

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2040-20-70		
2040-03-75		

PROJECT	CONTRACT
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PLAN OF PROPOSED IMPROVEMENT

BRIDGE OVER RR B-40-0530

MILWAUKEE COUNTY

2040-20-70

T-5-S

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

A map of the state of Wisconsin, divided into its 9 counties. Oneida County, located in the southeastern part of the state, is shaded in black. The surrounding counties are white with black outlines.

A.A.D.T.	2015	=	11,800
A.A.D.T.	2044	=	15,200
D.H.V.		=	1,505
D.D.		=	56/44
T.		=	5.0%
DESIGN SPEED		=	45 MPH
ESALS		=	N/A

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

GRADE LINE
ORIGINAL GROUND
MARSH OR ROCK PROFILE
(To be noted as such)
SPECIAL DITCH

CULVERT (Profile View)

ELECTRIC

GAS

STORM SEWER
 TELEPHONE

UTILITY PEDESTAL

TELEPHONE POLE

FD-1A (Rev. 10-1-64)











SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = .092 MI

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

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

PREPARED BY	
Surveyor	WISDOT
Designer	CLAYTON SMITH
Project Manager	NGUYEN LY
Regional Examiner	STEVE CHOJNACKI
Regional Supervisor	BENEDICT ERUCHALU

APPROVED FOR THE DEPARTMENT _____
DATE: 2/1/2022 _____ (signature)

1

FILE NAME : \\DOTWKEFILE1P\N3PUBLIC\PDS\C3D\20402000\SHEETSP\AN\010101_TI.DWG

PLOT DATE : 11/1/2021 7:05 AM

PLOT BY : SMITH, CLAYTON L

PLOT NAME :

PROJECT ID:
WITH: 2040-03-75

2040-20-70

COUNTY:

MILWAUKEE

GENERAL NOTES

- 1) 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. COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
- 2) D.O.T. BRIDGE BENCHMARK MONUMENT TO BE FURNISHED BY THE STATE AND PLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
- 3) CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER OR THEORETICAL FLANGE POINT OF INTEGRAL CURB AND GUTTER. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE OF CURB AND GUTTER OR THEORETICAL FLANGE POINT OF INTEGRAL CURB AND GUTTER.
- 4) FOR INLET AND CATCH BASIN STRUCTURES LOCATED IN THE CURB OR IN FRONT OF BARRIER, STATION, OFFSET, AND ELEVATIONS ARE GIVEN TO THE FLOW LINE. MH STATION, OFFSET, AND ELEVATIONS ARE GIVEN TO THE CENTER OF STRUCTURE.
- 5) CONTACT THE PROJECT ENGINEER, THE COUNTY SURVEYOR, AND SEWRPC AT LEAST TWO WEEKS BEFORE WORKING NEAR ANY SECTION CORNER MONUMENT.
- 6) VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PAVEMENT ELEVATIONS.
- 7) SAWCUT EXISTING ASPHALT AND CONCRETE PAVEMENT AT THE MATCHLINE AS INDICATED ON THE PLAN OR AS DIRECTED BY THE ENGINEER.
- 8) RESHAPE, RESTORE AND FINISH ALL PREVIOUSLY GRASSED AREAS DISTURBED BY OPERATIONS OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT NO EXPENSE TO THE DEPARTMENT
- 9) DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE TOPSOILED, FERTILIZED, SEEDED, AND MULCHED OR SODDED AS DIRECTED BY THE ENGINEER.
- 10) PRIOR TO THE PLACEMENT OF STEEL PLATE BEAM GUARD OR MGS GUARDRAIL, THE SHOULDERS SHALL BE IN PLACE, SHAPED AND COMPACTED UNLESS SHOWN OTHERWISE.
- 11) ALL SIGN LOCATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO INSTALLATION.
- 12) CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 4-INCH TYPICAL DEPTH.

GENERAL DRAINAGE NOTES

- 1) INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES AND PIPES SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.
- 2) VERIFY THE EXISTING STORM SEWER SYSTEM CONNECTION LOCATIONS AND ELEVATIONS BEFORE ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS BEFORE INSTALLING THE PROPOSED STORM SEWER.

ORDER OF SECTION 2 DETAIL SHEETS

- GENERAL NOTES
- UTILITY AND OTHER CONTACTS
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- LANDSCAPING
- PAVEMENT MARKING
- DETOUR ROUTE
- ALIGNMENT

HMA PAVING LAYER DEPTHS

PAVEMENT LOCATION	TOTAL PAVEMENT THICKNESS	LAYER	TYPE
STH 100			
STA 168+80 - 170+32 EB STA 172+10 - 173+10 EB	2"	UPPER	4 MT 58-28S

UTILITY CONTACTS

AT&T LEGACY - COMMUNICATION LINE

Kenneth Colwell
866 Rock Creek Rd.
Plano, IL 60545
(210) 246-8099
kc1298@att.com

AT&T WISCONSIN - COMMUNICATION LINE

Mark Eder
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Waukesha, WI 53188-2443
(262) 896-7434
me1754@att.com

CENTURYLINK COMMUNICATIONS, LLC - COMMUNICATION LINE

Kirk Thoeke
11111 Dorsett Rd
Maryland Heights, MO 63043
(636) 887-4752
kirk.thoeke@centurylink.com

LEVEL 3 COMMUNICATIONS LLC - COMMUNICATION LINE

Network Relocations
1025 Eldorado Blvd
Broomfield, CO 80021
relo@level3.com

SPRINT COMMUNICATIONS CO LP - COMMUNICATION LINE

James Burton
1901 N. Roselle Rd., Suite 500
Schaumburg, IL 60195
(708) 955-6659
james.m.burton@sprint.com

WINDSTREAM KDL, LLC - COMMUNICATION LINE

Mary Fisher
13935 Bishops Dr
Brookfield, WI 53005
(262) 792-7938
Mary.B.Fisher@windstream.com

WE ENERGIES - GAS/PETROLEUM

Nicole Smullen
333 W Everett St
Milwaukee, WI 53203
(414) 221-5617
Nicole.Smullen@wecenergygroup.com

AT&T LOCAL NETWORK - COMMUNICATION LINE

Jennifer Navarro
6070 N Flint Rd
Glendale, WI 53209
(414) 459-3564
j.navarro@northwindtech.com

ATC MANAGEMENT, INC. - ELECTRICITY-TRANSMISSION

Mike Olsen
801 O'keefe Rd
P.O. Box 6113
De Pere, WI 54115-6113
(920) 338-6582
molsen@atcillc.com

CHARTER COMMUNICATIONS - COMMUNICATION LINE

Steven Cramer
1320 N Dr Martin Luther King Jr Dr
Milwaukee, WI 53212-4002
(414) 277-4045
wis.engineering@charter.com

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT - SEWER

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Milwaukee, WI 53204
(414) 225-2178
MKlappaSullivan@mmsd.com

PAFTEC COMMUNICATIONS, LLC - COMMUNICATION LINE

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13935 Bishops Dr
Brookfield, WI 53005
(262) 792-7938
Mary.B.Fisher@windstream.com

WE ENERGIES - ELECTRIC

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333 W Everett St
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(414) 221-5617
Nicole.Smullen@wecenergygroup.com

OTHER CONTACTS

CITY OF OAK CREEK

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msimmons@oakcreekwi.org

OAK CREEK WATER AND SEWER UTILITY

Brian Johnston
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Oak Creek, WI 53154
(414) 570-8200 Ext. 24
bjohnston@water.oak-creek.wi.us

MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT)

Transportation Services Division
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(414) 257-5934
andrea.weddle-henning@milwaukeecountywi.gov

MILWAUKEE COUNTY PARKS

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UNION PACIFIC RAILROAD

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Ctkecke@Up.Com

WISDOT PROJECT MANAGER

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WISDOT STREET LIGHTING

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Eric.Perea@dot.wi.gov

WISDOT SIGNALS

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derrin.wolford@dot.wi.gov

MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION (MCDOT)

Highway Maintenance Division
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10320 W. Watertown Plank Rd.
Wauwatosa, WI 53226
(414) 257-6569
eduardo.santiago@milwaukeecountywi.gov

MILWAUKEE COUNTY PARKS

Blake Prusak
9480 Watertown Plank Rd
Wauwatosa, WI 53226
(414) 258-2322
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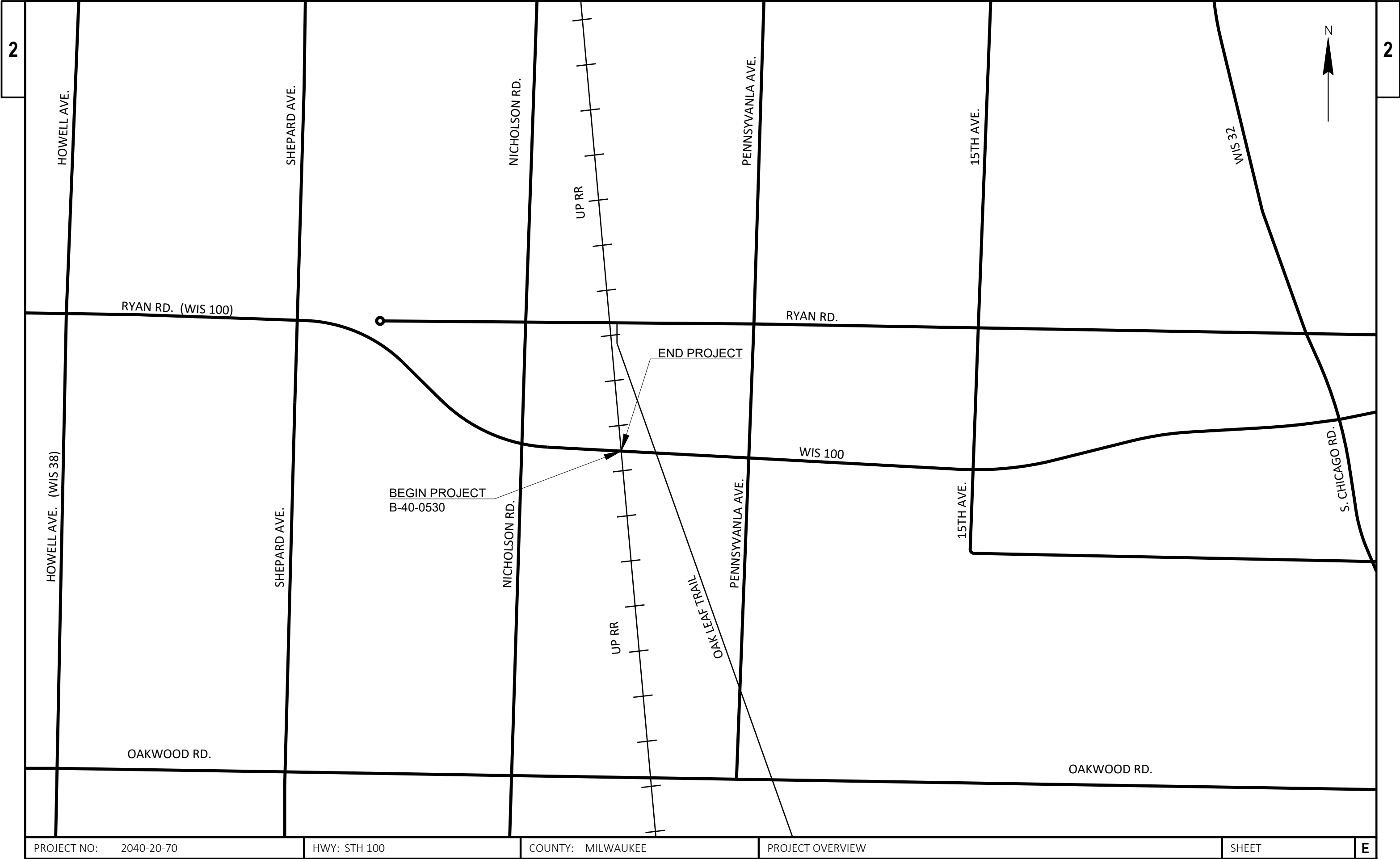
WISDNR

Kristina Betzold
2300 N. Dr. Martin Luther King Jr. Dr.
Milwaukee, Wi 53212
(414) 507-4946
Kristina.Betzold@wisconsin.gov

