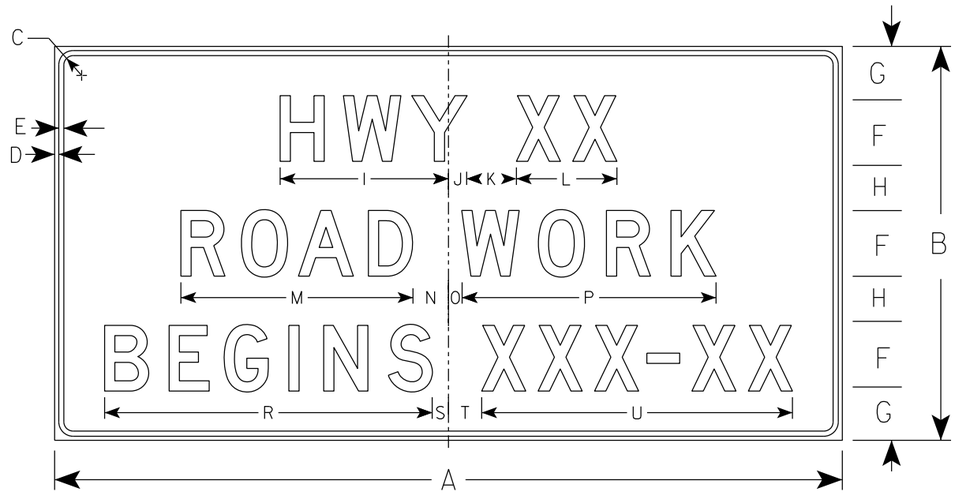
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/19/18 PLATE NO. G20-56.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 300 | E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Substitute appropriate numeral and adjust spacing to achieve proper balance.



G20-57

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2																											
3	72	36	1 1/8	1/2	5/8	6	5	4	15 5/8	1 5/8	5	9 1/4	21 1/4	3 1/2	1 1/2	23 1/4		29 7/8	1 3/4	3 1/4	28 1/2						18.0
4	96	48	2 1/4	3/4	1	8	6 1/2	5 1/2	20 5/8	2 1/4	6	12 1/4	28 1/4	4 3/8	1 5/8	31		39 1/4	2	4	37 7/8						32.0
5																											

STANDARD SIGN
G20-57

WISCONSIN DEPT OF TRANSPORTATION

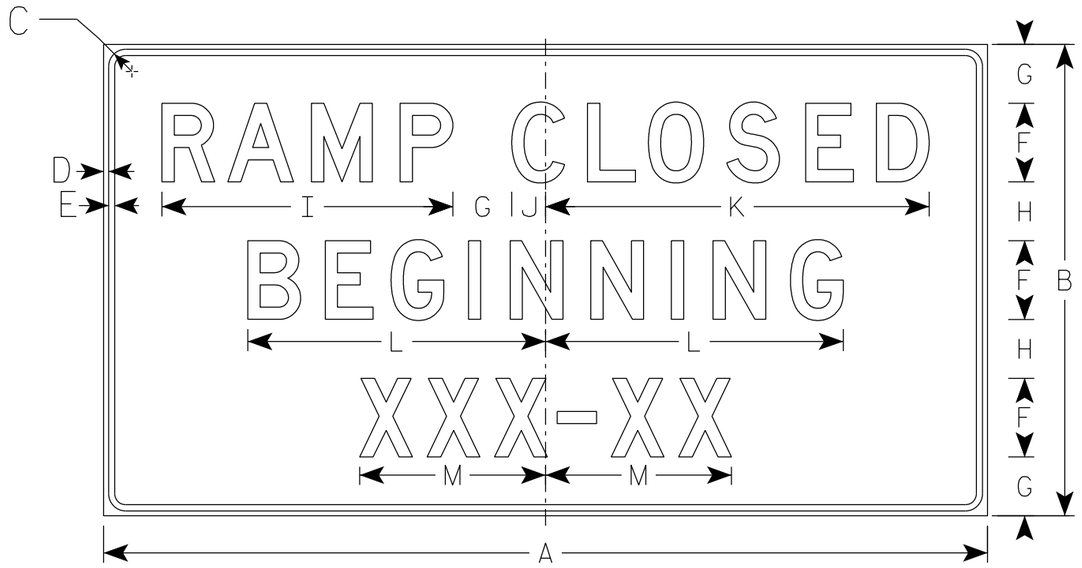
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/22/19 PLATE NO. G20-57.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 301 | E

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D



G20-58

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	72	36	1 5/8	5/8	3/4	6	5	4	22 1/4	2 3/8	29 1/2	22 3/4	14 1/4														18.0
3	90	48	1 5/8	5/8	3/4	8	6	6	29 5/8	3 3/8	39	30 3/8	19														30.0
4																											
5																											

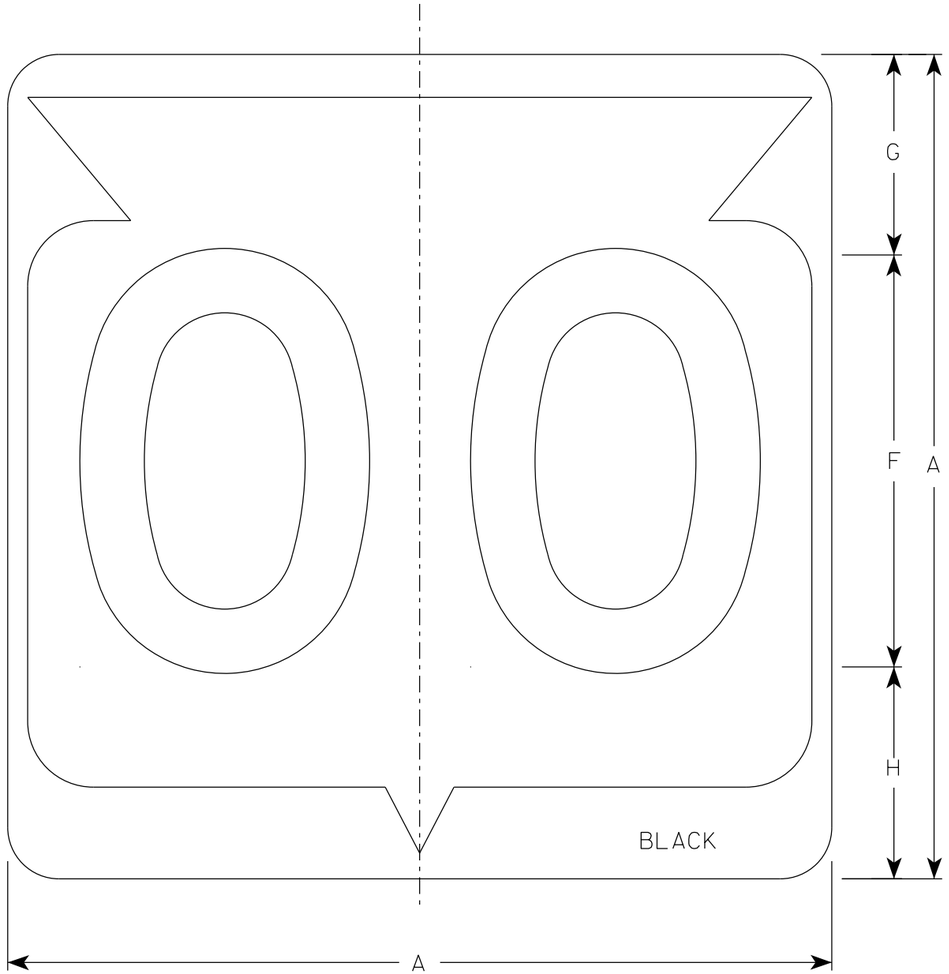
STANDARD SIGN
G20-58

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/19/2020 PLATE NO. G20-58.2

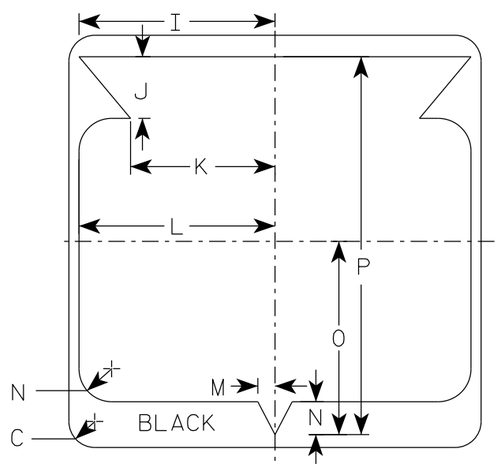
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 302 | E



M1-6

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

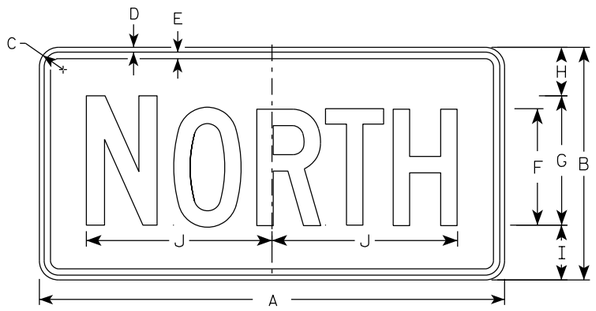
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

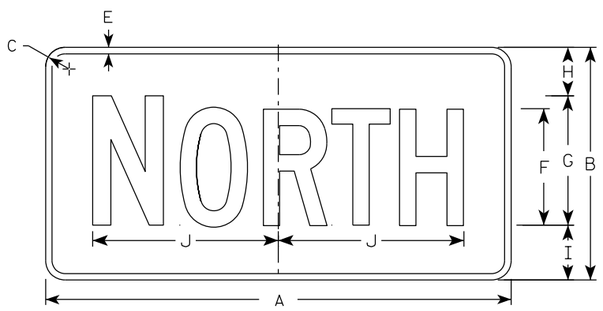
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/2022 PLATE NO. M1-6.11

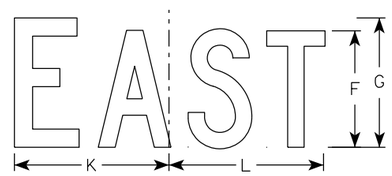
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 303	E



M3-1
MM3-1
MP3-1



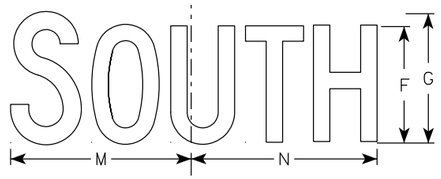
MB3-1
MK3-1
MN3-1



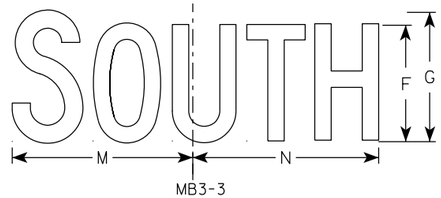
M3-2
MM3-2
MP3-2



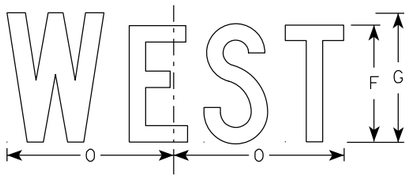
MB3-2
MK3-2
MN3-2



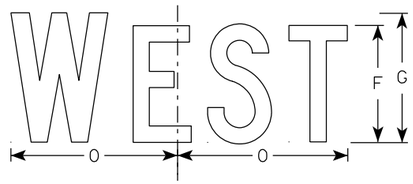
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

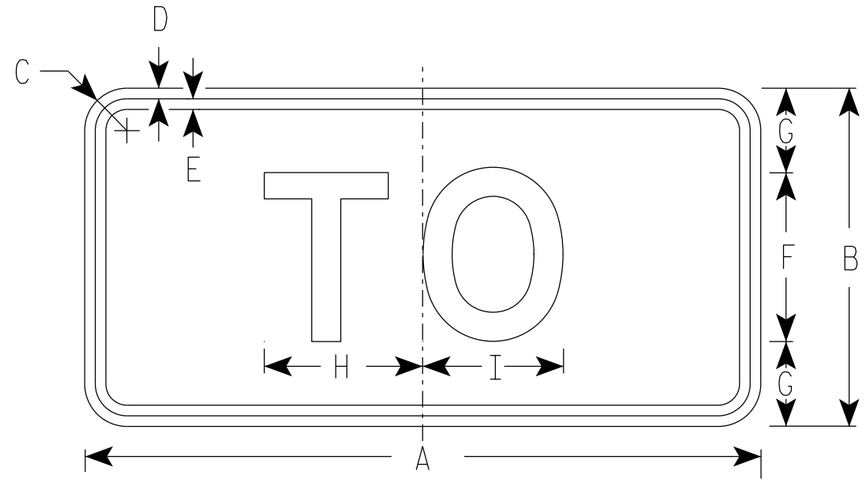
STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

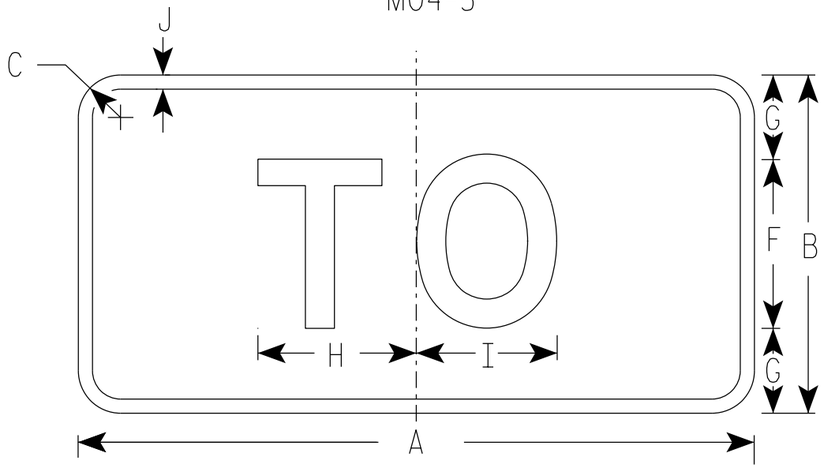
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 304 | E



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

   MP4-5 Background - White
   Message - Blue

   M04-5 Background - Orange Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 ½	⅜	⅜	6	3	5 ⅜	5 ¼	½																	2.00
2M	24	12	1 ½	⅜	⅜	6	3	5 ⅜	5 ¼	½																	2.00
3	36	18	1 ½	⅜	½	9	4 ½	8 ¼	8 ⅜	½																	4.5
4	36	18	1 ½	⅜	½	9	4 ½	8 ¼	8 ⅜	½																	4.5
5	36	18	1 ½	⅜	½	9	4 ½	8 ¼	8 ⅜	½																	4.5

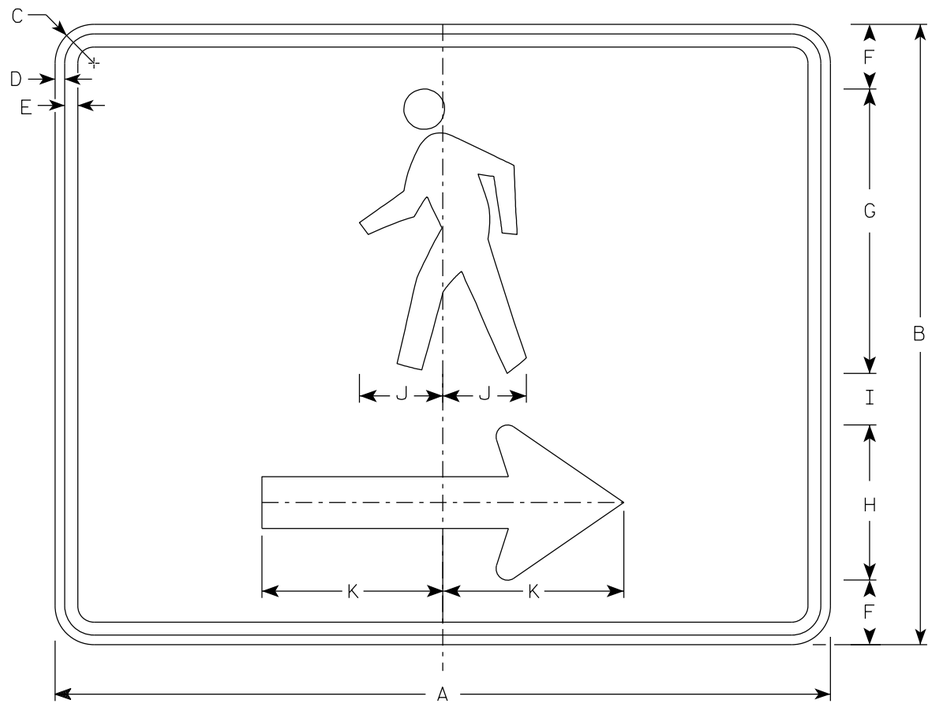
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/8/2023 PLATE NO. M4-5.11

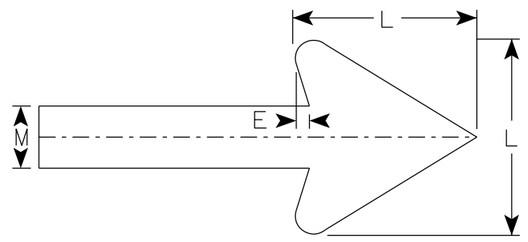
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 305 E



M4-60R

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 ½	⅜	½	2 ½	11	6	2	3 ¼	7	6	2														5.00
2M	30	24	1 ½	⅜	½	2 ½	11	6	2	3 ¼	7	6	2														5.00
3																											
4																											
5																											

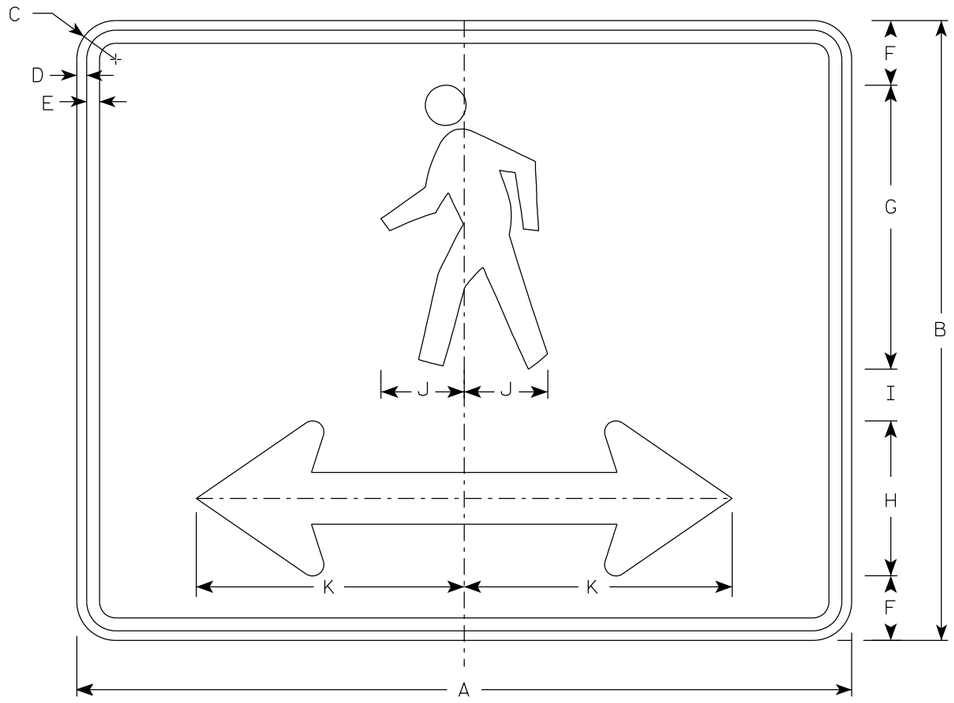
STANDARD SIGN
M4-60 L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/14/2023 PLATE NO. M4-60.2

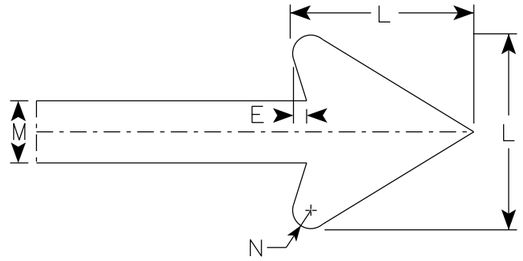
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 306 | E



M4-60D

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	10 3/8	6	2	3/8													5.00
2M	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	10 3/8	6	2	3/8													5.00
3																											
4																											
5																											

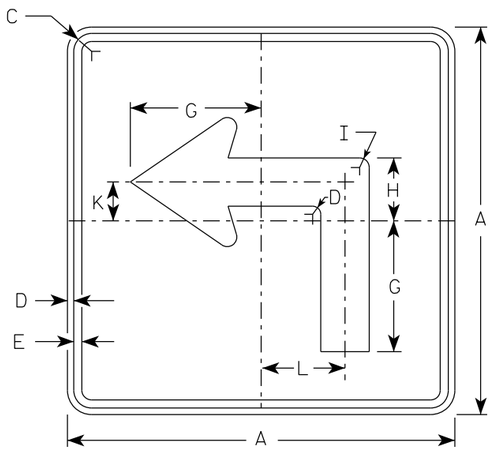
STANDARD SIGN
M4-60D

WISCONSIN DEPT OF TRANSPORTATION

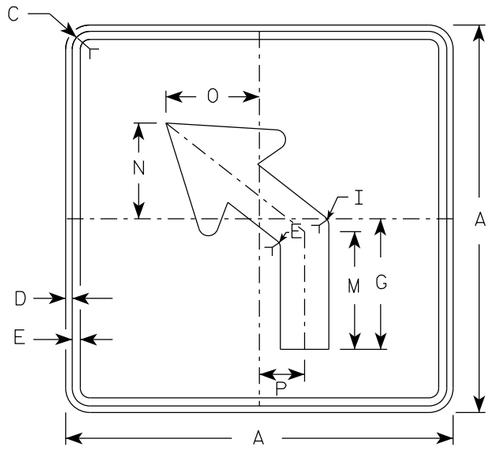
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/14/2023 PLATE NO. M4-60D.2

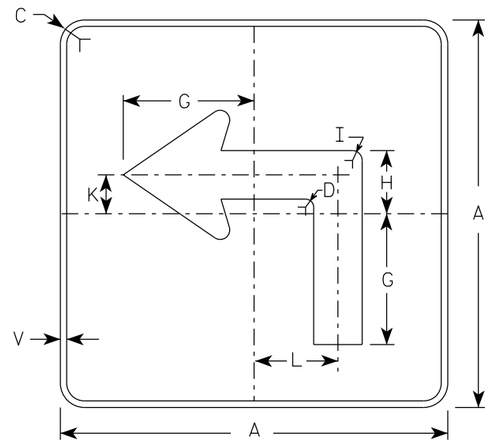
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 307 | E



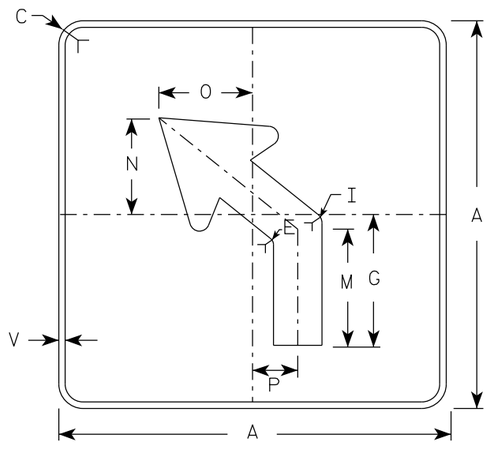
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L

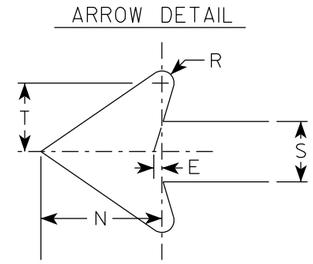


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

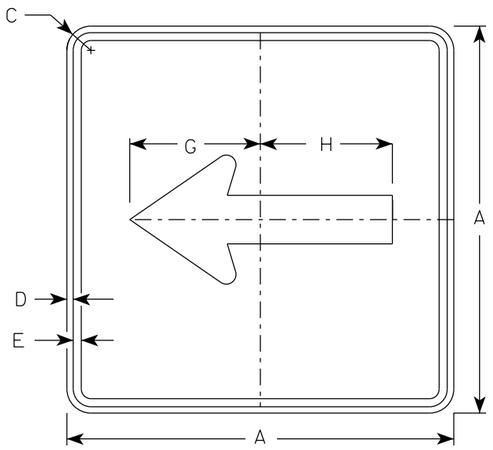
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

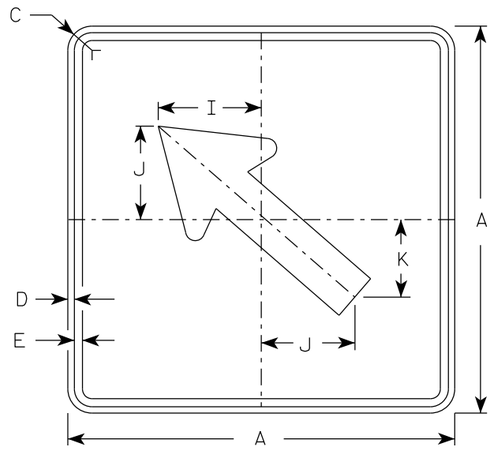
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/2023 PLATE NO. M5-1.15

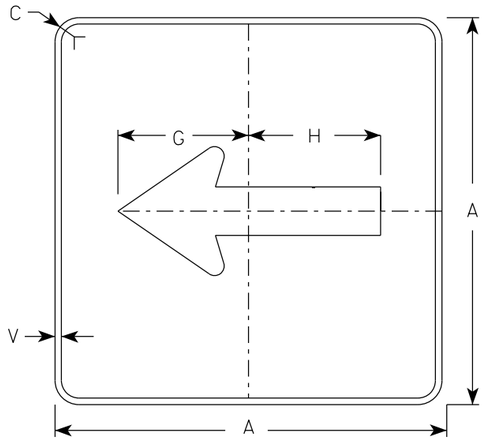
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 308 | E



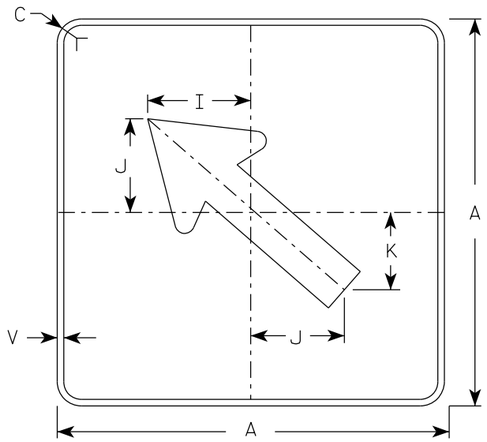
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



MB6-1
MK6-1
MN6-1
MR6-1

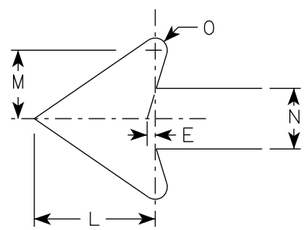


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

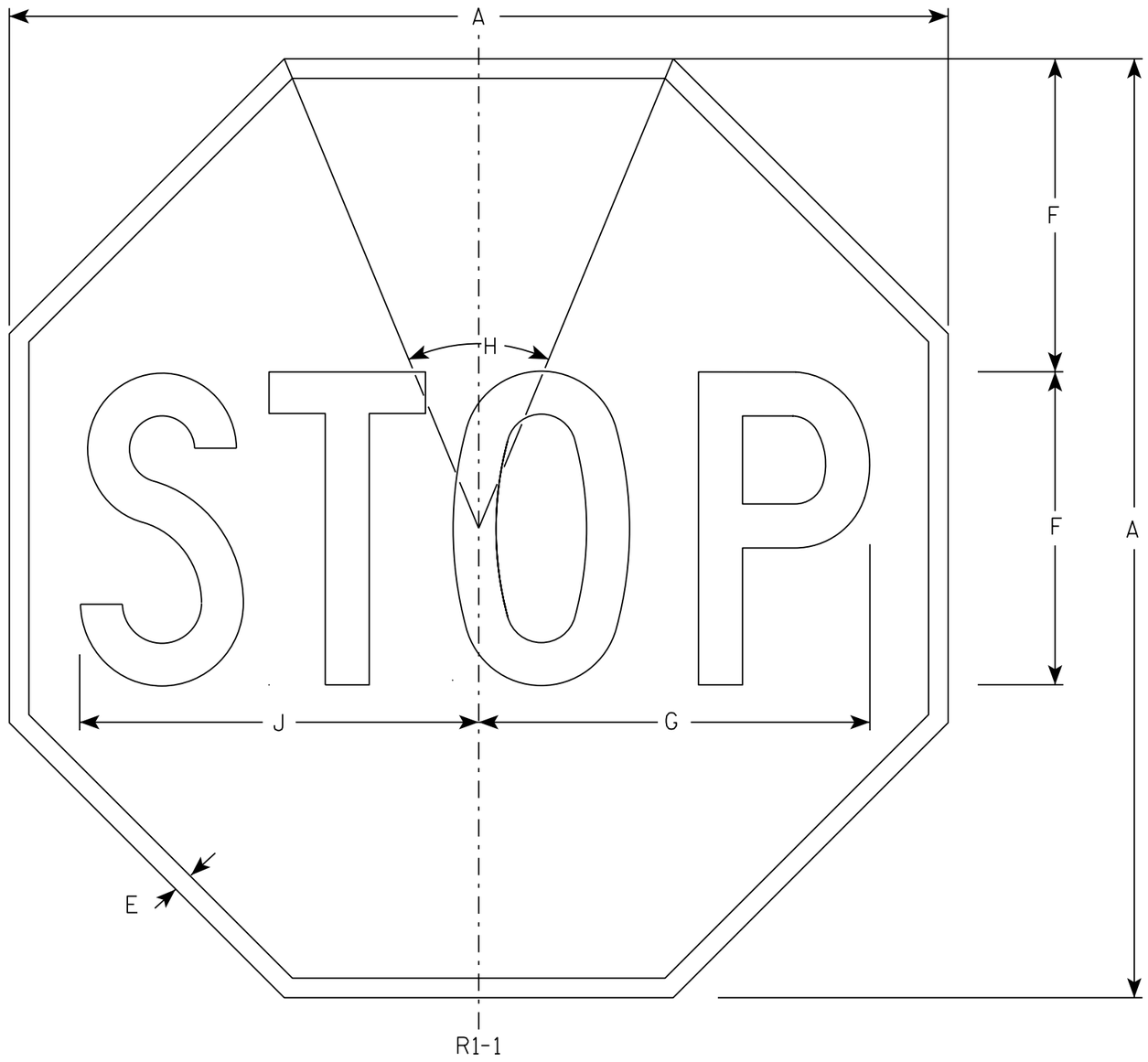
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 309 | E

7

7



NOTES

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

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

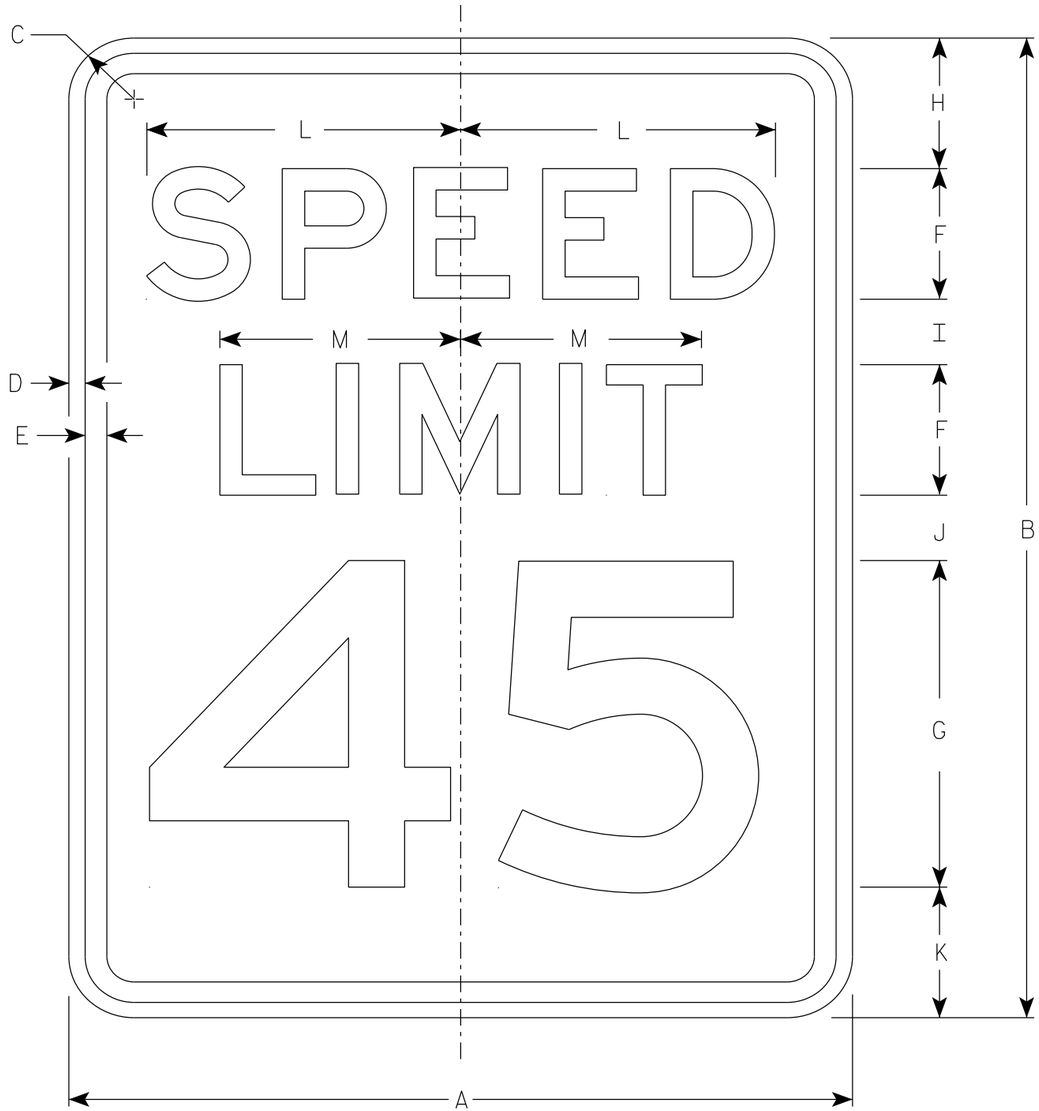
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 310	E