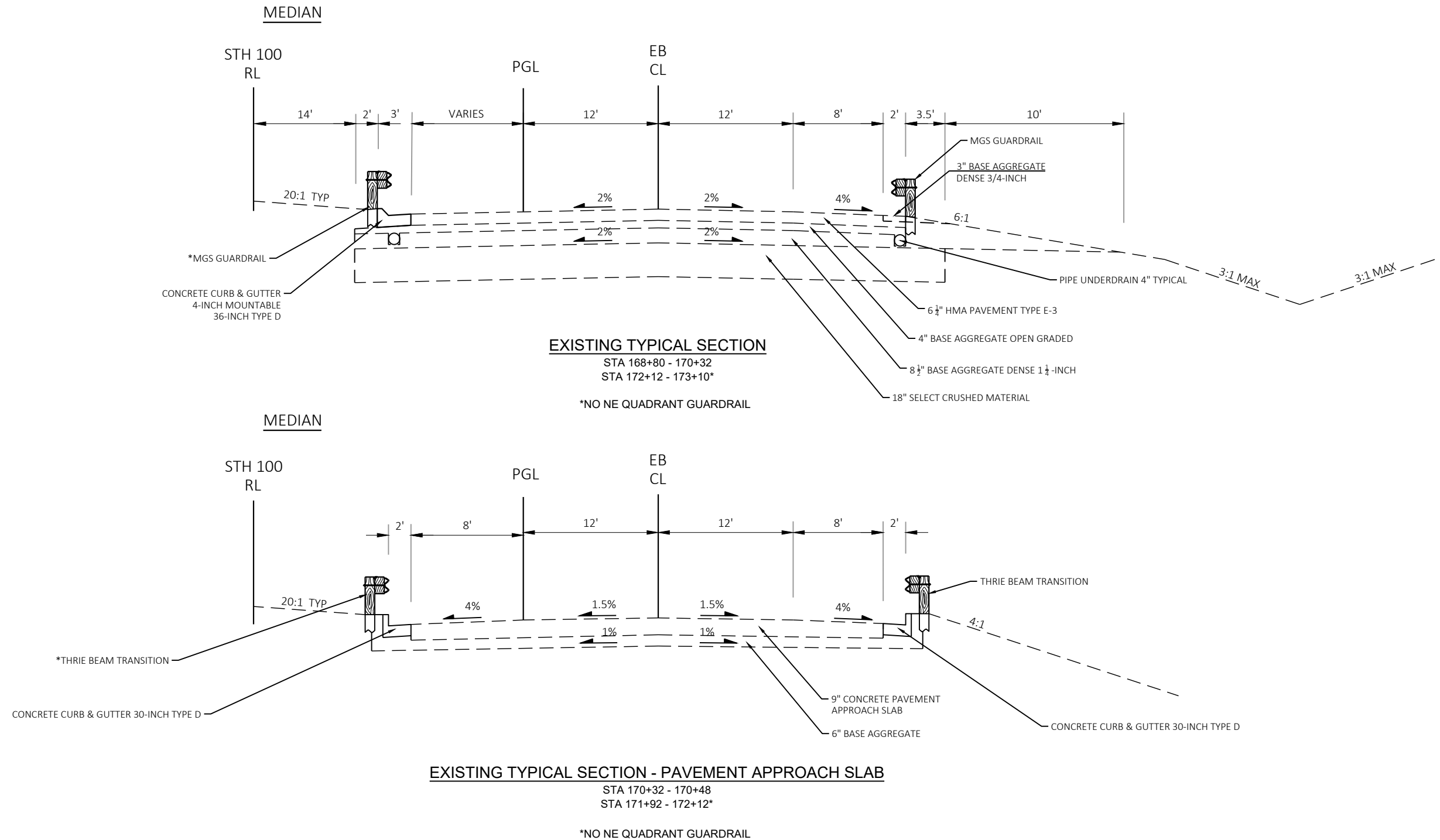
DIGGERSHOTLINE

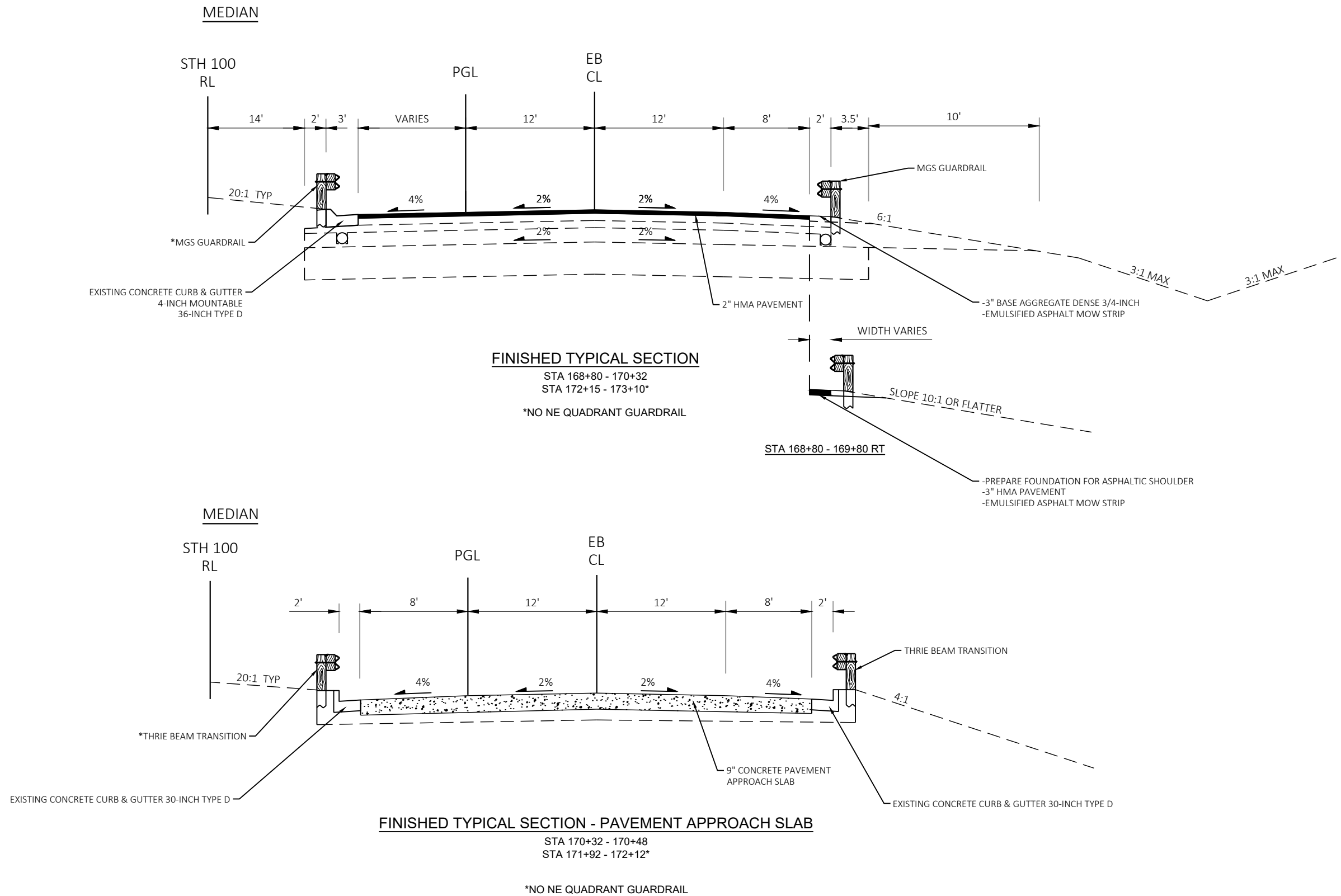
Dial 811 or (800)242-8511

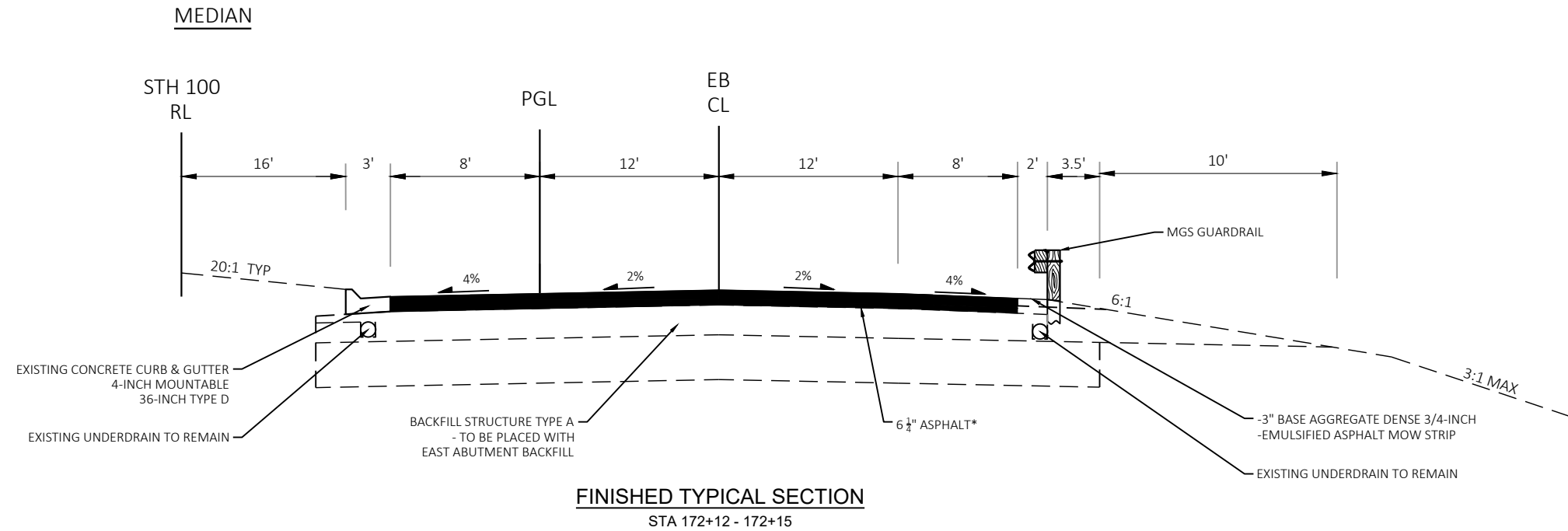
www.DiggersHotline.com



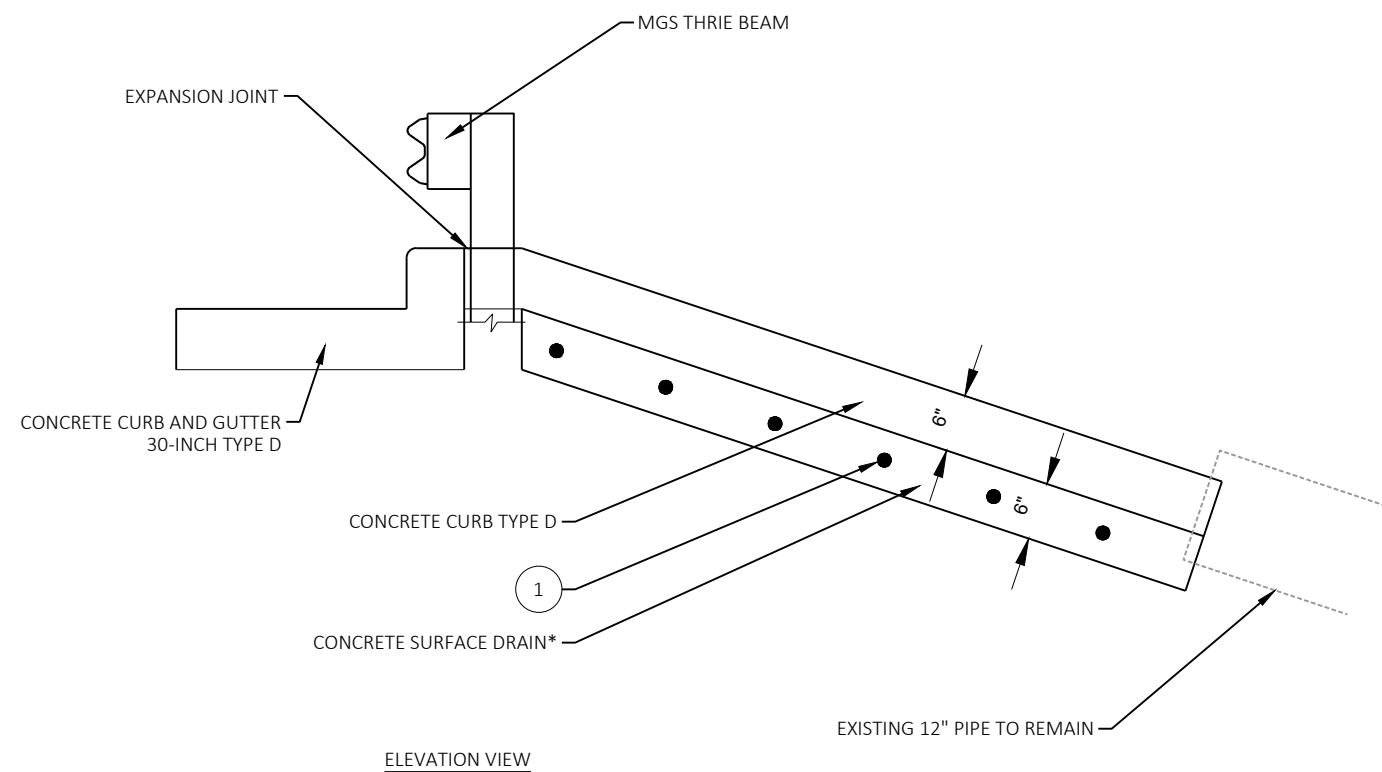
PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET	E
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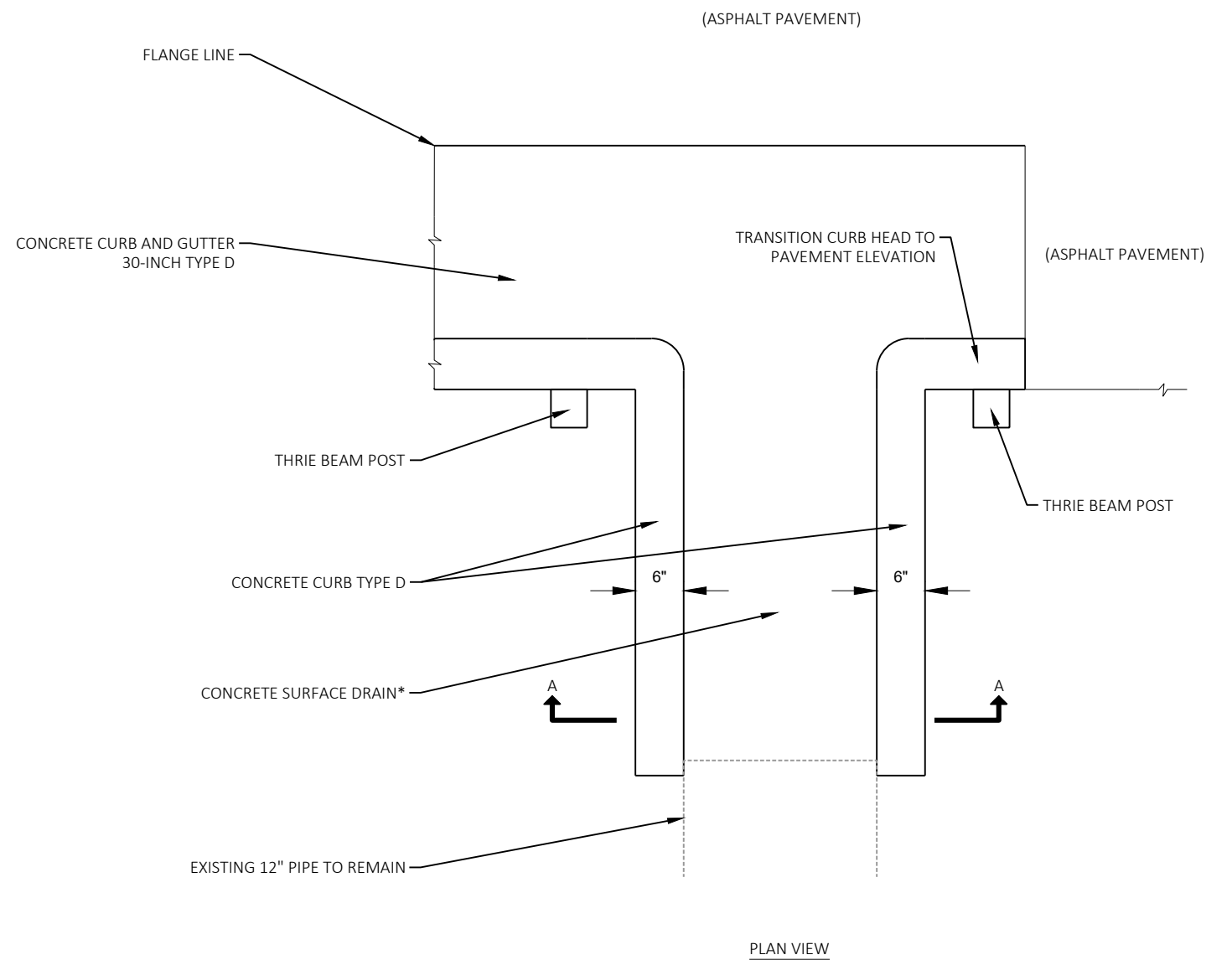




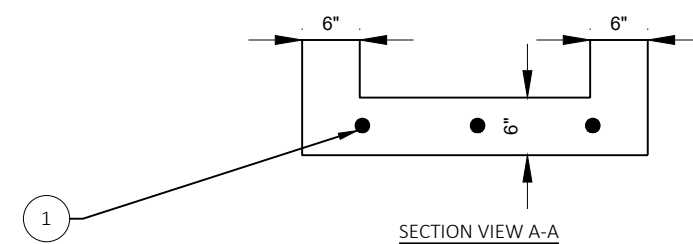
*6 1/4" ASPHALT TO CONSIST OF LAYERS LISTED BELOW
-UPPER LAYER: 2 1/4" HMA PAVEMENT
-LOWER LAYER: 4" ASPHALTIC SURFACE

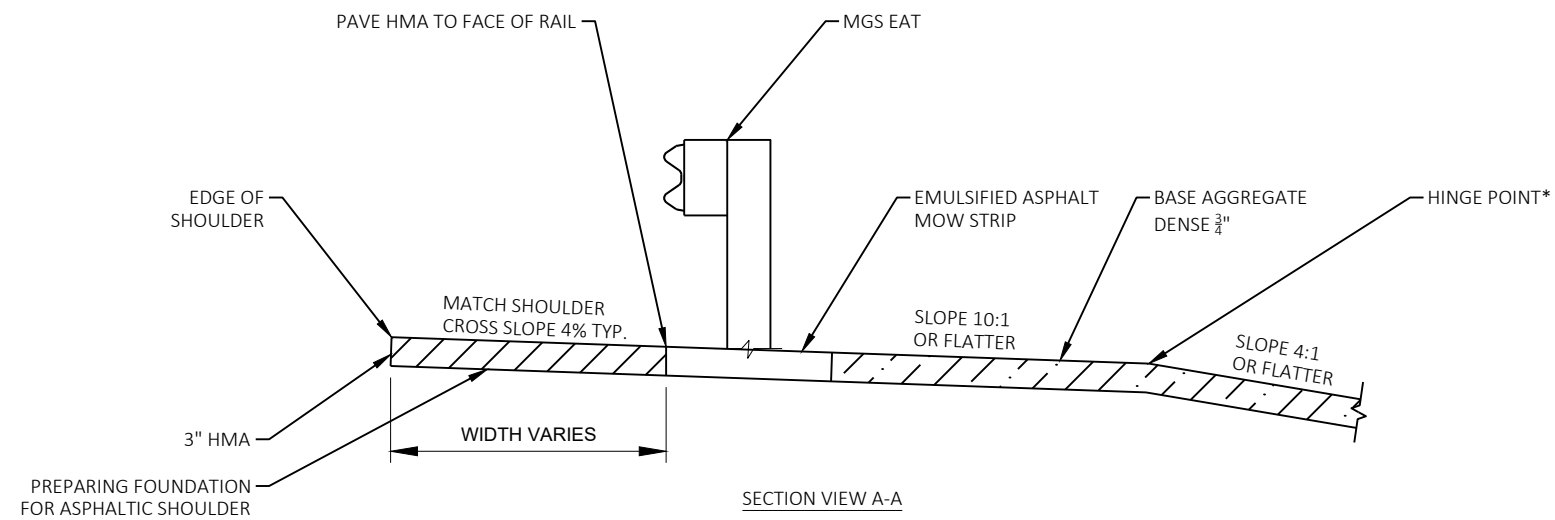
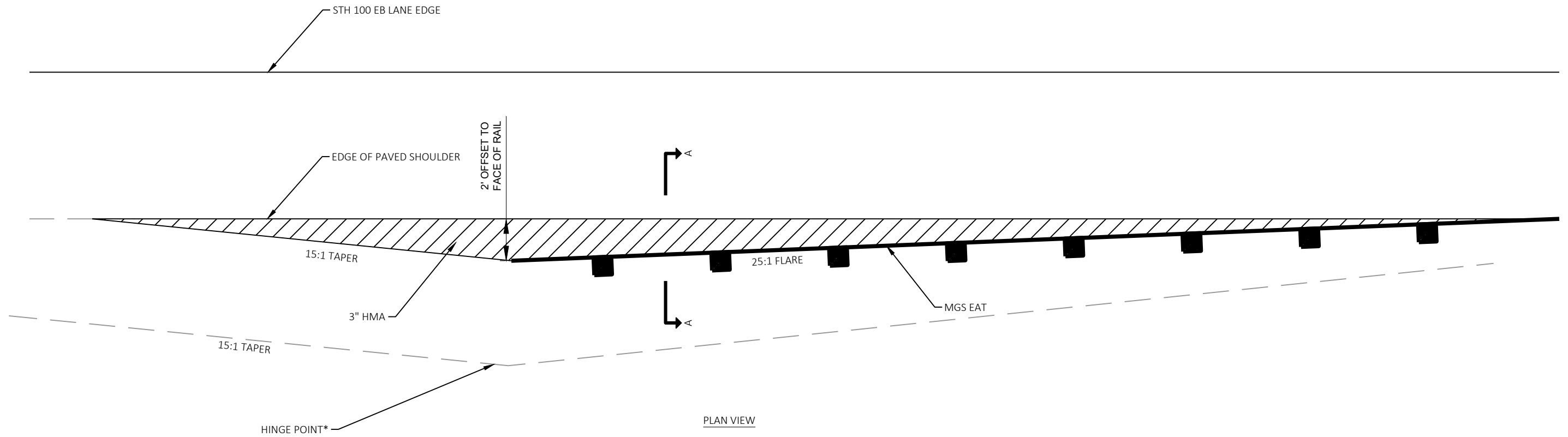


1 MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C



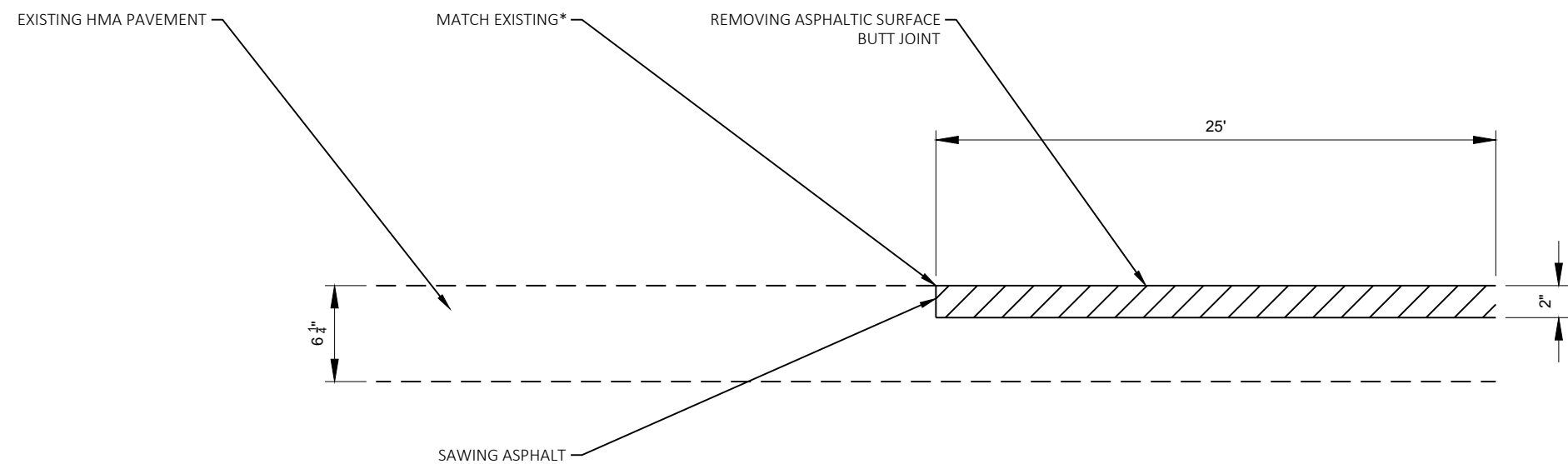
CONCRETE FLUME DETAIL
STA 172+14
-PERPENDICULAR FLUME CONSTRUCTION
-TIE FLUME INTO EXISTING 12" PIPE
*PAYMENT FOR CONCRETE BEHIND EXPANSION JOINT
TO BE PAID AS CONCRETE SURFACE DRAIN





MGS EAT PAVING DETAIL
STA 168+80 - 169+80 RT

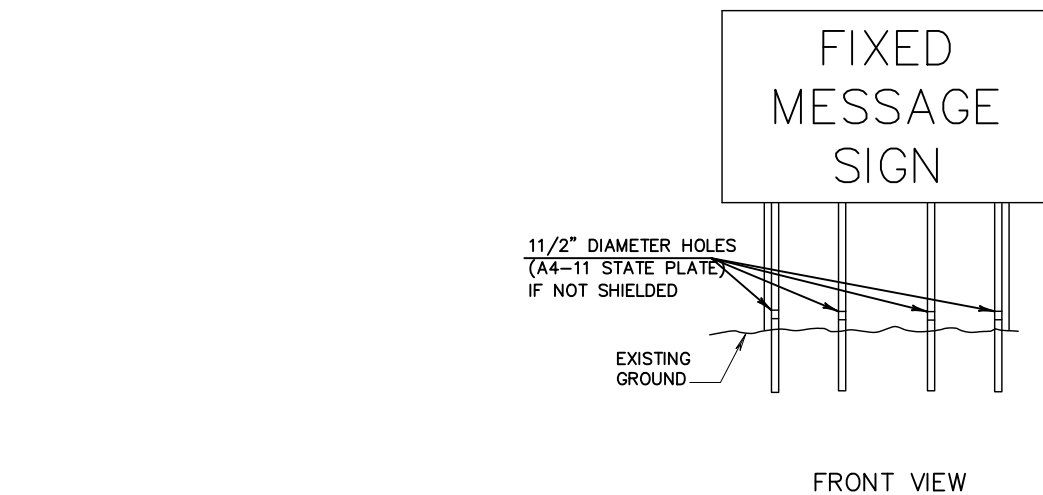
* SEE SDD 14B44-A MIDWEST GUARDRAIL
SYSTEM (MGS) ENERGY ABSORBING TERMINAL
FOR GUARDRAIL LAYOUT DETAILS



BUTT JOINT DETAIL

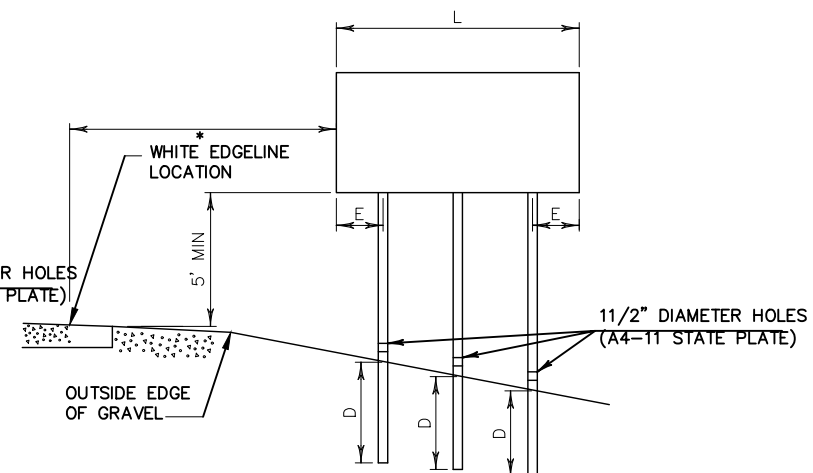
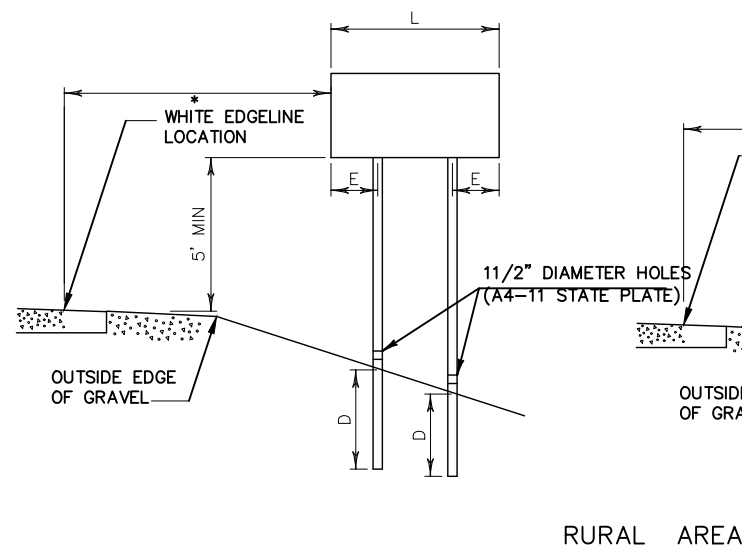
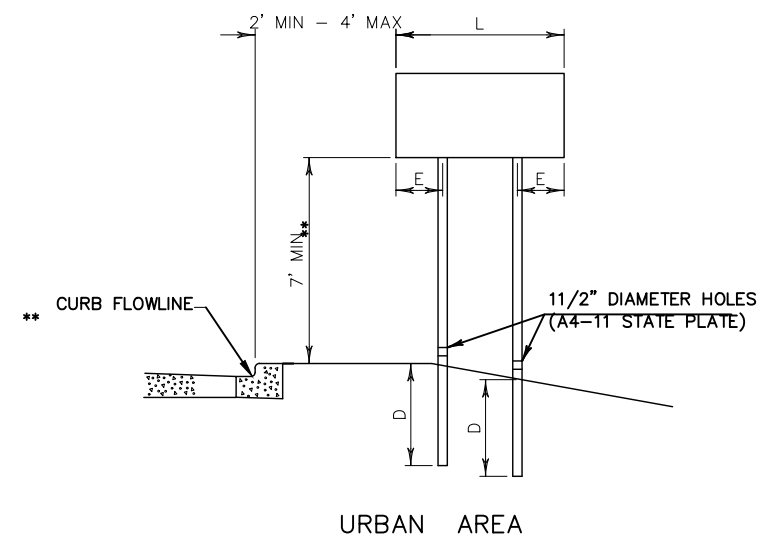
STH 100 EB
STA 168+80 - STA 169+05
STA 172+85 - STA 173+10

*FINAL MATCH LOCATION TO
BE DETERMINED IN FIELD BY
PROJECT ENGINEER



NOTES

1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
 2. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.
- * 6' FROM EDGE OF A PAVED SHOULDER OR 12' FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2' 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. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5' MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
3. 4X6 WOOD POSTS SHALL HAVE TWO HOLES PER STATE PLATE A4-11



SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
GREATER THAN 48" LESS THAN 60"	12"
60" TO 120"	L/5