R2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

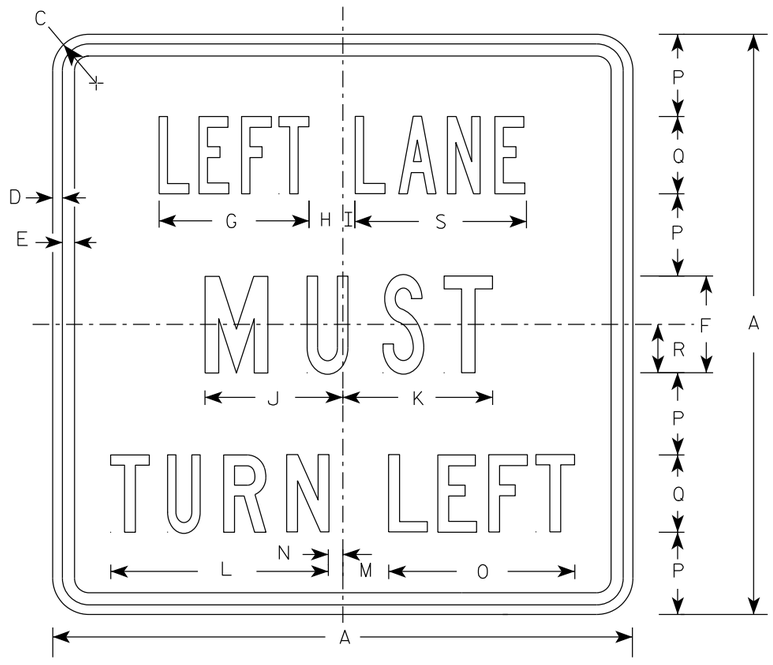
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

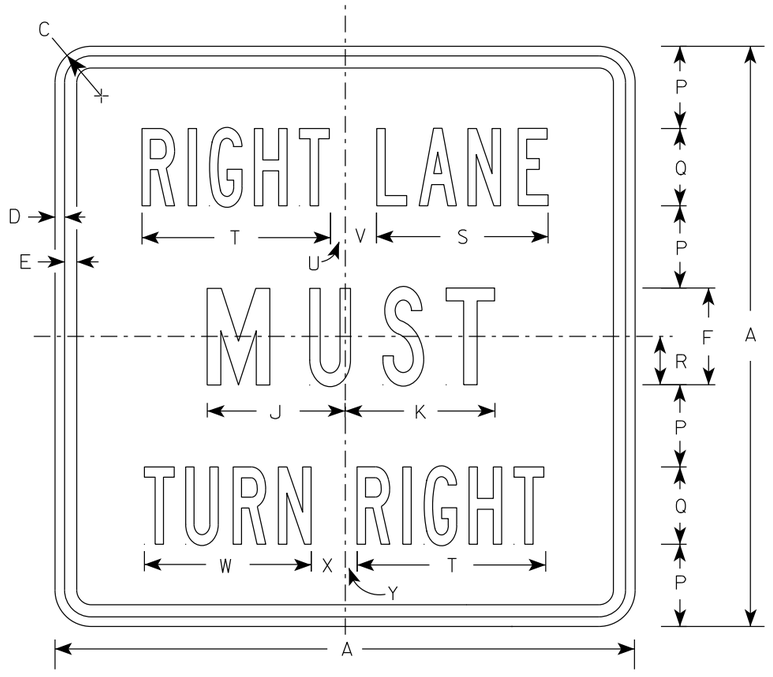
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 311 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.



R3-7L



R3-7R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		2 1/4	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

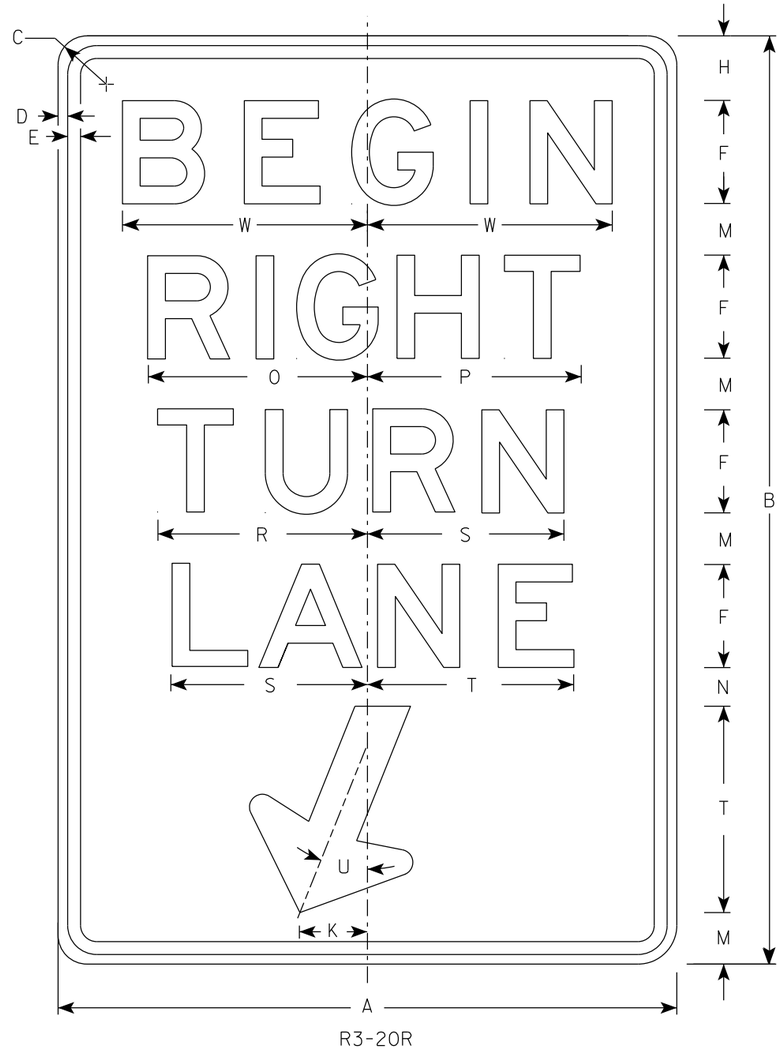
STANDARD SIGN
R3-7L & R3-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/23 PLATE NO. R3-7.4

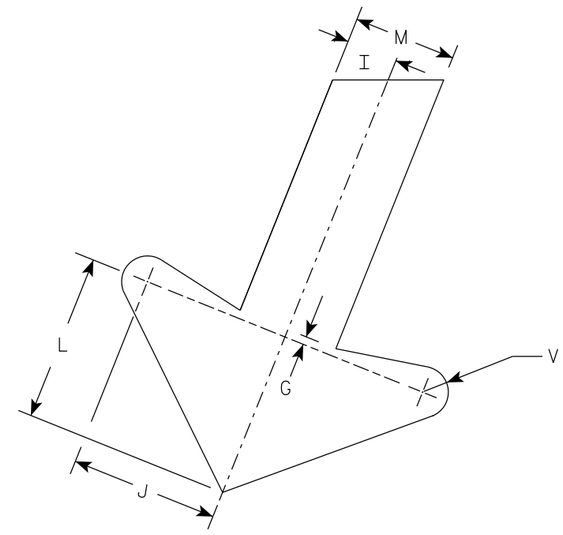
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 312 | E



R3-20R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 7/8	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

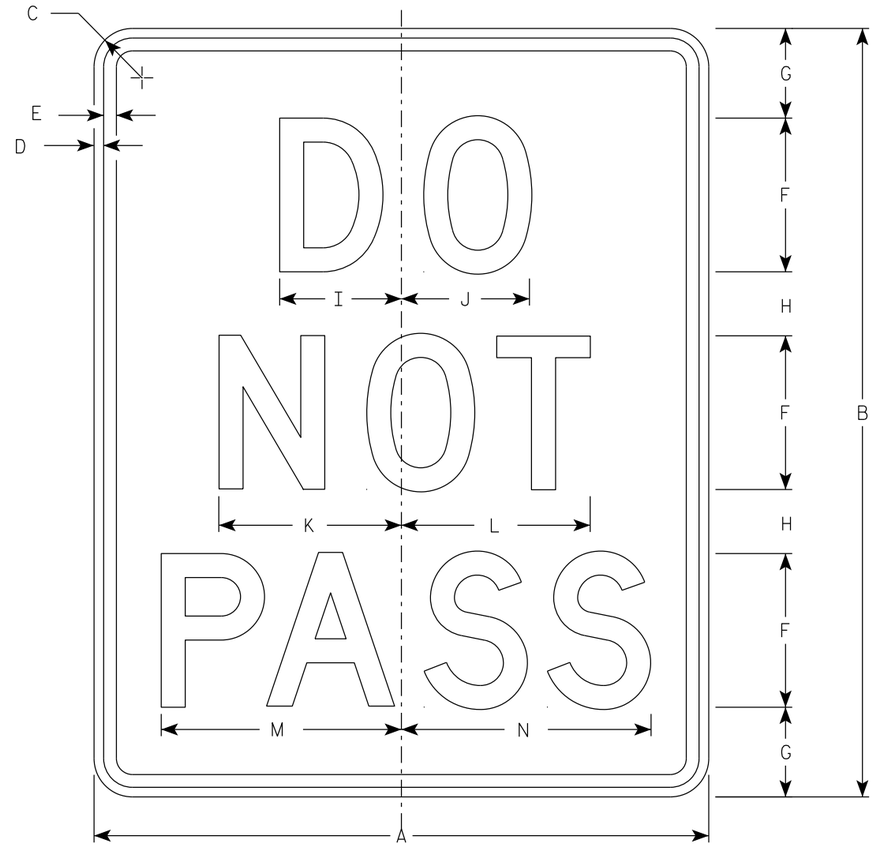
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-20R.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 313 | E



R4-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D

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	4	3 1/2	2 1/2	3 1/8	3 1/4	4 3/4	4 7/8	6 1/4	6 1/2													3.0
2S	24	30	1 1/2	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
2M	24	30	1 1/2	3/8	1/2	6	3 1/2	2 1/2	4 3/4	5	7 1/8	7 3/8	9 3/8	9 3/4													5.0
3	36	48	1 7/8	5/8	3/4	8	7	5	6 1/4	6 5/8	9 1/2	9 3/4	12 1/2	13													12.0
4	36	48	1 7/8	5/8	3/4	8	7	5	6 1/4	6 5/8	9 1/2	9 3/4	12 1/2	13													12.0
5	48	60	3	3/4	1	10	8	7	7 3/4	8 3/8	11 7/8	12 1/4	15 5/8	16 1/4													20.0

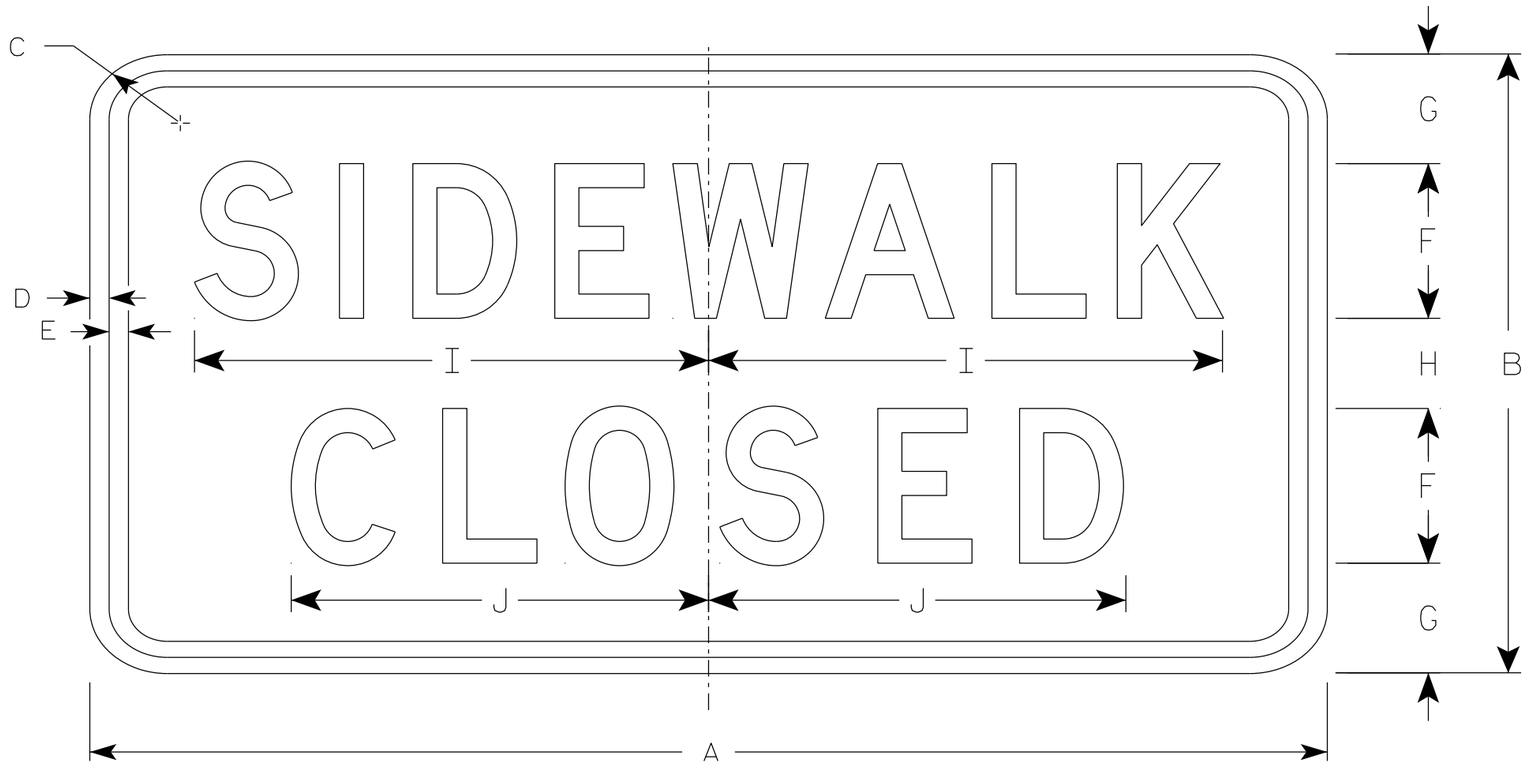
STANDARD SIGN
R4-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/23 PLATE NO. R4-1.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 314 | E



R9-9

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ½	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

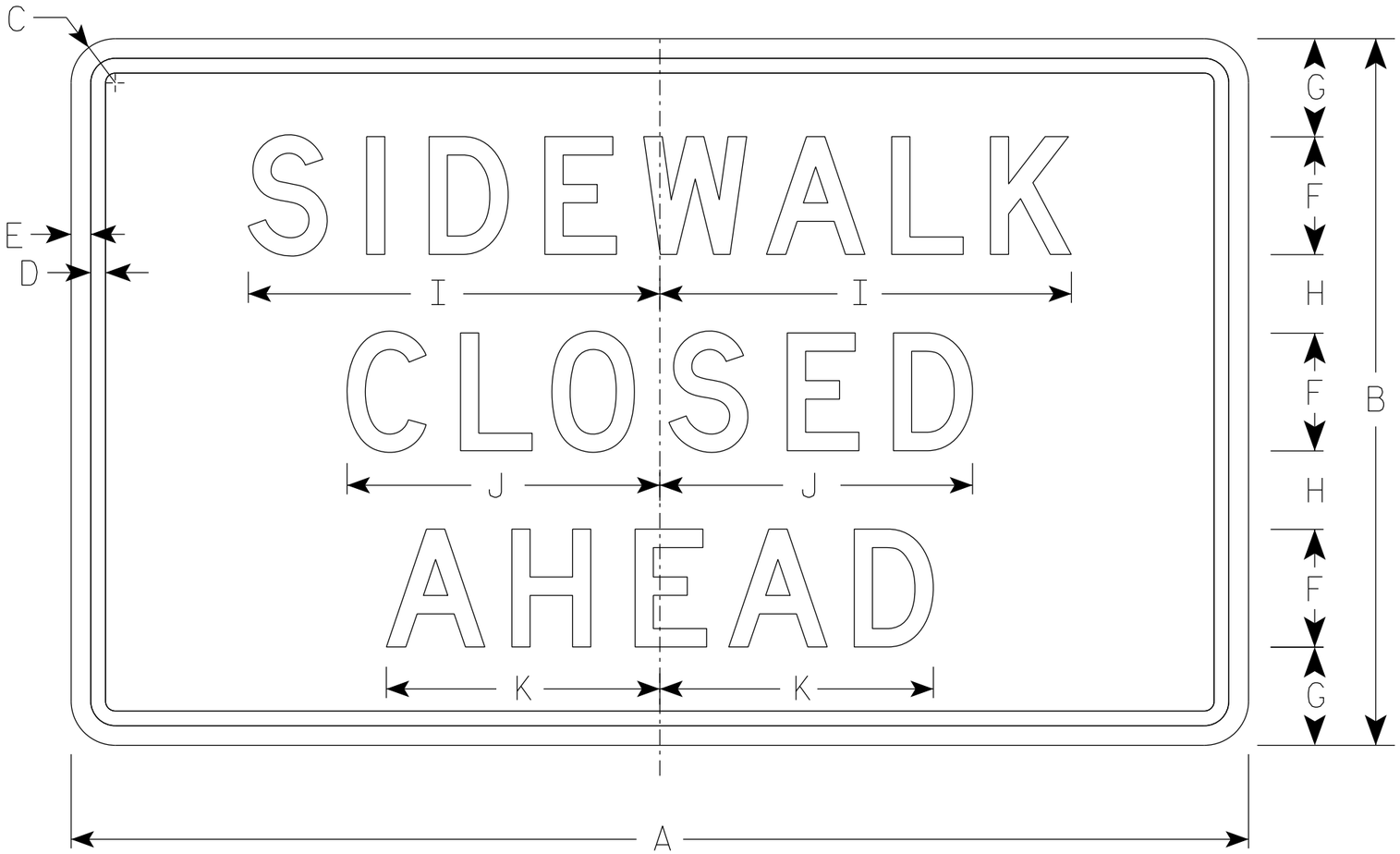
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 315 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



R9-9A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
2M	30	18	1 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
3																											
4																											
5																											

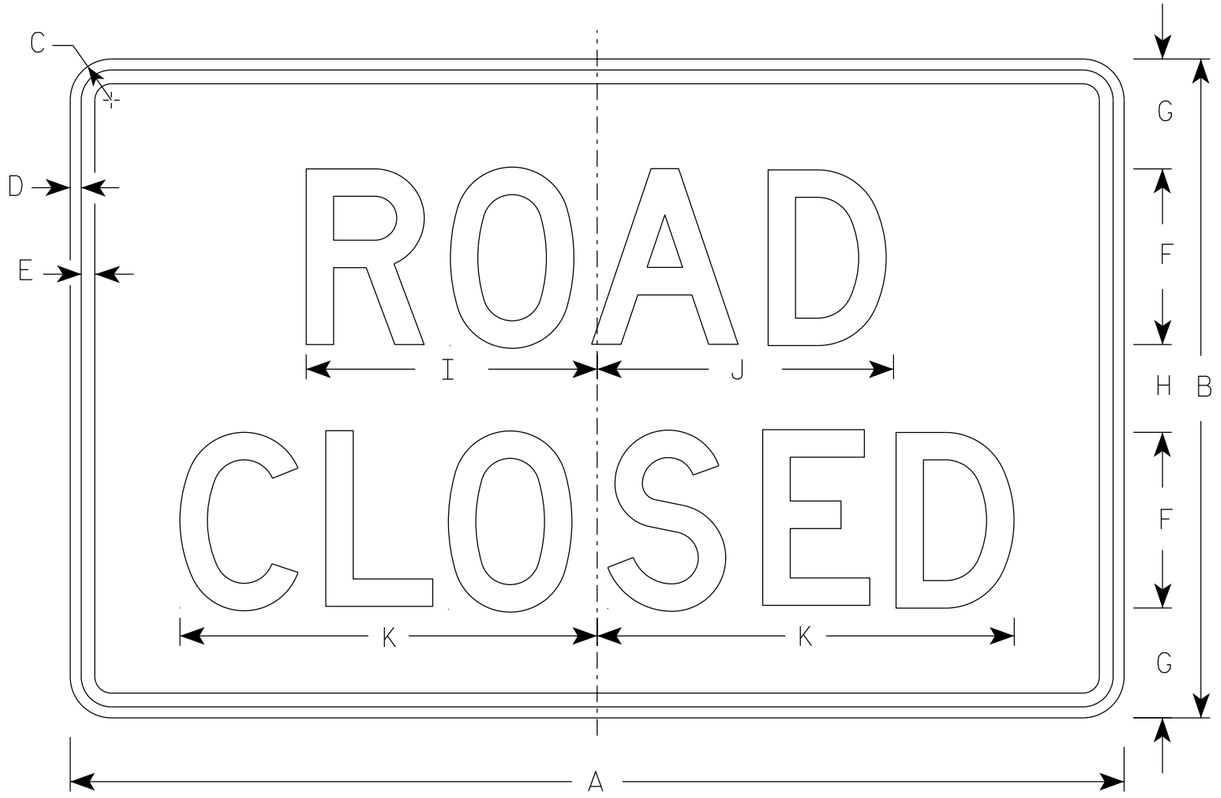
STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9A.2

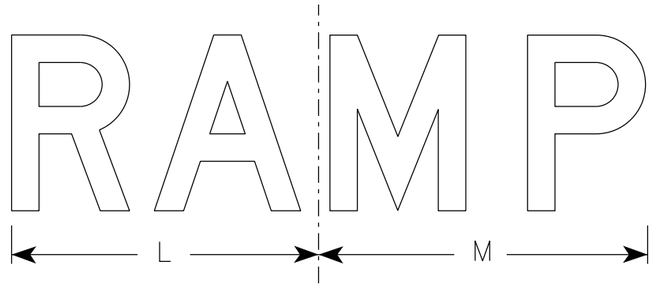
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 316 | E



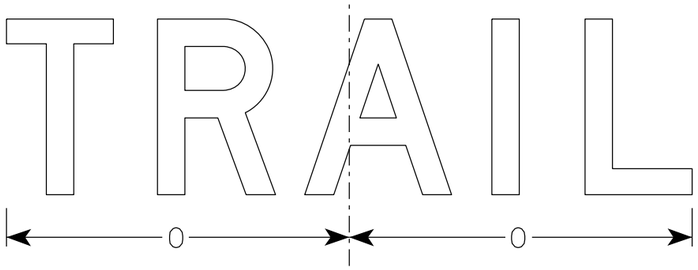
R11-2

NOTES

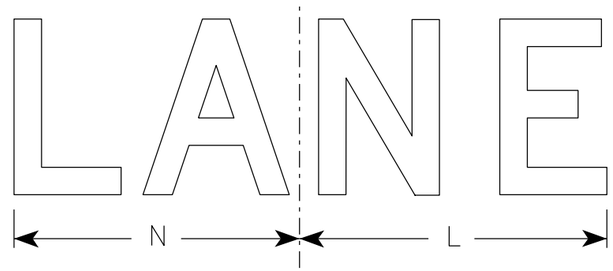
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

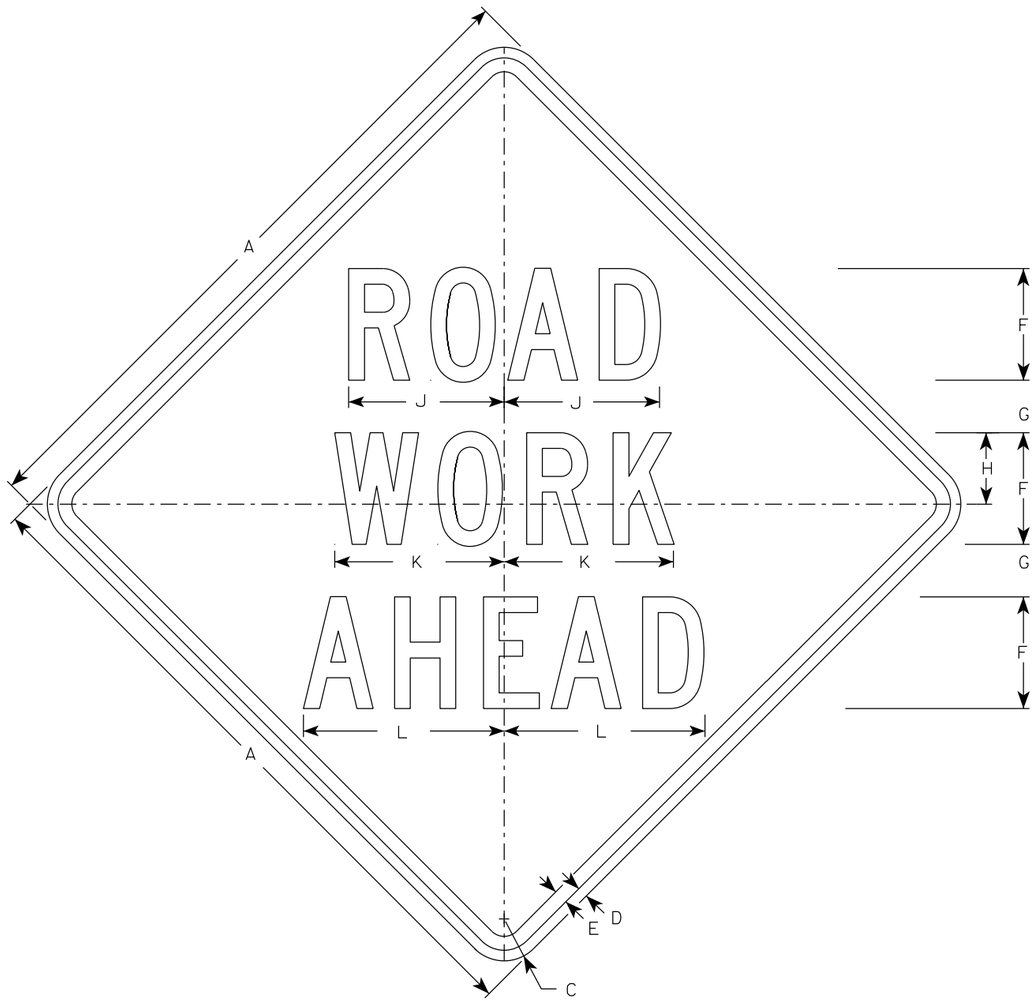
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

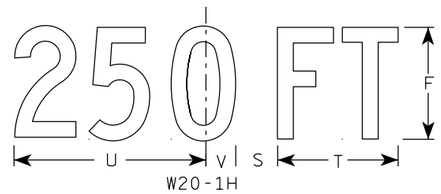
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.dgn PLOT DATE : 5-FEB 2024 2:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

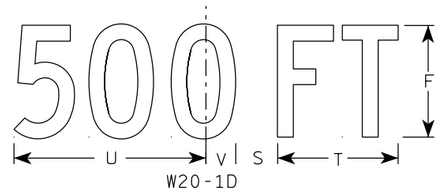
7



W20-1A



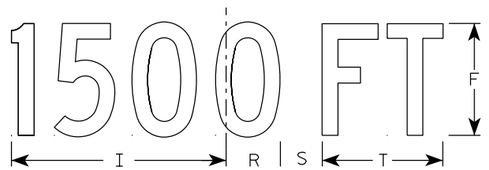
W20-1H



W20-1D



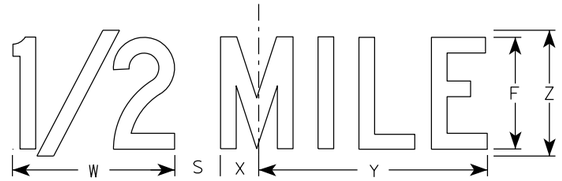
W20-1C



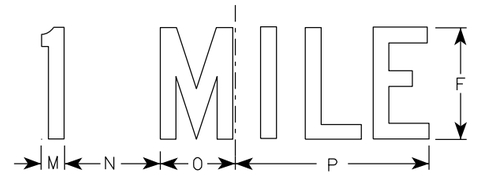
W20-1B

NOTES

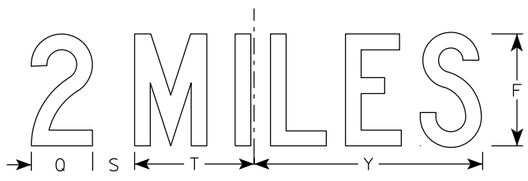
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

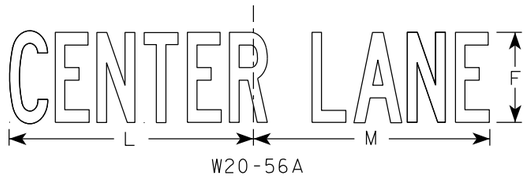
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

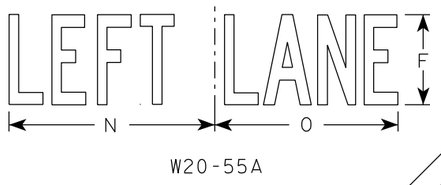
DATE 1/10/2024 PLATE NO. W20-1.12

PROJECT NO:

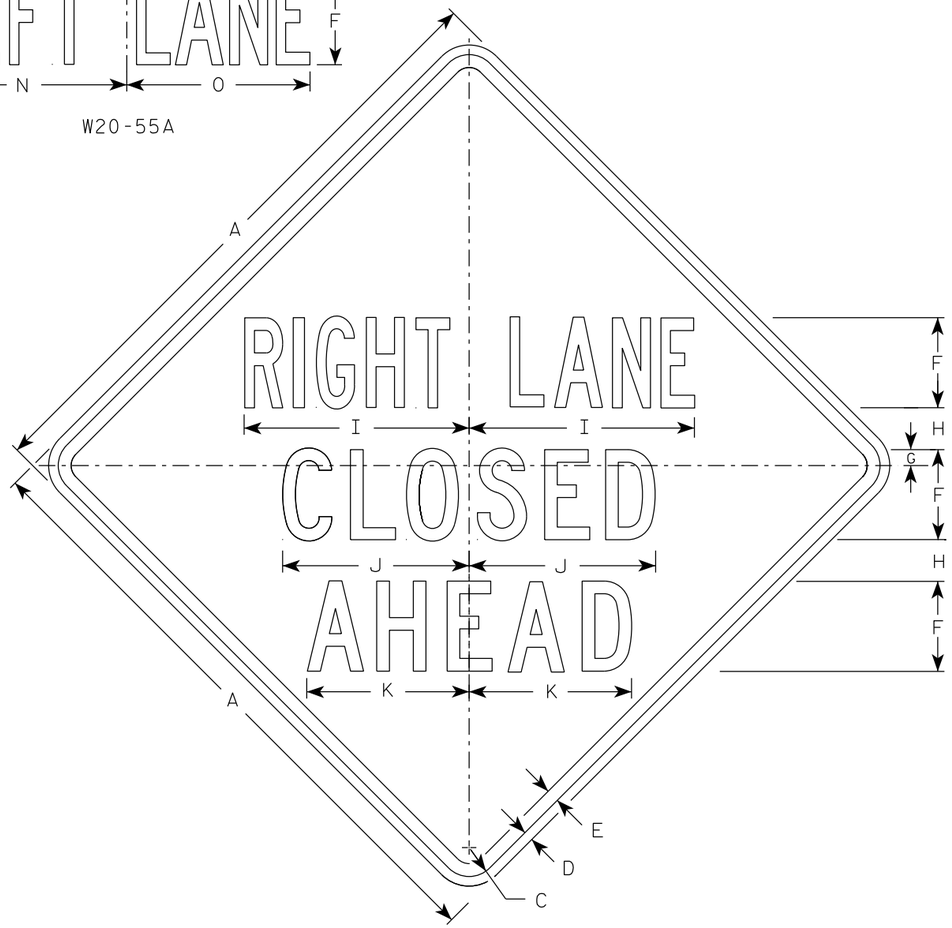
SHEET NO: 318 E



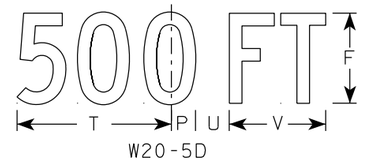
W20-56A



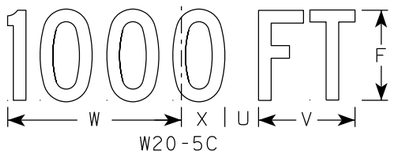
W20-55A



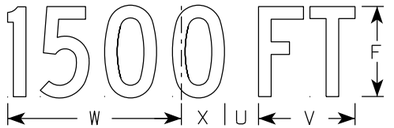
W20-5A



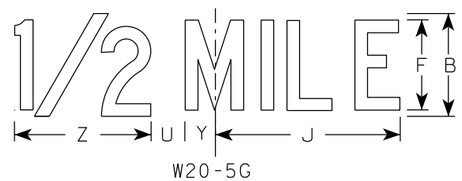
W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	2 1/4	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	3	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

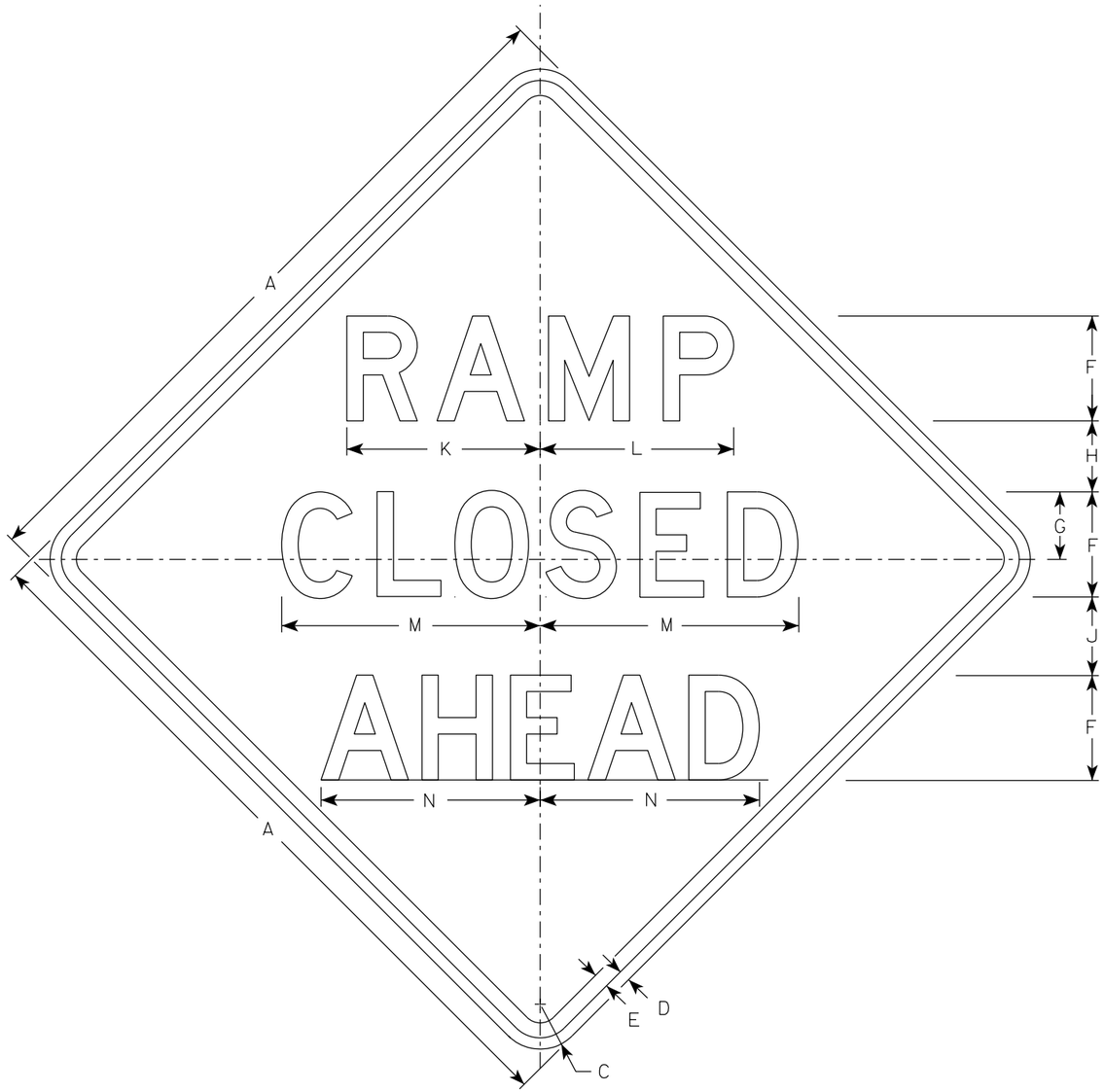
STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

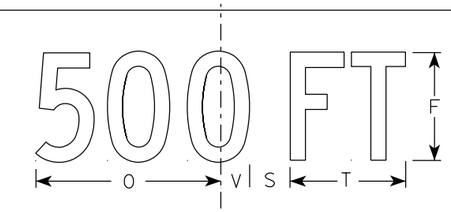
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/27/24 PLATE NO. W20-5.12

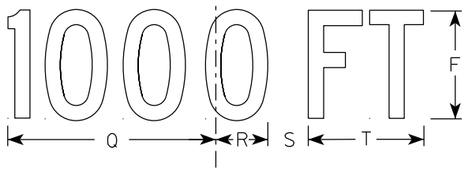
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 319 | E



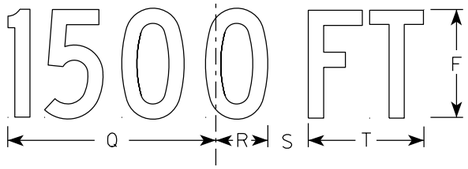
W20-53A



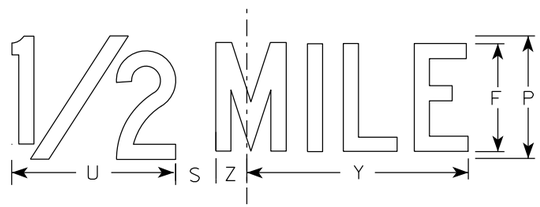
W20-53D



W20-53C



W20-53B



W20-53G



W20-53F

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

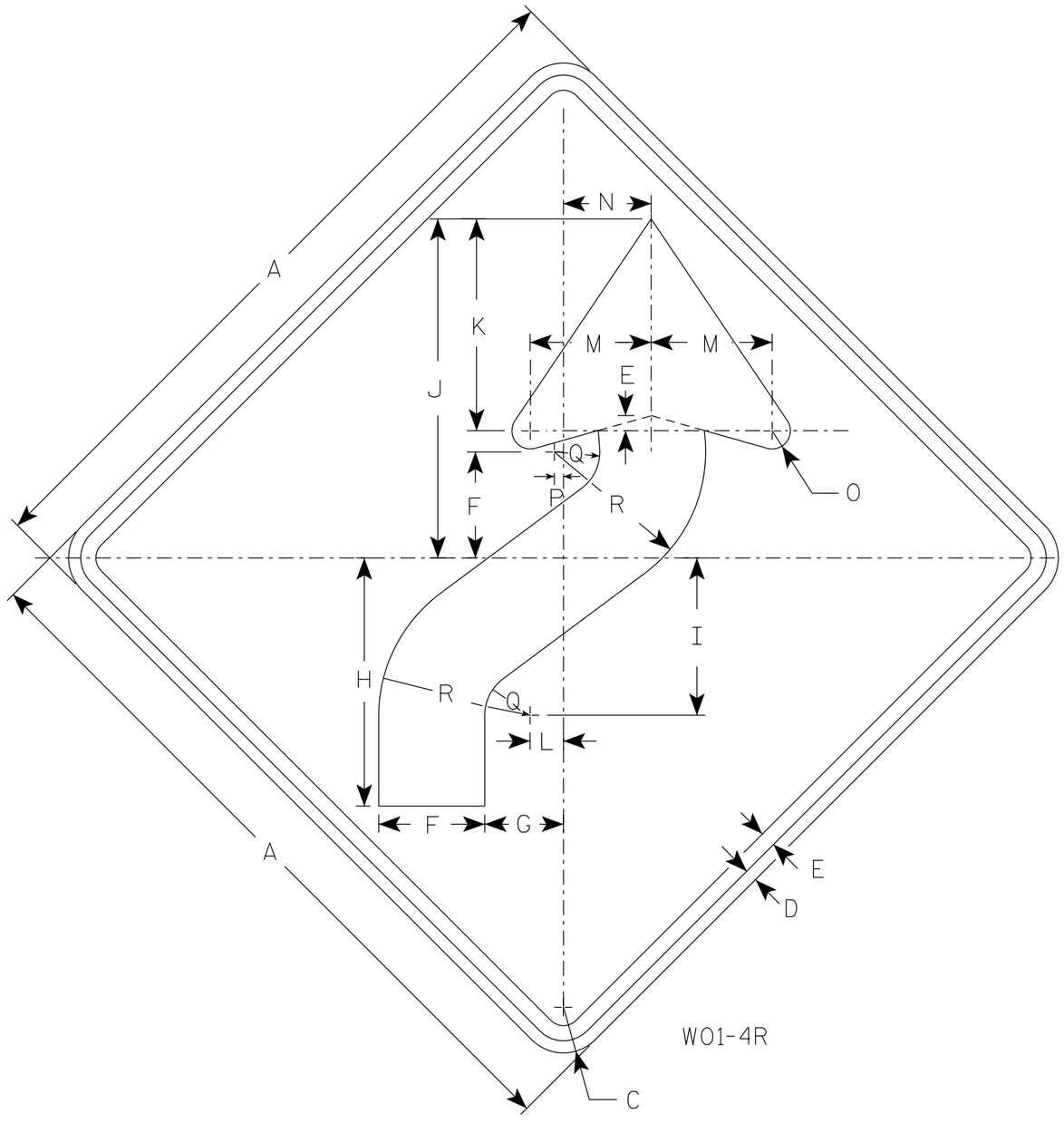
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-53.2

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 10-JAN 2024 2:38 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

7



W01-4R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

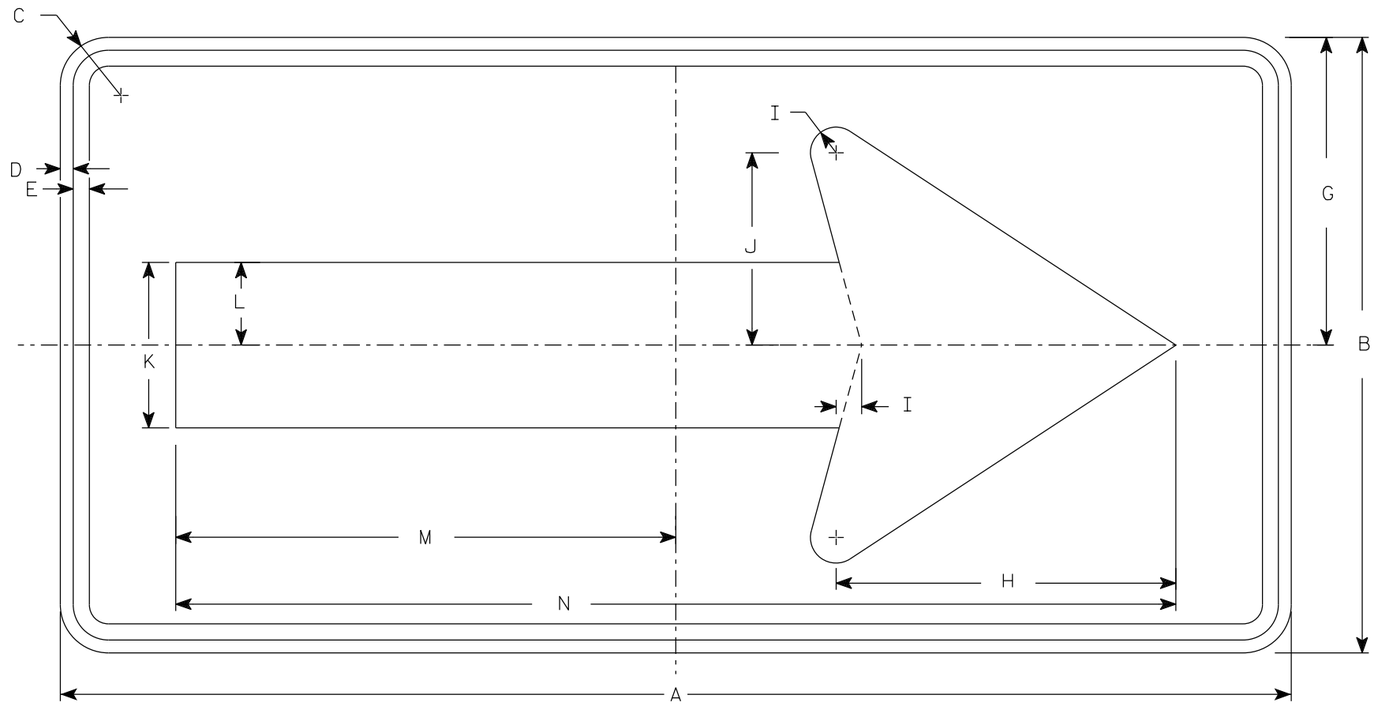
STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 321 | E



WO1-6

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 7/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

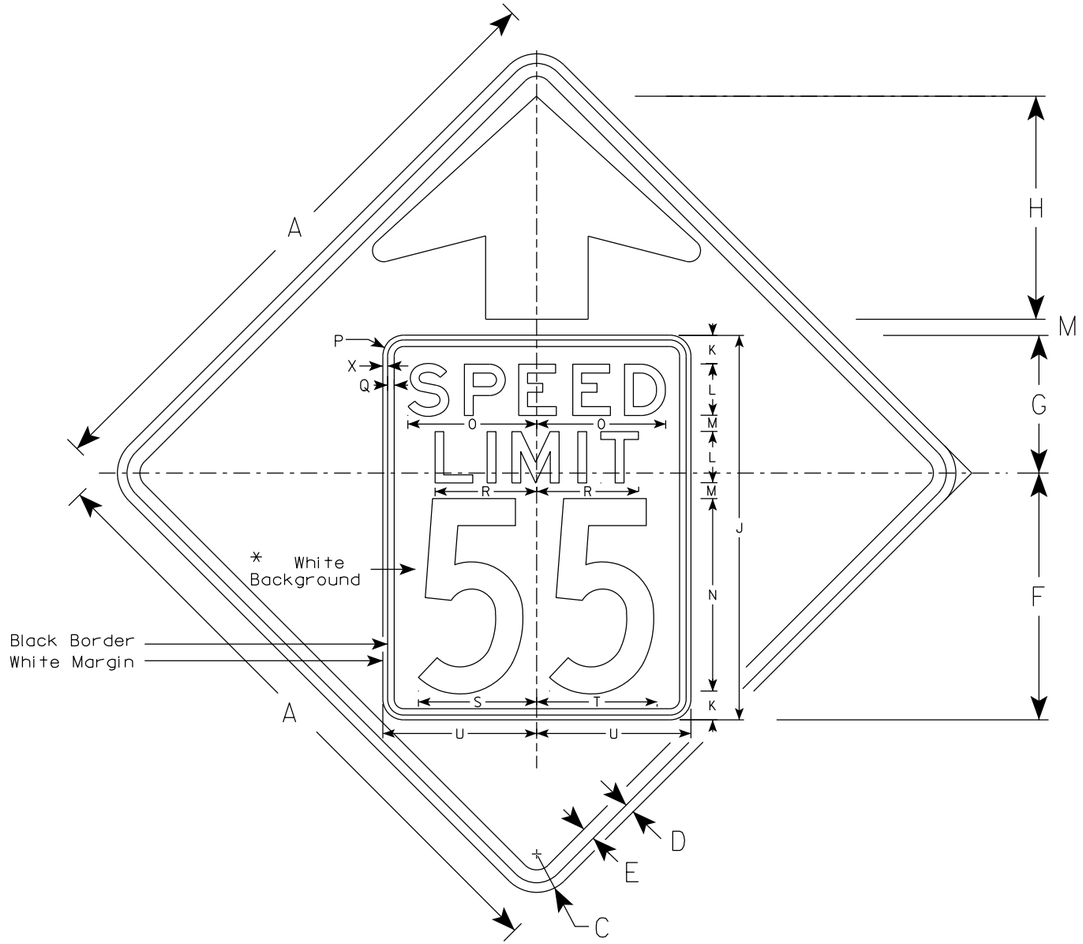
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

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

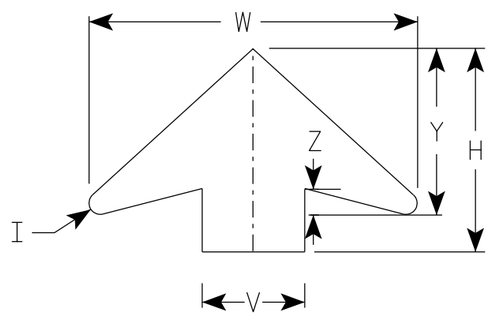


W03-5

NOTES

1. Sign is Type II - Type F Reflective
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		3	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

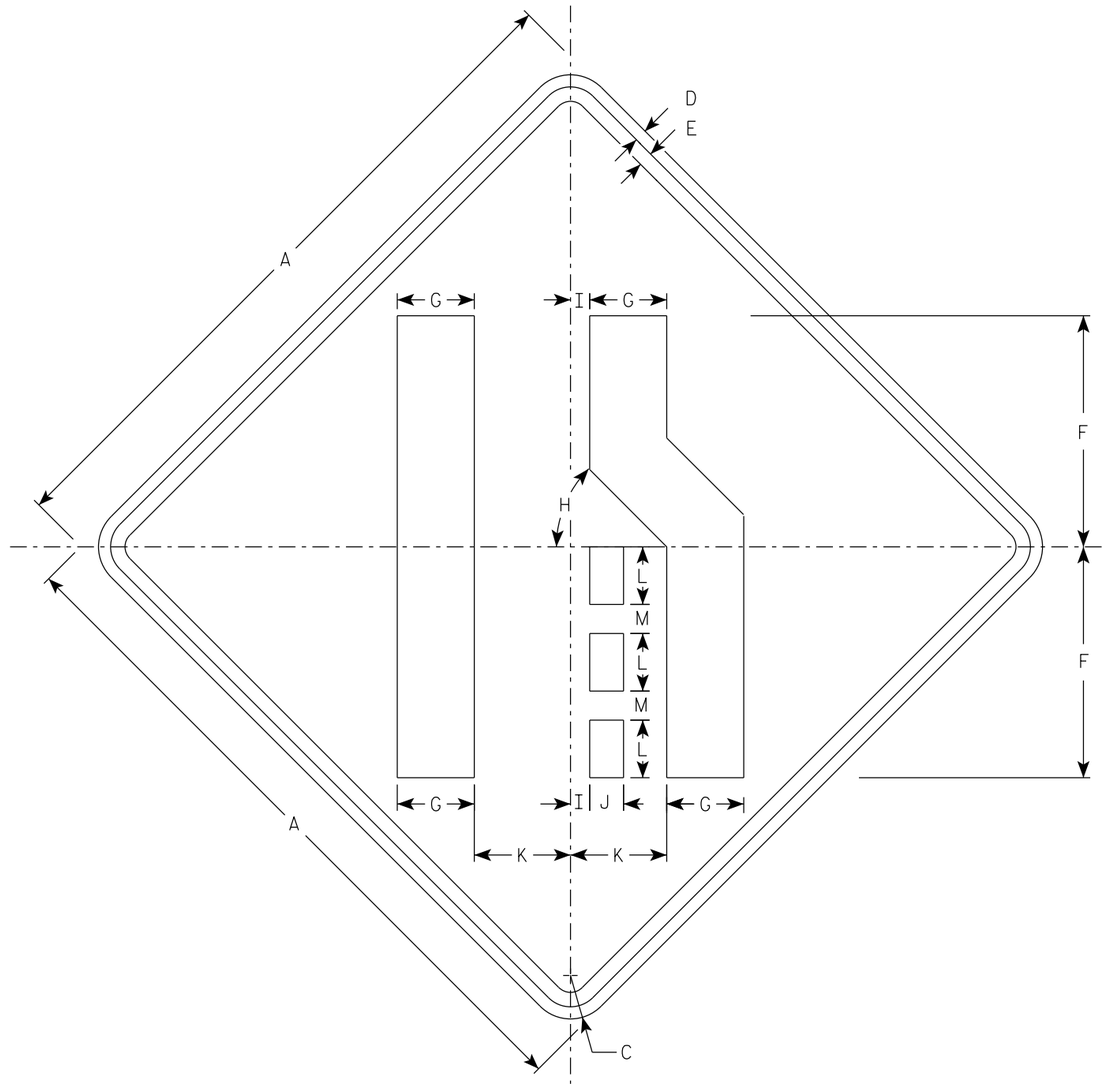
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W03-5.2

PROJECT NO:

SHEET NO: E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

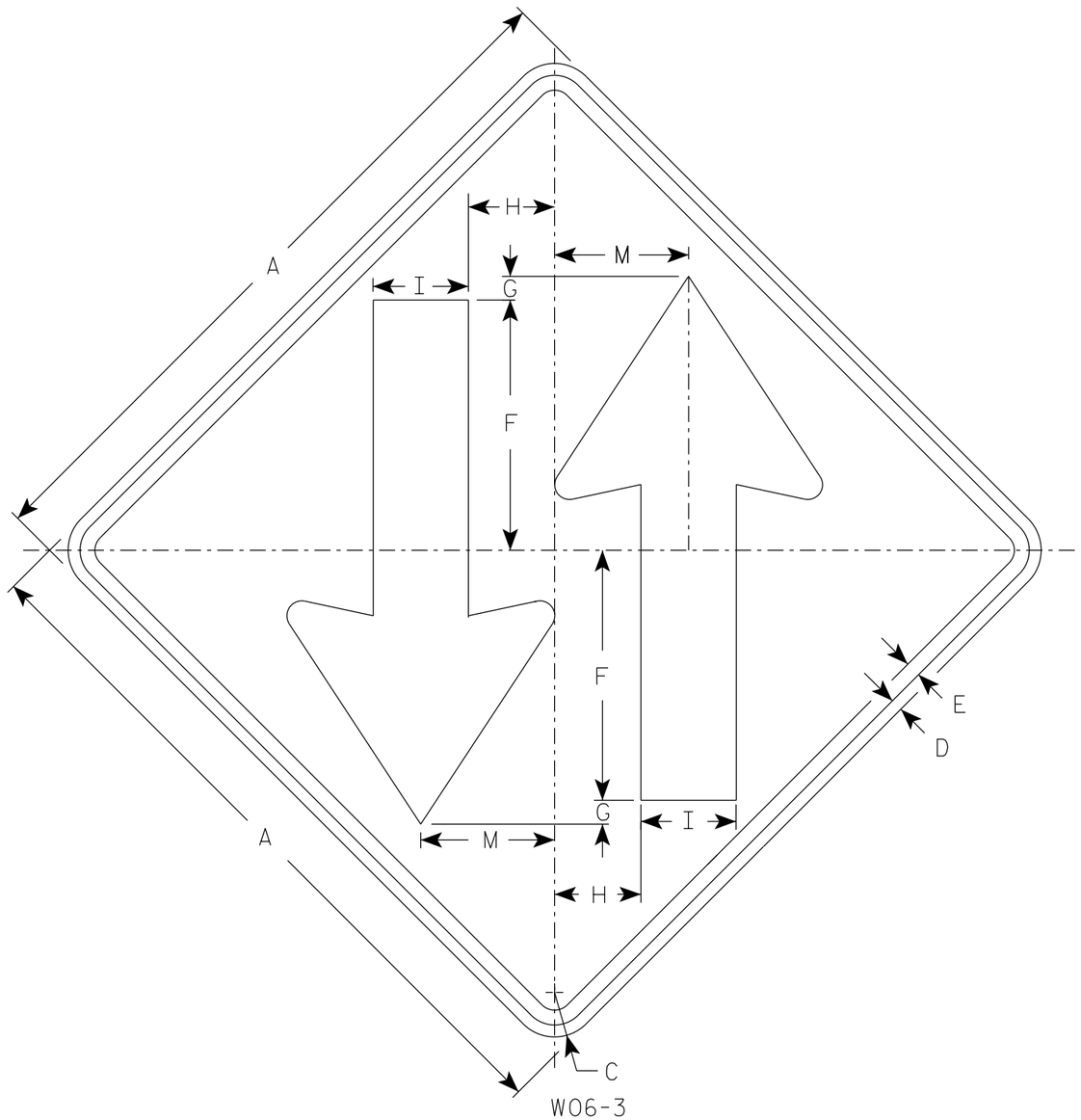
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/25/2024 PLATE NO. W04-2.2

PROJECT NO:

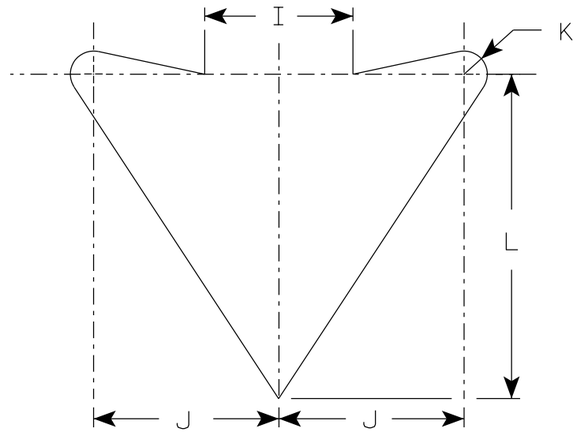
SHEET NO: 324 E



W06-3

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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	36		2 1/4	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2S	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
4	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		3	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

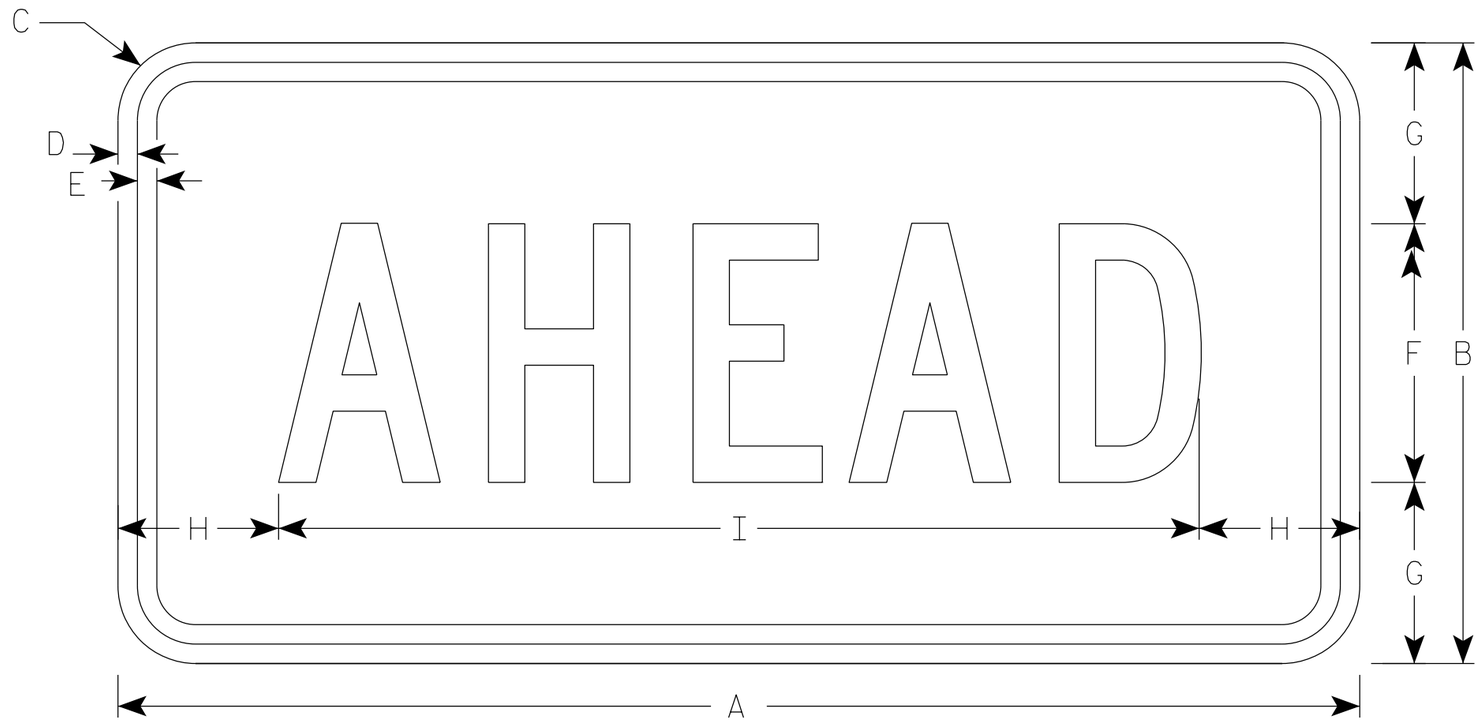
STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/30/2024 PLATE NO. W06-3.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 325 | E



W016-9P

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2S	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
2M	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
3	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
4	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0

STANDARD SIGN
W016-9P

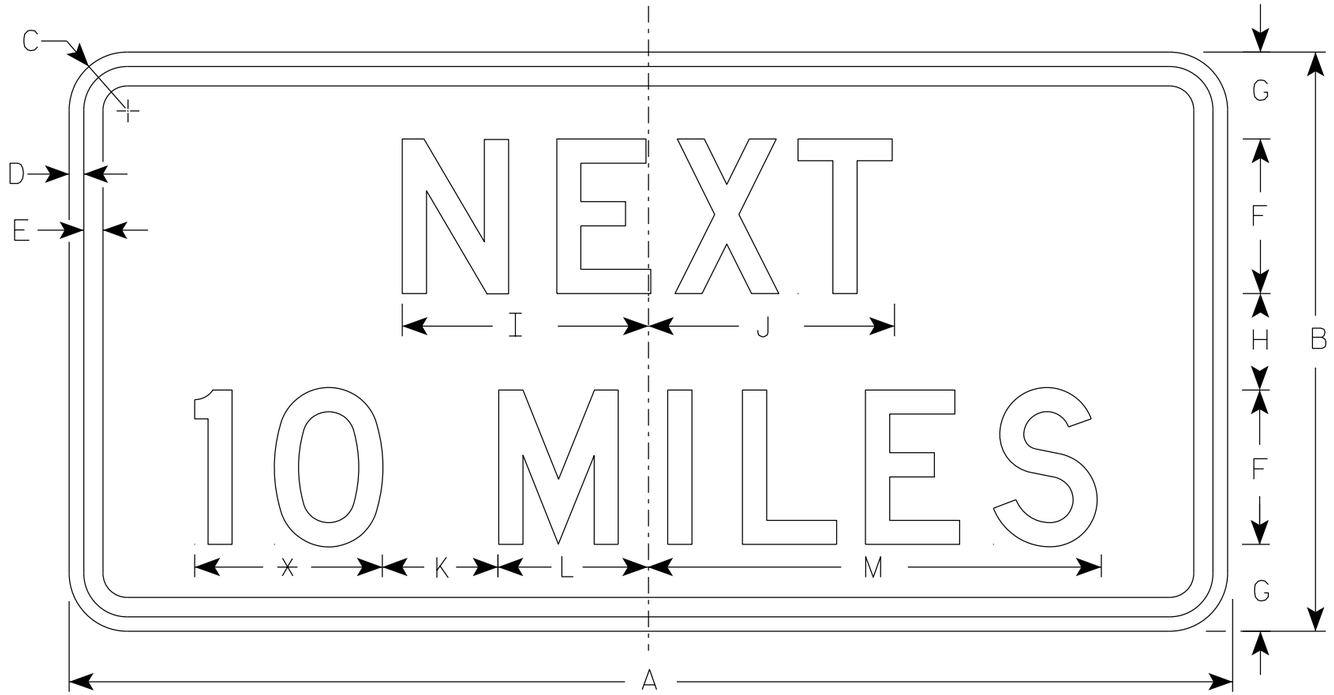
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W016-9P.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 326 | E

7



W057-51

* See note 5

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Round distance to the nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	1/2	5	2 3/4	2 1/2	7 7/8	8	5	4 1/8	15 3/8														4.5
2S	48	24	1 7/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0
2M	48	24	1 7/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0
3	48	24	1 7/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0
4	48	24	1 7/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0
5	48	24	1 7/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0