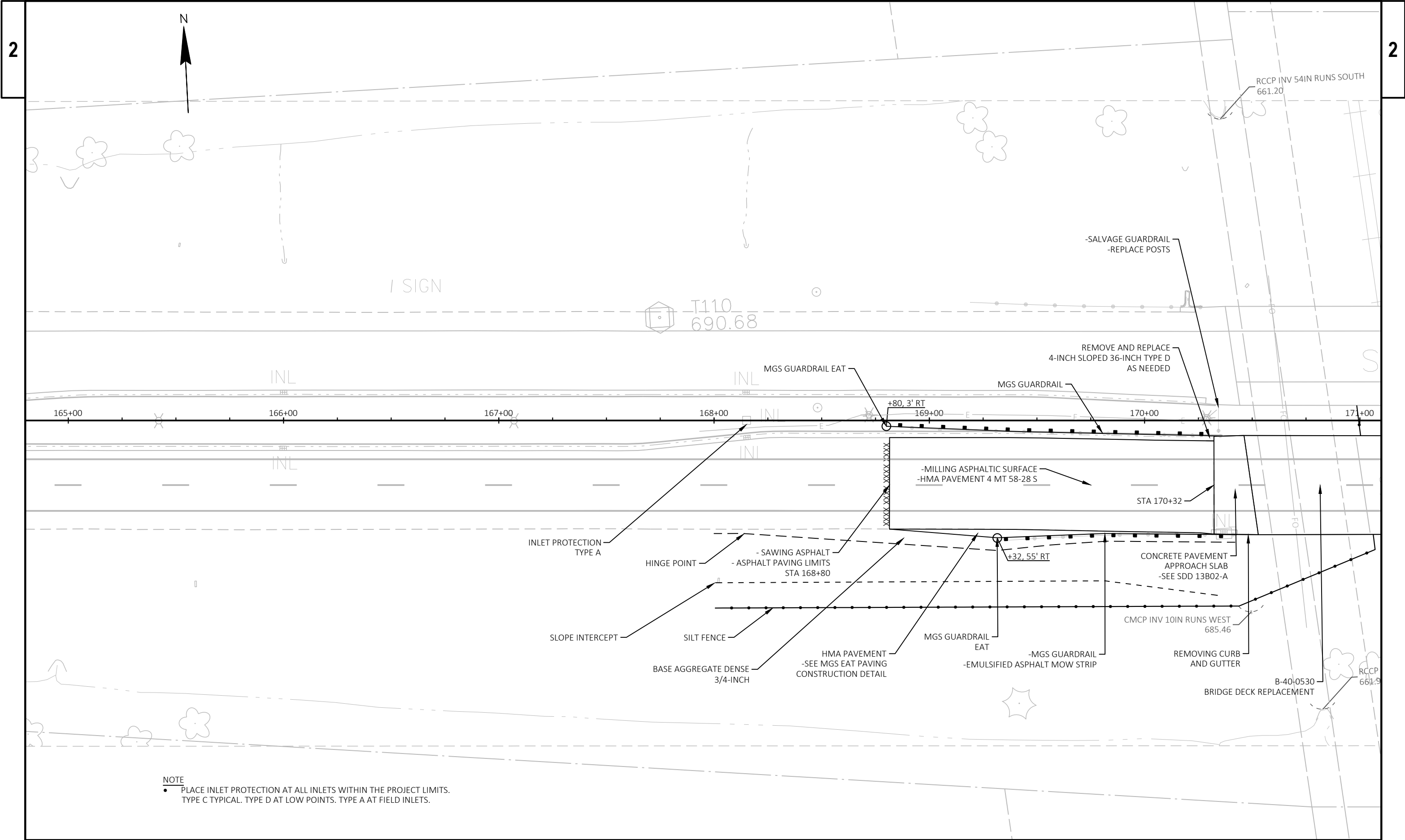
SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
GREATER THAN 120" LESS THAN 168"	12"

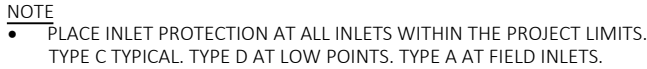
SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" AND GREATER	12"

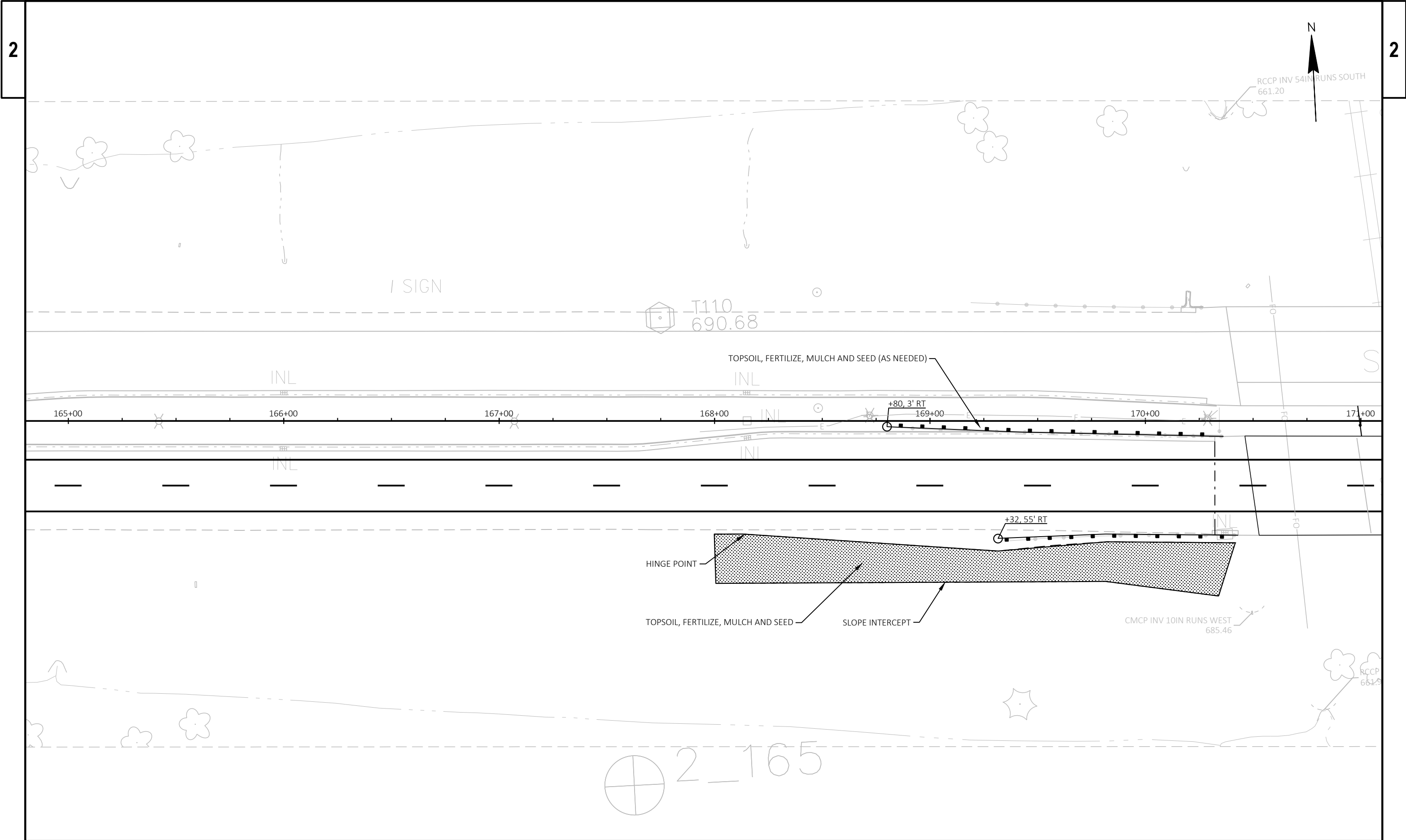
POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

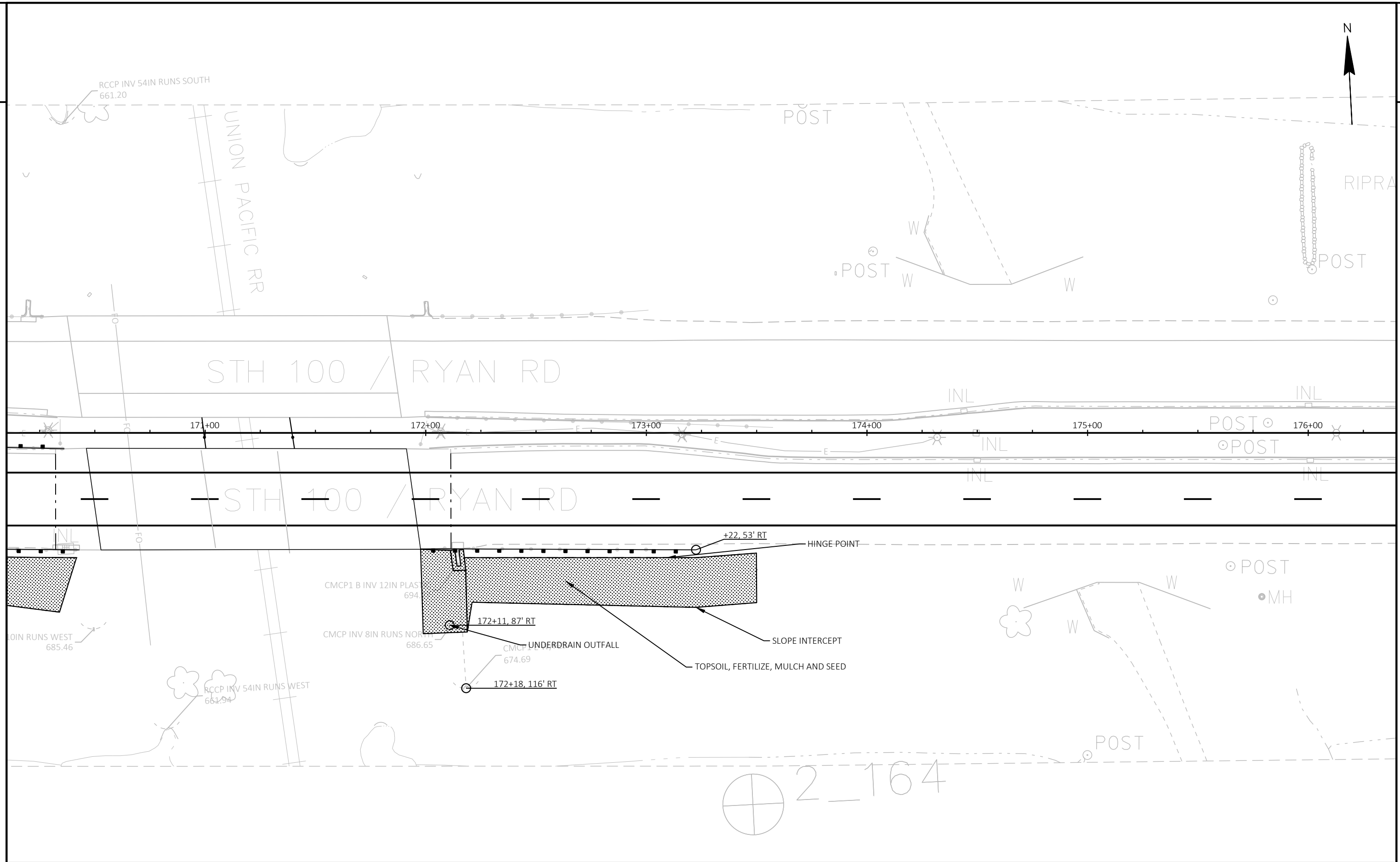
POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS



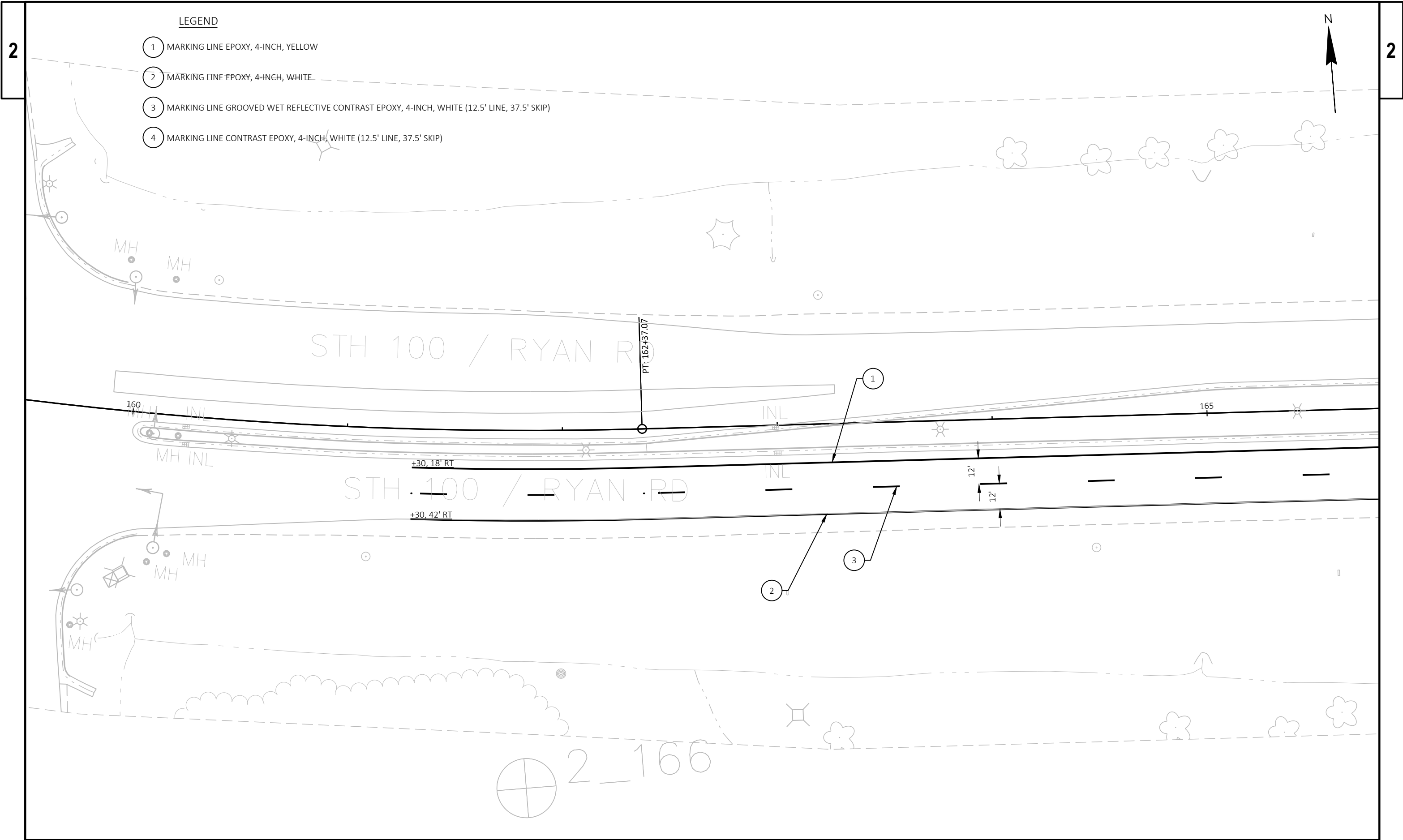




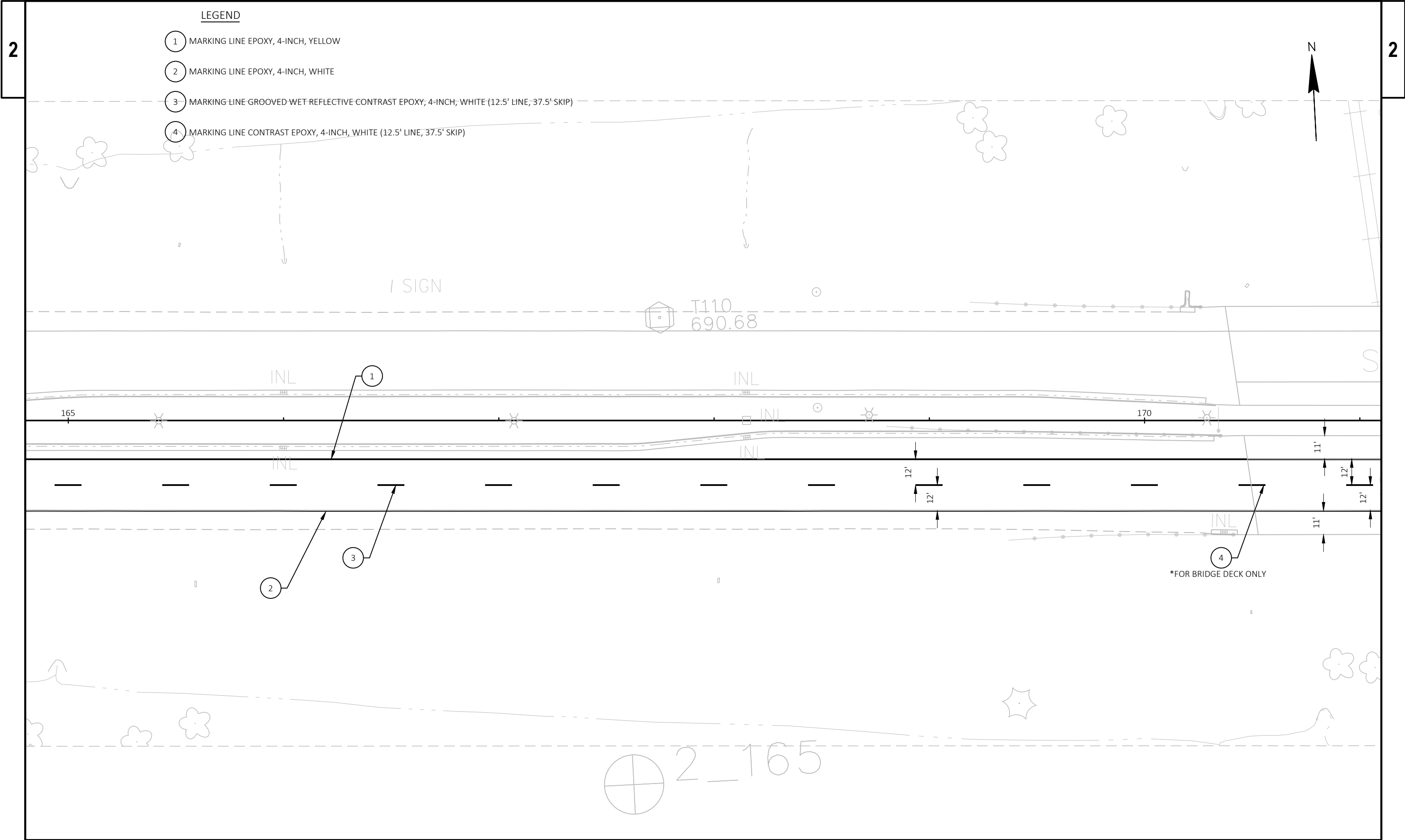
PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	LANDSCAPING	SHEET	E
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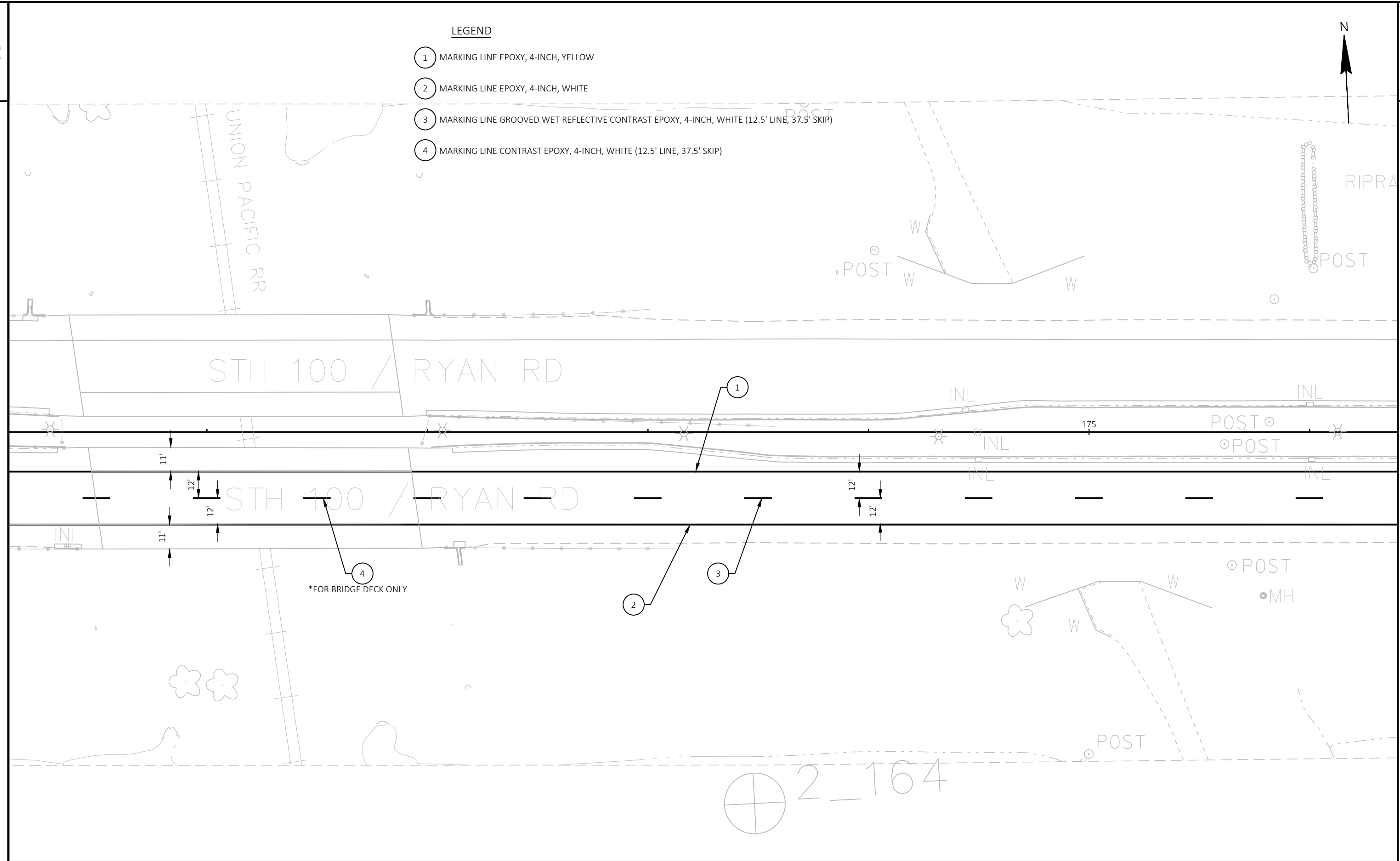


PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	LANDSCAPING	SHEET	E
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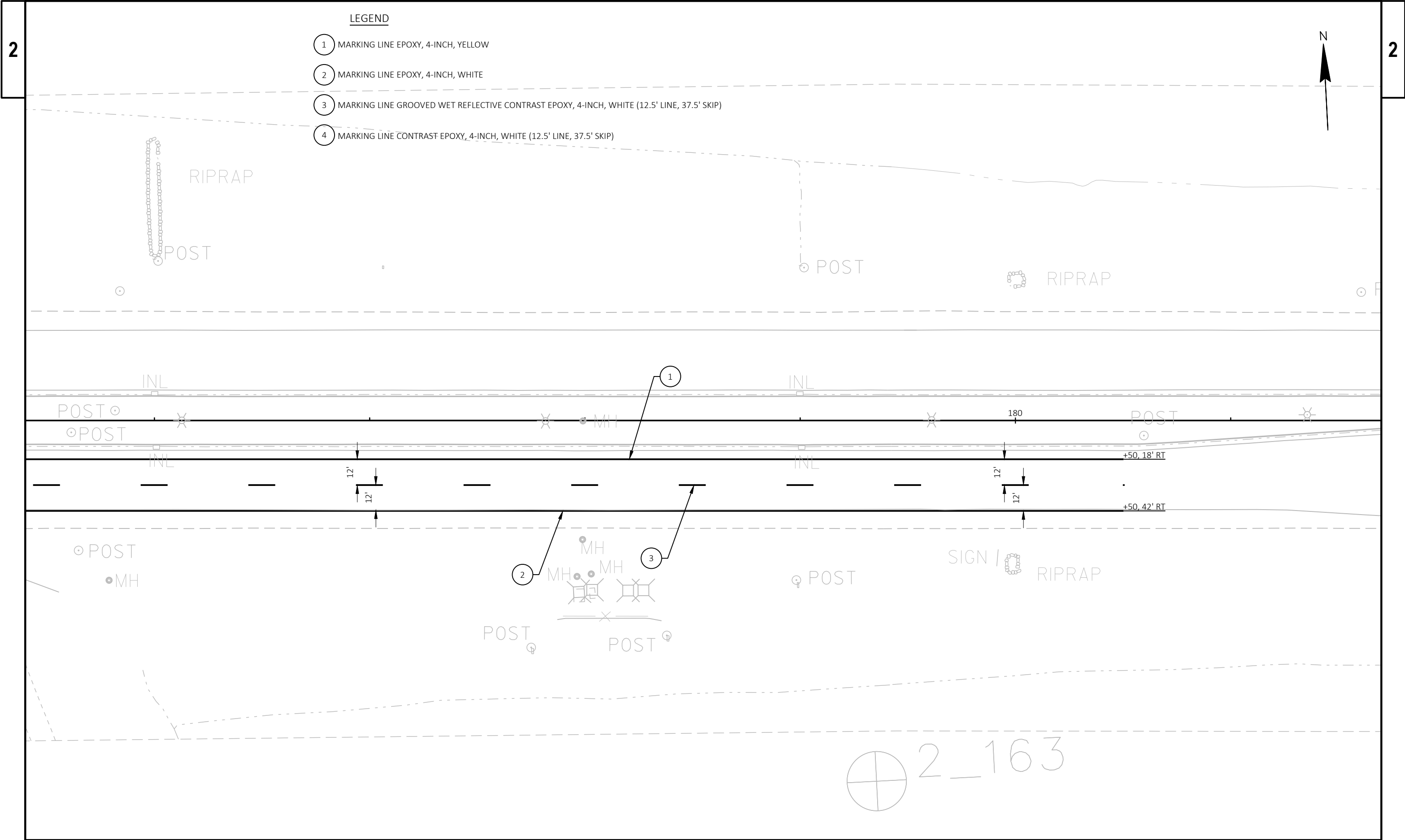


PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E
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PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E
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100

EAST

M3-2
24"x12"

DETOUR

M4-8
24"x12"

END
DETOUR

M4-8A
24"x18"

↑

M06-1
21"x21"

↶

M05-1L
21"x21"

↵

M06-1
21"x21"

↷

M06-1
21"x21"

↸

M05-1R
21"x21"

DETOUR AHEAD

W202A

ROAD CLOSED AHEAD

W202A

1

EAST

100

DETOUR AHEAD

2

EAST

100

ROAD CLOSED AHEAD

3

DETOUR

EAST

100

↷

4

DETOUR

EAST

100

→

5

DETOUR

EAST

100

↑

6

DETOUR

EAST

100

↶

7

DETOUR

EAST

100

↵

8

END
DETOUR

EAST

100

↸

GENERAL NOTES FOR DETOUR SIGNING

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

ALL SIGNS APPROPRIATE TO THE STATUS OF THE TRAFFIC CONTROL ZONE, INCLUDING PRE-EXISTING SIGNING IN THE VICINITY, SHALL BE COVERED OR REMOVED AS SPECIFIED IN THE PLANS AND/OR AS DIRECTED BY THE ENGINEER.