STANDARD SIGN
W057-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W057-51.4

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 327	E

Division 1 - STH 13 MEDIAN

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
90+39	9039	0	38	2	0	0	0	0	0
90+50	9050	11	34	0	15	0	15	0	14
90+62	9062	12	72	0	24	0	38	0	38
90+75	9075	13	63	0	32	0	71	0	70
90+81	9081	6	68	0	15	0	85	0	85
91+00	9100	19	39	2	38	1	123	1	122
91+25	9125	25	18	12	26	6	150	9	141
91+50	9150	25	12	12	14	11	163	23	141
91+75	9175	25	6	12	9	11	172	37	136
92+00	9200	25	7	12	6	11	178	50	128
92+25	9225	25	8	13	7	11	185	64	121
92+50	9250	25	9	12	8	11	193	79	114
92+75	9275	25	9	7	8	9	201	89	111
93+00	9300	25	6	3	7	5	208	95	113
93+25	9325	25	2	3	4	3	211	99	113

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DIVISION - STH 29 WEST CROSSOVER

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT 1.00	EXPANDED FILL 1.25	MASS ORDINATE
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
0+00.00	0.00	0.00	17.37	0.00	0	0	0	0	0
0+50.00	50.00	50.00	18.76	0.00	33	0	33	0	33
1+00.00	100.00	50.00	20.35	0.00	36	0	69	0	69
1+50.00	150.00	50.00	23.34	1.24	40	1	109	1	108
2+00.00	200.00	50.00	26.59	5.45	46	6	155	9	146
2+50.00	250.00	50.00	28.10	12.55	51	17	206	30	176
3+00.00	300.00	50.00	30.65	3.86	54	15	260	49	211
3+50.00	350.00	50.00	31.08	12.86	57	15	317	68	250
4+00.00	400.00	50.00	29.37	14.32	56	25	373	99	274
4+50.00	450.00	50.00	30.64	13.03	56	25	429	130	299
4+83.40	483.40	33.40	30.94	11.16	38	15	467	149	318
5+00.00	500.00	16.60	31.95	9.73	19	6	486	156	330
5+36.40	536.40	36.40	13.06	7.11	30	11	516	170	346
5+50.00	550.00	13.60	14.16	3.45	7	3	523	174	349
5+89.40	589.40	39.40	19.67	2.72	25	5	548	180	368
6+00.00	600.00	10.60	19.81	1.91	8	1	556	181	375
6+42.40	642.40	42.40	30.58	0.29	40	2	596	184	412
6+50.00	650.00	7.60	29.82	0.34	9	0	605	184	421
6+95.40	695.40	45.40	28.02	0.17	49	0	654	184	470
7+00.00	700.00	4.60	26.79	0.00	5	0	659	184	475
7+50.00	750.00	50.00	32.73	0.00	55	0	714	184	530
8+00.00	800.00	50.00	29.63	0.00	58	0	772	184	588
8+50.00	850.00	50.00	37.57	0.15	62	0	834	184	650
9+00.00	900.00	50.00	32.96	0.15	65	0	899	184	715
9+50.00	950.00	50.00	30.97	1.26	59	1	958	185	773
10+00.00	1000.00	50.00	31.64	1.09	58	2	1,016	188	829
10+50.00	1050.00	50.00	35.72	0.20	62	1	1,078	189	889
11+00.00	1100.00	50.00	38.75	0.00	69	0	1,147	189	958
11+50.00	1150.00	50.00	36.82	0.00	70	0	1,217	189	1,028
12+00.00	1200.00	50.00	35.28	0.00	67	0	1,284	189	1,095
12+50.00	1250.00	50.00	33.07	0.00	63	0	1,347	189	1,158
13+00.00	1300.00	50.00	30.52	0.00	59	0	1,406	189	1,217
13+50.00	1350.00	50.00	29.66	0.12	56	0	1,462	189	1,273
14+00.00	1400.00	50.00	29.65	0.45	55	1	1,517	190	1,327
14+50.00	1450.00	50.00	29.50	3.89	55	4	1,572	195	1,377
15+00.00	1500.00	50.00	26.72	3.60	52	7	1,624	204	1,420
15+50.00	1550.00	50.00	23.81	0.43	47	4	1,671	209	1,462
15+91.98	1591.98	41.98	21.34	0.00	35	0	1,706	209	1,497

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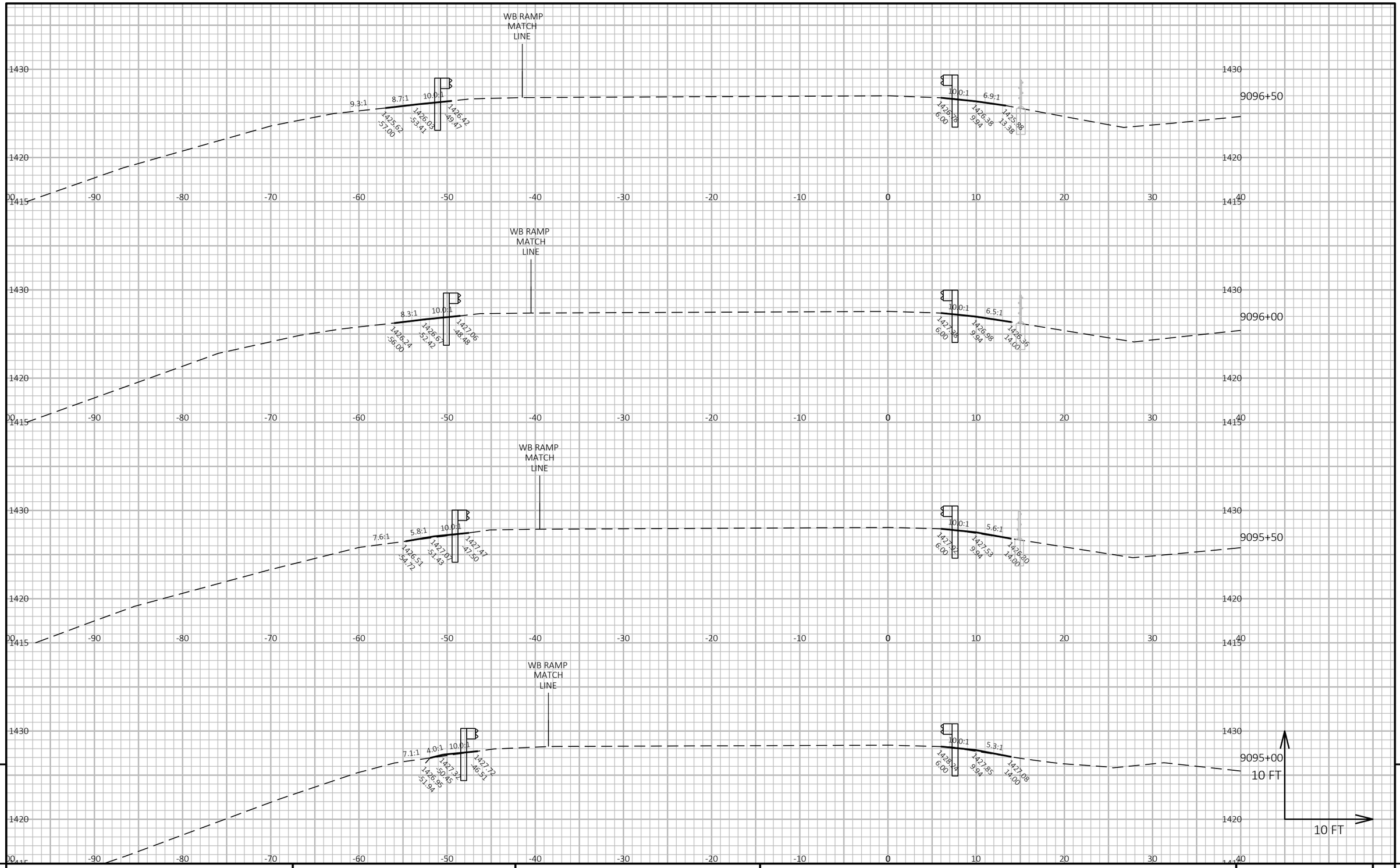
PROJECT NO: 1053-07-77 | HWY: STH 29 | COUNTY: MARATHON | EARTHWORK DATA | SHEET 329 | E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090101-EW.DWG PLOT DATE : 7/12/2024 10:09 AM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1" = 1'
LAYOUT NAME - CROSSOVER

WISDOT/CADDS SHEET 49

DIVISION - WB SPRUCE ST/MAPLE RD RAMP

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL (CY) (UNADJUSTED)		CUMULATIVE VOL (CY)		
			CUT	FILL	CUT	FILL	CUT	EXPANDED FILL	MASS ORDINATE
							1.00	1.25	
					NOTE 1	NOTE 3	NOTE 1		NOTE 8
0+61.36	61.36	0.00	22.44	0.00	0	0	0	0	0
1+00.00	100.00	38.64	22.14	0.00	32	0	32	0	32
1+50.00	150.00	50.00	20.24	0.00	39	0	71	0	71
2+00.00	200.00	50.00	21.97	0.00	39	0	110	0	110
2+50.00	250.00	50.00	19.09	0.00	38	0	148	0	148
3+00.00	300.00	50.00	17.59	0.00	34	0	182	0	182
3+50.00	350.00	50.00	20.45	0.00	35	0	217	0	217
4+00.00	400.00	50.00	23.91	0.00	41	0	258	0	258
4+50.00	450.00	50.00	24.27	0.00	45	0	303	0	303
5+00.00	500.00	50.00	23.05	0.00	44	0	347	0	347
5+50.00	550.00	50.00	22.71	0.00	42	0	389	0	389
6+00.00	600.00	50.00	22.72	0.00	42	0	431	0	431
6+50.00	650.00	50.00	21.75	0.00	41	0	472	0	472
7+00.00	700.00	50.00	22.03	0.00	41	0	513	0	513
7+50.00	750.00	50.00	22.62	0.00	41	0	554	0	554
8+00.00	800.00	50.00	21.87	0.00	41	0	595	0	595
8+50.00	850.00	50.00	18.82	0.00	38	0	633	0	633
9+00.00	900.00	50.00	21.97	0.00	38	0	671	0	671
9+50.00	950.00	50.00	24.03	0.00	43	0	714	0	714
10+00.00	1000.00	50.00	23.42	0.00	44	0	758	0	758
10+50.00	1050.00	50.00	21.44	0.00	42	0	800	0	800
11+00.00	1100.00	50.00	20.09	0.00	38	0	838	0	838
11+50.00	1150.00	50.00	20.17	0.00	37	0	875	0	875
12+00.00	1200.00	50.00	19.56	0.00	37	0	912	0	912
12+50.00	1250.00	50.00	21.34	0.00	38	0	950	0	950
13+00.00	1300.00	50.00	24.28	0.00	42	0	992	0	992
13+50.00	1350.00	50.00	23.85	0.00	45	0	1,037	0	1,037
14+00.00	1400.00	50.00	24.45	0.00	45	0	1,082	0	1,082
14+50.00	1450.00	50.00	24.74	0.00	46	0	1,128	0	1,128
15+00.00	1500.00	50.00	22.48	0.00	44	0	1,172	0	1,172
15+50.00	1550.00	50.00	19.04	0.00	38	0	1,210	0	1,210
16+00.00	1600.00	50.00	17.24	0.00	34	0	1,244	0	1,244
16+50.00	1650.00	50.00	18.96	0.00	34	0	1,278	0	1,278
16+92.00	1692.00	42.00	19.07	0.00	30	0	1,308	0	1,308
RAMP/SPRUCE ST INTERSECTION			2,744.53	0.00	85	0	1,393	0	1,393
RAMP/MAINLINE PAVEMENT TAPER & GORE			7447.26	0.00	230	0	1,623	0	1,623



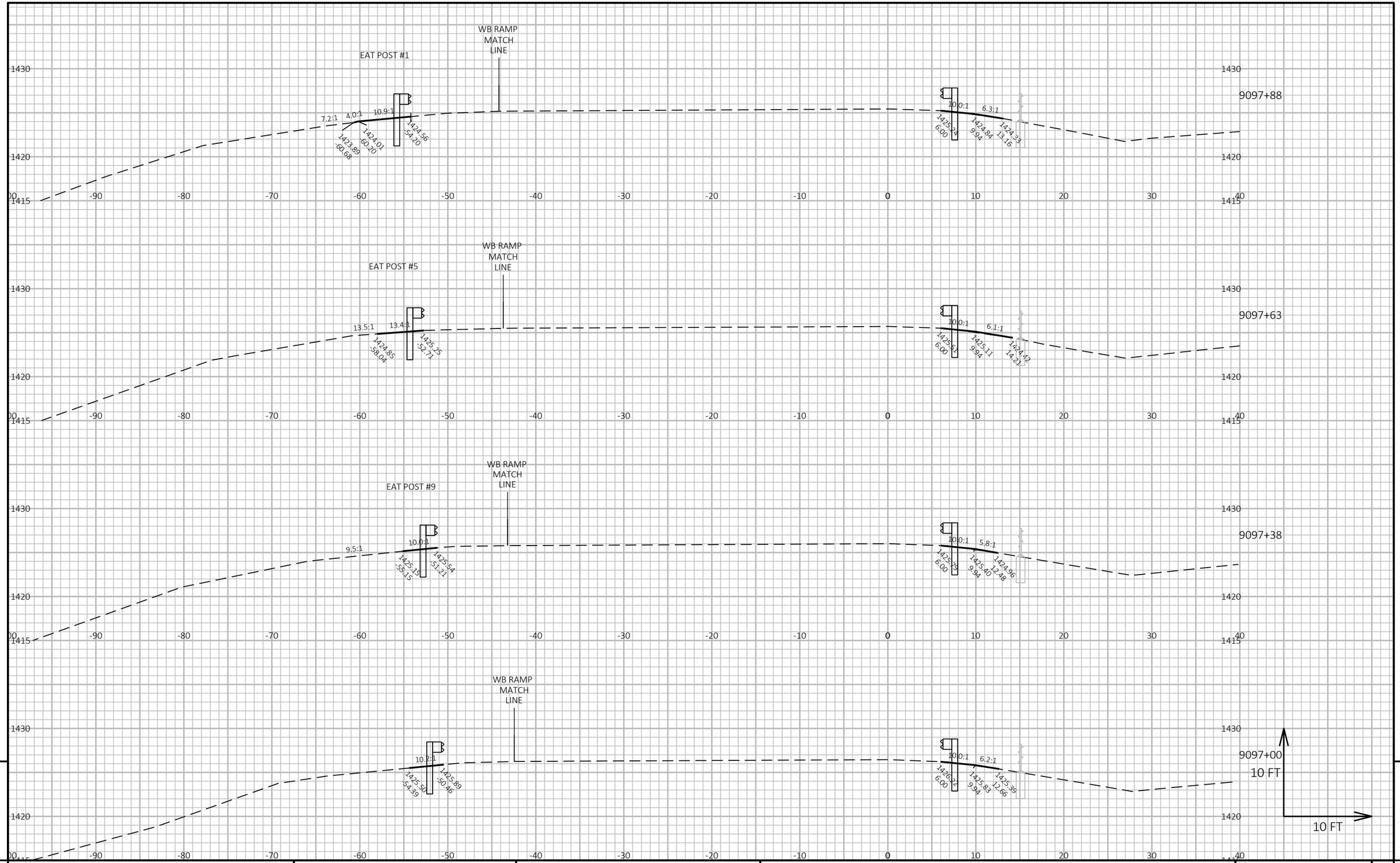
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - WB MAINLINE	SHEET 331	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL.DWG LAYOUT NAME - 1.1 PLOT DATE : 8/20/2024 1:58 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

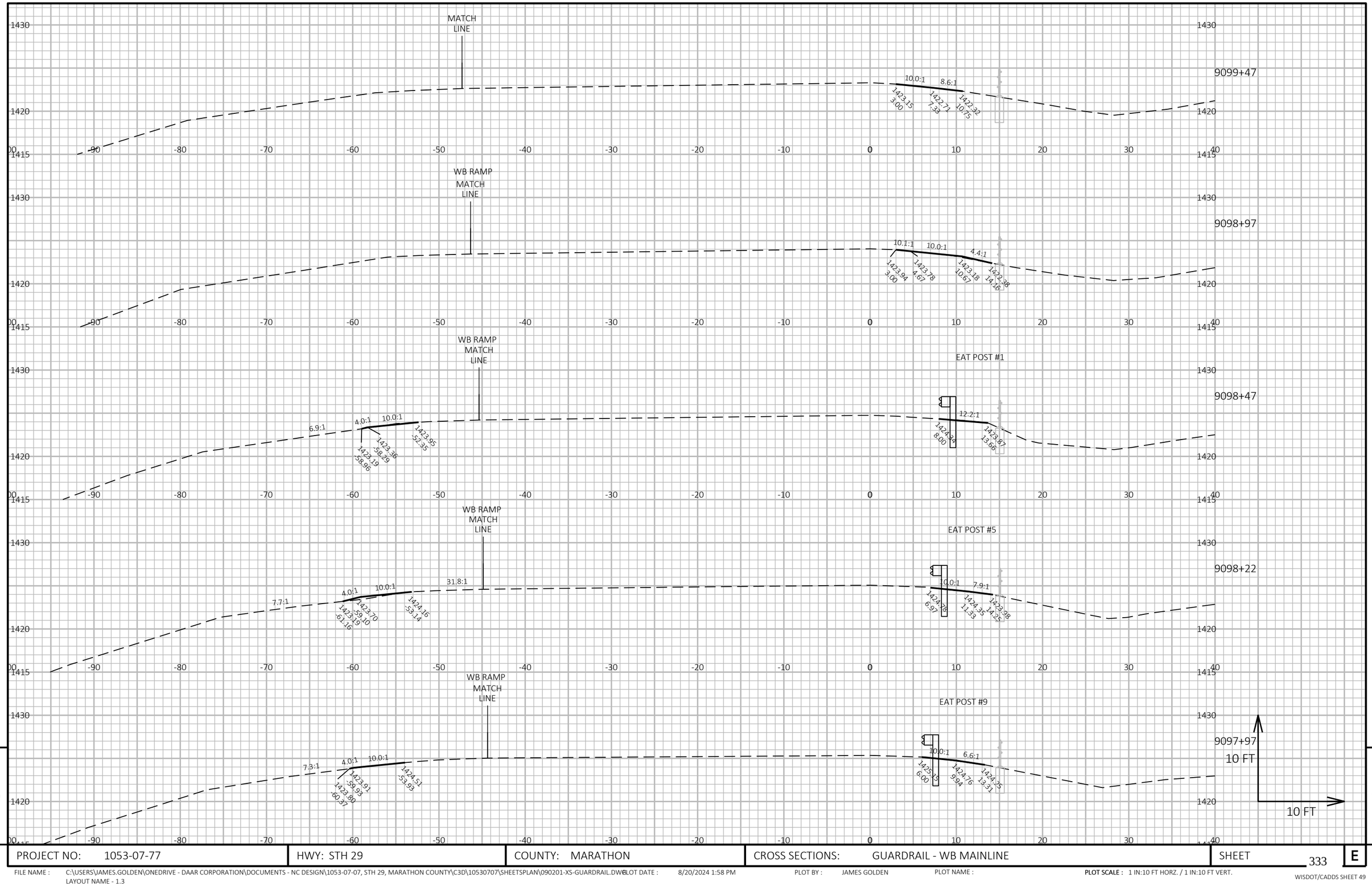
WISDOT/CADDS SHEET 49



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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - WB MAINLINE	SHEET 332	E

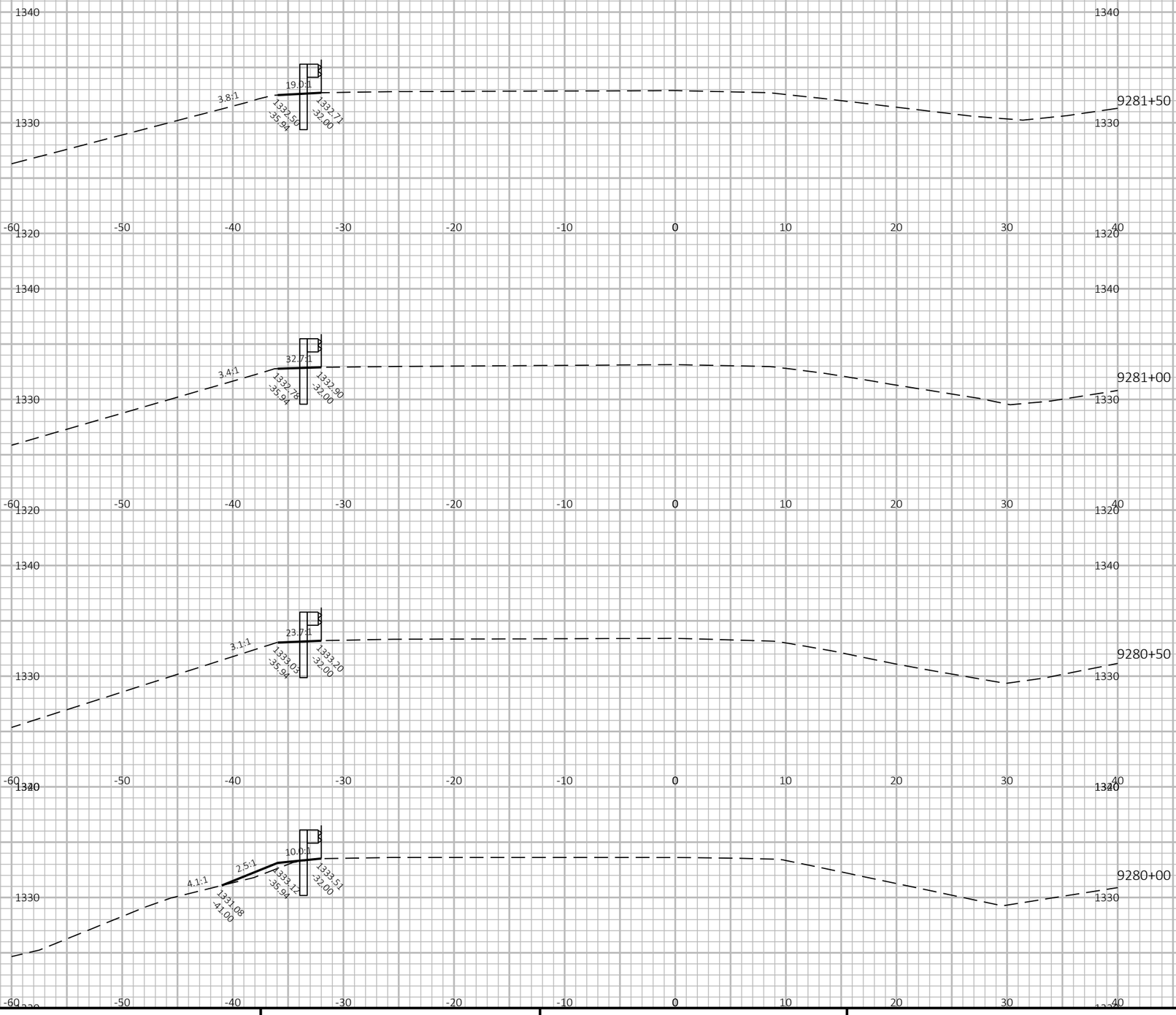
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LAYOUT NAME - 1.2
PLOT DATE : 8/20/2024 1:58 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - WB MAINLINE	SHEET 333 E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL.DWG PLOT DATE : 8/20/2024 1:58 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 1.3

WISDOT/CADDS SHEET 49



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9

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - WB MAINLINE	SHEET 334	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL.DWG
LAYOUT NAME - 3.1

PLOT DATE : 8/20/2024 1:58 PM

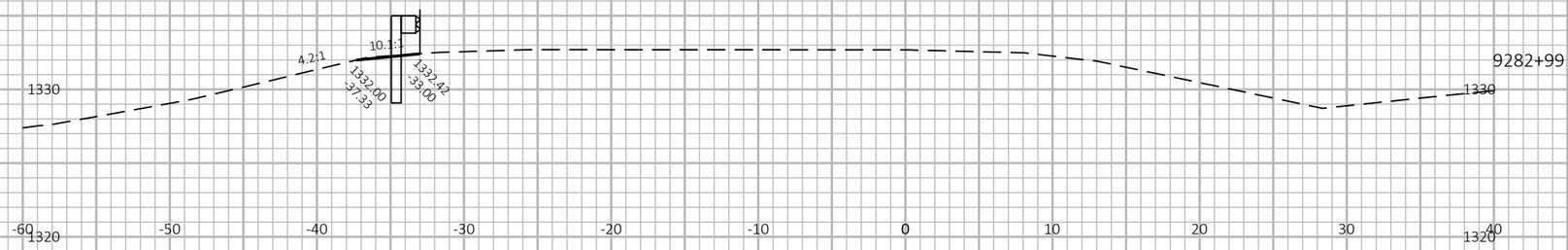
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PLOT NAME :

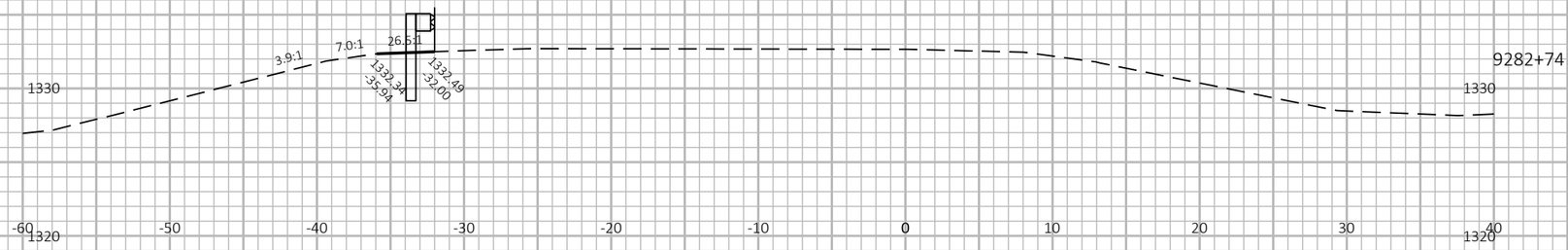
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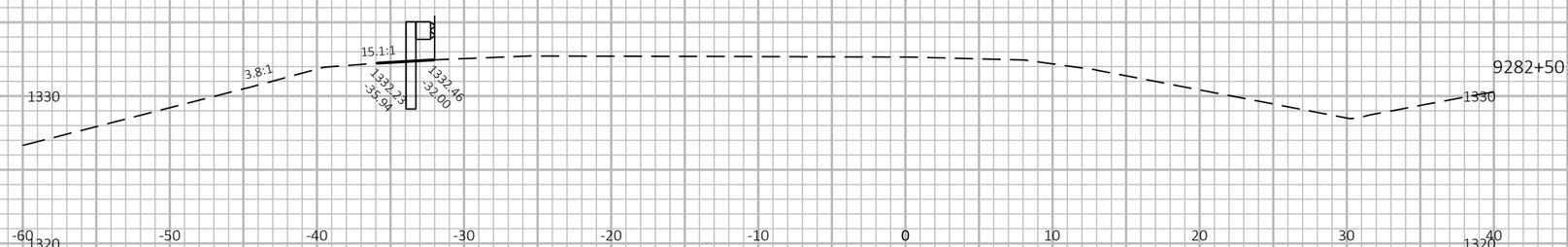
WISDOT/CADDS SHEET 49

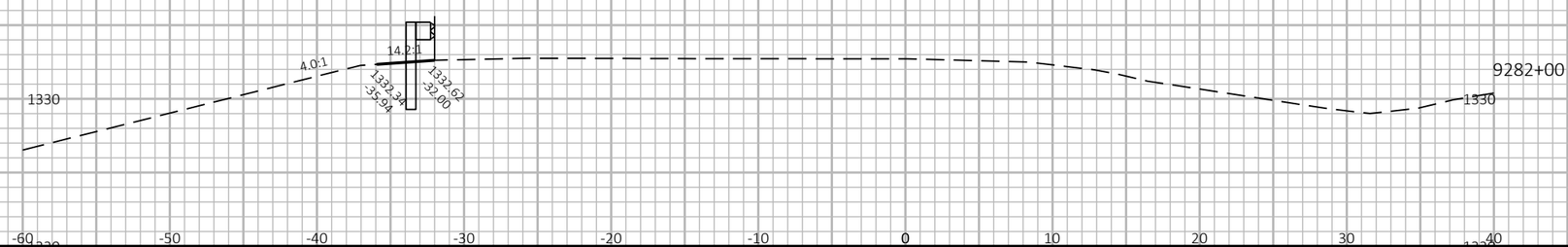
EAT POST #5



EAT POST #9







10 FT

10 FT

9

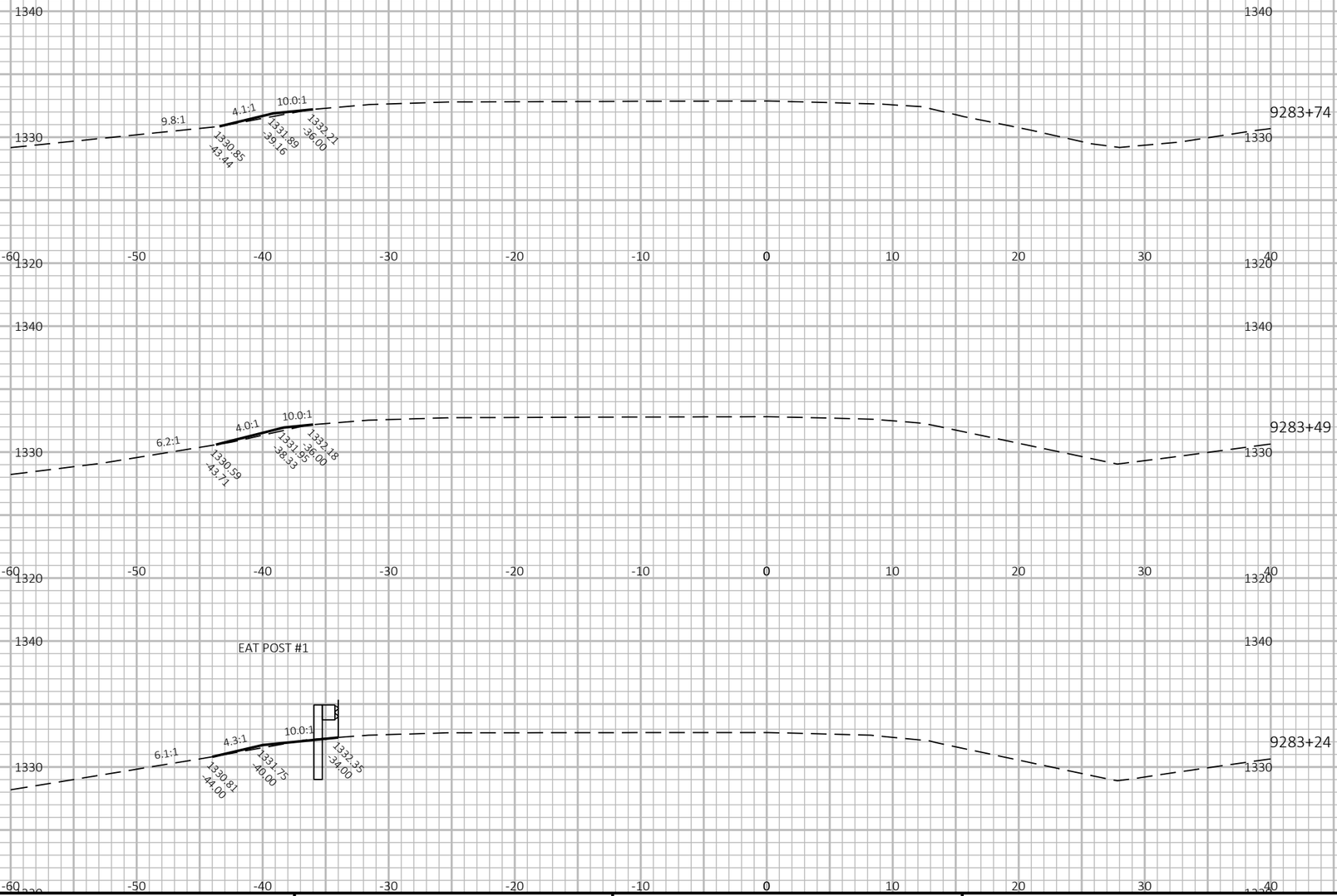
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - WB MAINLINE	SHEET 335	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL.DWG PLOT DATE : 8/20/2024 1:58 PM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