THE ERECTION AND PLACEMENT OF SIGNS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

DETOUR SIGNING SHALL BE PERFORMED BY THE CONTRACTOR.

EXISTING ROUTE MARKERS FOR CLOSURE SECTION SHALL BE COVERED IN CONJUNCTION WITH INSTALLATION OF DETOUR ROUTE SIGNING.

MESSAGE BOARDS TO BE DEPLOYED 5 DAYS PRIOR TO CLOSURE.

LEGEND

↑

TYPE III BARRICADE WITH ATTACHED SIGN

↑

SIGN ON PERMANENT SUPPORT

→

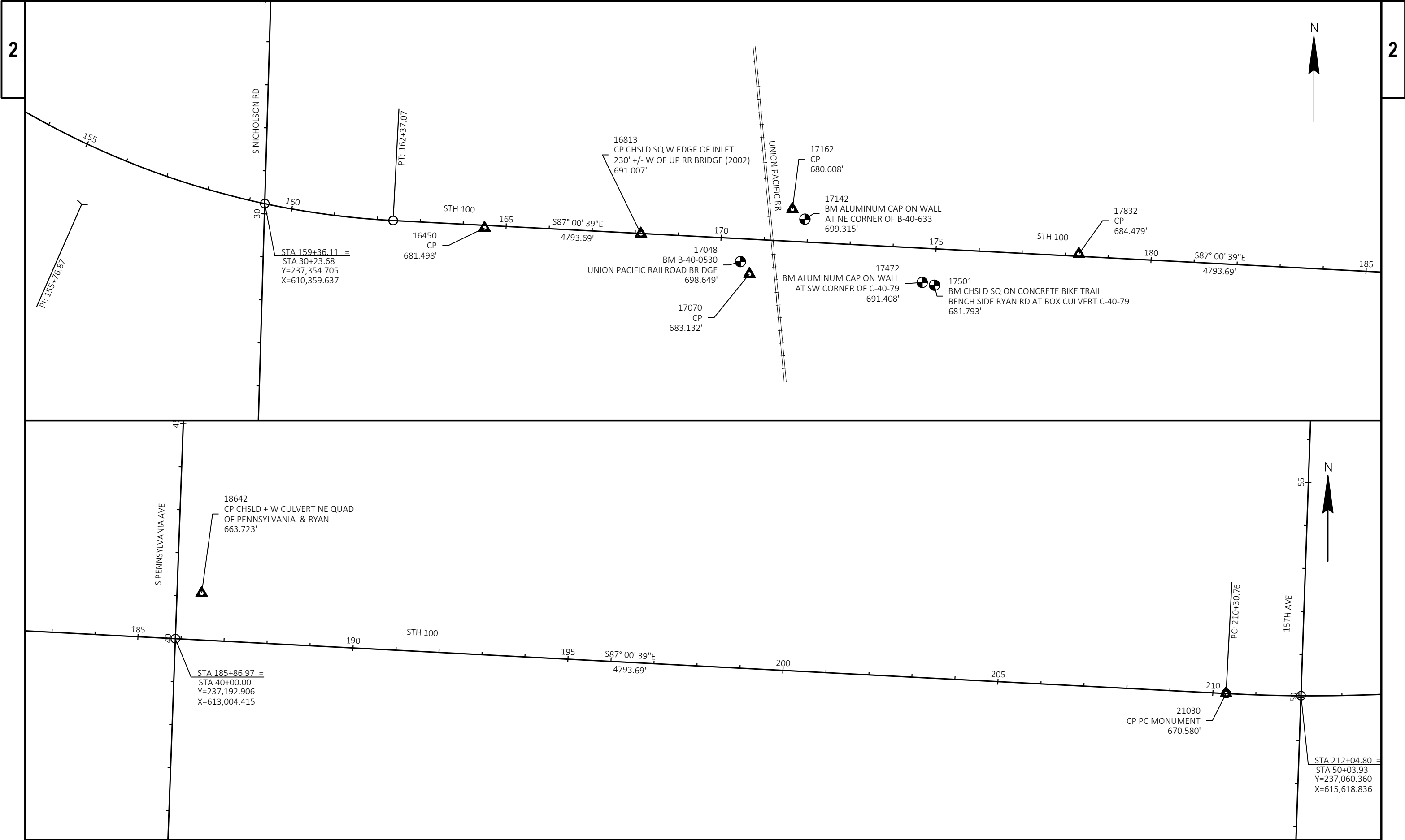
DIRECTION OF TRAFFIC

MB

PORTABLE CHANGEABLE MESSAGE BOARD

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ROAD CLOSURE



PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	ALIGNMENT	SHEET	E
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REMOVING CURB & GUTTER

204.0150 REMOVING CURB AND GUTTER				
STATION	-	STATION	LF	
STH 100	170+30	-	170+50	10
	171+90	-	172+17	15
TOTAL			25	

REMOVING ASPHALTIC SURFACE

				204.0115	204.0120
				BUTT JOINTS	MILLING
LOCATION				SY	SY
STH 100 EB	168+80	-	170+30	50	580
	172+10	-	173+10	50	330
	TOTAL			100	910

SAWING

690.0150 SAWING ASPHALT	
LOCATION	LF
STH 100 EB	
168+80	45
172+15	45
173+10	45
TOTAL	135

EXCAVATION

205.0100 EXCAVATION COMMON			208.0110 BORROW	
LOCATION	CY		CY	
STA 172+10	0		160	
UNDISTRIBUTED	100		0	
TOTAL	100		160	

REMOVING CONCRETE

204.0100 REMOVING CONCRETE PAVEMENT				
STATION	-	STATION	SY	
STH 100	170+30	-	170+50	90
	171+90	-	172+17	90
TOTAL			180	

SHOULDER

211.0400 PREPARING FOUNDATION FOR ASPHALTIC SHOULDER	
LOCATION	STA
STA 168+80 - 169+80	1

BASE AGGREGATE

305.0110 3/4-INCH DENSE TON		
LOCATION	TON	
STH 100 EB SHOULDERS		
168+50	170+30	20
172+10	173+20	10
TOTAL	30	

CONCRETE ITEMS

415.0120 CONCRETE PAVEMENT 12-INCH		415.0410 CONCRETE PAVEMENT APPROACH SLAB		416.1010 CONCRETE SURFACE DRAIN		601.0411 CONCRETE CURB AND GUTTER 30-INCH TYPE D		601.0553 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	
ROADWAY	STATION	-	STATION	SY	SY	CY	LF	LF	LF
STH 100	170+30	-	170+50	0	90	0	0	5	
	171+90	-	172+17	3	90	1	15	5	
TOTAL				3	180	1	15	10	

ASPHALT ITEMS

460.6224 HMA PAVEMENT 4 MT 58-28 S		455.0605 TACK COAT		465.0105 ASPHALTIC SURFACE	
STATION	STATION	TON	GAL	TON	TON
STH 100 EB					
168+80	to 170+30	80	55	0	
172+10	to 173+20	60	35	3	
TOTAL			140	90	3

CAT 0010

GUARDRAIL												
			204.0165 REMOVING GUARDRAIL	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING	614.0397 GUARDRAIL MOW STRIP EMULSIPHIED ASPHALT	614.0920 SALVAGED RAIL	614.0950 REPLACING GUARDRAIL POSTS AND BLOCKS	614.2300 MGS GUARDRAIL 3	614.2500 MGS THRIE BEAM TRANSITION	614.2610 MGS ENERGY ABSORBING TERMINAL	614.2620 MGS GUARDRAIL TERMINAL TYPE 2	
DESCRIPTION	STATION	- STATION	LF	EA	SY	LF	EA	LF	LF	EA	EA	
STH 100 EB	168+80	170+40 LT	160	0	0	0	0	70	40	1	0	
	170+35	170+35 LT	10	0	0	10	2	0	0	0	0	
	169+30	170+40 RT	115	1	70	0	0	25	40	1	0	
	172+00	172+00 LT	10	0	0	10	2	0	0	0	0	
	172+10	173+20 RT	115	1	70	0	0	115	0	0	1	
TOTAL			410	2	140	20	4	210	80	2	1	

TRAFFIC CONTROL						
643.0300 TRAFFIC CONTROL DRUMS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	643.0900 TRAFFIC CONTROL SIGNS	643.1050 TRAFFIC CONTROL SIGNS PCMS	643.5000 TRAFFIC CONTROL	
DAY	DAY	DAY	DAY	DAY	EA	
STAGE 4	2,380	3,810	7,620	17,640	5	0.25
TOTAL	2,380	3,810	7,620	17,640	5	0.25

643.1000 TRAFFIC CONTROL FIXED MESSAGE SIGNS	
SIGN	SF
FM10	60
TOTAL	60

PAVEMENT MARKING			
LOCATION	EPOXY 4-INCH		WET REFLECTIVE CONTRAST EPOXY
	WHITE 646.1020 LF	YELLOW 646.1020 LF	WHITE CONTRAST SKIPS 646.1545 LF
STH 100 EB 161+30 - 180+50	2,000	2,000	500
B-40-0530 BRIDGE DECK			50
SUBTOTAL	2,000	2,000	
TOTAL	4,000		50

CAT 0010

LANDSCAPING										
			625.0500	627.0200	628.2006	628.6510	629.0210	630.0120	630.0130	630.0200
			SALVAGED	MULCHING	EROSION MAT	SOIL STABILIZER	FERTILIZER TYPE	SEEDING	SEEDING	SEEDING
			TOPSOIL		URBAN CLASS 1	TYPE B	B	MIXTURE NO. 20	MIXTURE NO. 30	TEMPORARY
			TYPE A							
DESCRIPTION	STATION	-	STATION	SY	SY	SY	ACRE	CWT	LB	LB
STH 100 EB										
RT	168+00		171+00	540	540	540	0.10	0.30	15	0
LT	168+00		171+00	0	50	0	0	0.10	0	3
RT	171+00		173+10	360	360	360	0.10	0.30	13	0
			UNDISTRIBUTED	50	50	50	0.10	0.10	7	2
			TOTAL	950	1,000	950	0.30	0.80	35	5

WATER		
630.0500		
SEED WATER		
LOCATION	MGAL	REMARKS
PROJECT	85	SEEDED AREAS
TOTAL	85	

EROSION CONTROL				
			628.1504	628.1520
			SILT FENCE	SILT FENCE MAINT.
DESCRIPTION	STATION	-	STATION	LF
STH 100 EB	168+30		171+10	400
	171+50		173+70	400
			TOTAL	800

INLET PROTECTION				
			628.7005	628.7015
			INLET PROTECTION	INLET PROTECTION
			TYPE A	TYPE C
DESCRIPTION	STATION	-	STATION	EA
STH 100 EB	160+22		171+00	1
	172+00		185+10	1
			UNDISTRIBUTED	2
			TOTAL	2

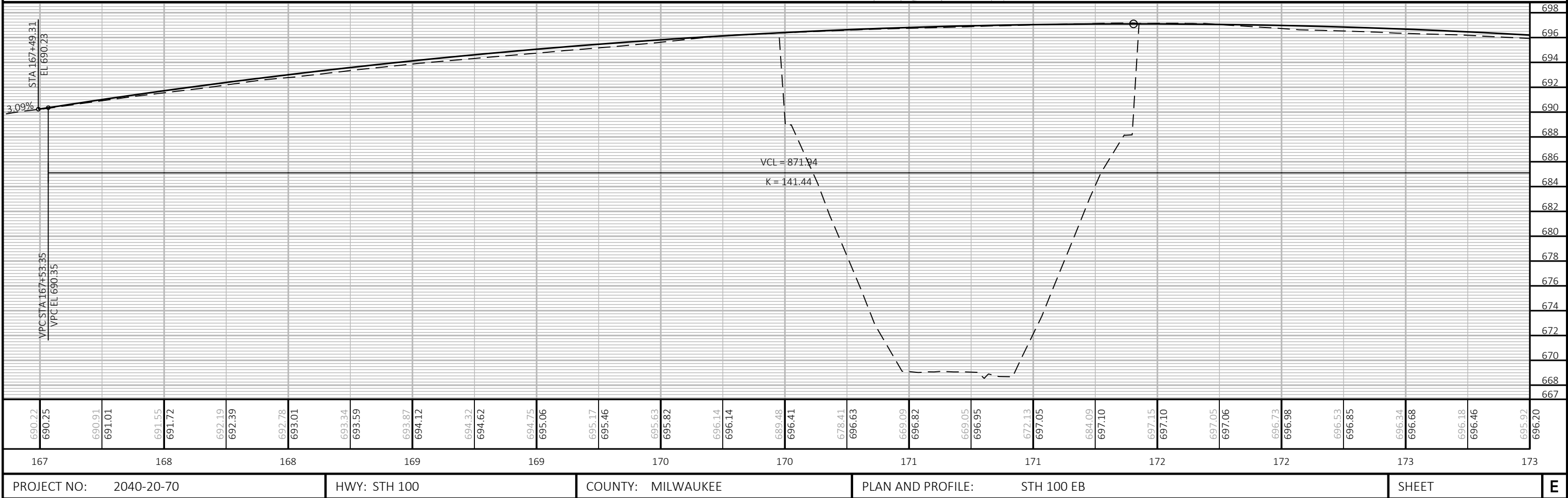
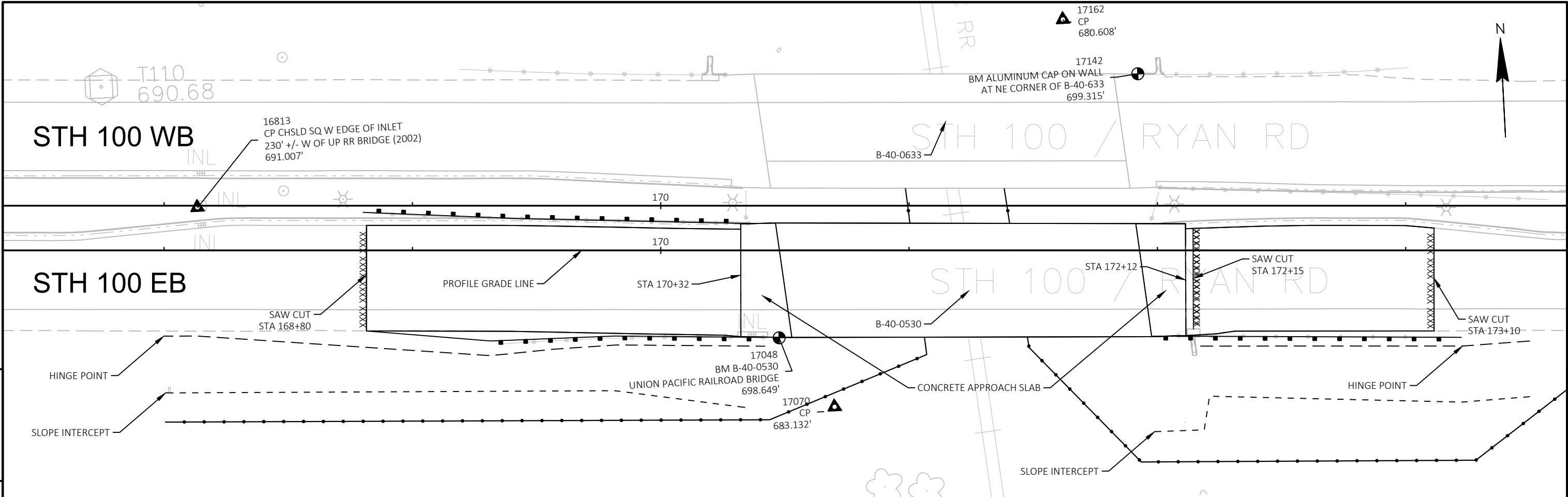
MOBILIZATIONS EROSION CONTROL		
	628.1905	628.1910
	MOBILIZATIONS EROSION	MOBILIZATIONS
	CONTROL	EMERGENCY
	EA	EA
STH 100 EB	1	1
TOTAL	1	1

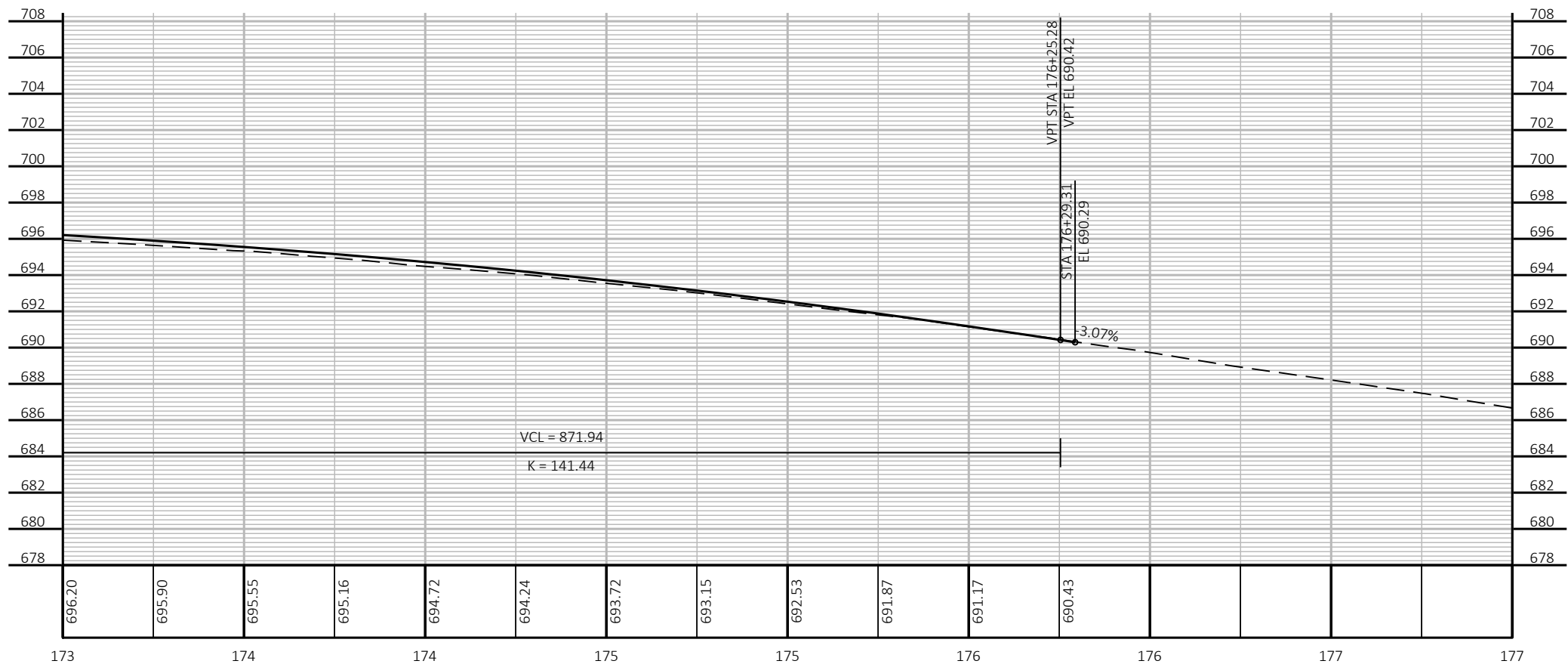
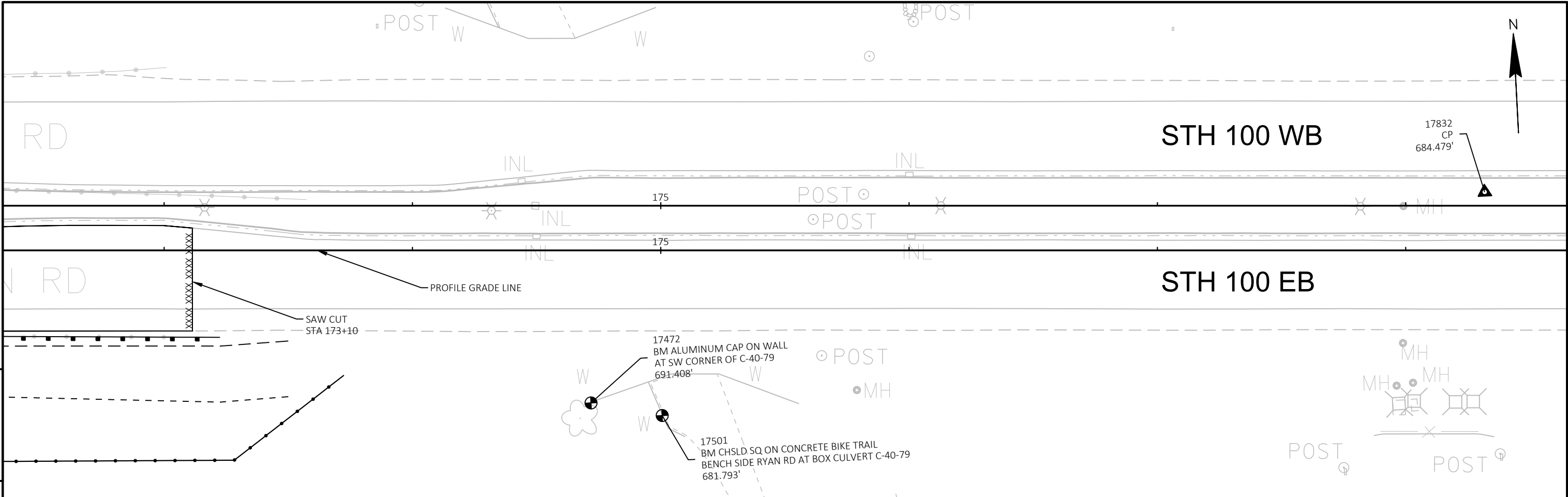
FIELD OFFICE	
	642.5401
	FIELD OFFICE
	TYPE D
LOCATION	EA
PROJECT	1
TOTAL	1

BIRD DETERRENT SYSTEM	
	999.2000.S
	INSTALLING AND
	MAINTAINING BIRD
	DETERRENT SYSTEM
LOCATION	EA
STA 171+25	1
TOTAL	1

MOBILIZATION	
	619.1000
	MOBILIZATION
LOCATION	EA
PROJECT	0.6
TOTAL	0.6

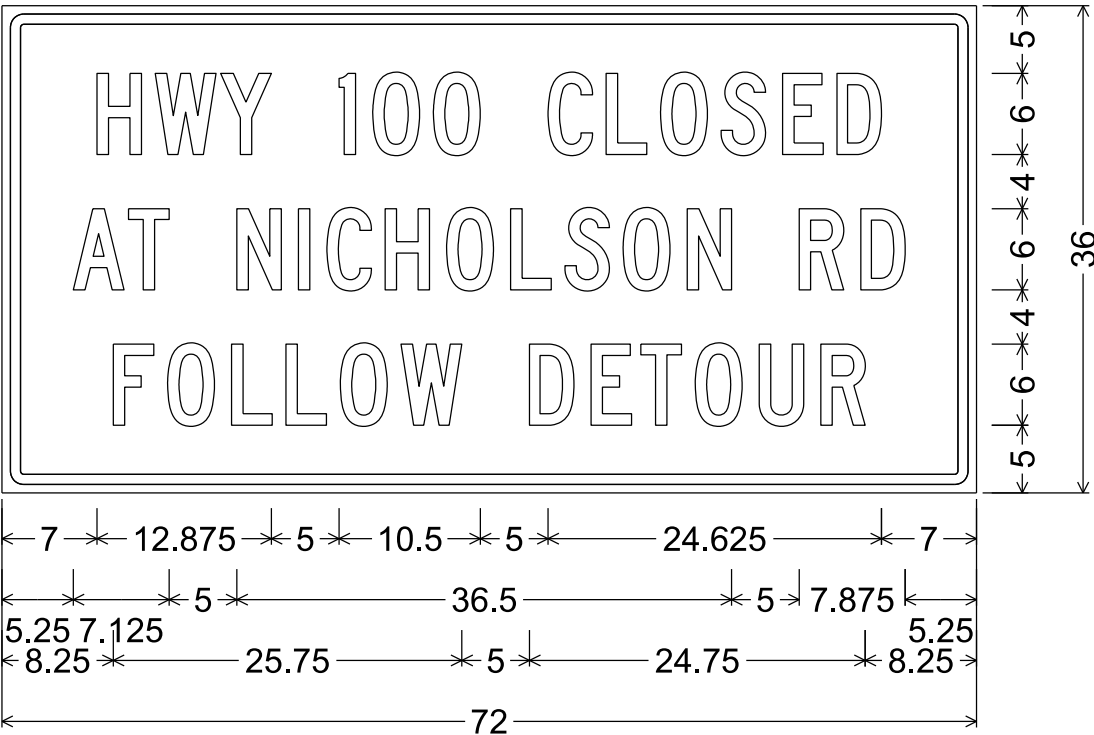
CAT 0010





NOTES

- 1. Fixed Message Sign -Type II Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C



1.625" Radius, 0.750" Border, 0.625" Indent

INDICATES WING NUMBER

* INDICATES THRIE BEAM GUARDRAIL ATTACHMENT

PGL STH 100 WB

B-40-633

STATE PROJECT NUMBER

2040-20-70

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS23
OPERATING RATING: HS38
WIS. STD. PERMIT VEHICLE (Wis-SPV): 220 KIPS

MATERIAL PROPERTIES

CONCRETE MASONRY SUPERSTRUCTURE $f'_c = 4,000$ PSI
ALL OTHERS $f'_c = 3,500$ PSI
HIGH STRENGTH BAR STEEL
REINFORCEMENT GRADE 60 $f_y = 60,000$ PSI

SCOPE OF WORK: B-40-530

1. REPAINT GIRDER ENDS
2. CONCRETE END DIAPHRAGM & WINGWALL REPLACEMENT
3. DECK REPLACEMENT
4. CONCRETE SURFACE REPAIRS
5. PIPE UNDERDRAIN REPLACEMENT @ EAST ABUTMENT
6. SLOPE PAVING REPAIR

TRAFFIC DATA

STH 100/RYAN ROAD EB

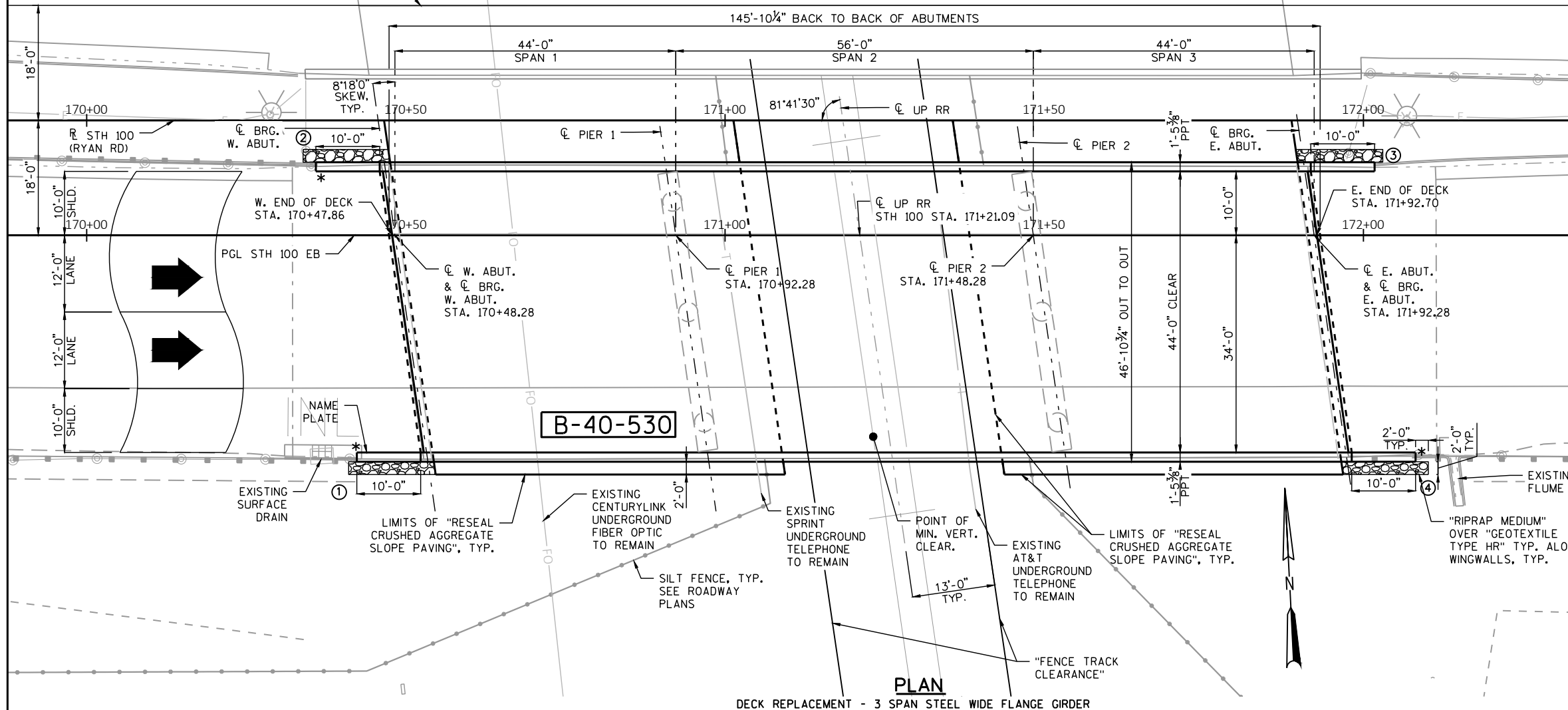
AADT = 5,900 (2015)
7,600 (2044)
RDS = 45 MPH

UNION PACIFIC RR (CROSSING #178770R)

TRAINS PER DAY = 7
TRAIN SPEED = ≤ 50 MPH

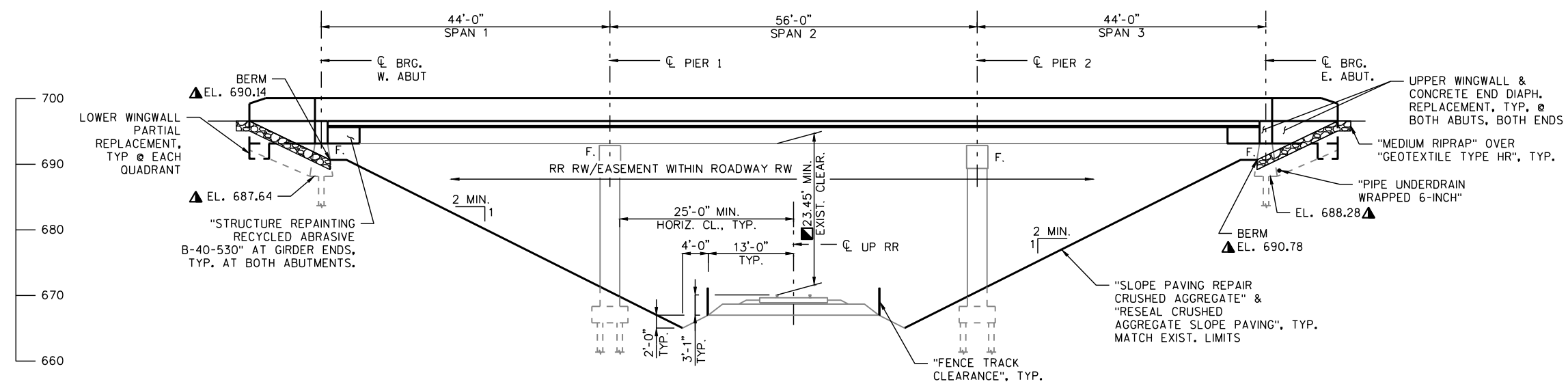
LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION & QUANTITIES
3. REMOVAL DETAILS
4. WEST ABUTMENT WINGWALLS
5. EAST ABUTMENT WINGWALLS
6. ABUTMENT DETAILS & BILL OF BARS
7. SUPERSTRUCTURE PLAN
8. SUPERSTRUCTURE CROSS-SECTION
9. TOP OF DECK ELEVATIONS
10. SINGLE SLOPE PARAPET 42SS
11. SLOPE PAVING REPAIR



PLAN

DECK REPLACEMENT - 3 SPAN STEEL WIDE FLANGE GIRDER



ELEVATION

LOOKING NORMAL TO UP RR

LEGEND

- ▲ ELEVATIONS ARE FROM ORIGINAL STRUCTURE PLANS, ADJUSTED TO NAVD 88 2012.
- PER LIDAR SURVEY JUNE 2019

BUREAU OF STRUCTURES CONTACT:
AARON BONK (608) 261-0261
CONSULTANT CONTACT
KEVIN WOOD (414) 259-1500

NO.	DATE	REVISION	BY
GRÄEF 275 W. Wisconsin Avenue, Suite 300 Milwaukee, WI 53203 414 / 259 1500 414 / 259 0037 fax www.graef-usa.com			
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER _____ DATE _____			
STRUCTURE B-40-530			
STH 100/RYAN ROAD EB OVER UP RR			
COUNTY	MILWAUKEE	TOWN/CITY/VILLAGE	OAK CREEK
DESIGN SPEC.			
DESIGNED BY	WAR	REHABILITATION DESIGN CK'D. KGW	N/A DRAWN BY. WAR
GENERAL PLAN & ELEVATION			PLANS CK'D. KGW
SHEET 1 OF 11			

I.D. 2040-20-00

DATE: JUNE 2021

SCALE = 1:20

DRAWINGS SHALL NOT BE SCALED.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL ALL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.

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

THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH $2\frac{1}{2}$ " OF CLEAR COVER.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

E ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCE TO THE NAVD 88 2012.

ROADWAY ALIGNMENT PROVIDED BY WISDOT SE REGION. STRUCTURE STATIONING PROPOSED BASED ON ORIGINAL STRUCTURE PLAN DIMENSIONS AND SURVEY DATA.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

EXISTING STRUCTURE B-40-530 IS A 3 SPAN CONTINUOUS STEEL WIDE FLANGE GIRDER BRIDGE WITH AN EXISTING OUT-TO-OUT WIDTH OF 47'-0" AND A BACK-TO-BACK OF ABUTMENT LENGTH OF 145'-10 $\frac{1}{4}$ ". SEE SHEET 1 FOR "SCOPE OF WORK".

THE SUPERSTRUCTURE CONCRETE QUANTITY INCLUDES VOLUME FOR THE AVERAGE ESTIMATED HAUNCH AND OVERHANG TRIANGULAR AREA.

CONCRETE SURFACE REPAIR AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

SLOPE PAVING REPAIRS SHALL BE MADE ONLY AS DIRECTED BY THE ENGINEER.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-40-530" SHALL BE THE EXISTING GROUNDLINE.

MATERIALS, EQUIPMENT, ETC., SHALL NOT BE STOCKPILED OR STORED ON THE BRIDGE DECK WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1985.

- ◆ "PIGMENTED SURFACE SEALER" TO BE APPLIED TO THE TOP AND INSIDE FACES OF PARAPETS INCLUDING PARAPETS ON ABUTMENT WINGS.
- "PROTECTIVE SURFACE TREATMENT" SHALL BE APPLIED TO THE TOP SURFACE OF THE NEW DECK.



IN SPAN

BENCH MARKS

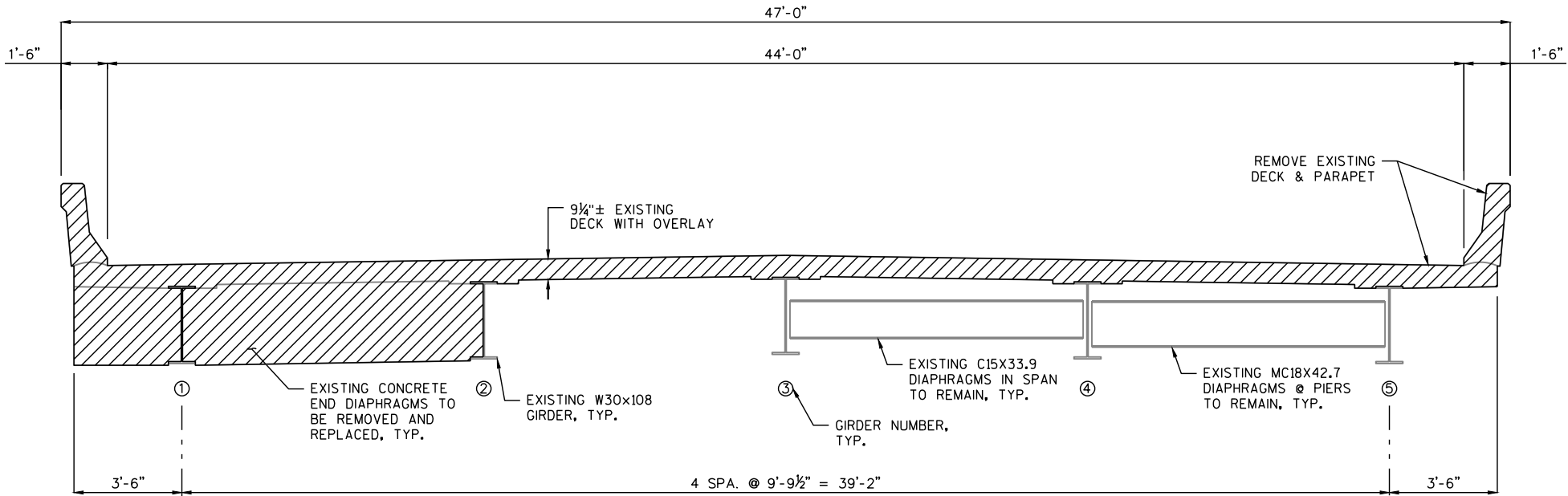
STATION	DESCRIPTION	ELEVATION
168+13	CP CHSLD SQ W EDGE OF MEDIAN INLET 230'± W. OF U R BRIDGE	691.007
170+48	BM ALUM CAP TOP OF WALL SW CORNER B-40-530	698.649
175+01	BM CHSLD SQ ON CONC. BIKE TRAIL BENCH S. SIDE RYAN RD. AT BOX CULVERT C-40-79	681.793

ITEM	DESCRIPTION	UNIT	W. ABUT.	PIER 1	PIER 2	E. ABUT.	SUPER.	TOTAL
203.0220	REMOVING STRUCTURE B-40-530	EACH	-	-	-	-	-	1
203.0330	DEBRIS CONTAINMENT B-40-530	EACH	-	-	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-530	LS	-	-	-	-	-	1
209.0200.S	BACKFILL CONTROLLED LOW STRENGTH	CY	-	-	-	2	-	2
210.1500	BACKFILL STRUCTURE TYPE A	TON	79	-	-	243	-	322
502.0100	CONCRETE MASONRY BRIDGES	CY	7.5	-	-	7.6	259.6	274.7
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	-	-	709	709
502.3210	PIGMENTED SURFACE SEALER	SY	10	-	-	10	144	164
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	48	-	-	48	56	152
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,240	-	-	1,250	60,630	63120
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	-	-	-	-	10	10
506.7050.S	REMOVING BEARINGS, B-40-530	EACH	-	-	-	-	10	10
509.1500	CONCRETE SURFACE REPAIR	SF	6	-	-	1	-	7
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	13	-	-	13	-	26
517.0901.S	PREPARATION AND COATING OF TOP FLANGES B-40-530	EACH	-	-	-	-	-	1
* 517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-530	EACH	-	-	-	-	-	1
517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-530	EACH	-	-	-	-	-	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	-	-	-	-	-	1
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	95	-	-	158	-	253
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	364	-	-	364	-	728
606.0200	RIPRAP MEDIUM	CY	4	-	-	4	-	8
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	-	-	-	87	-	87
612.0806	APRON ENDWALLS FOR UNDERDRAIN REINFORCED CONCRETE 6-INCH	EACH	-	-	-	1	-	1
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	-	-	1	-	3
616.0800.S	FENCE TRACK CLEARANCE	LF	-	-	-	-	-	495
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	-	-	-	45	-	45
645.0120	GEOTEXTILE TYPE HR	SY	22	-	-	22	-	44
	NON-BID ITEMS							
	NAME PLATE	EACH						1
	FILLER	SIZE						1/2"

* FOR INFORMATIONAL PURPOSES ONLY: APPROXIMATELY 593 SF OF STRUCTURAL STEEL REPAINTING, SEE GENERAL NOTES.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-530			
	DRAWN BY	WAR	PLANS CK'D. KGW
CROSS SECTION & QUANTITIES			SHEET 2 OF 11

SCALE = ###

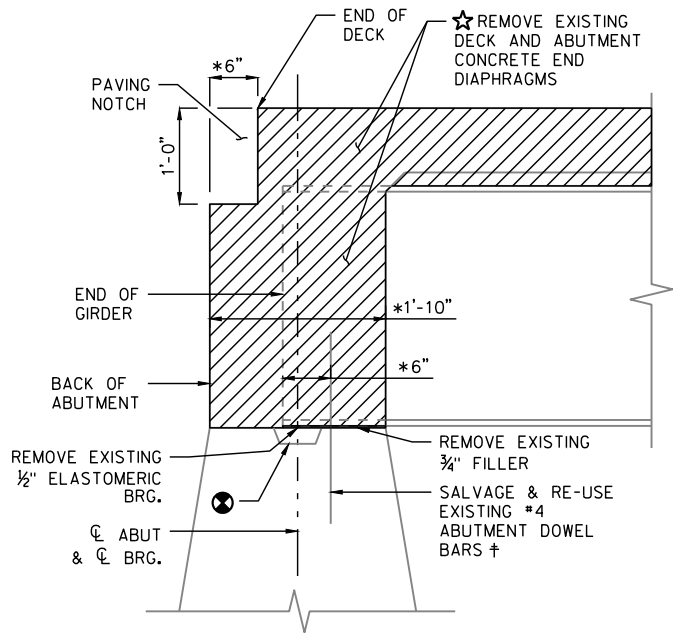


AT ABUTMENT

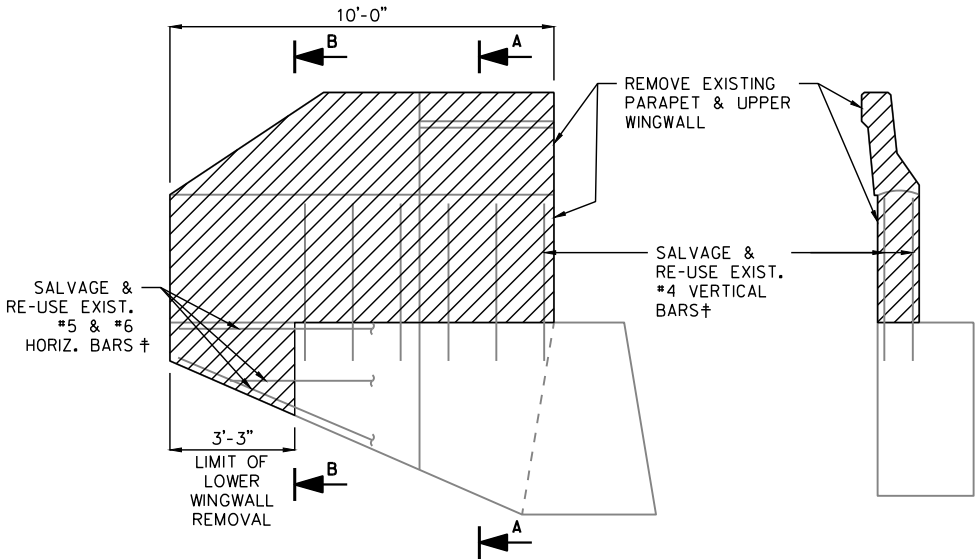
EXISTING TYPICAL SECTION

(LOOKING EAST)