LAYOUT NAME - 3.2

WISDOT/CADDS SHEET 49

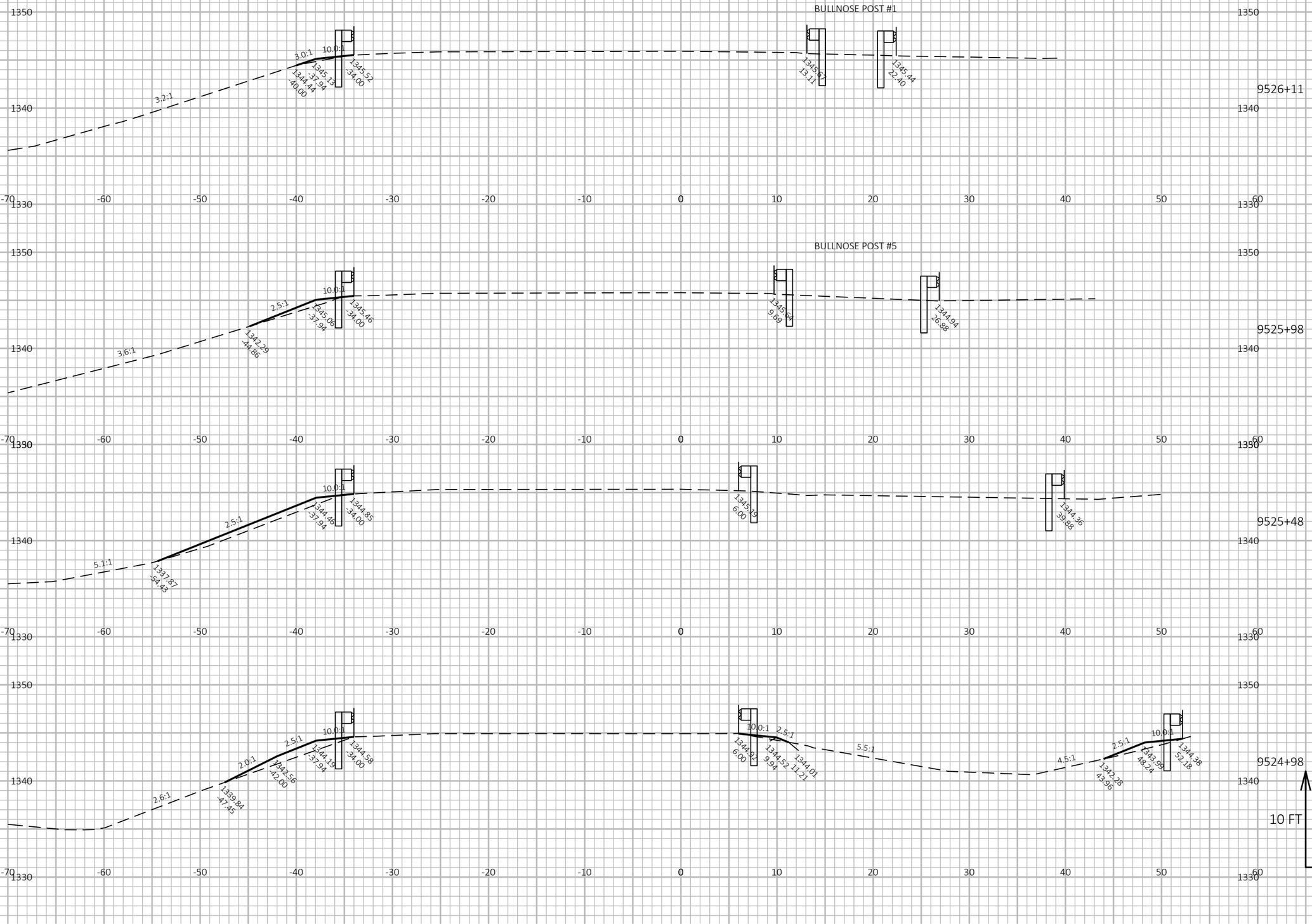


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - WB MAINLINE	SHEET 336	E

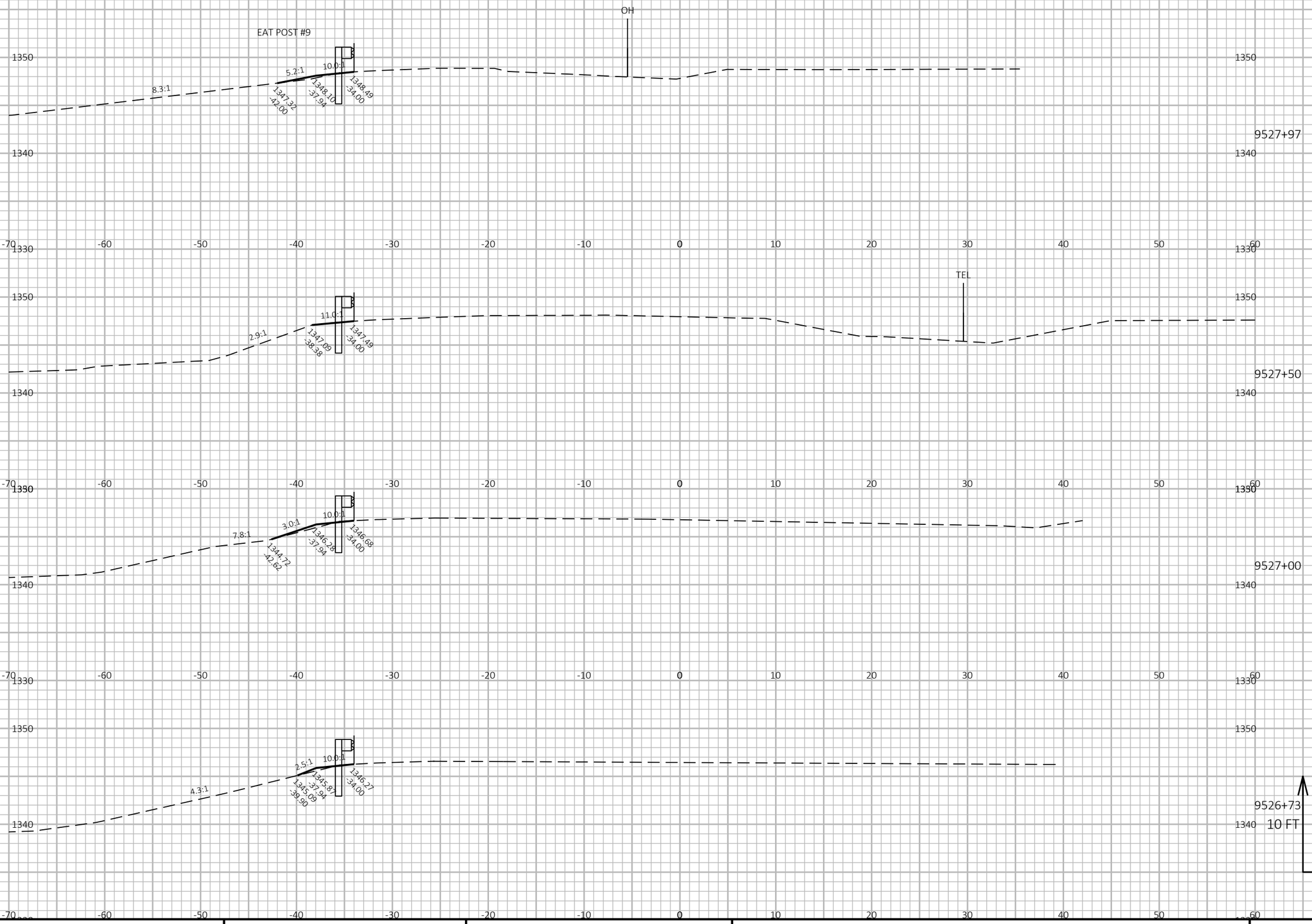
FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL.DWG
LAYOUT NAME - 3.3
PLOT DATE : 8/20/2024 1:58 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - WB MAINLINE	SHEET 337	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL.DWG LAYOUT NAME - 4.1 PLOT DATE : 8/20/2024 1:58 PM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

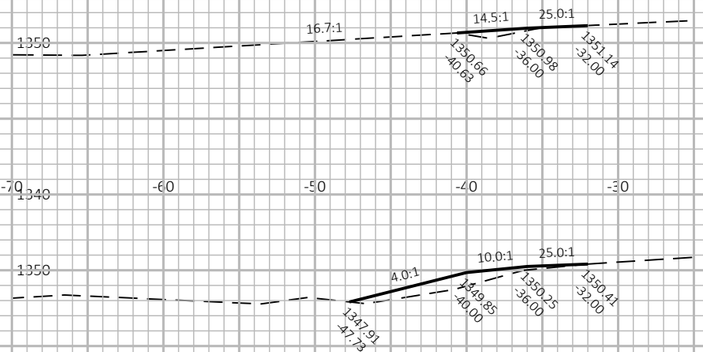
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - WB MAINLINE	SHEET 338	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL.DWG
LAYOUT NAME - 4.2

PLOT DATE : 8/20/2024 1:58 PM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

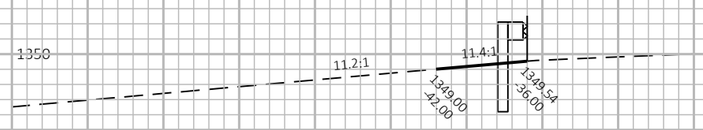
WISDOT/CADDS SHEET 49



9529+07

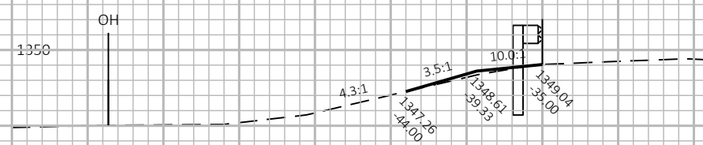
9528+77

EAT POST #1



9528+47

EAT POST #5



9528+22

10 FT

10 FT

9

9

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - WB MAINLINE	SHEET 339	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL.DWG LAYOUT NAME - 4.3

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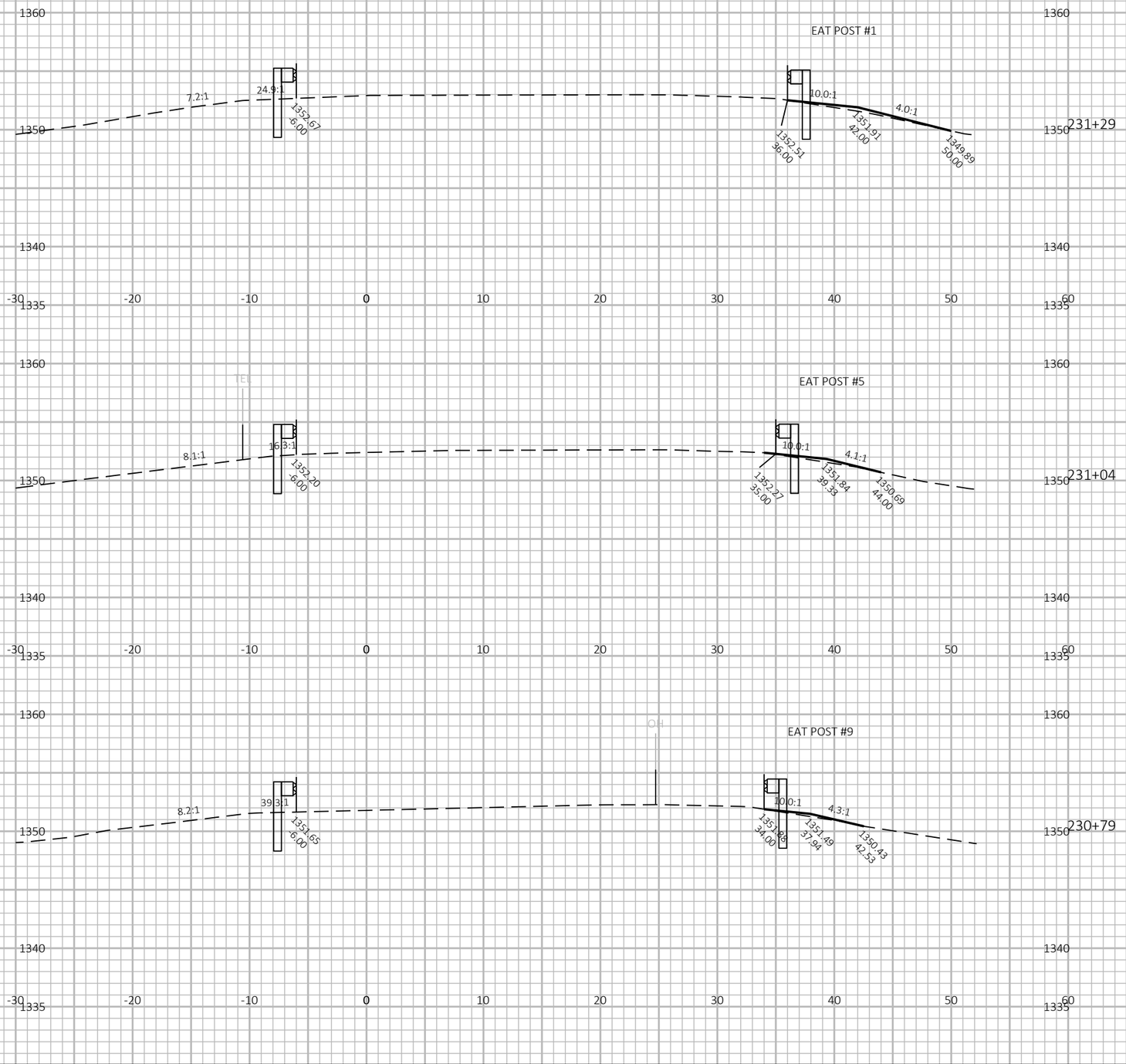
PLOT BY : JAMES GOLDEN

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

FOR INFORMATION ONLY



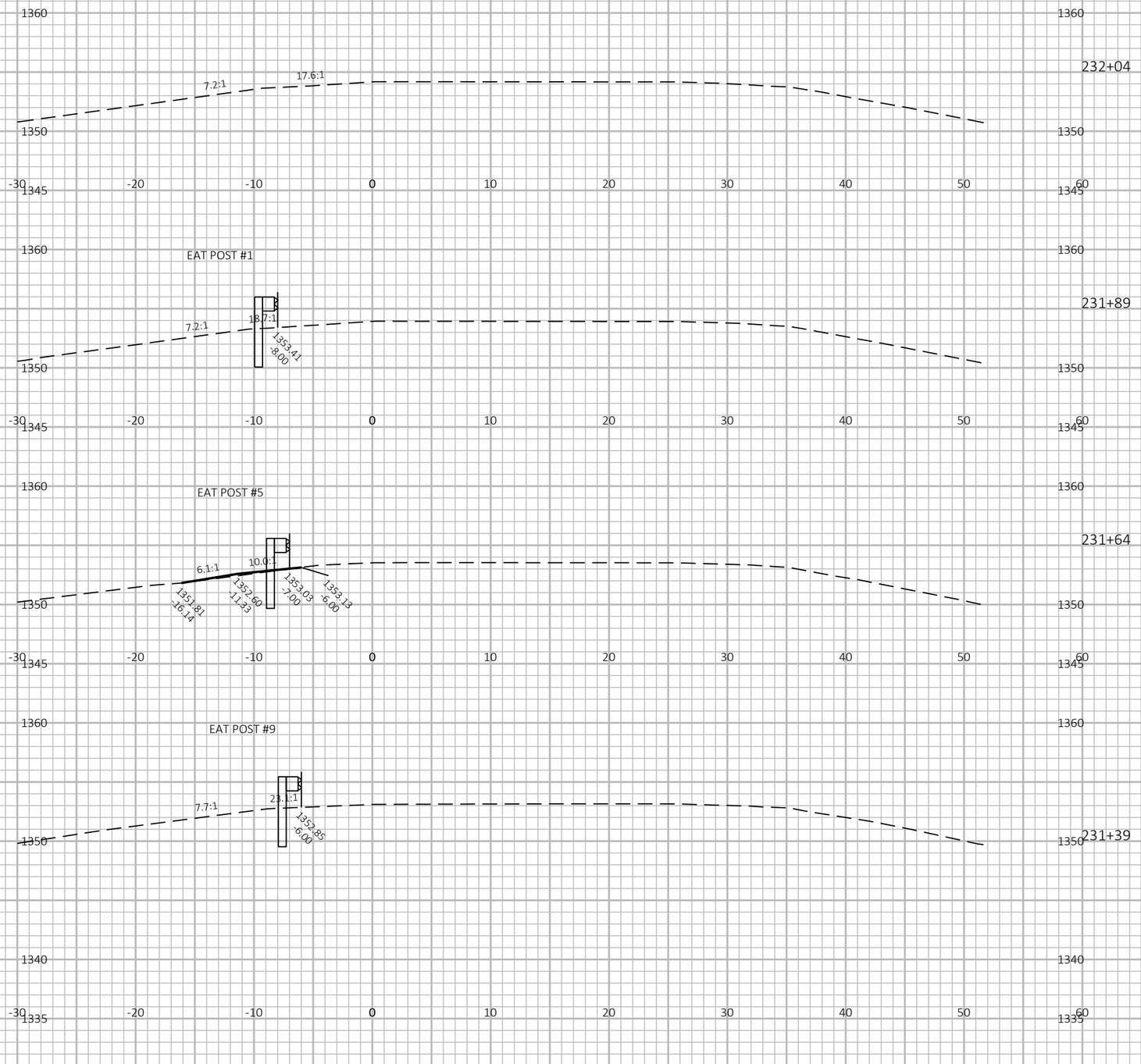
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUIDRAIL - BI-DIRECTIONAL	SHEET 340	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL BI-DIRECTIONAL.DWG 10/16/2024 11:51 AM
LAYOUT NAME - 01

PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

FOR INFORMATION ONLY



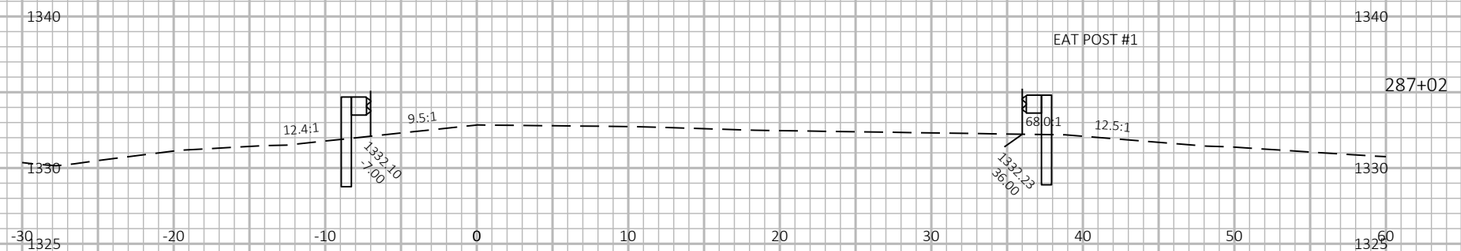
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - BI-DIRECTIONAL	SHEET 341	E

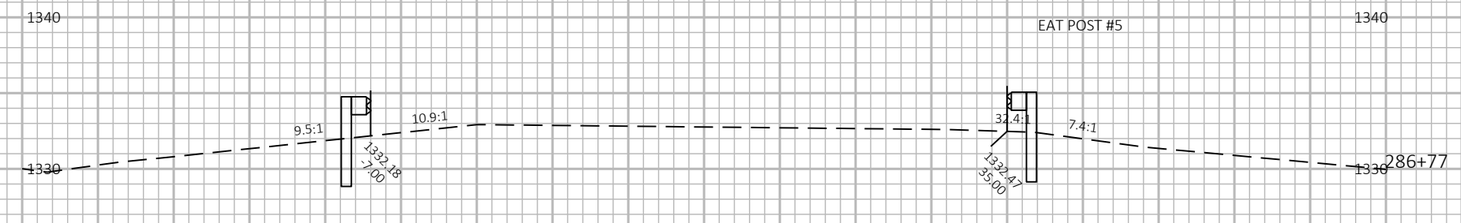
FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL BI-DIRECTIONAL.DWG 10/16/2024 11:51 AM
LAYOUT NAME - 02

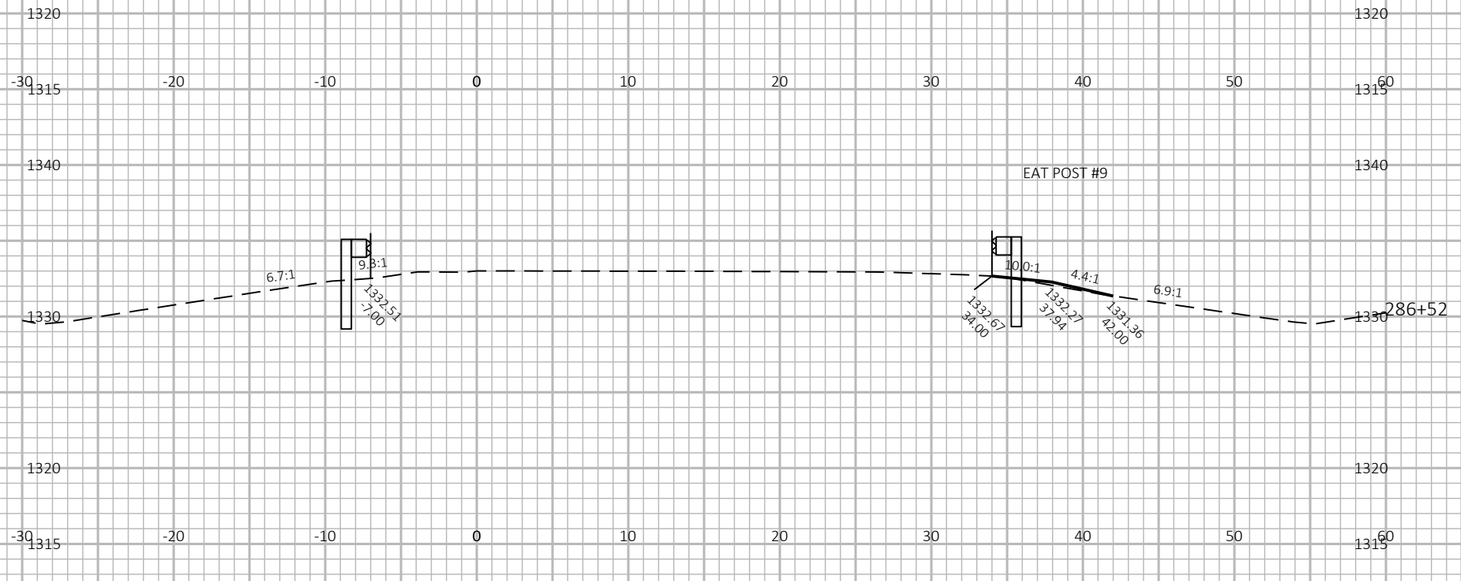
PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

FOR INFORMATION ONLY







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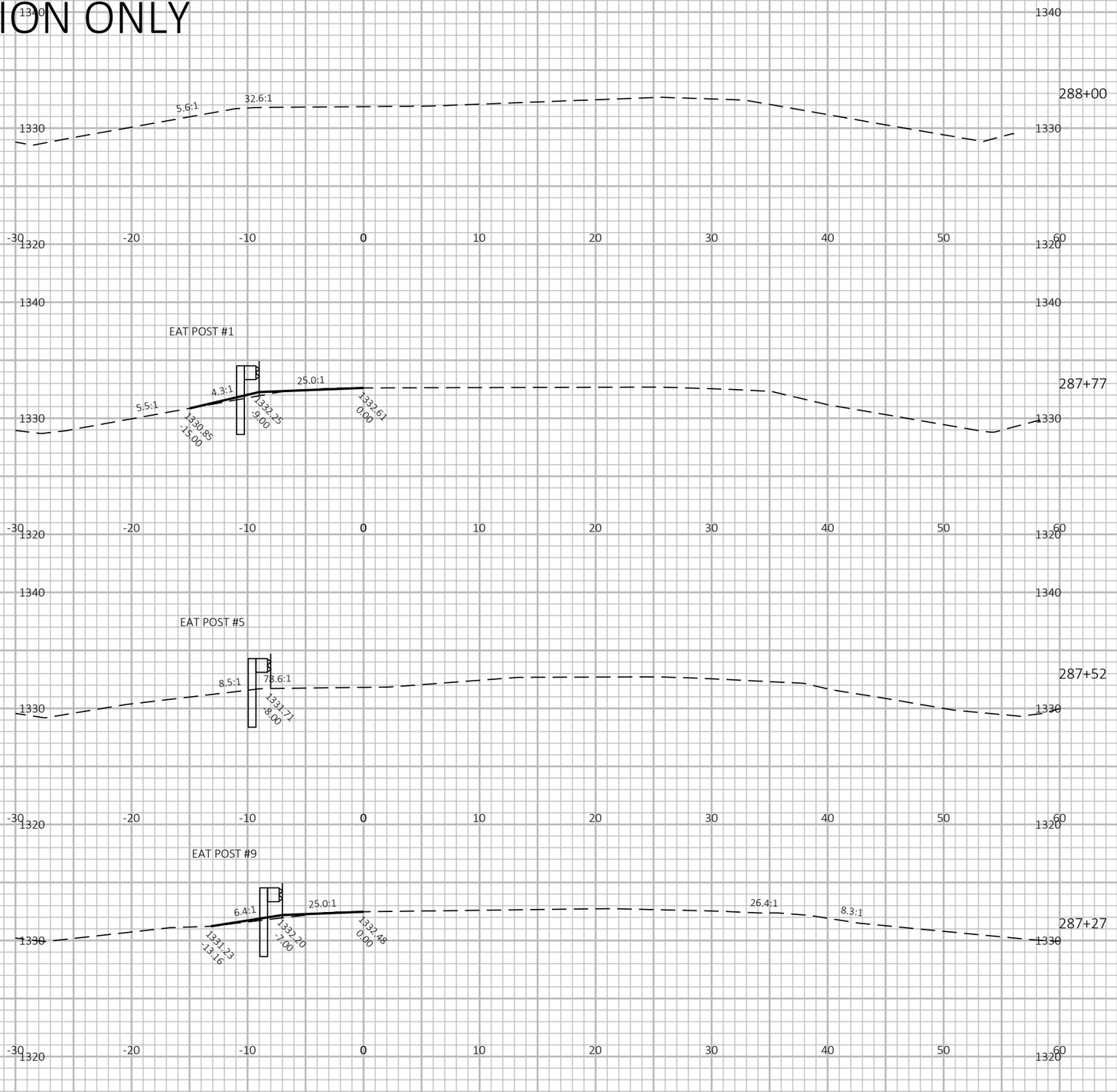
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - BI-DIRECTIONAL	SHEET 342	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL BI-DIRECTIONAL.DWG 10/16/2024 11:51 AM
LAYOUT NAME - 03

PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

FOR INFORMATION ONLY



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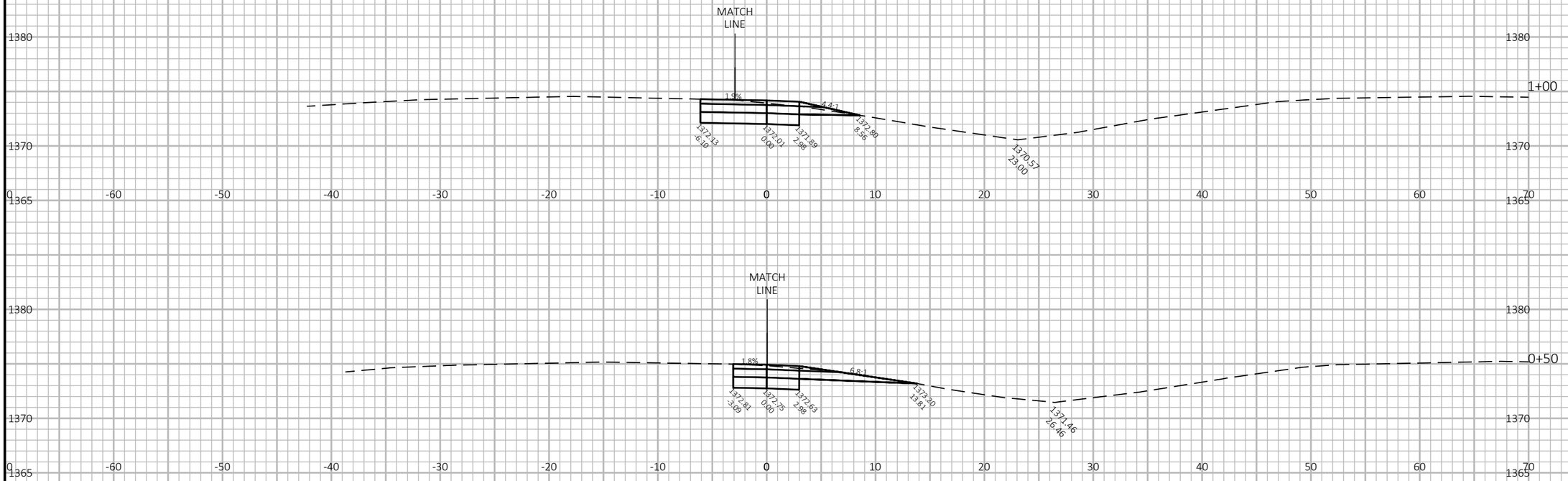
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: GUARDRAIL - BI-DIRECTIONAL	SHEET 343	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090201-XS-GUARDRAIL BI-DIRECTIONAL.DWG 10/16/2024 11:51 AM
LAYOUT NAME - 04

PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



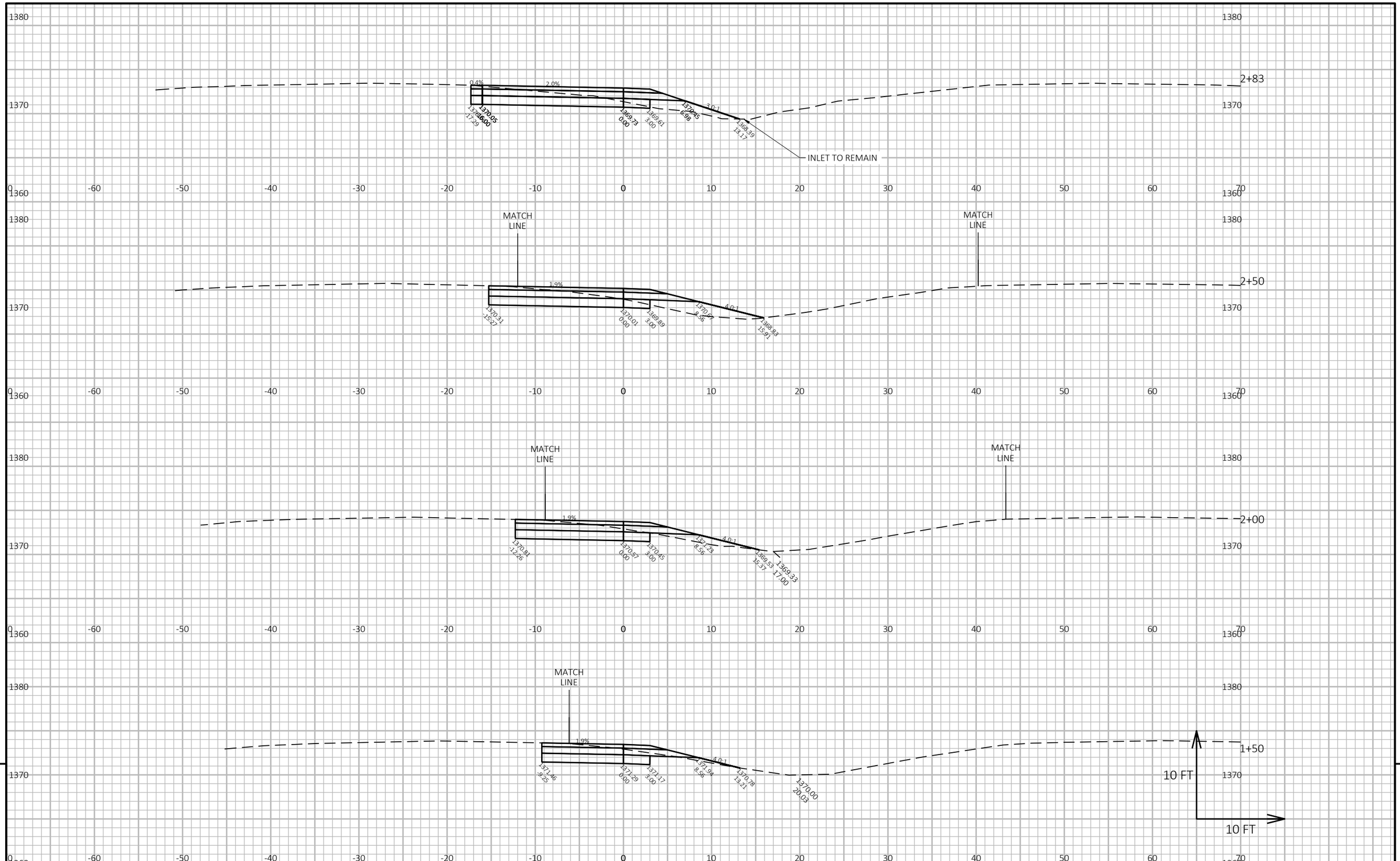
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 344	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG LAYOUT NAME - 01 PLOT DATE : 10/21/2024 12:36 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