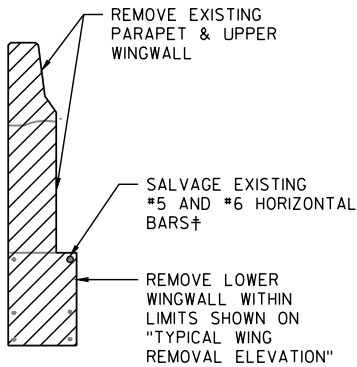
IN SPAN



REMOVAL OVER ABUTMENTS



TYPICAL WING
REMOVAL ELEVATION



SECTION B-B

SECTION A-A

LEGEND

REMOVAL LIMITS

* DIMENSIONS GIVEN ARE NORMAL TO C OF SUBSTRUCTURE UNIT

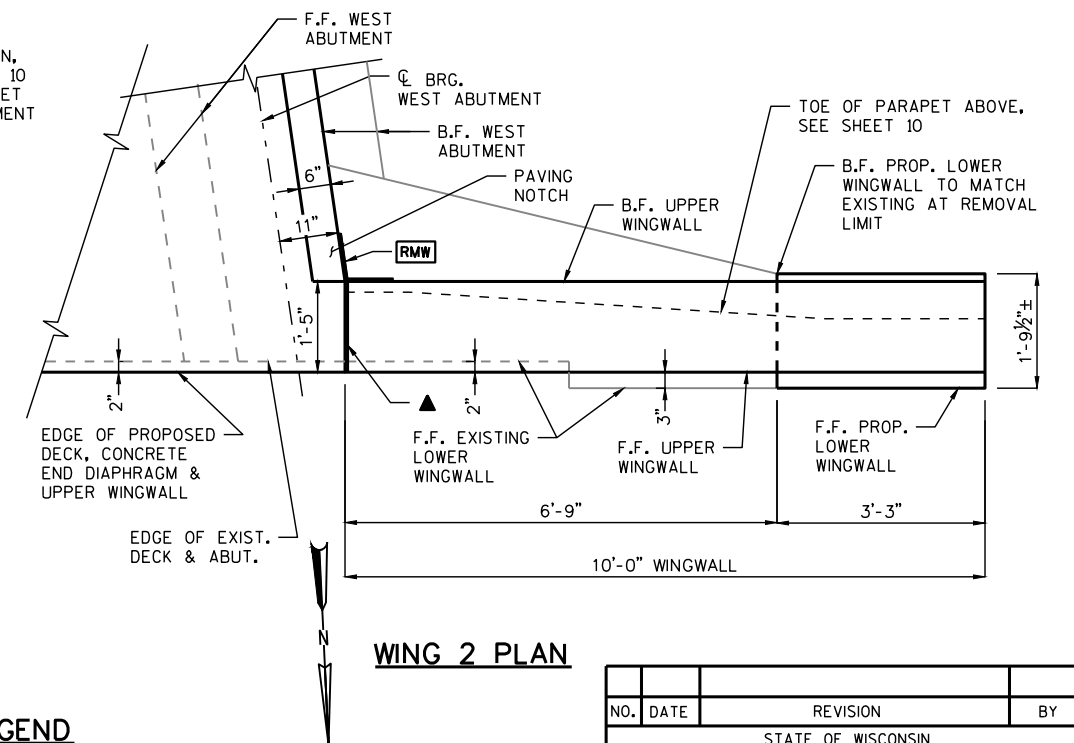
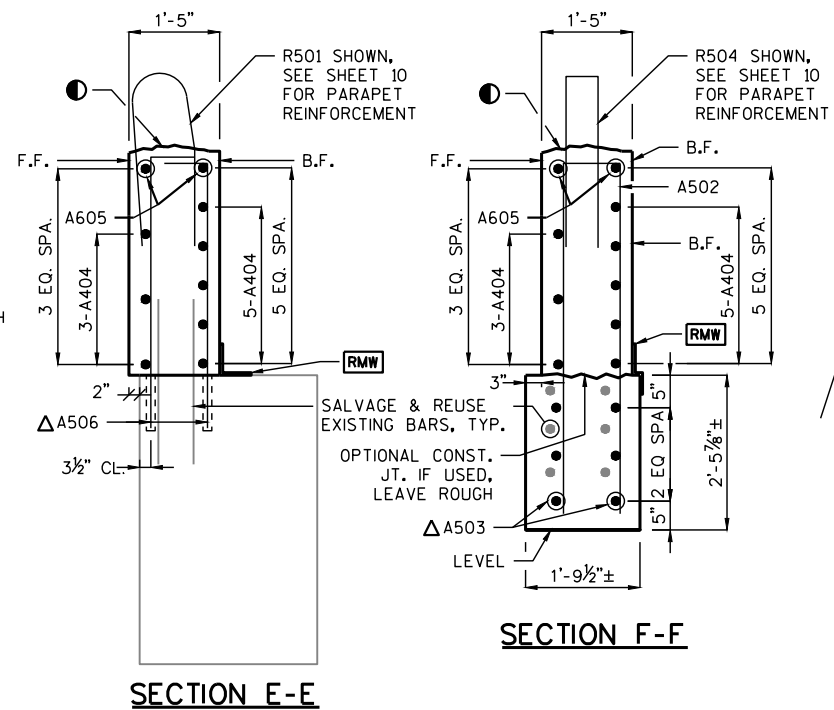
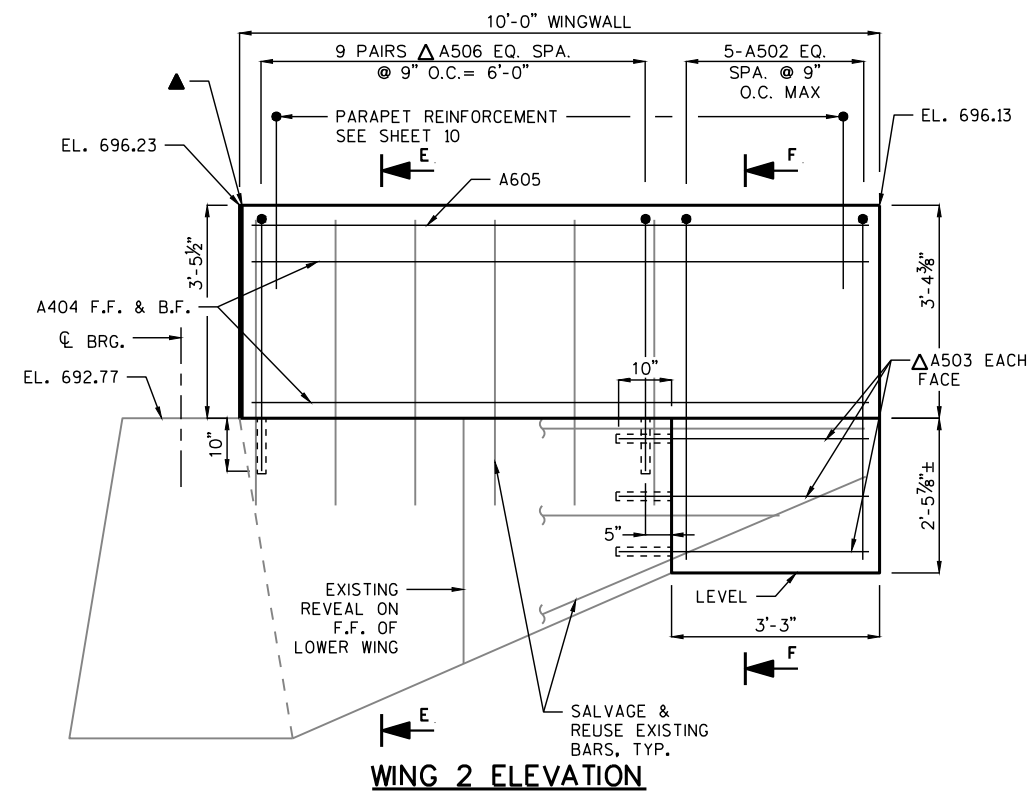
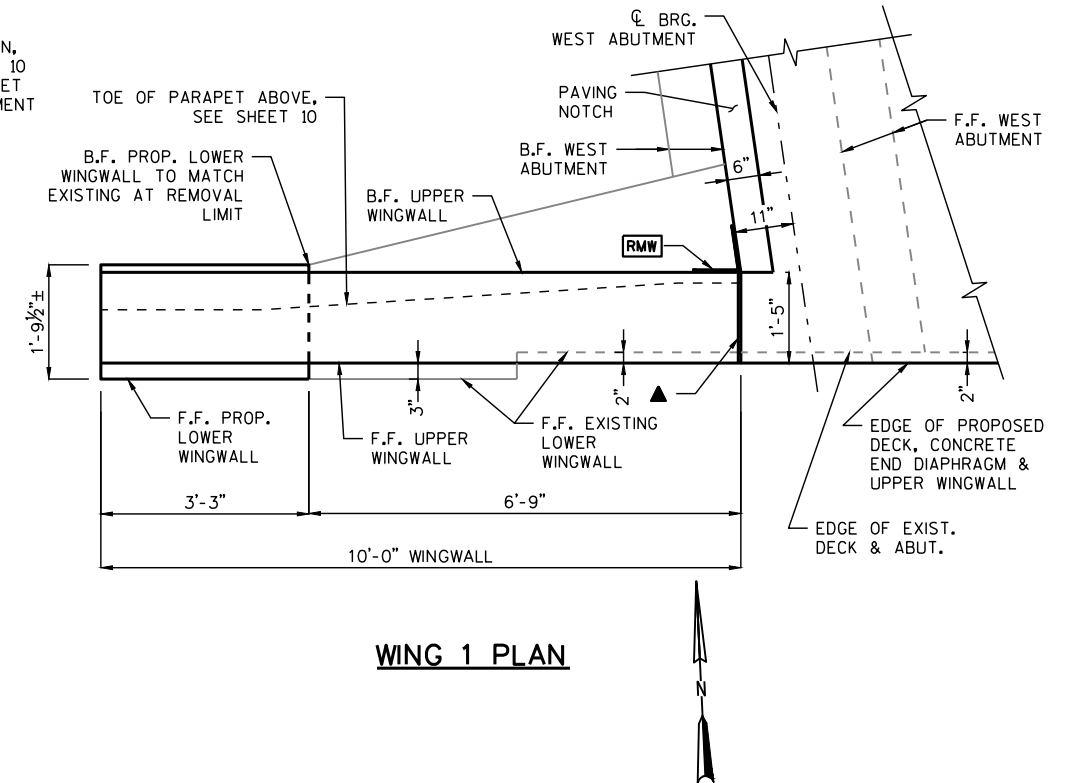
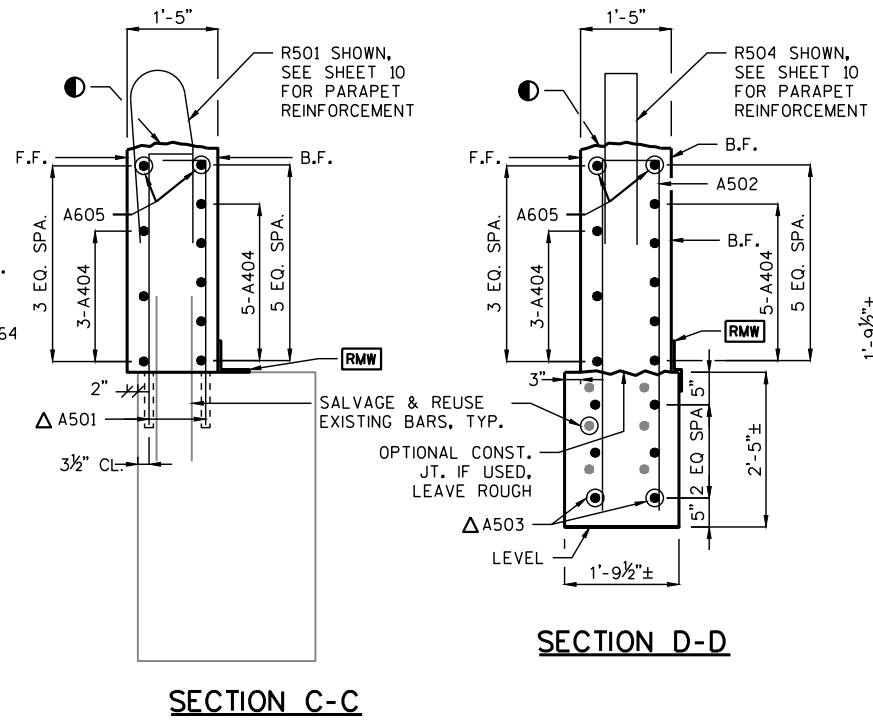
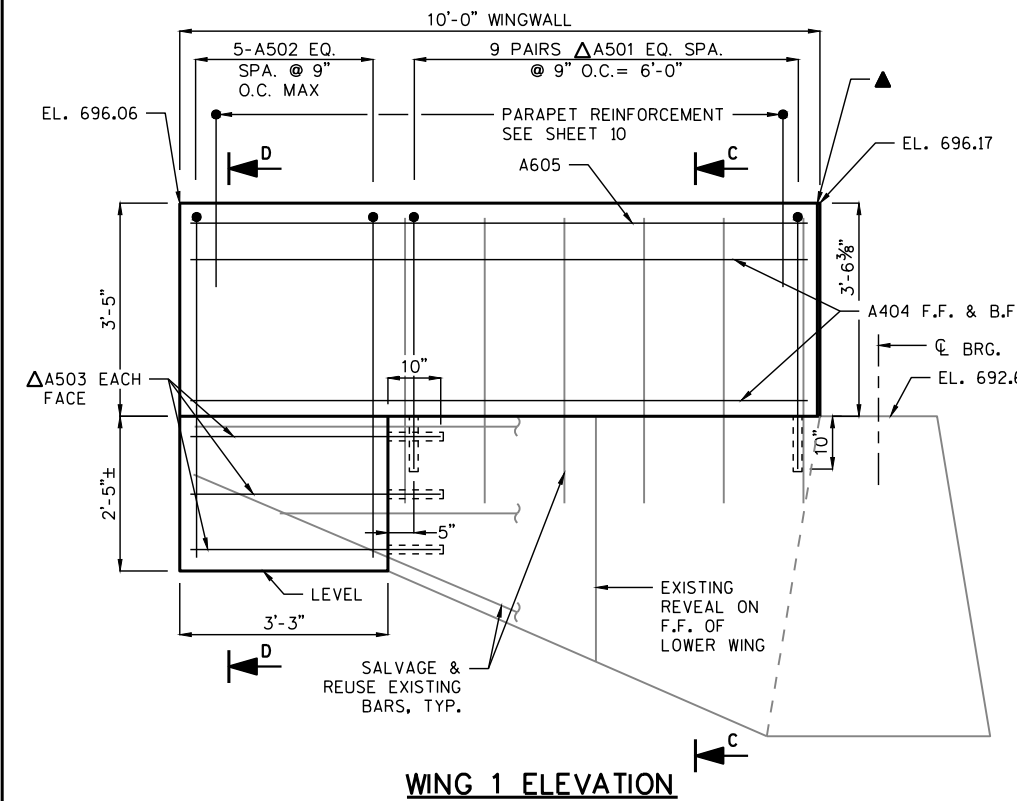
★ STABILITY OF GIRDERS DURING CONSTRUCTION SHALL BE INCIDENTAL TO "REMOVING STRUCTURE B-40-530".

⊗ CLEAN EXISTING CONCRETE DIAPHRAGM REMNANTS OUT OF EXISTING KEYED CONST. JT. FORMED BY SURF. BEVELED 2" X 6".

† EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-530			
DRAWN BY WAR		PLANS CK'D. KGW	
REMOVAL DETAILS		SHEET 3 OF 11	

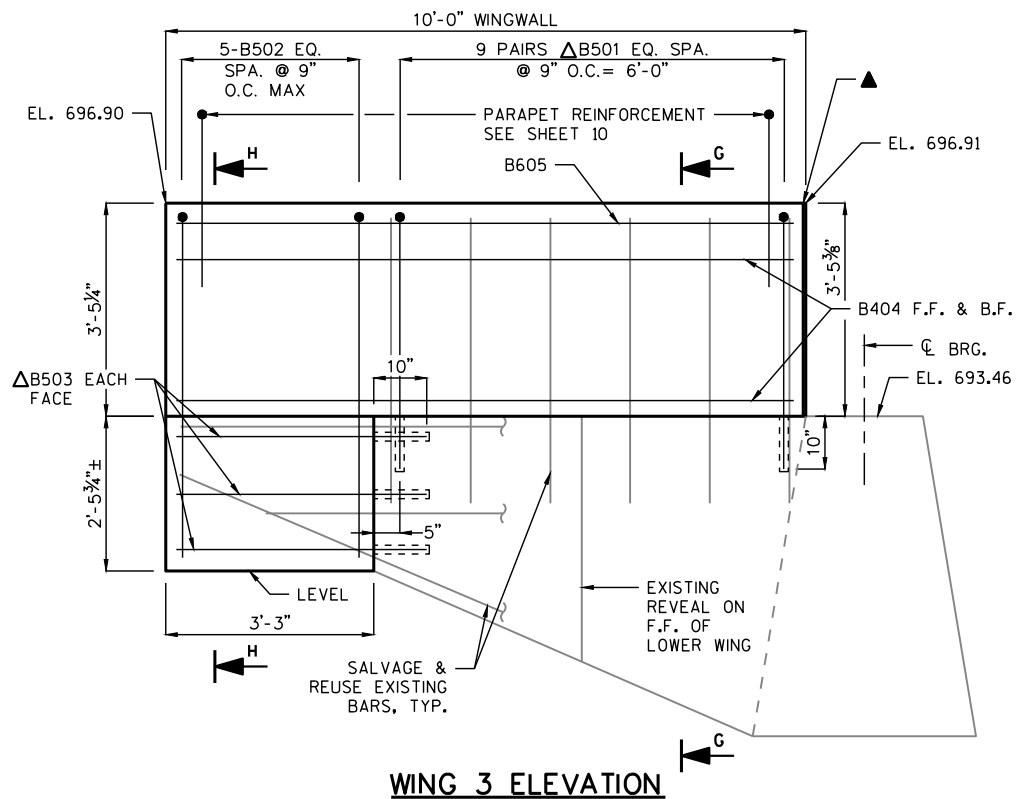
SCALE =



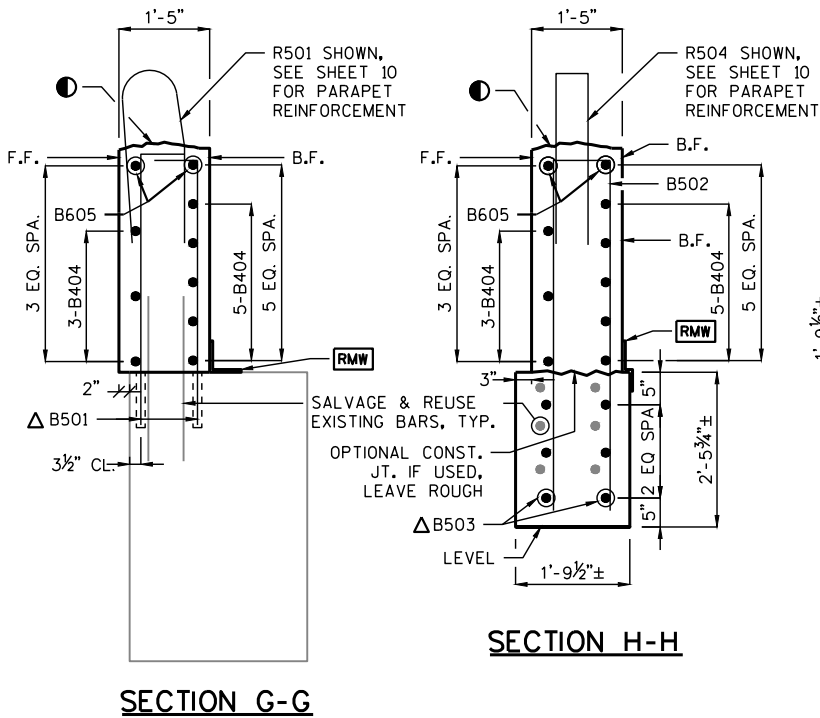
LEGEND

- ▲ 1/2" FILLER - TO EXTEND FROM BRIDGE SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH.
- △ ADHESIVE ANCHORS NO. 5 BAR, EMBED 10" IN CONCRETE.
- RMW** 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS OF NEW WORK ON BACKFACE.
- CONSTRUCTION JOINT - STRIKE OFF AS SHOWN. FINISH HORIZONTAL SURFACES NOT COVERED BY PARAPET.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-530			
DRAWN BY WAR		PLANS CK'D. KGW	
WEST ABUTMENT WINGWALLS		SHEET 4 OF 11	

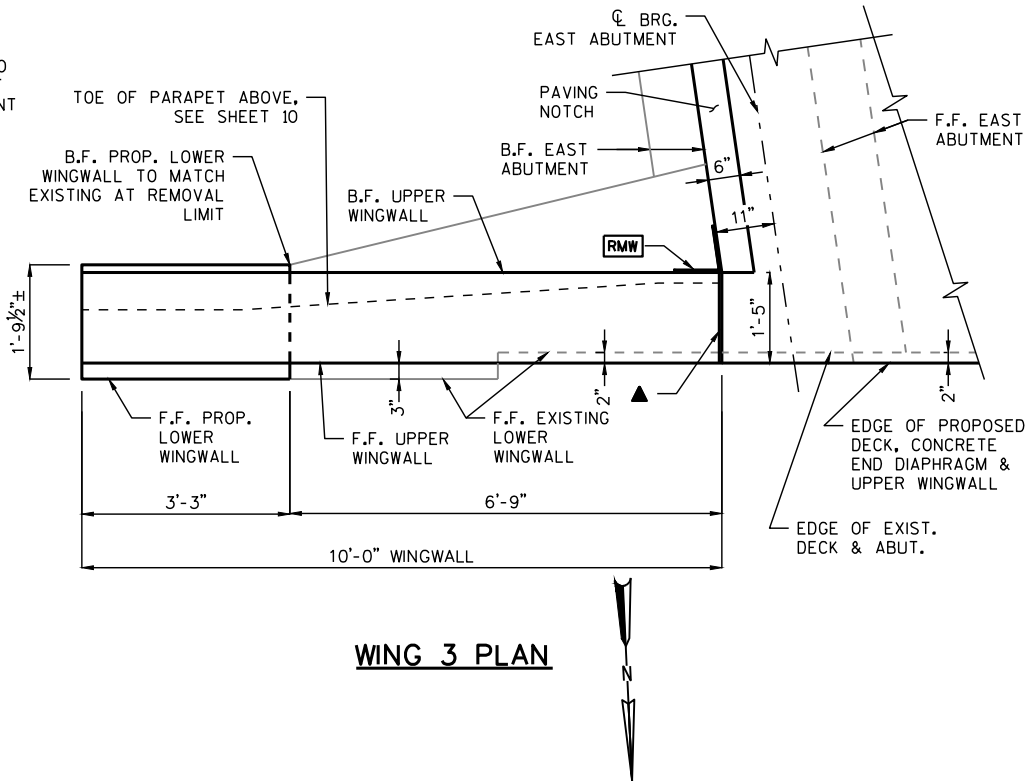


WING 3 ELEVATION

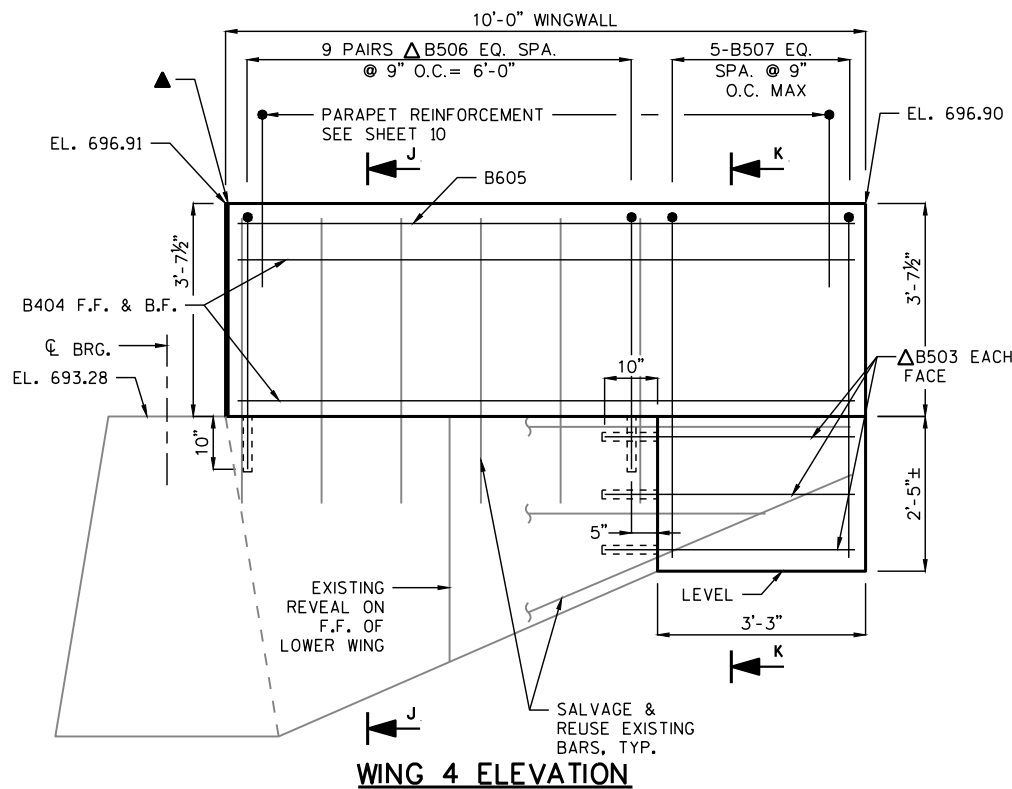


SECTION G-G

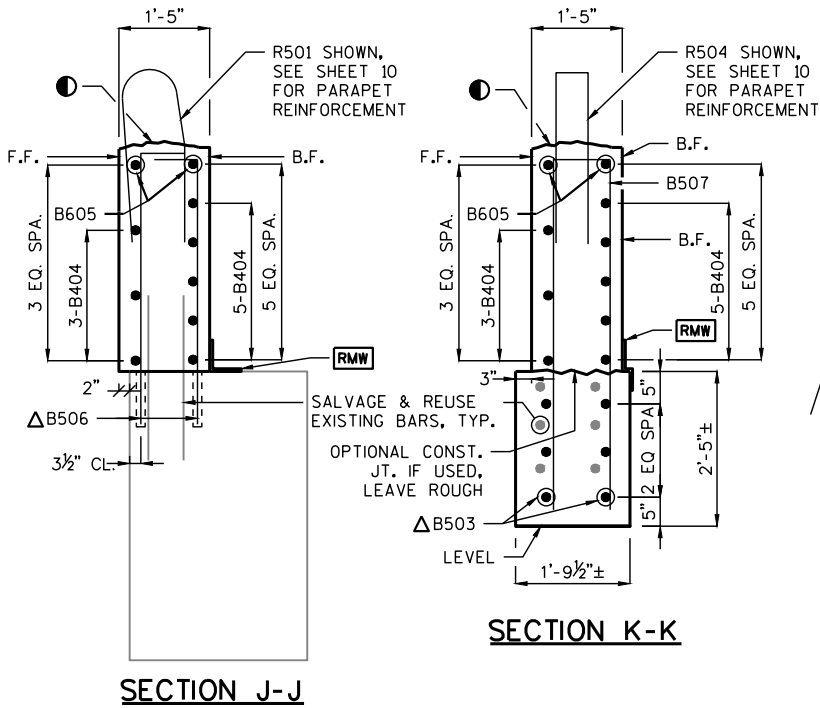
SECTION H-H



WING 3 PLAN

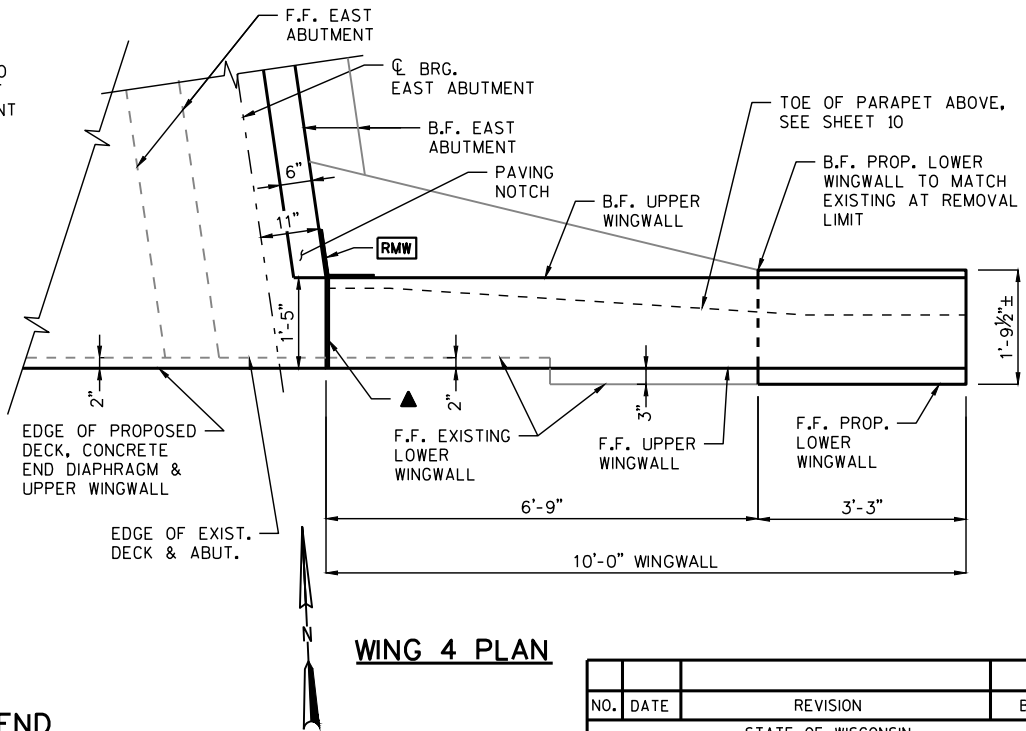


WING 4 ELEVATION



SECTION J-J

SECTION K-K

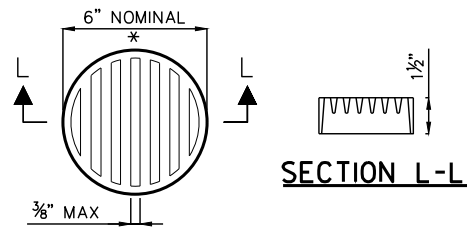


WING 4 PLAN

LEGEND

- ▲ 1/2" FILLER - TO EXTEND FROM BRIDGE SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH.
- Δ ADHESIVE ANCHORS NO. 5 BAR. EMBED 10" IN CONCRETE.
- RMW 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS OF NEW WORK ON BACKFACE.
- CONSTRUCTION JOINT - STRIKE OFF AS SHOWN. FINISH HORIZONTAL SURFACES NOT COVERED BY PARAPET.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-530			
DRAWN BY WAR		PLANS CKD. KGW	
EAST ABUTMENT WINGWALLS			SHEET 5 OF 11

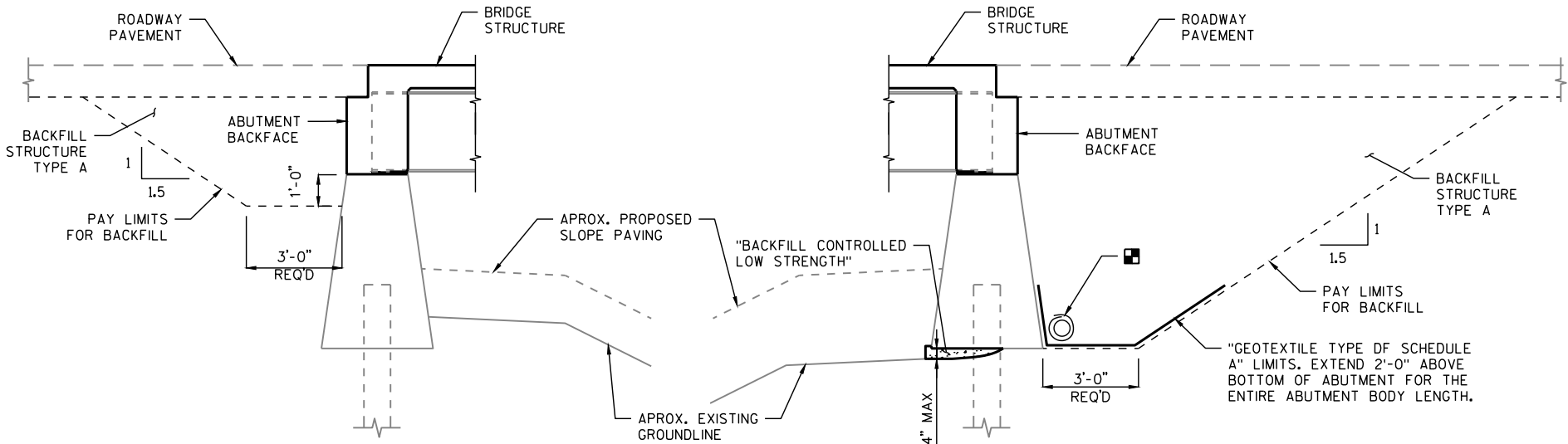


RODENT SHIELD DETAIL

*DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

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



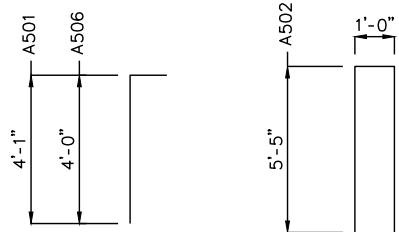
WEST ABUTMENT BACKFILL DIAGRAM

EAST ABUTMENT BACKFILL DIAGRAM

WEST ABUTMENT - BILL OF BARS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
Δ A501	X	18	4'-10"		X	WINGWALL 1 VERT. ADHESIVE ANCHORS
A502	X	10	11'-7"		X	WINGWALL VERT.
Δ A503	X	12	3'-11"			WINGWALL HORIZ. ADHESIVE ANCHORS
A404	X	16	9'-7"			WINGWALL LONG. F.F. & B.F.
A605	X	4	9'-7"			WINGWALL LONG. TOP
Δ A506	X	18	4'-9"		X	WINGWALL 2 VERT. ADHESIVE ANCHORS

ALL BAR BENDS ARE OUT TO OUT



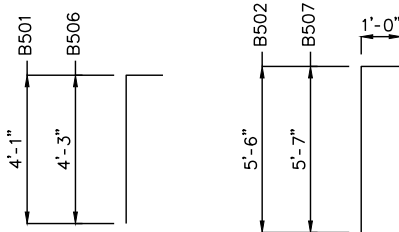
A501/A506

A502

EAST ABUTMENT - BILL OF BARS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
Δ B501	X	18	4'-10"		X	WINGWALL 3 VERT. ADHESIVE ANCHORS
B502	X	5	11'-9"		X	WINGWALL 3 VERT.
Δ B503	X	12	3'-11"			WINGWALL HORIZ. ADHESIVE ANCHORS
B404	X	16	9'-7"			WINGWALL LONG. F.F. & B.F.
B605	X	4	9'-7"			WINGWALL LONG. TOP
Δ B506	X	18	5'-0"		X	WINGWALL 4 VERT. ADHESIVE ANCHORS
B507	X	5	11'-11"		X	WINGWALL 4 VERT.

ALL BAR BENDS ARE OUT TO OUT



B501/B506

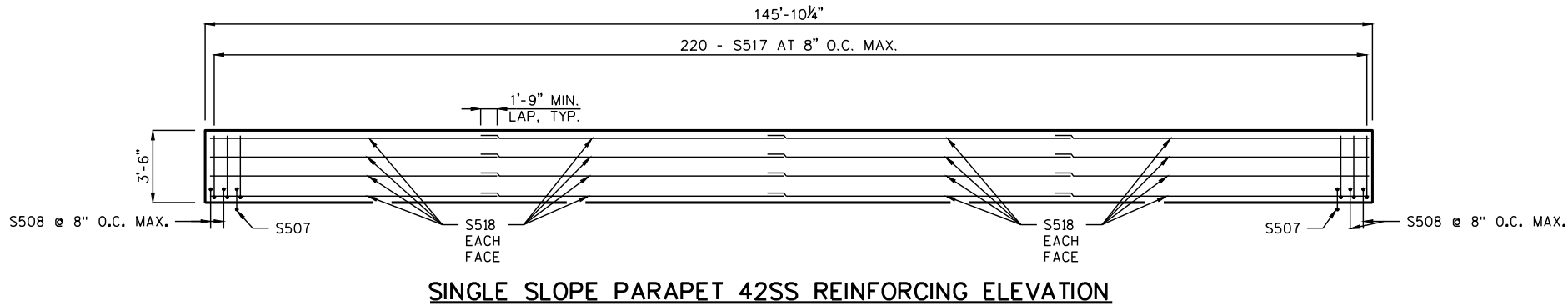
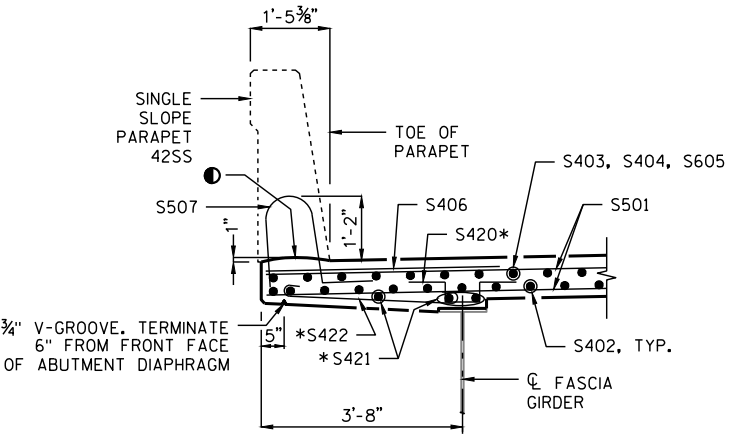
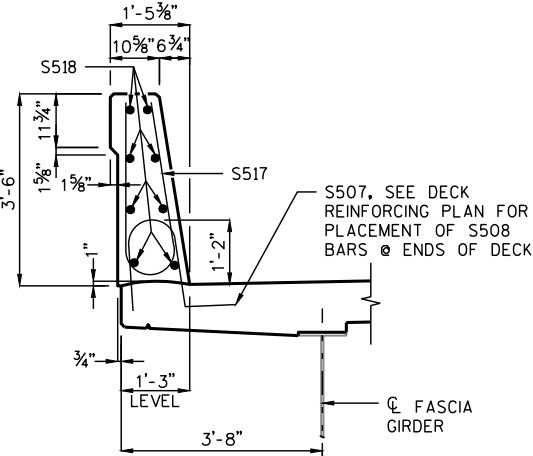
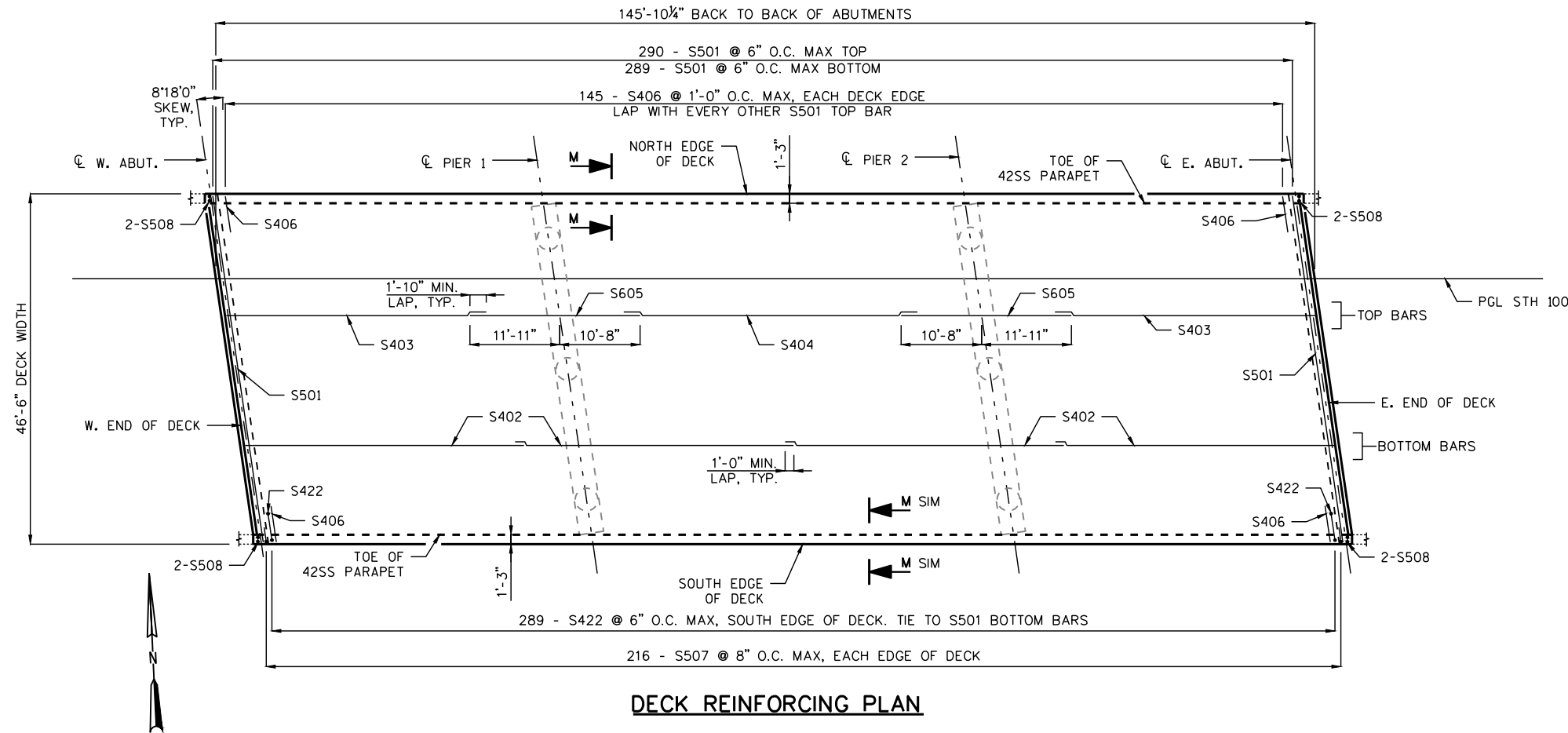
B502/B507

LEGEND

- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD TO ENDS OF PIPE UNDERDRAIN.
- Δ ADHESIVE ANCHORS NO. 5 BAR. EMBED 10" IN CONCRETE.