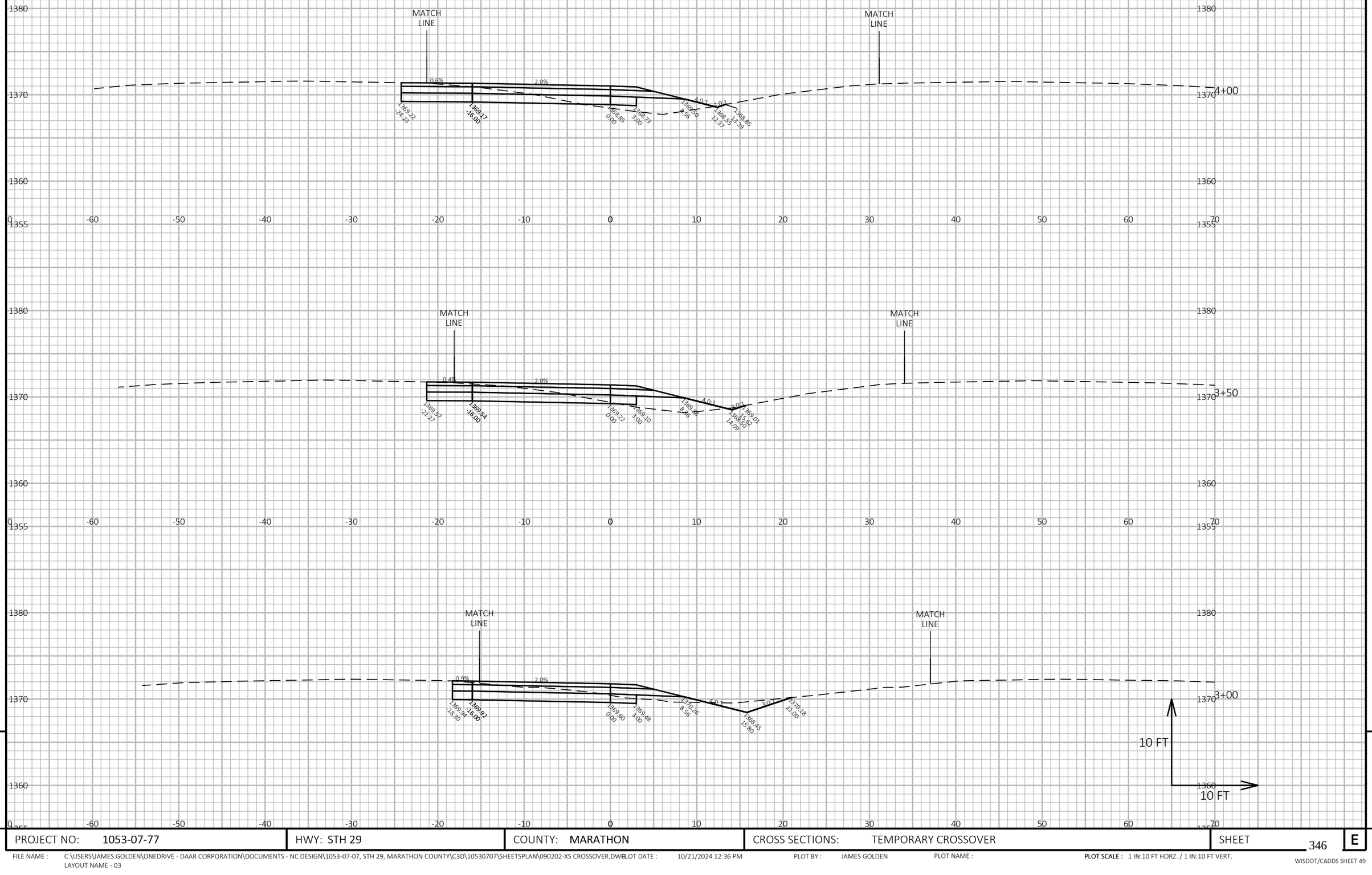
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 345	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG LAYOUT NAME - 02 PLOT DATE : 10/21/2024 12:36 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



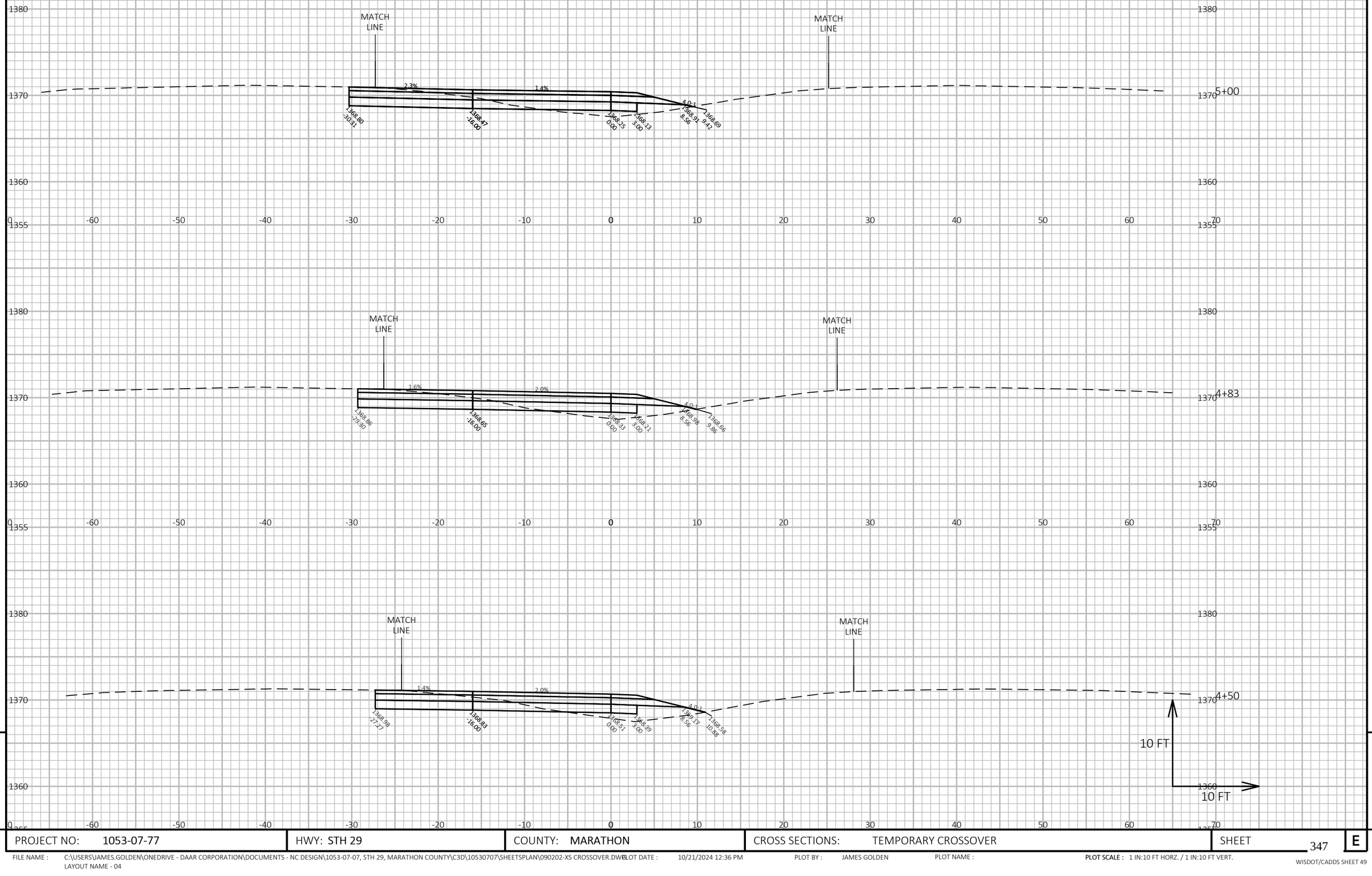
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 346	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG PLOT DATE : 10/21/2024 12:36 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 03

WISDOT/CADDS SHEET 49



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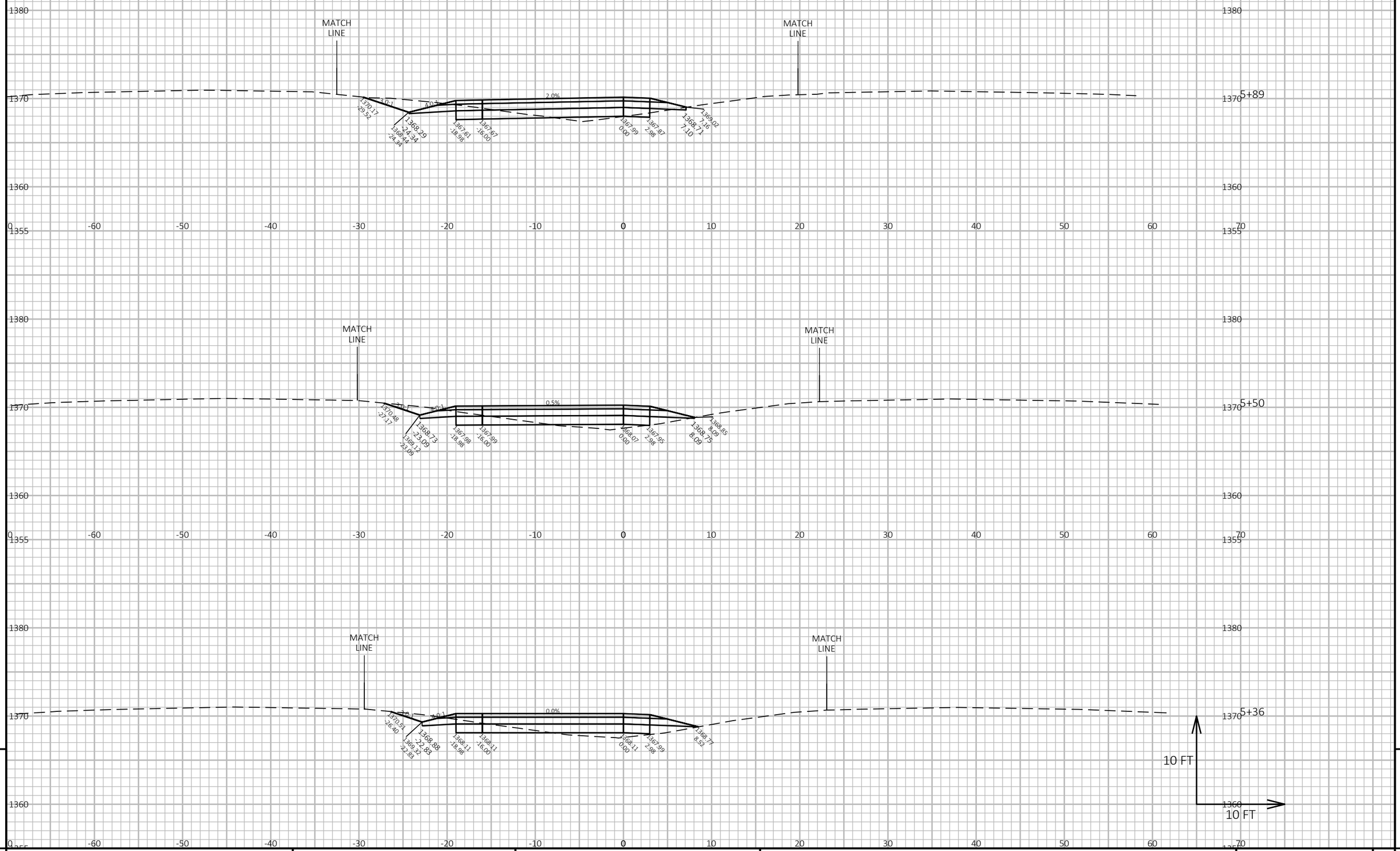
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 347	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG
LAYOUT NAME - 04

PLOT DATE : 10/21/2024 12:36 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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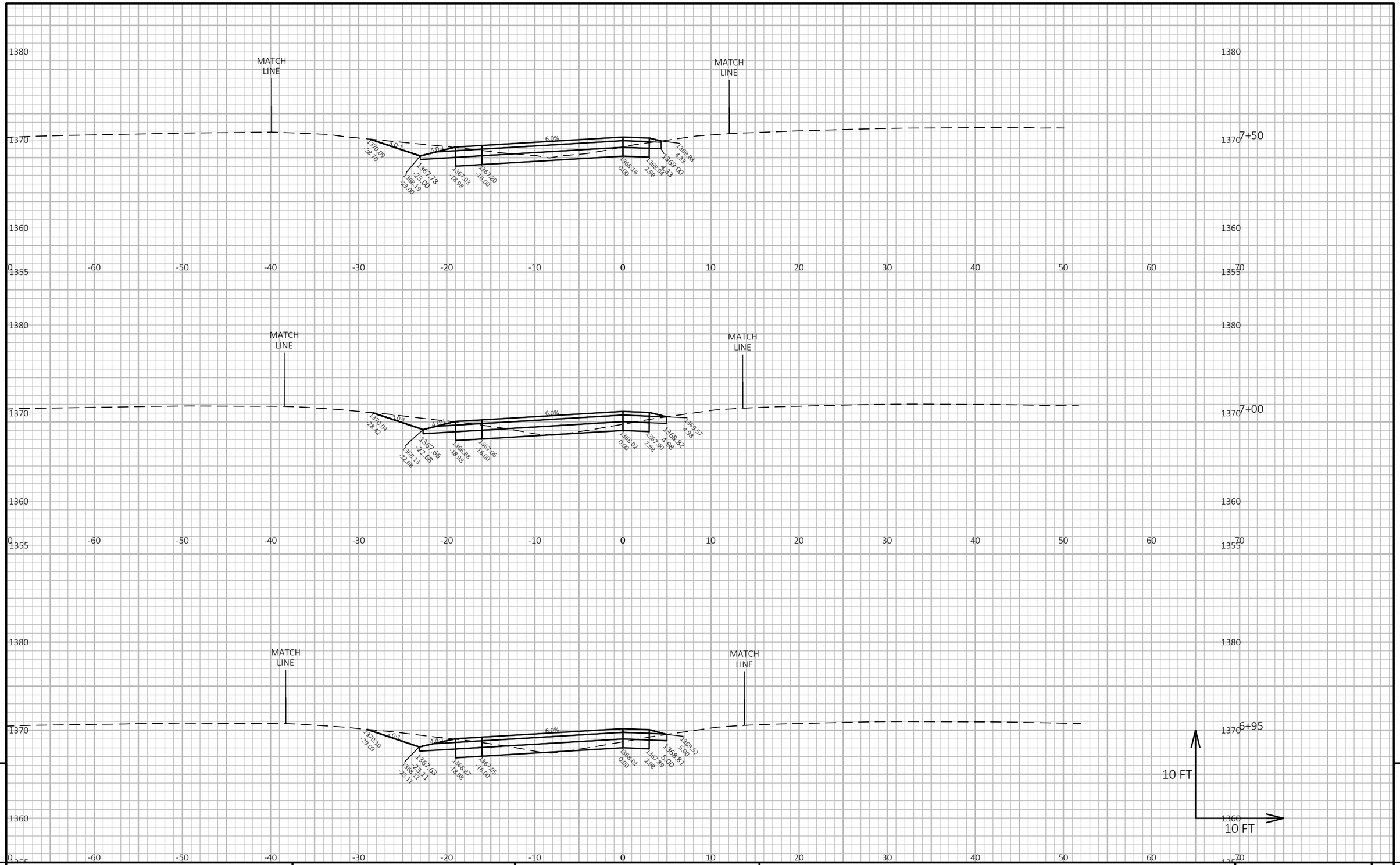
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 348	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG PLOT DATE : 10/21/2024 12:36 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 05

PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 349 E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG PLOT DATE : 10/21/2024 12:36 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 06

WISDOT/CADDS SHEET 49

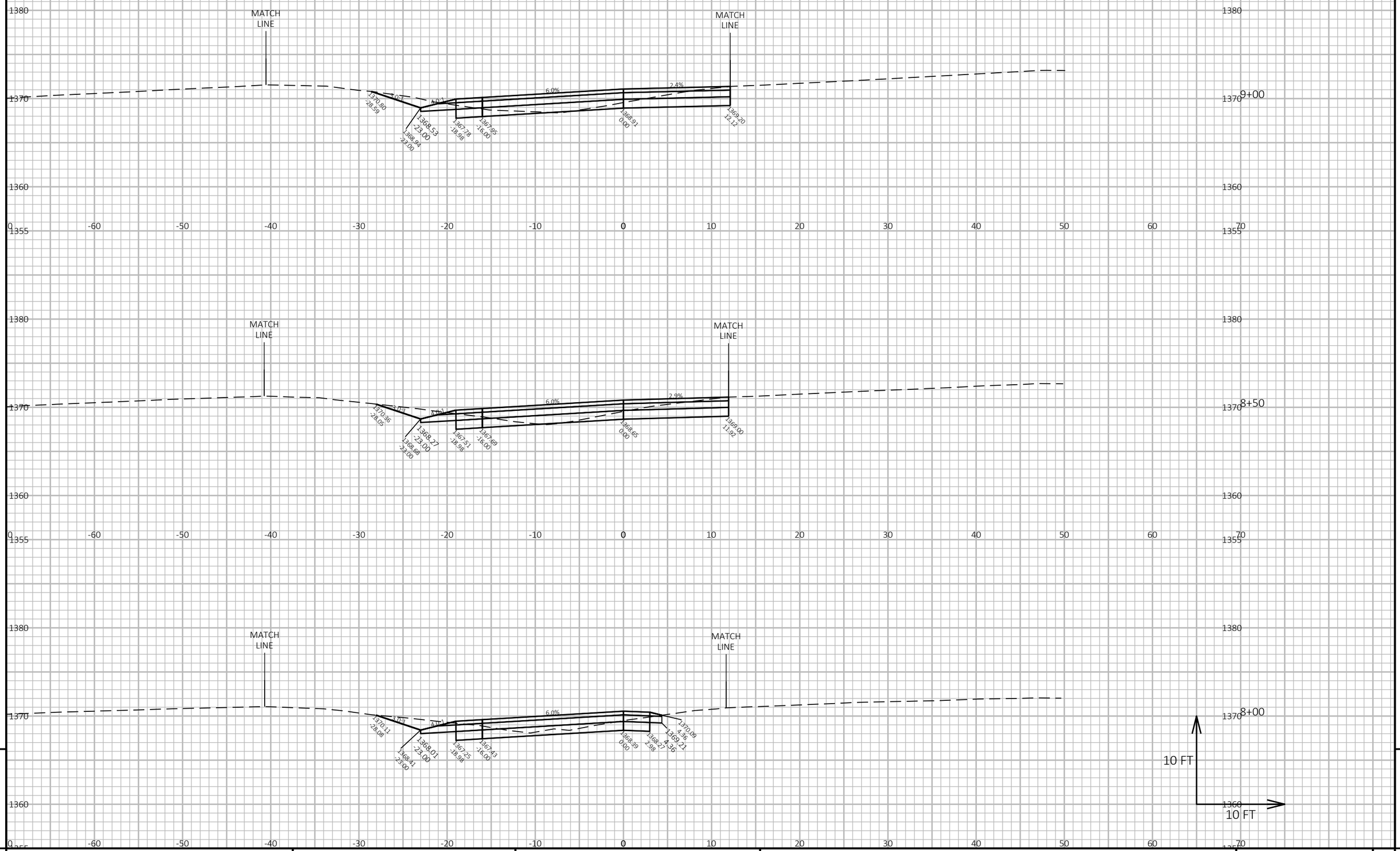


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 350	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG
LAYOUT NAME - 07
PLOT DATE : 10/21/2024 12:36 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

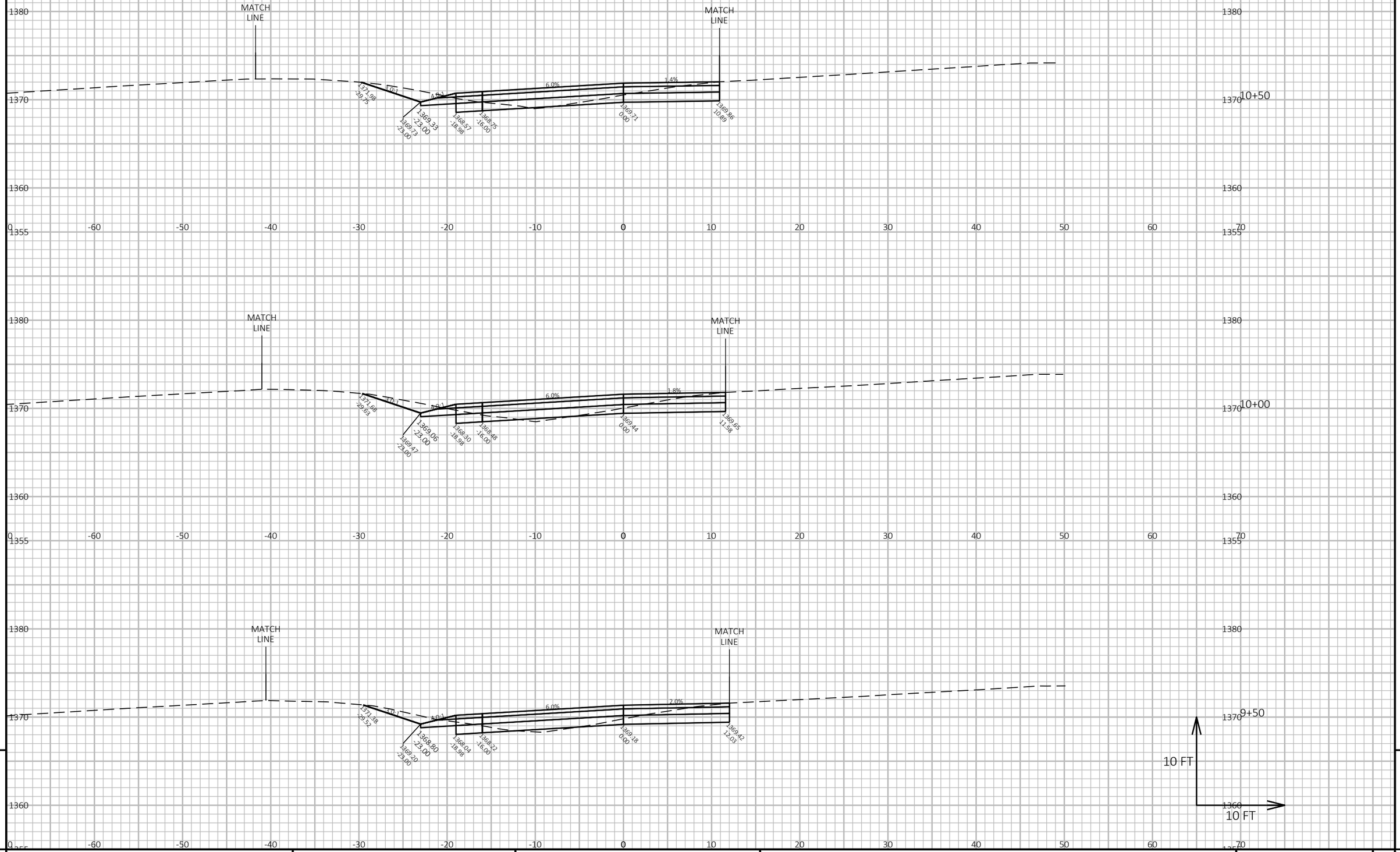


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 351	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG PLOT DATE : 10/21/2024 12:36 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 08

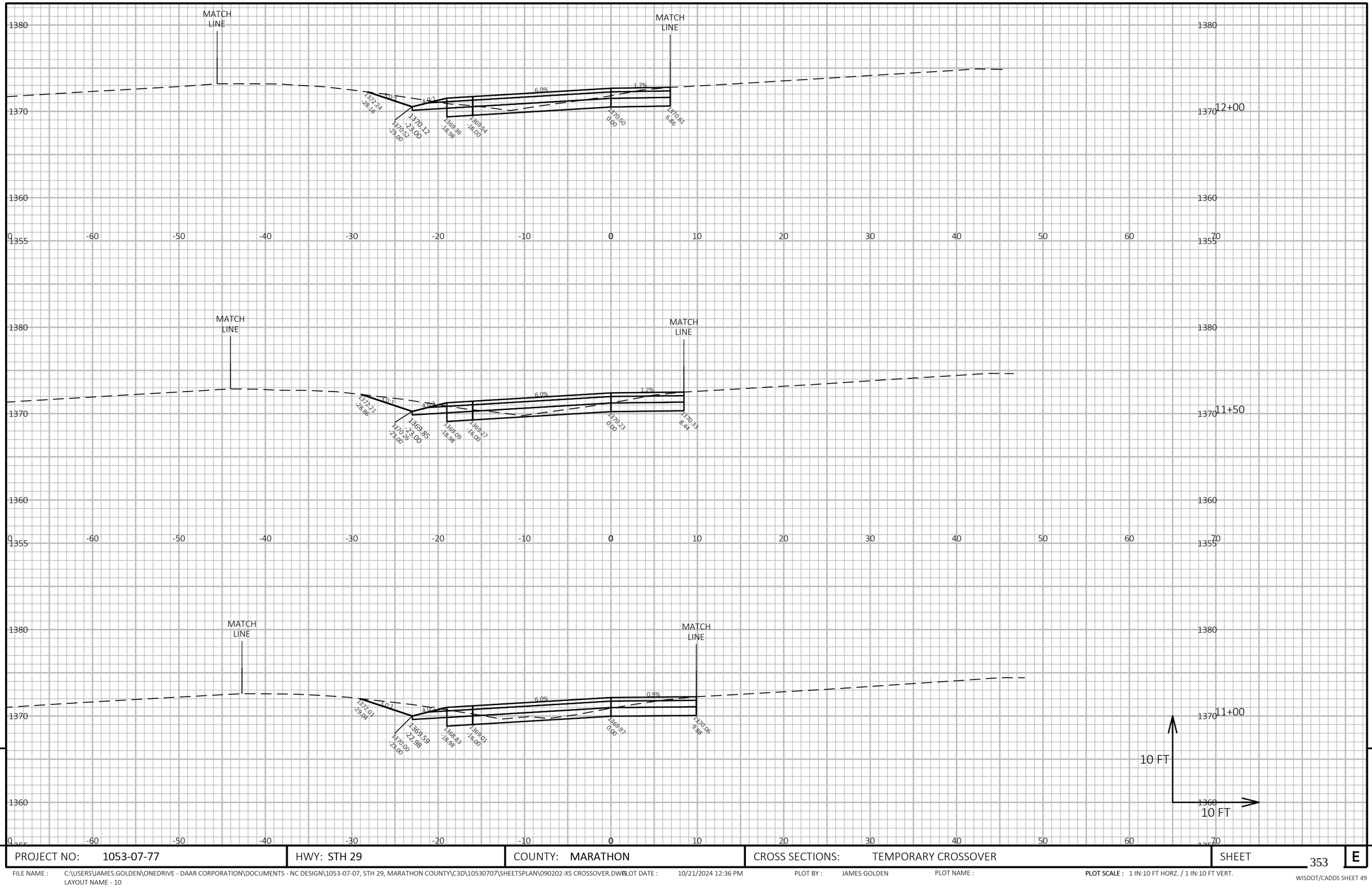


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 352	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG
LAYOUT NAME - 09
PLOT DATE : 10/21/2024 12:36 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

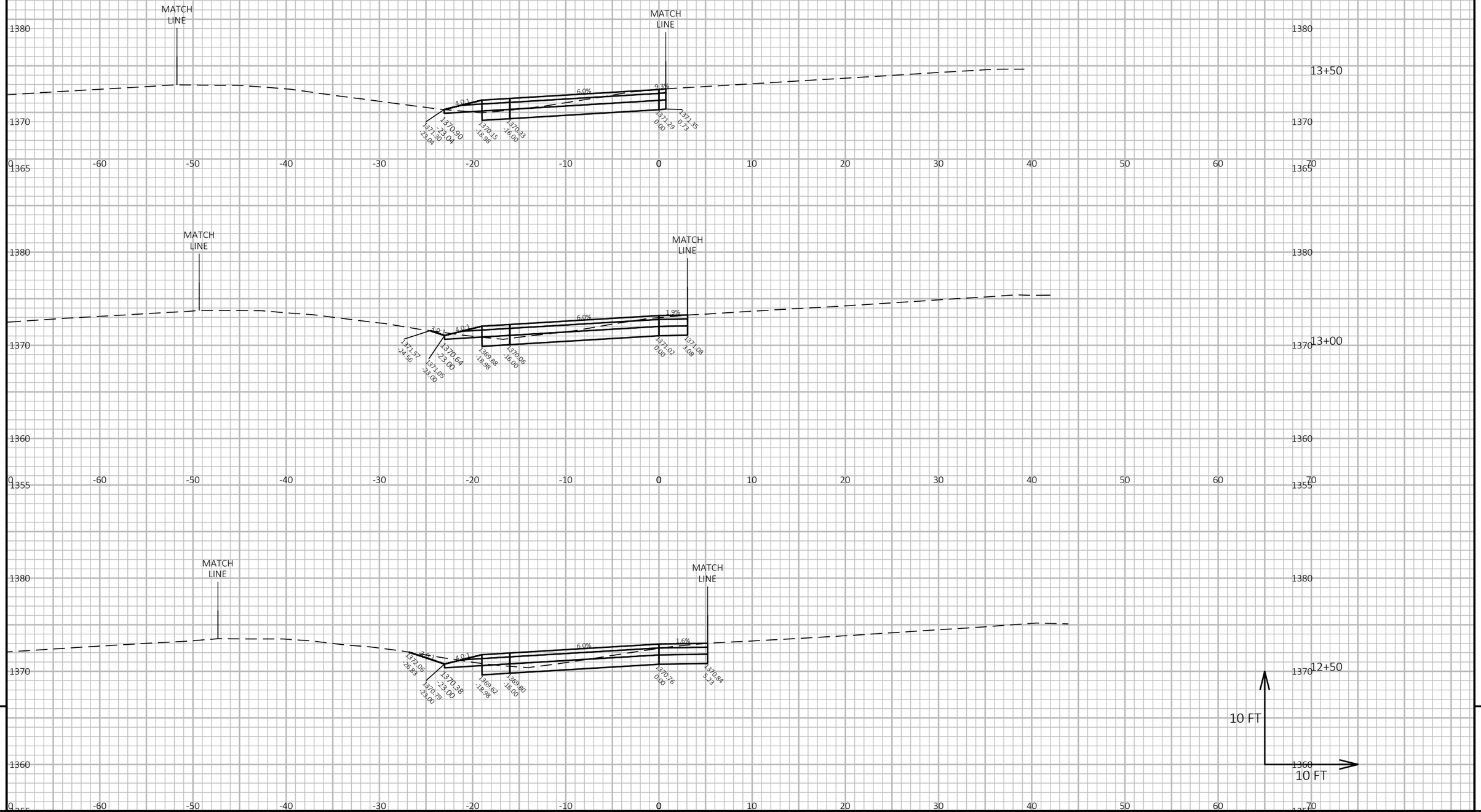


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 353	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG
LAYOUT NAME - 10
PLOT DATE : 10/21/2024 12:36 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

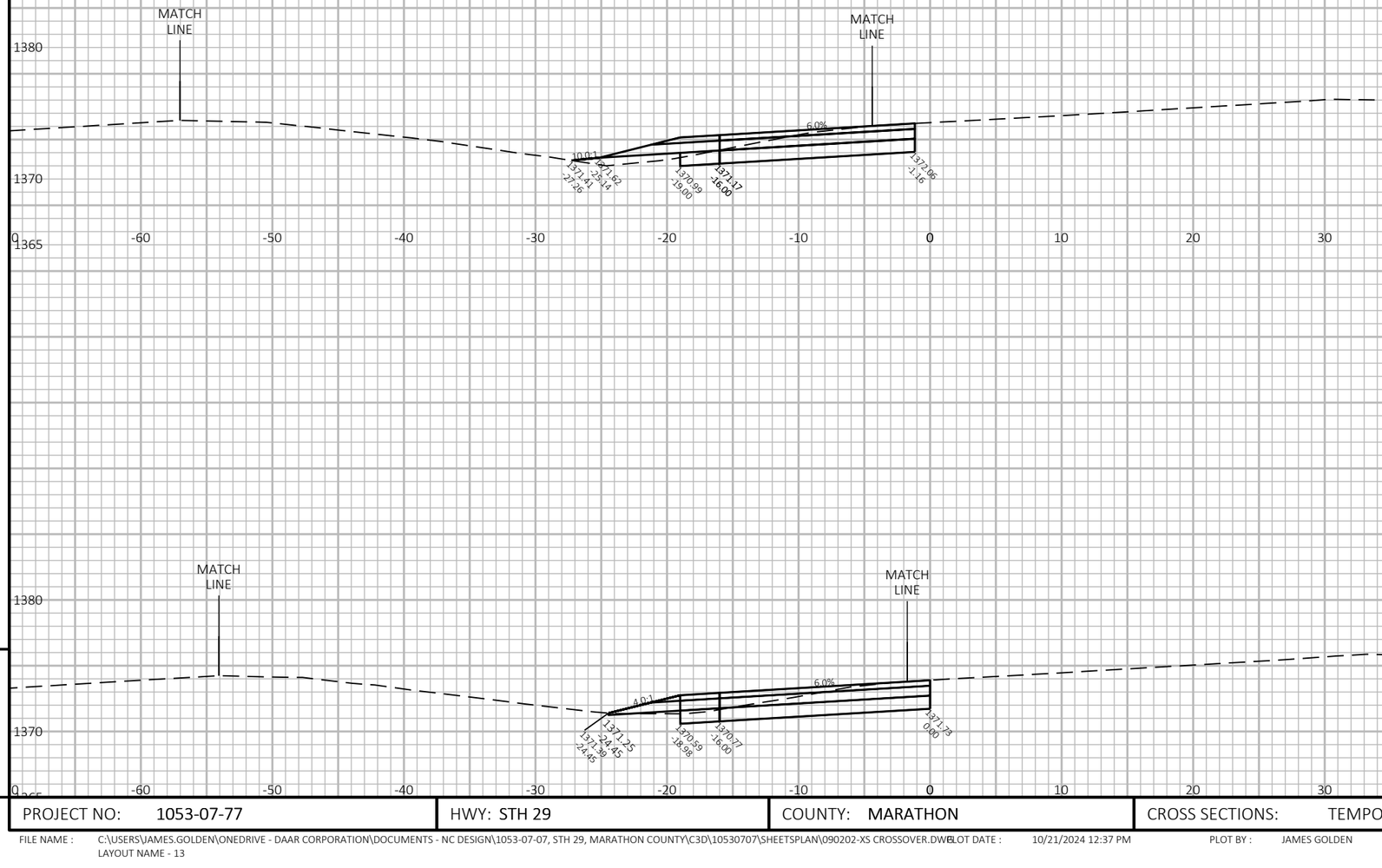


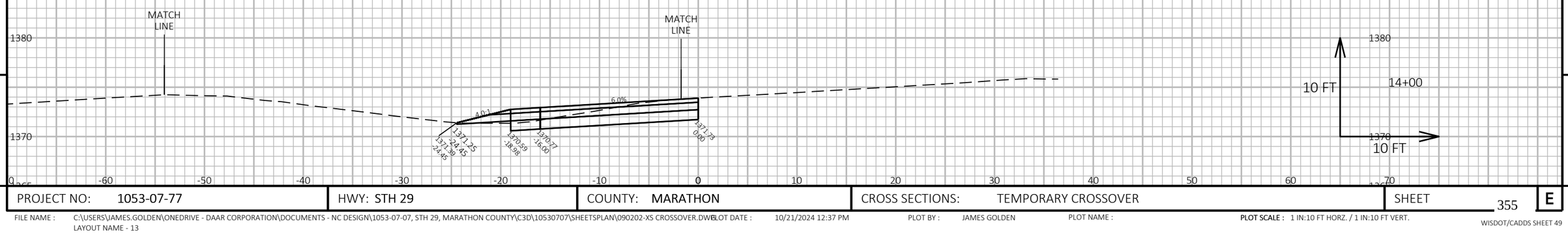
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 354	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG
LAYOUT NAME - 11
PLOT DATE : 10/21/2024 12:36 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.





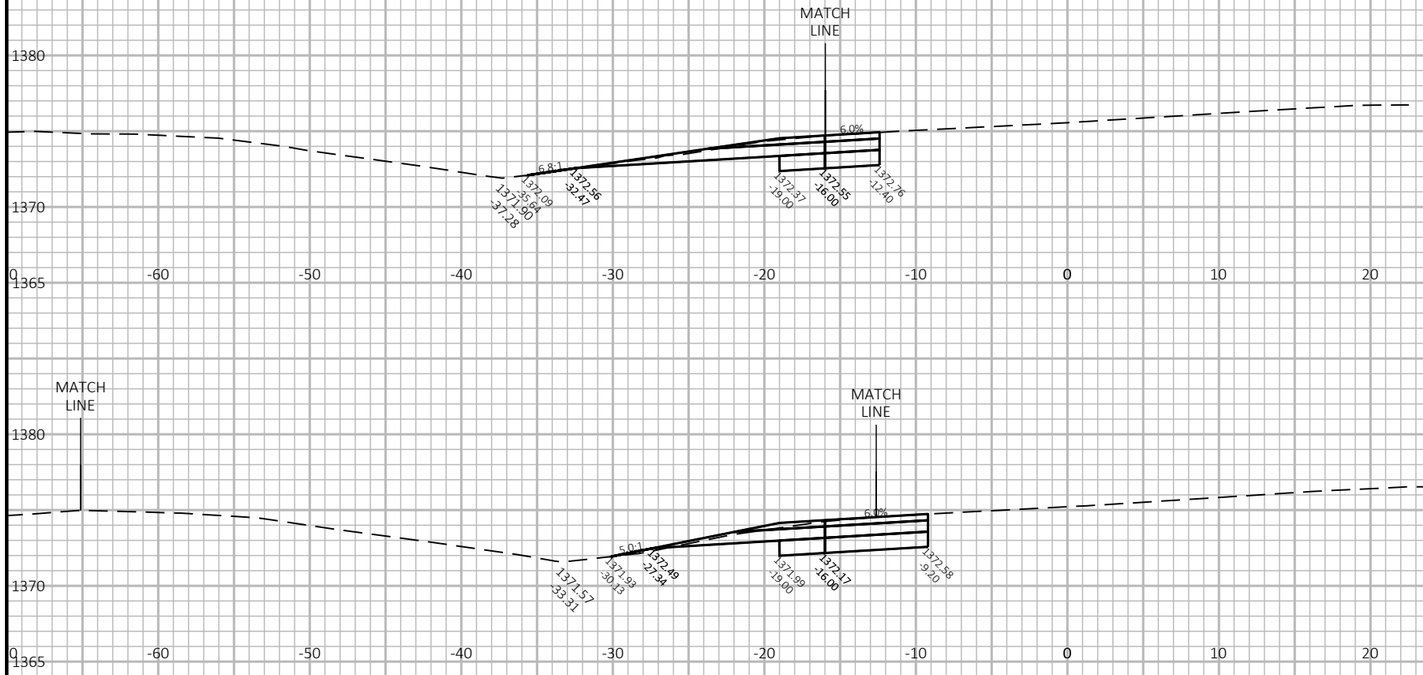
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 355	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG PLOT DATE : 10/21/2024 12:37 PM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
LAYOUT NAME - 13

WISDOT/CADDS SHEET 49

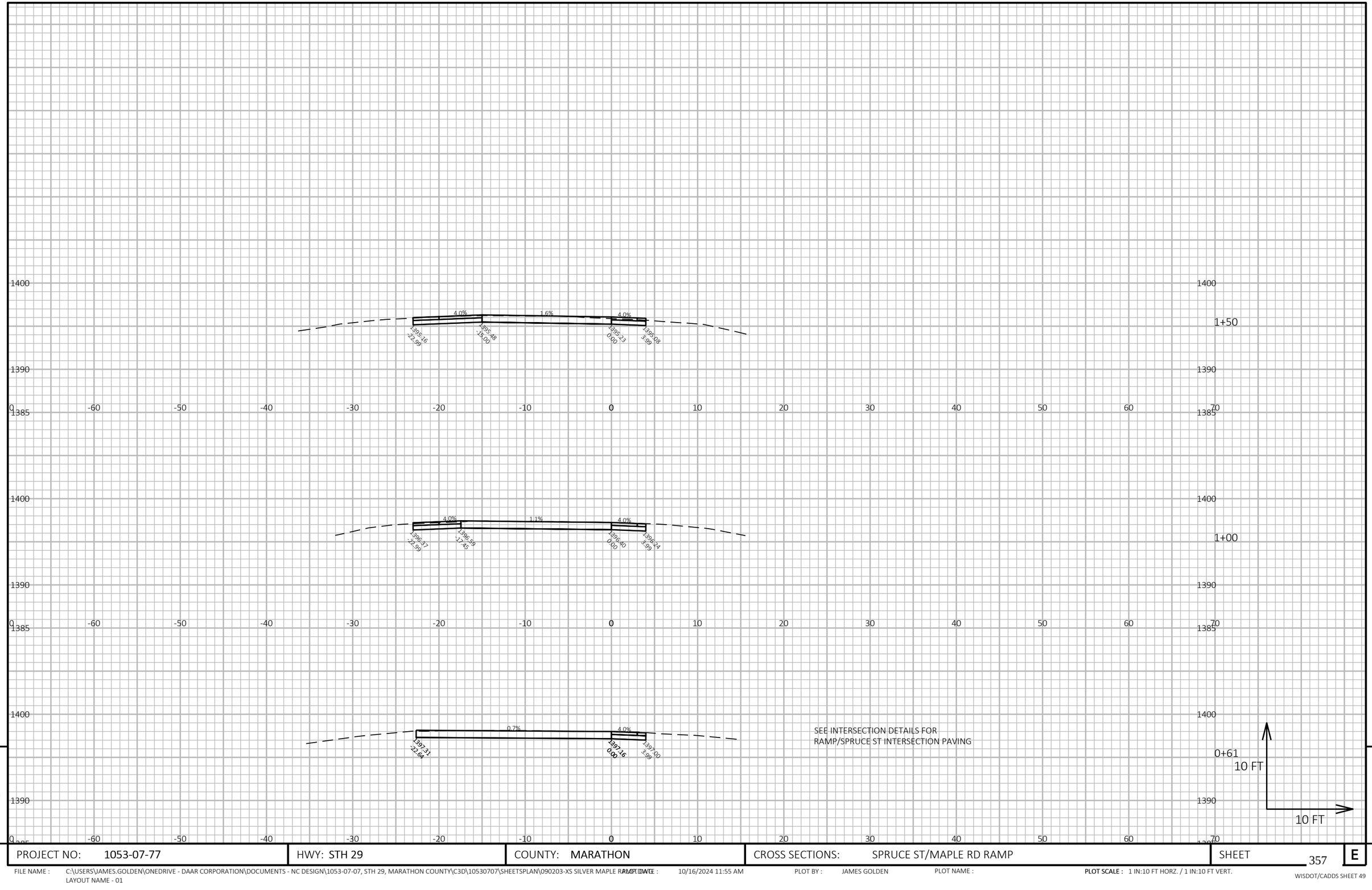


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: TEMPORARY CROSSOVER	SHEET 356	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090202-XS CROSSOVER.DWG
LAYOUT NAME - 14
PLOT DATE : 10/21/2024 12:37 PM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



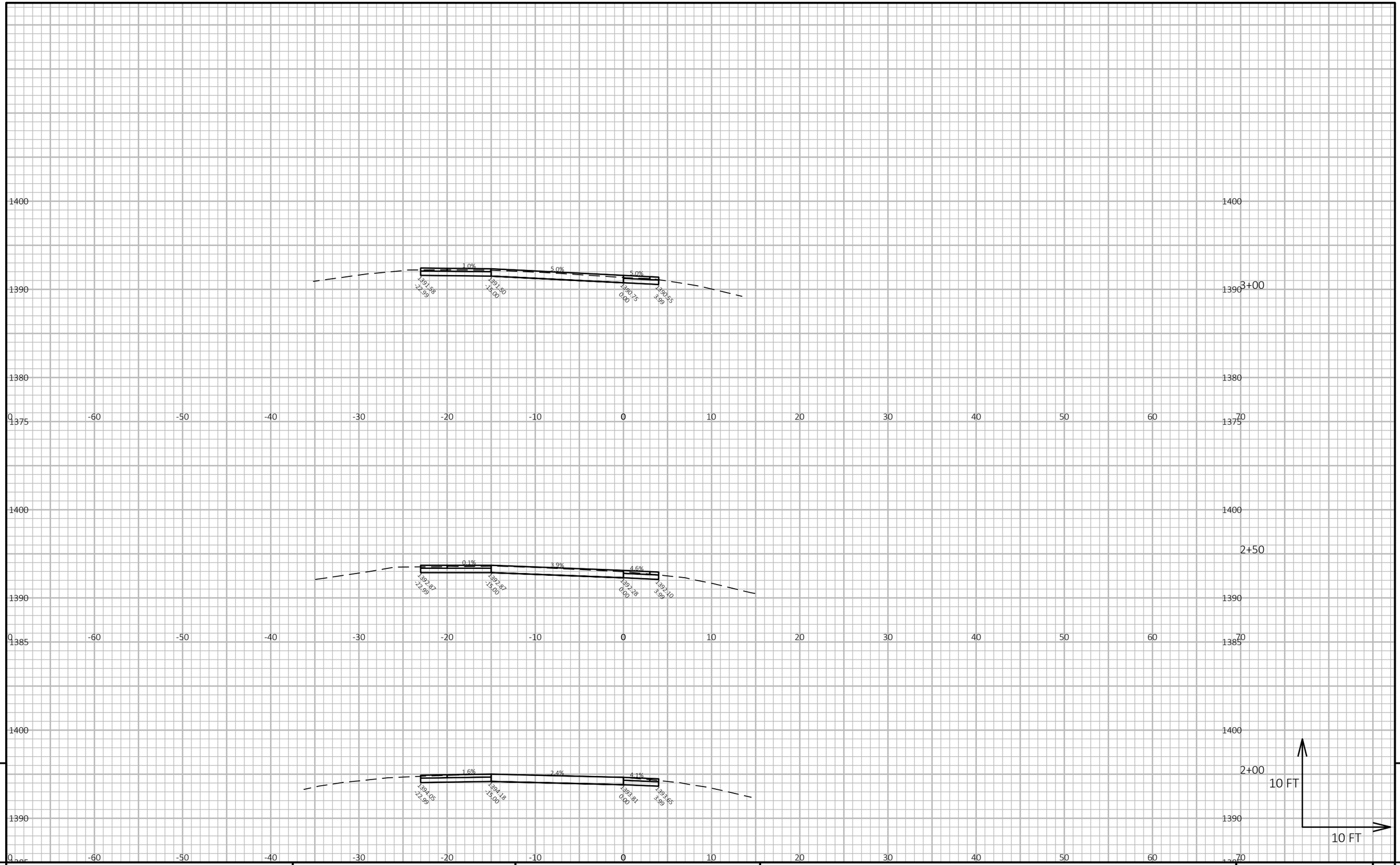
SEE INTERSECTION DETAILS FOR
RAMP/SPRUCE ST INTERSECTION PAVING

9

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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 357	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 01
PLOT DATE : 10/16/2024 11:55 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



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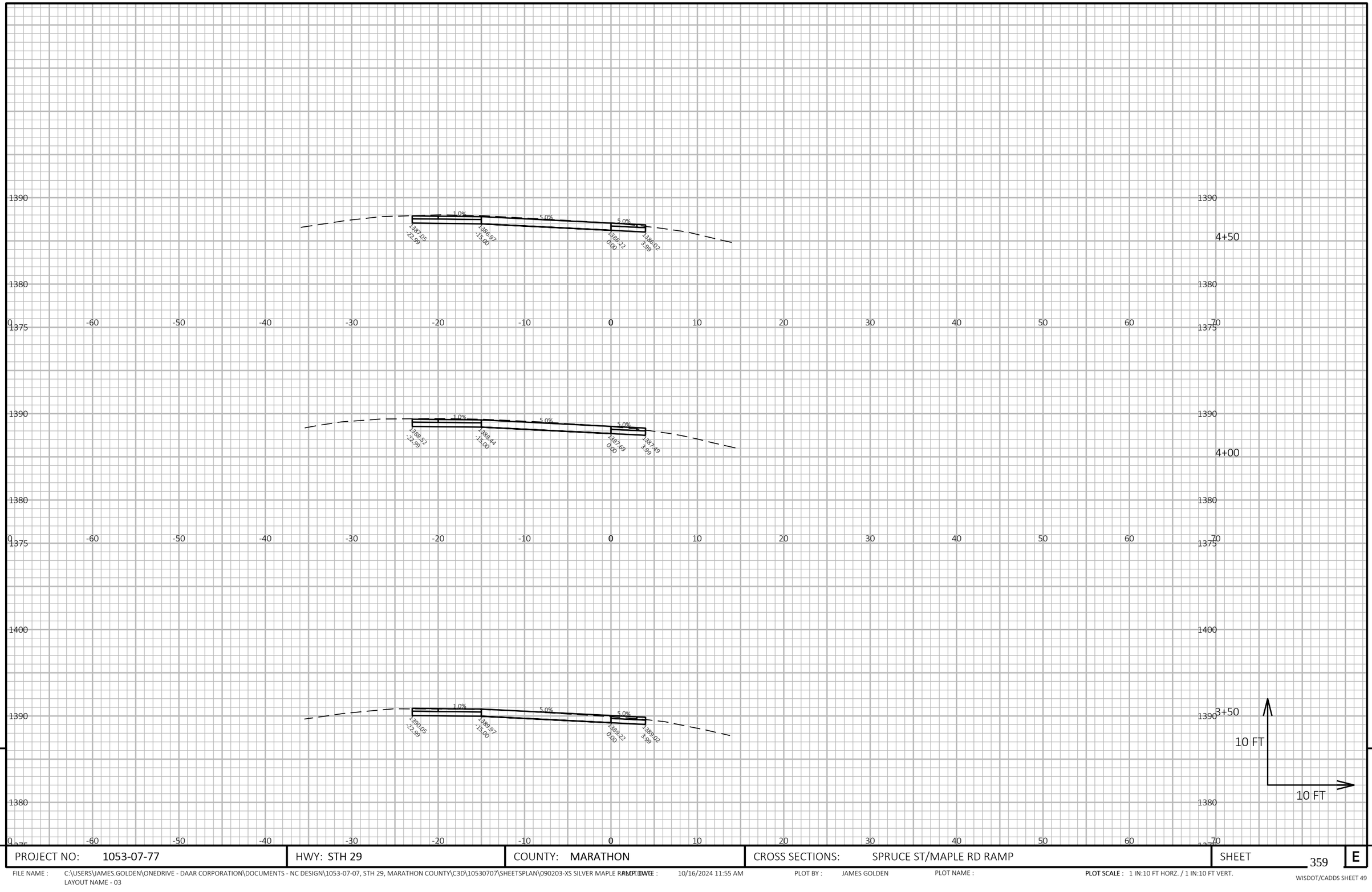
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 358	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 02

PLOT DATE : 10/16/2024 11:55 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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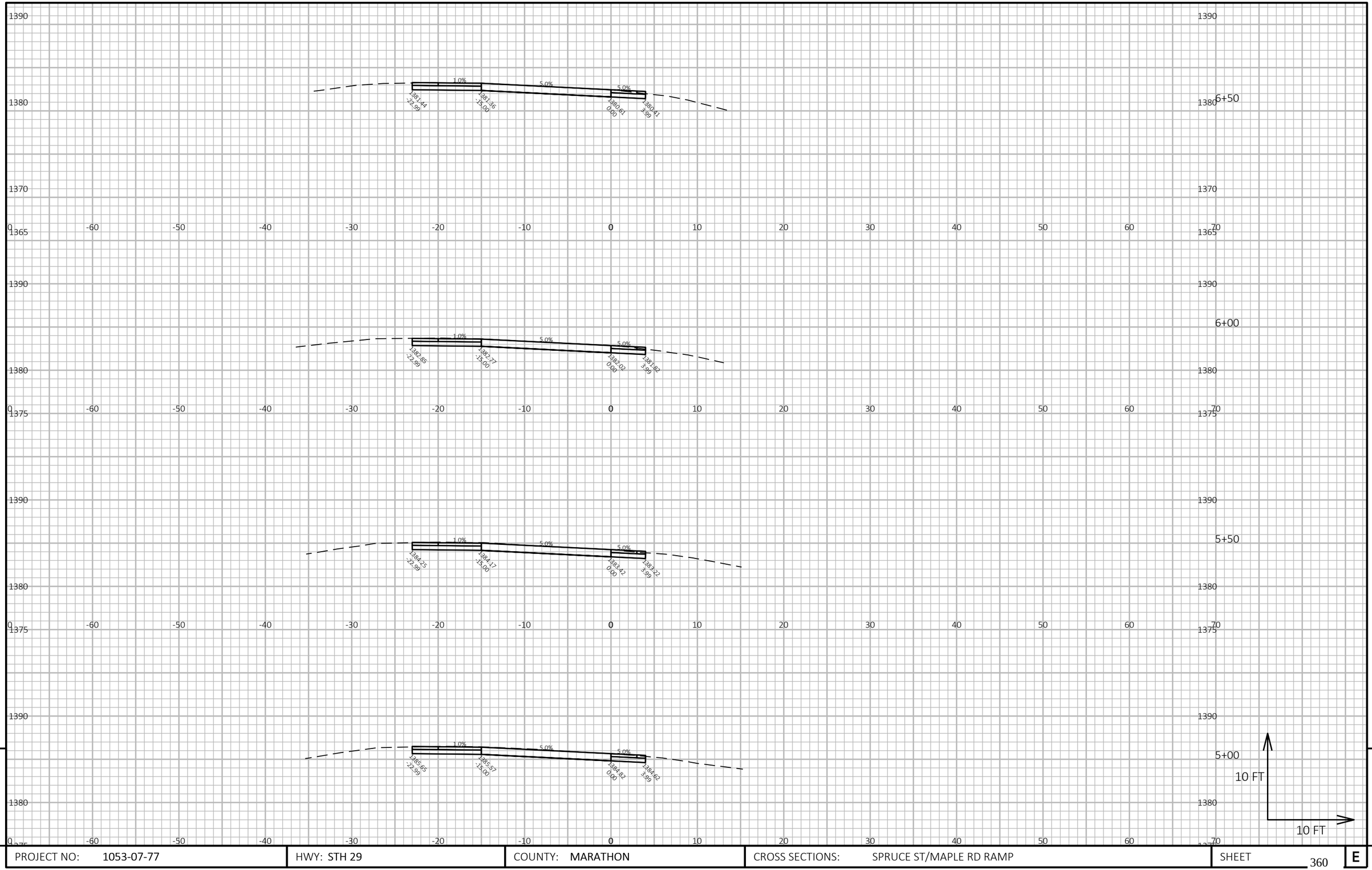
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 359	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 03

PLOT DATE : 10/16/2024 11:55 AM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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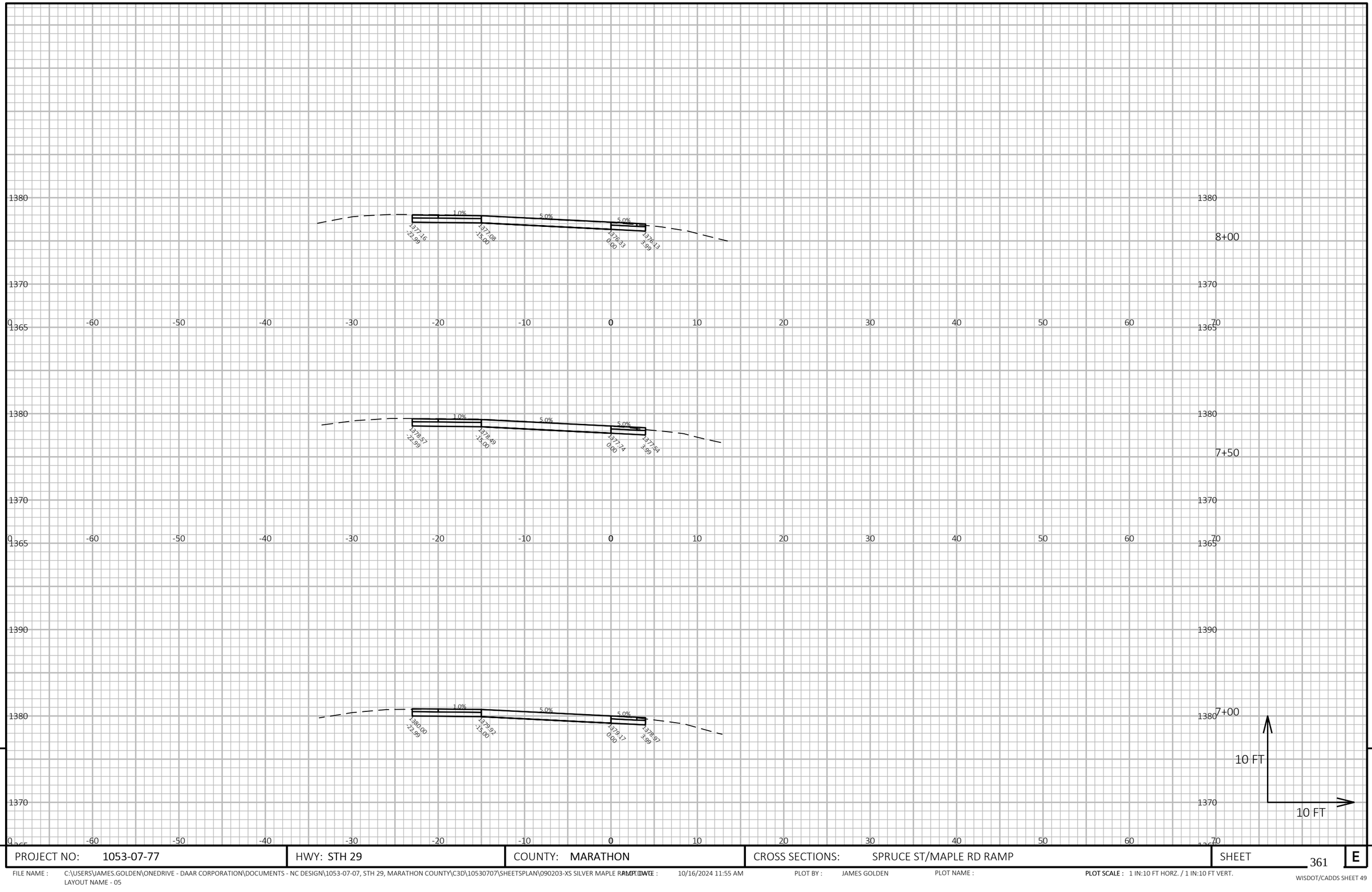
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 360	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 04

PLOT DATE : 10/16/2024 11:55 AM PLOT BY : JAMES GOLDEN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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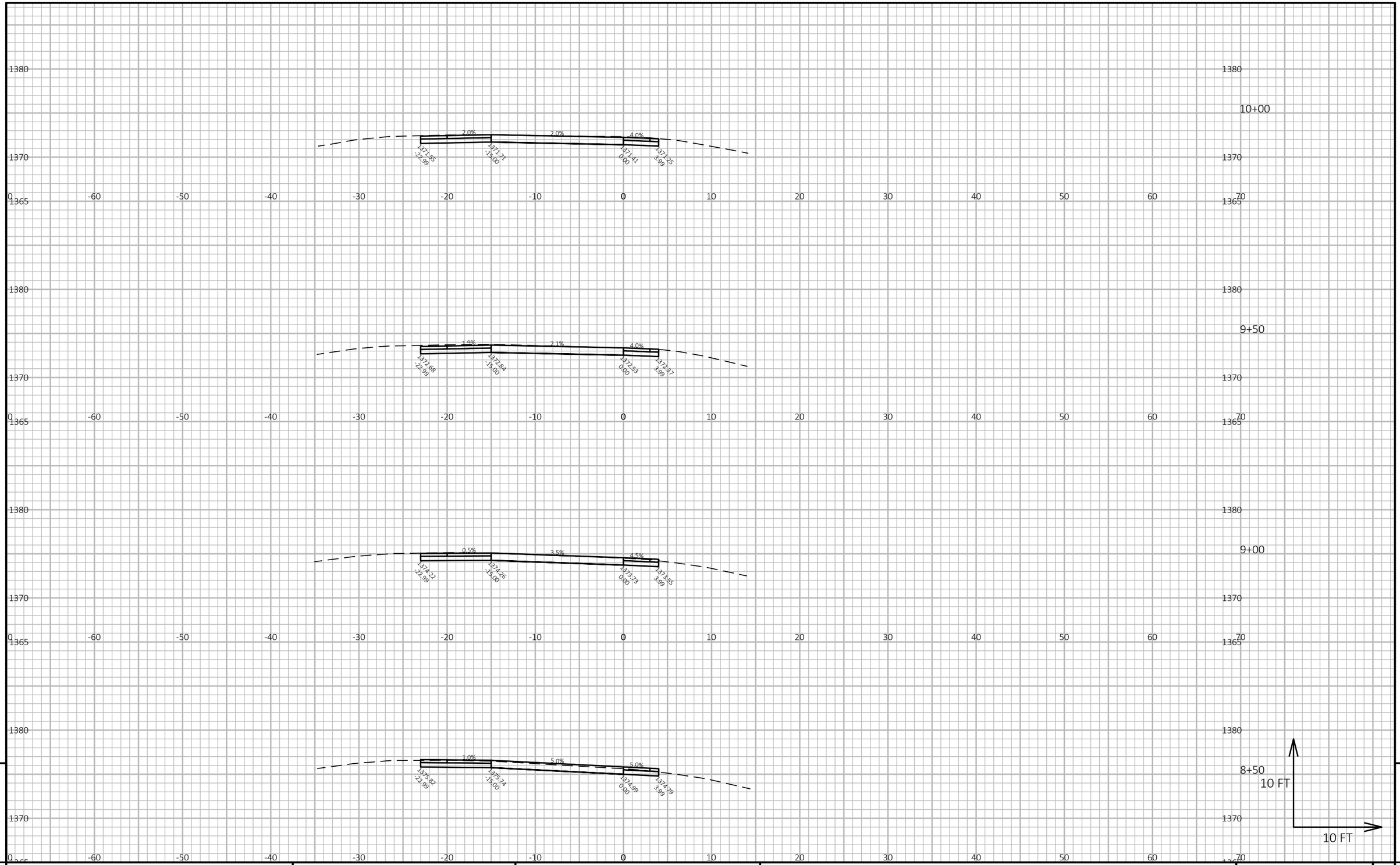
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 361	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 05

PLOT DATE : 10/16/2024 11:55 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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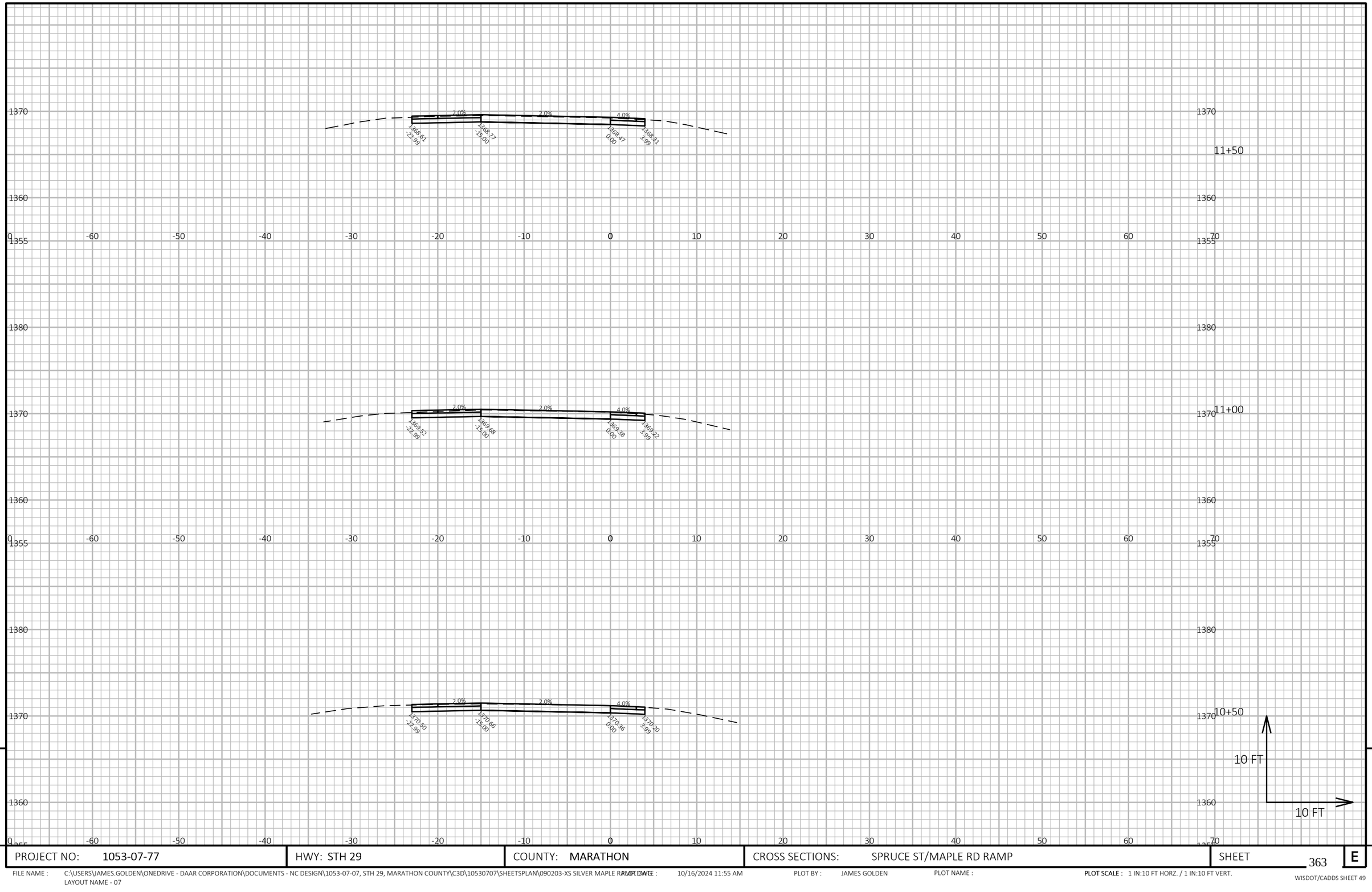
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 362	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 06

PLOT DATE : 10/16/2024 11:55 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

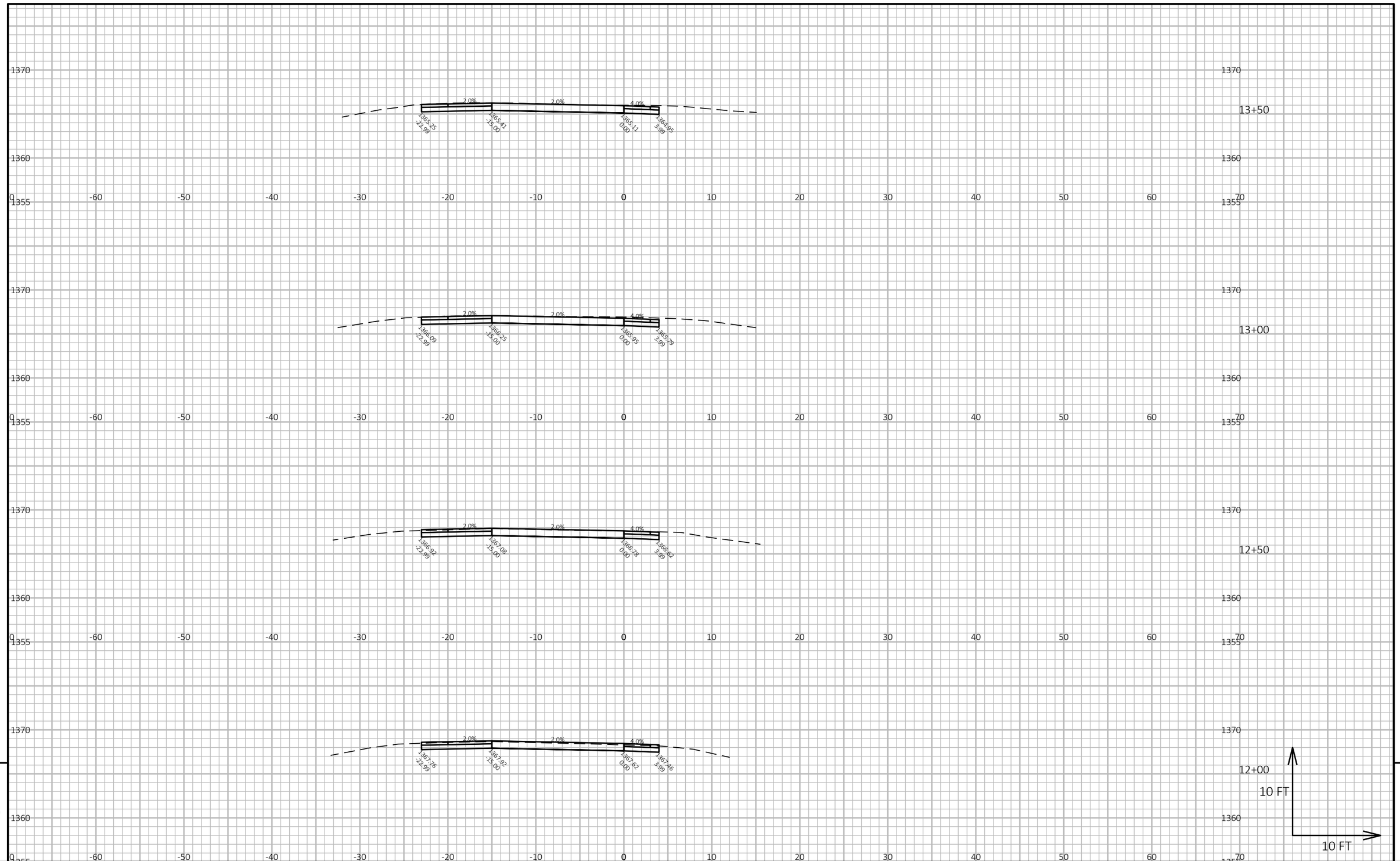


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 363	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 07
PLOT DATE : 10/16/2024 11:55 AM PLOT BY : JAMES GOLDEN PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

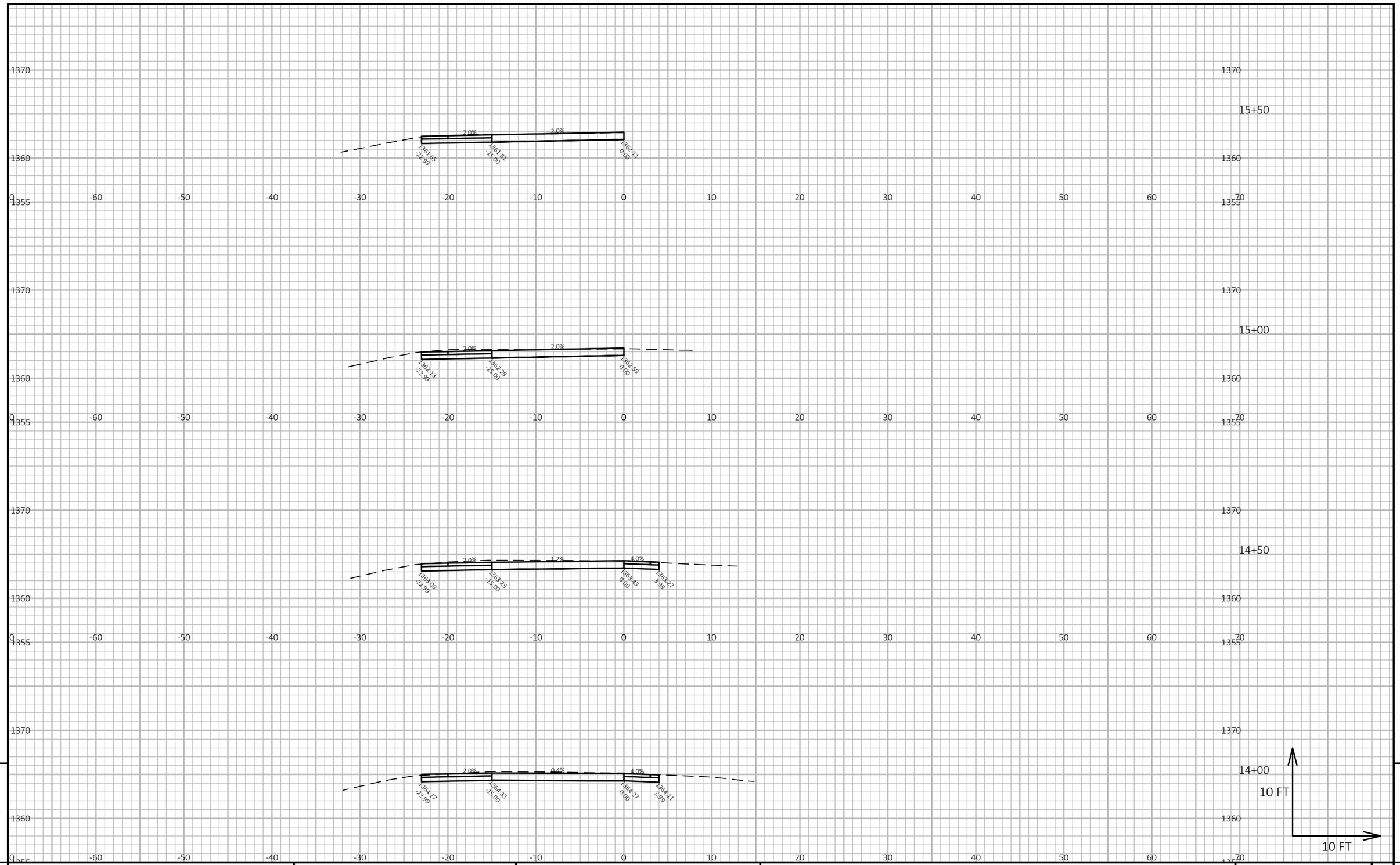


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 364	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 08
PLOT DATE : 10/16/2024 11:55 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.



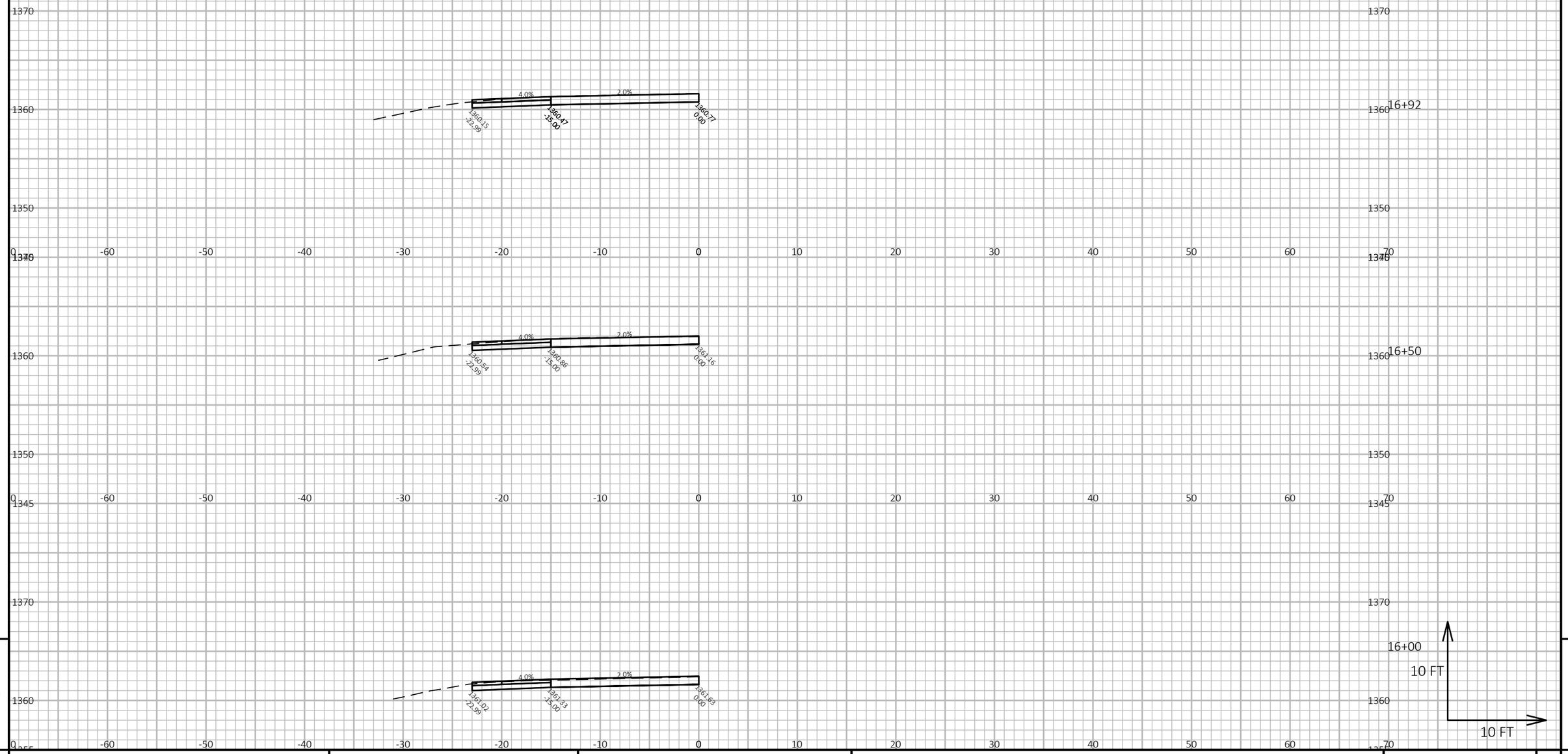
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 365	E

FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 09
PLOT DATE : 10/16/2024 11:55 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49

FULL WIDTH PAVEMENT ENDS HERE,
SEE INTERSECTION DETAILS FOR RAMP
PAVEMENT TAPER TO MAINLINE

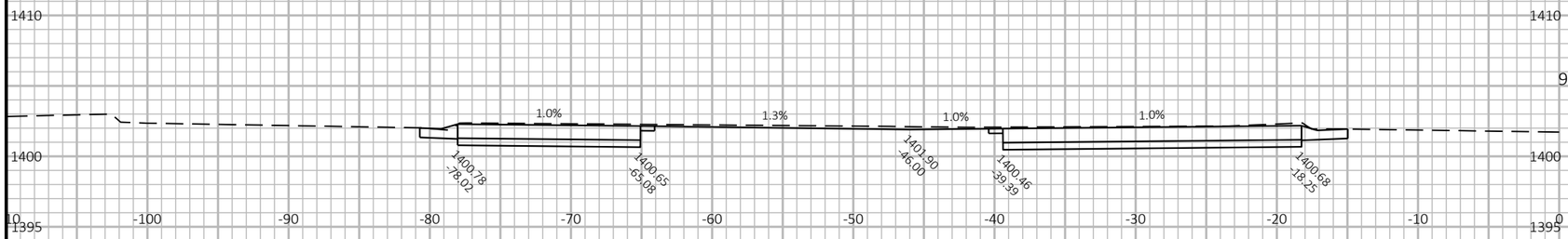


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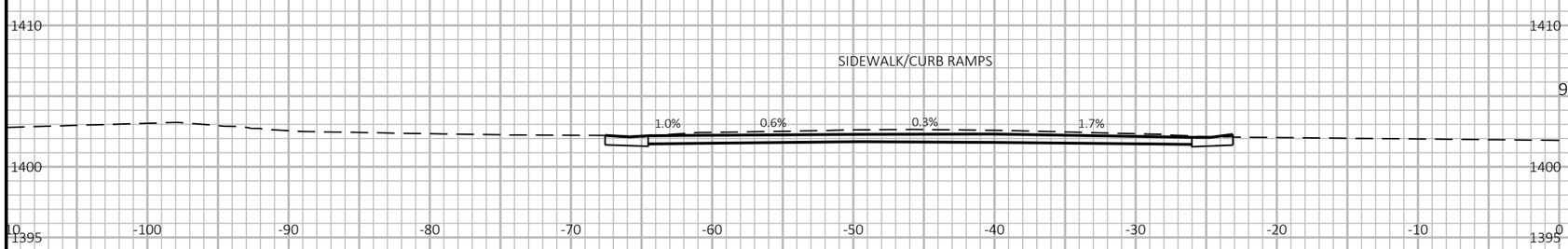
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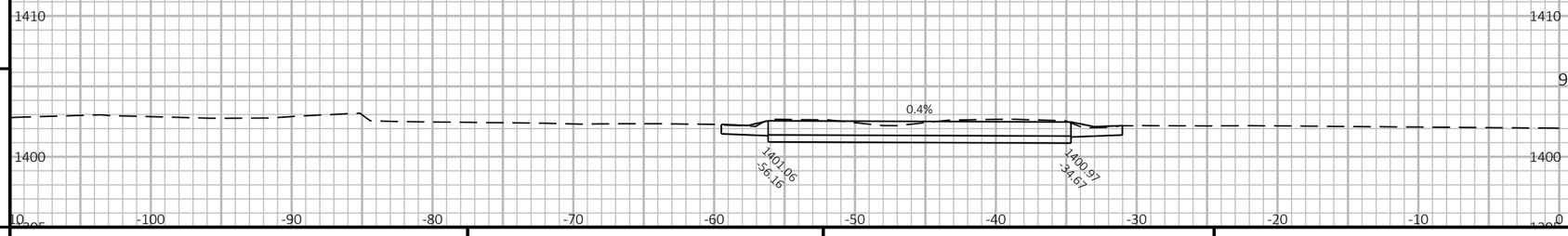
PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: SPRUCE ST/MAPLE RD RAMP	SHEET 366	E

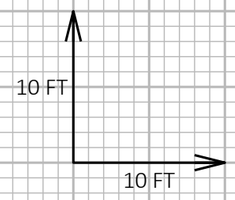
FILE NAME : C:\USERS\JAMES.GOLDEN\ONEDRIVE - DAAR CORPORATION\DOCUMENTS - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090203-XS SILVER MAPLE RAMP.DWG
LAYOUT NAME - 10
PLOT DATE : 10/16/2024 11:55 AM
PLOT BY : JAMES GOLDEN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.









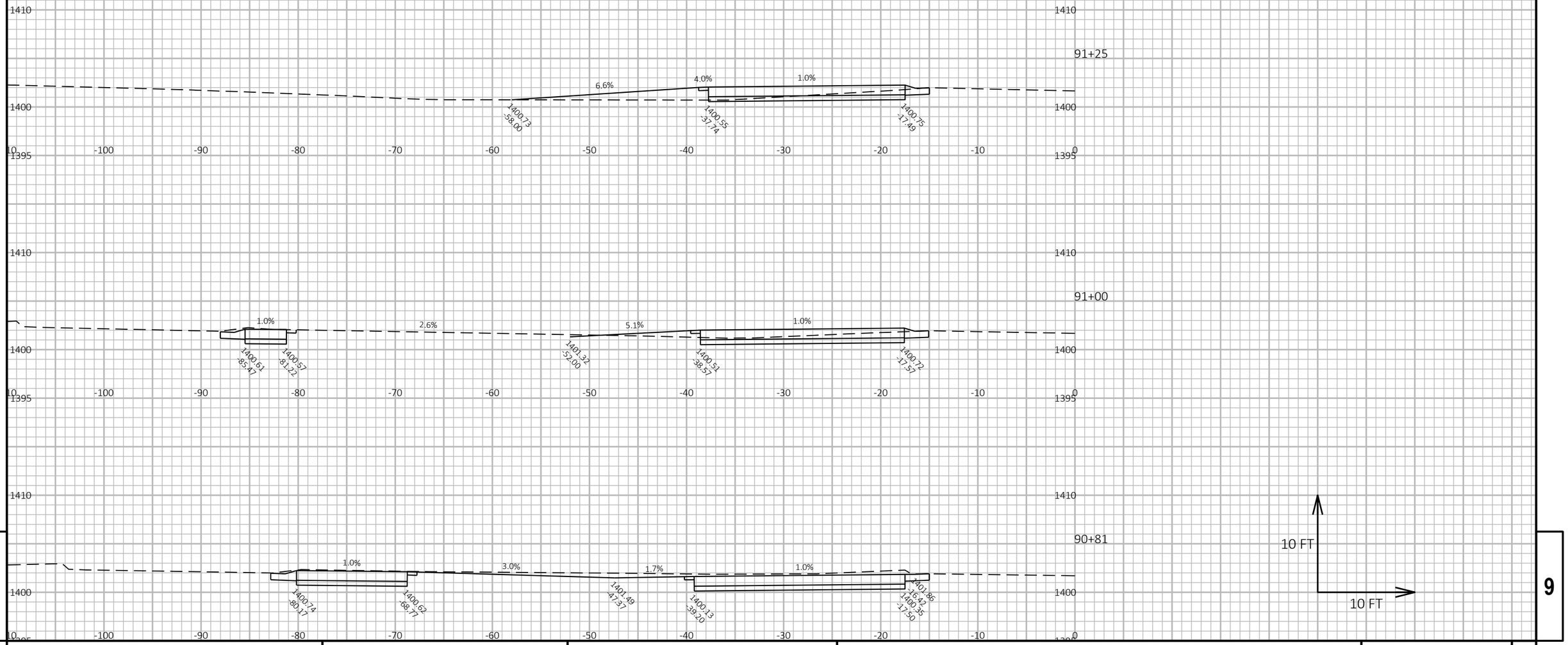


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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 13 RAMP MEDIAN	SHEET 367	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090204-XS STH 13 RAMP MEDIAN.DWG
LAYOUT NAME - 01
PLOT DATE : 10/22/2024 1:42 PM
PLOT BY : BRET SANDERS
PLOT NAME :
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.
WISDOT/CADDS SHEET 49



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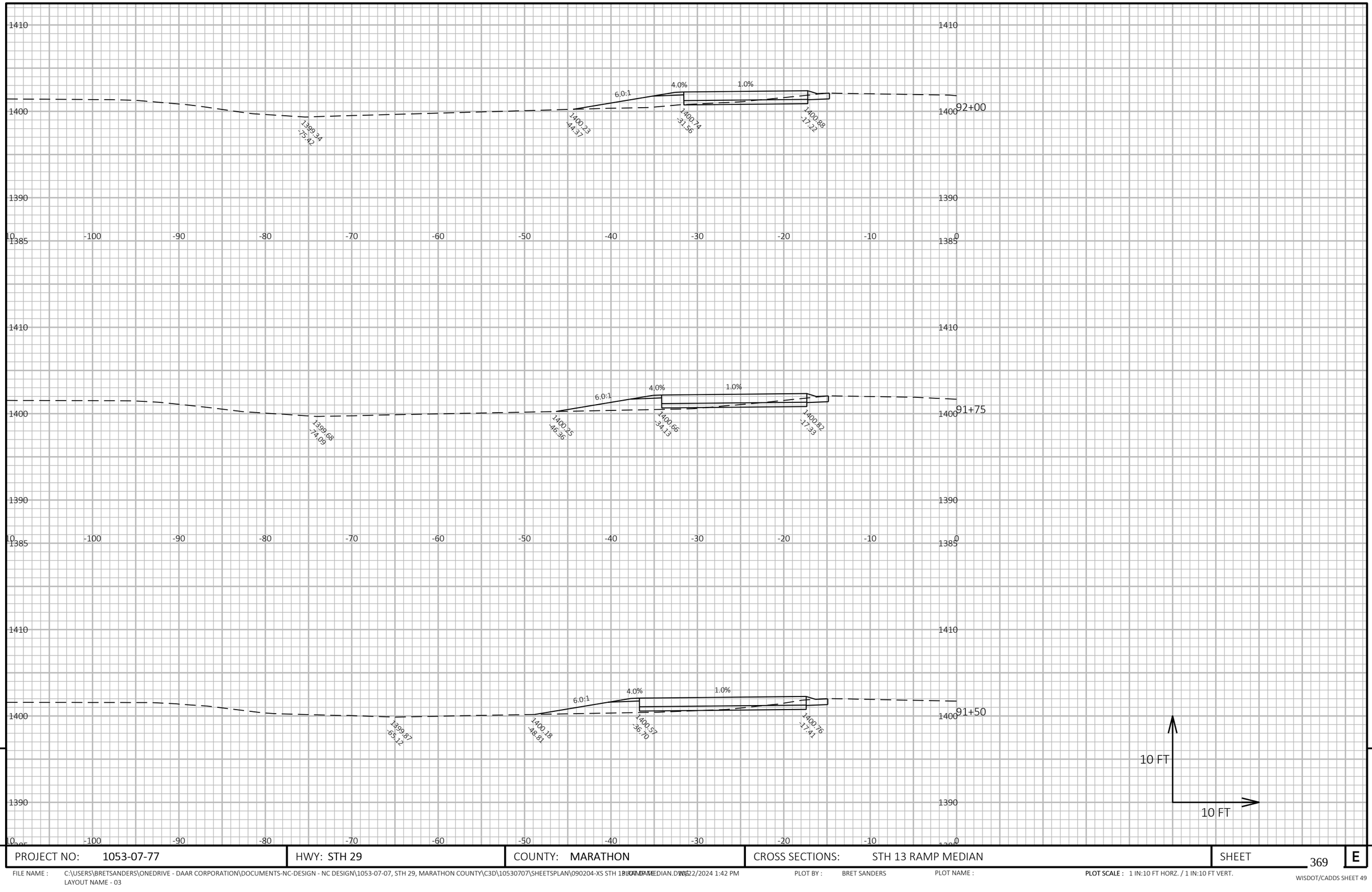
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 13 RAMP MEDIAN	SHEET 368	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090204-XS STH 13 RAMP MEDIAN.DWG 2/22/2024 1:42 PM
LAYOUT NAME - 02

PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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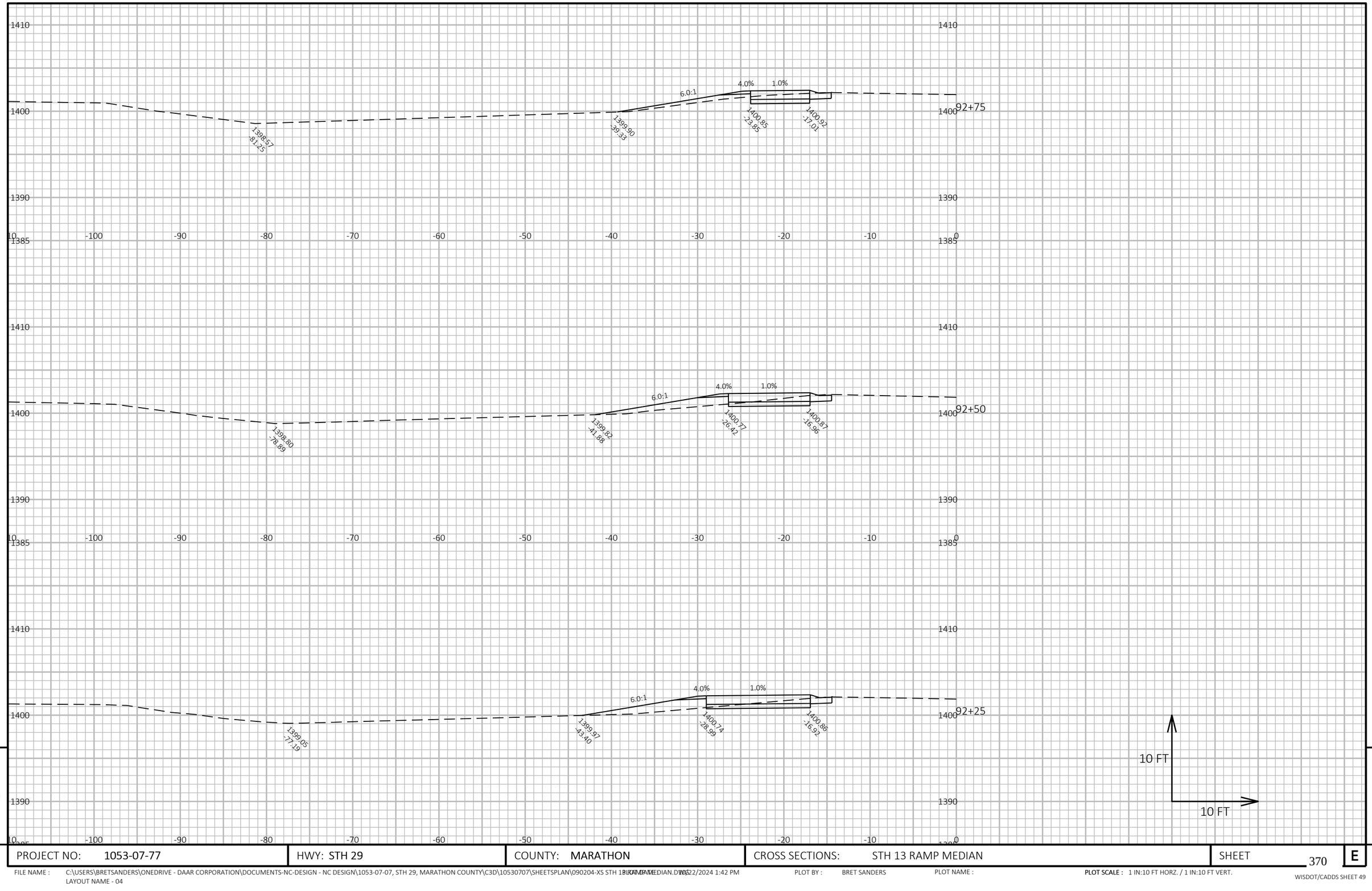
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 13 RAMP MEDIAN	SHEET 369	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090204-XS STH 13 RAMP MEDIAN.DWG 2/22/2024 1:42 PM
LAYOUT NAME - 03

PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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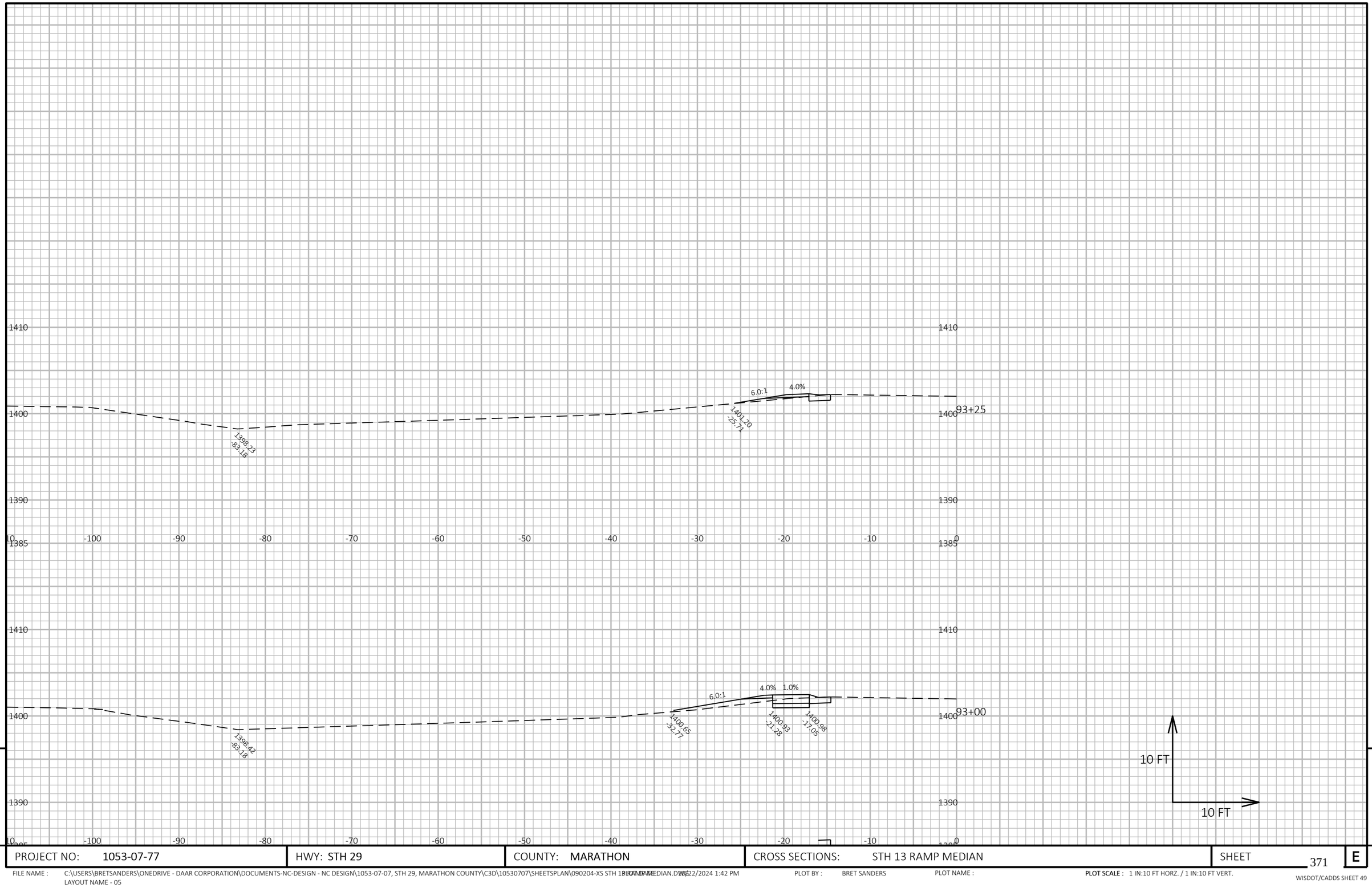
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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 13 RAMP MEDIAN	SHEET 370	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090204-XS STH 13 RAMP MEDIAN.DWG
LAYOUT NAME - 04

PLOT DATE : 10/22/2024 1:42 PM PLOT BY : BRET SANDERS PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1053-07-77	HWY: STH 29	COUNTY: MARATHON	CROSS SECTIONS: STH 13 RAMP MEDIAN	SHEET 371	E

FILE NAME : C:\USERS\BRETSANDERS\ONEDRIVE - DAAR CORPORATION\DOCUMENTS-NC-DESIGN - NC DESIGN\1053-07-07, STH 29, MARATHON COUNTY\C3D\10530707\SHEETSPLAN\090204-XS STH 13 RAMP MEDIAN.DWG
LAYOUT NAME - 05

PLOT DATE : 10/22/2024 1:42 PM

PLOT BY : BRET SANDERS

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Wisconsin Department of Transportation

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