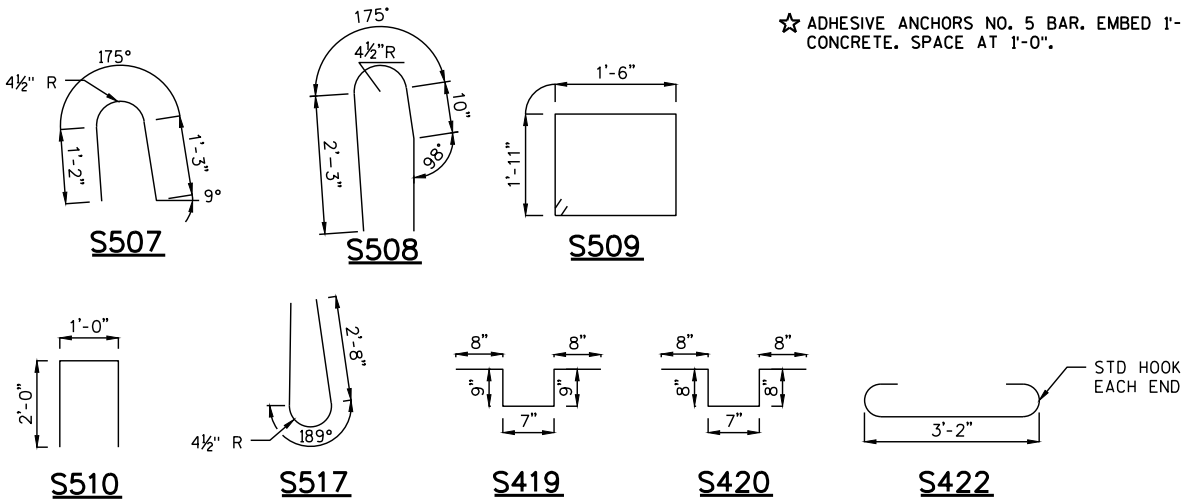
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-530			
DRAWN BY		WAR	PLANS CK'D. KGW
ABUTMENT DETAILS & BILL OF BARS		SHEET 6 OF 11	

SCALE = ###



SUPERSTRUCTURE - BILL OF BARS

MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
S501	X	579	46'-8"			DECK TRANSV. (ALONG SKEW)
S402	X	304	37'-0"			DECK LONGIT. BOTTOM
S403	X	150	34'-8"			DECK LONGIT. TOP SPAN 1 & 3
S404	X	75	39'-0"			DECK LONGIT. TOP SPAN 2
S605	X	150	22'-7"			DECK LONGIT. TOP OVER PIERS
S406	X	290	4'-7"			DECK TRANSV. OVERHANG
S507	X	432	4'-5"		X	DECK PARAPET DOWEL
S508	X	8	5'-10"		X	DECK PARAPET DOWEL @ ENDS
S509	X	136	7'-6"		X	END DIAPHRAGM VERTICAL
S510	X	136	4'-9"		X	END DIAPHRAGM VERTICAL - TOP
S611	X	16	25'-3"			END DIAPHRAGM HORIZ. B.F.
S612	X	16	3'-4"			END DIAPHRAGM HORIZ. F.F.
S613	X	32	9'-5"			END DIAPHRAGM HORIZ. F.F.
S714	X	20	4'-0"			END DIAPHRAGM HORIZ. THRU WEBS
☆ S515	X	56	2'-0"			END DIAPH. ADHESIVE DOWELS SUPPLEMENTAL
S616	X	4	46'-7"			DECK END TRANSV. (ALONG SKEW)
S517	X	440	6'-8"		X	DECK PARAPET VERTICAL
S518	X	64	37'-10"			DECK PARAPET HORIZONTAL
S419	X	320	3'-1"		X	HAUNCH VERTICAL GIRDER 3 & 4
S420	X	160	2'-11"		X	HAUNCH VERTICAL GIRDER 5
S421	X	28	36'-11"			HAUNCH LONGITUDINAL GIRDERS 3-5
S422	X	289	4'-2"		X	DECK TRANSV. BOTTL., SOUTH OVERHANG



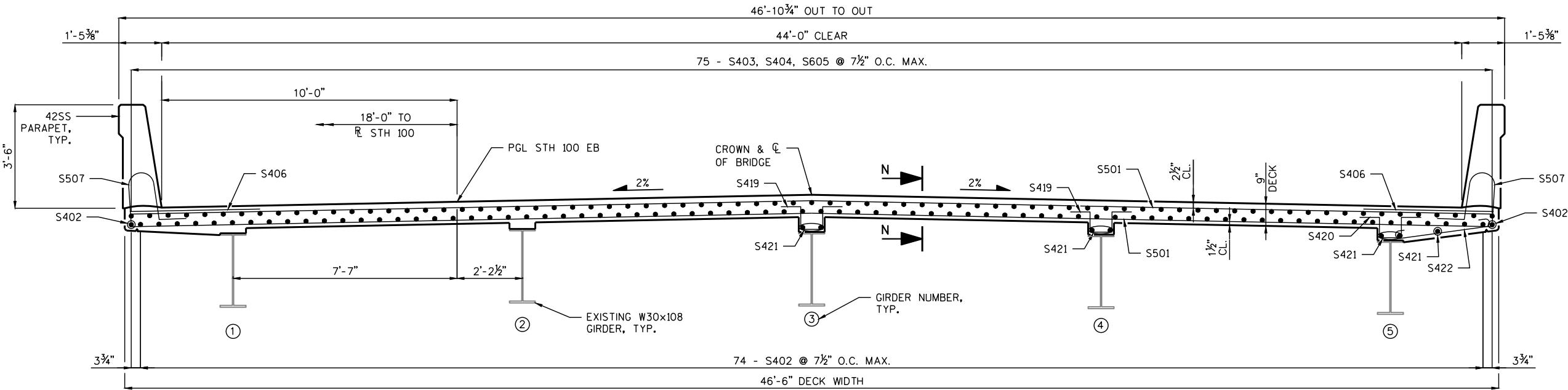
NOTES

THE RATE OF PLACING CONCRETE SHALL EQUAL OR EXCEED 1/2 SPAN LENGTH PER HOUR BUT NEED NOT EXCEED 100 CU. YDS. PER HOUR.

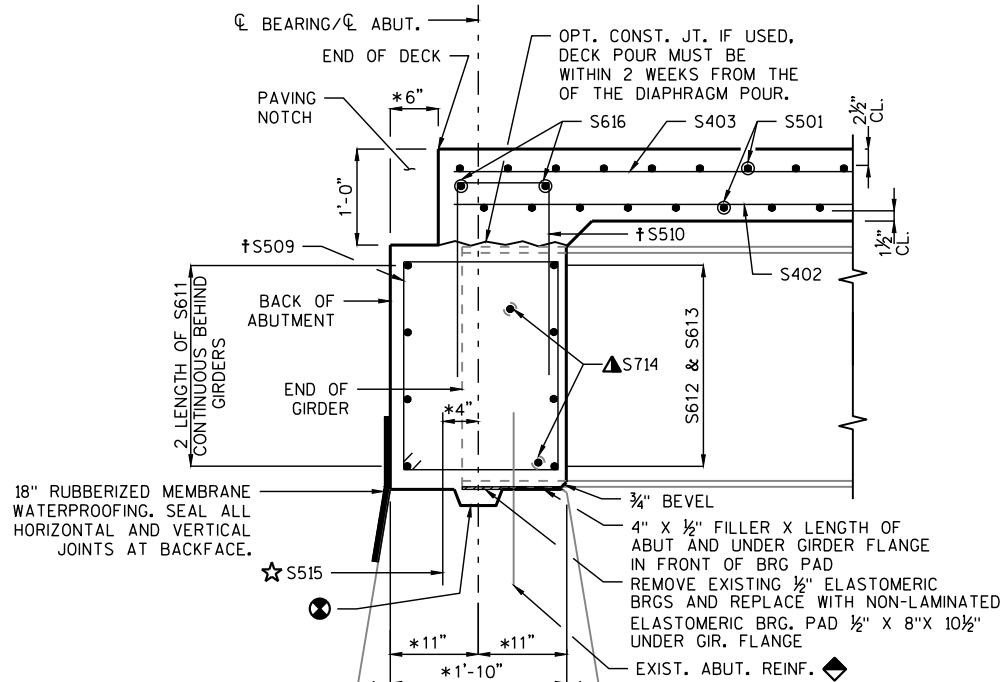
DECK POUR SHALL BE WITHIN 2 WEEKS OF POURING ABUTMENT CONCRETE END DIAPHRAGMS.

OPTIONAL CONSTRUCTION JOINTS IN PARAPETS MAY BE USED. RUN BAR REINF. THRU JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A 3/4" - 'V' GROOVE.

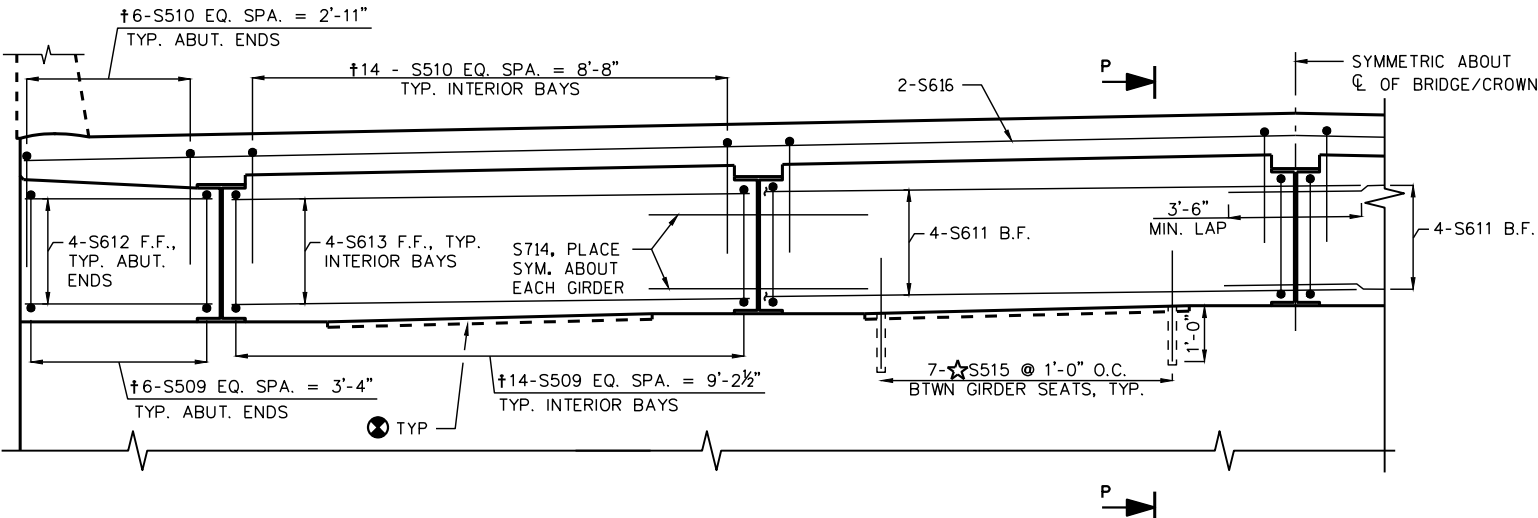
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-530			
DRAWN BY WAR		PLANS CKD. KGW	
SUPERSTRUCTURE PLAN		SHEET 7 OF 11	



DECK REINFORCING CROSS SECTION
(LOOKING EAST)



SECTION P-P



PART SECTION THRU ABUTMENT CONCRETE END DIAPHRAGM

LEGEND

◆ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. SALVAGE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH BARS INDICATED BY ☆.

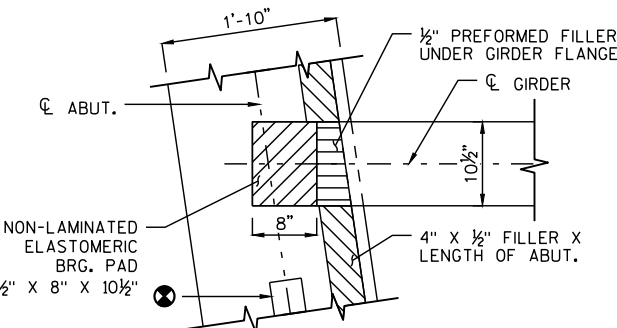
* DIMENSIONS GIVEN ARE NORMAL TO CL OF SUBSTRUCTURE UNIT.

☆ ADHESIVE ANCHORS NO. 5 BAR. EMBED 1'-0" IN CONCRETE. SPACE AT 1'-0".

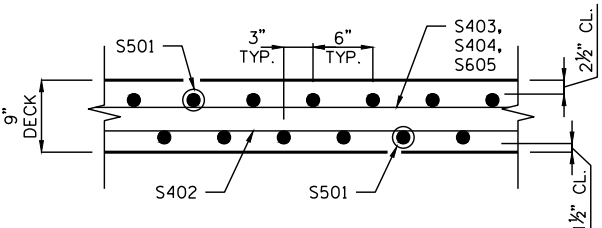
† BARS PLACED PARALLEL TO GIRDERS. SPACING PERPENDICULAR TO CL OF GIRDERS.

▲ PLACE BARS SYM. ABOUT CL OF GIRDER IN EXISTING 1 5/16" DIA HOLES.

⊗ CLEAN EXISTING CONCRETE DIAPHRAGM REMNANTS OUT OF EXISTING KEYED CONST. JT. FORMED BY SURF. BEVELED 2" X 6".



BEARING PAD DETAIL



SECTION N-N

NO.	DATE	REVISION						BY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION									
STRUCTURE B-40-530									
				DRAWN BY WAR		PLANS CK'D. KGW			
SUPERSTRUCTURE CROSS-SECTION						SHEET 8 OF 11			

SCALE =

NOTES

'T' = HAUNCH HEIGHT AT CENTERLINE OF GIRDER

TO DETERMINE 'T':
ELEVATIONS AT THE TOP FLANGES SHALL BE TAKEN AT CENTERLINE OF BEARINGS AND AT 0.1 POINTS.

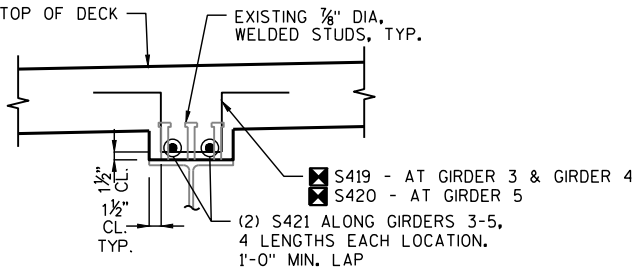
TOP OF DECK ELEVATION AT FINAL GRADE

- TOP OF STEEL ELEVATION AS ERECTED

+ CONC. ONLY DEFLECTION; DOWNWARD DEFLECTION IS ADDED, UPWARD DEFLECTION IS SUBTRACTED

- DECK THICKNESS

= 'T' VALUE FOR SETTING HAUNCH



GIRDER HAUNCH REINFORCEMENT DETAIL

SECTION THRU DECK

DEFLECTION TABLE (INCHES)

	C/L BRG	SPAN 1									C/L BRG	SPAN 2										C/L BRG
LOCATION	WEST ABUT.	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	PIER 1	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	F.S.	0.8 SPAN	0.9 SPAN	PIER 2
CONCRETE DEFLECTION	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.4	0.3	0.2	0.2	0.1	0.0

	C/L BRG	SPAN 3									C/L BRG
LOCATION	PIER 2	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	EAST ABUT.
CONCRETE DEFLECTION	0.0	0.0	0.1	0.2	0.3	0.3	0.3	0.3	0.2	0.1	0.0

DEFLECTIONS ARE DUE TO WEIGHT OF CONCRETE DECK, SIDEWALK, PARAPETS AND RAILINGS.
DEFLECTIONS ARE THEORETICAL AND MAY VARY IN THE FIELD.
NEGATIVE VALUES ARE UPWARD DEFLECTIONS.

ELEVATIONS AT TOP OF DECK (T.O.D) & TOP OF STEEL (T.O.S)

		C/L BRG	SPAN 1									C/L BRG	SPAN 2											C/L BRG
LOCATION		WEST ABUT.	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	PIER 1	0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	F.S.	0.8 SPAN	0.9 SPAN	PIER 2	
NORTH DECK EDGE	T.O.D.	696.17	696.22	696.26	696.30	696.34	696.38	696.42	696.45	696.49	696.52	696.55	696.59	696.63	696.66	696.69	696.72	696.75	696.77	696.80	696.80	696.82	696.84	
GIRDER 1	T.O.D.	696.23	696.27	696.31	696.35	696.39	696.43	696.47	696.50	696.54	696.57	696.60	696.64	696.68	696.71	696.74	696.77	696.80	696.82	696.85	696.85	696.87	696.89	
	T.O.S.	695.35										695.57											695.97	
PGL	T.O.D.	696.39	696.43	696.4747	696.5155	696.55	696.593	696.63	696.665	696.699	696.7316	696.76	696.8005	696.84	696.87	696.90	696.93	696.96	696.98	697.00	697.00	697.02	697.04	
GIRDER 2	T.O.D.	696.44	696.48	696.52	696.56	696.60	696.64	696.68	696.71	696.75	696.78	696.81	696.85	696.88	696.92	696.95	696.98	697.00	697.03	697.05	697.05	697.07	697.09	
	T.O.S.	695.50										695.80											696.07	
GIRDER 3	T.O.D.	696.65	696.69	696.73	696.77	696.81	696.85	696.88	696.92	696.95	696.98	697.01	697.05	697.09	697.12	697.15	697.18	697.20	697.23	697.25	697.25	697.27	697.29	
	T.O.S.	695.45										695.76											696.05	
GIRDER 4	T.O.D.	696.46	696.51	696.55	696.59	696.63	696.66	696.70	696.73	696.77	696.80	696.83	696.87	696.90	696.93	696.96	696.99	697.01	697.04	697.06	697.06	697.08	697.09	
	T.O.S.	695.30										695.65											695.88	
GIRDER 5	T.O.D.	696.28	696.32	696.37	696.41	696.44	696.48	696.51	696.55	696.58	696.61	696.64	696.68	696.71	696.74	696.77	696.80	696.82	696.85	696.87	696.87	696.89	696.90	
	T.O.S.	695.19										695.53											695.79	
SOUTH DECK EDGE	T.O.D.	696.24	696.28	696.32	696.36	696.40	696.43	696.47	696.50	696.54	696.57	696.60	696.63	696.67	696.70	696.73	696.75	696.78	696.80	696.82	696.82	696.84	696.85	

LOCATION		C/L BRG PIER 2	SPAN 3									C/L BRG EAST ABUT.
			0.1 SPAN	0.2 SPAN	0.3 SPAN	0.4 SPAN	0.5 SPAN	0.6 SPAN	0.7 SPAN	0.8 SPAN	0.9 SPAN	
NORTH DECK EDGE	T.O.D.	696.84	696.85	696.86	696.87	696.88	696.89	696.89	696.90	696.90	696.90	696.90
GIRDER 1	T.O.D.	696.89	696.90	696.91	696.92	696.93	696.94	696.94	696.95	696.95	696.95	696.95
	T.O.S.	695.97										696.03
PGL	T.O.D.	697.04	697.05	697.06	697.07	697.08	697.09	697.09	697.10	697.10	697.10	697.10
GIRDER 2	T.O.D.	697.09	697.10	697.11	697.12	697.13	697.13	697.14	697.14	697.15	697.15	697.15
	T.O.S.	696.07										696.17
GIRDER 3	T.O.D.	697.29	697.30	697.31	697.32	697.33	697.33	697.34	697.34	697.34	697.34	697.34
	T.O.S.	696.05										696.08
GIRDER 4	T.O.D.	697.09	697.11	697.12	697.12	697.13	697.14	697.14	697.15	697.15	697.15	697.15
	T.O.S.	695.88										695.95
GIRDER 5	T.O.D.	696.90	696.91	696.92	696.93	696.94	696.94	696.95	696.95	696.95	696.95	696.95
	T.O.S.	695.79										695.80
SOUTH DECK EDGE	T.O.D.	696.85	696.87	696.88	696.88	696.89	696.90	696.90	696.90	696.90	696.90	696.90

LEGEND

WHERE SPACING OF EXISTING SHEAR STUDS IS EQUAL TO OR LESS THAN 1'-0", SPACE BARS TO MATCH. WHERE SPACING OF EXISTING SHEAR STUDS EXCEEDS 1'-0", SPACING SHALL BE 1'-0" MAX.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-530			
		DRAWN BY	WAR
		PLANS CK'D.	KGW
TOP OF DECK ELEVATIONS		SHEET 9 OF 11	

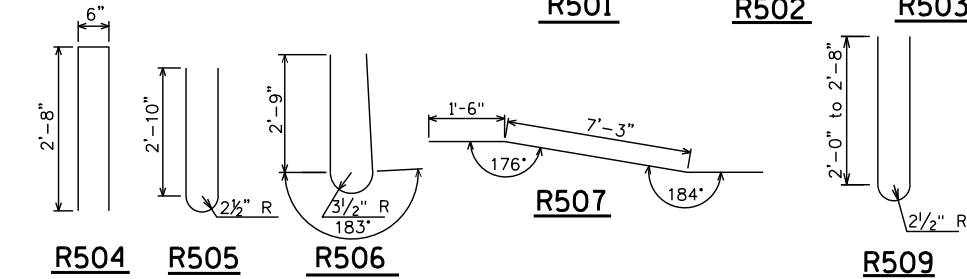
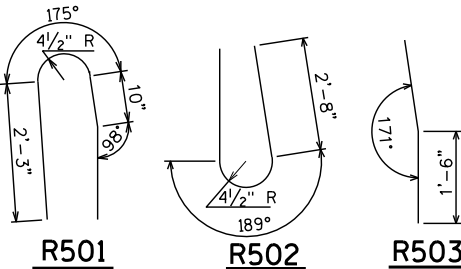
SCALE =

BILL OF BARS

FOR ABUTMENT PARAPETS

BAR MARK	COAT	WEST ABUT.	EAST ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	6	6	5'-10"	X		PARAPET VERT.
R502	X	6	6	6'-8"	X		PARAPET VERT.
R503	X	24	24	3'-0"	X		PARAPET VERT.
R504	X	34	34	5'-7"	X		PARAPET VERT.
R505	X	10	10	6'-5"	X		PARAPET VERT.
R506	X	12	12	6'-6"	X		PARAPET VERT.
R507	X	2	2	9'-8"	X		PARAPET HORIZ.
R508	X	10	10	9'-7"			PARAPET HORIZ.
R509	X	12	12	5'-5"	X	▲	PARAPET VERT.
R510	X	4	4	9'-8"	X		PARAPET HORIZ.

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



BAR SERIES TABLE

MARK	NO. REQ'D.	LENGTH
R509	4 SERIES OF 6	4'-9" TO 6'-1"

DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

* WINGWALL REINFORCEMENT NOT SHOWN FOR CLARITY, SEE SHEETS 4 AND 5.

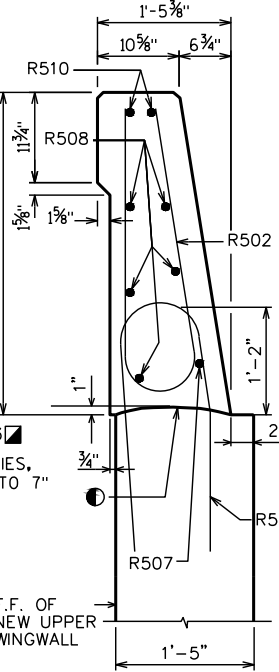
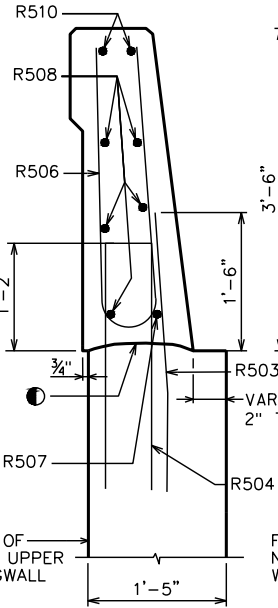
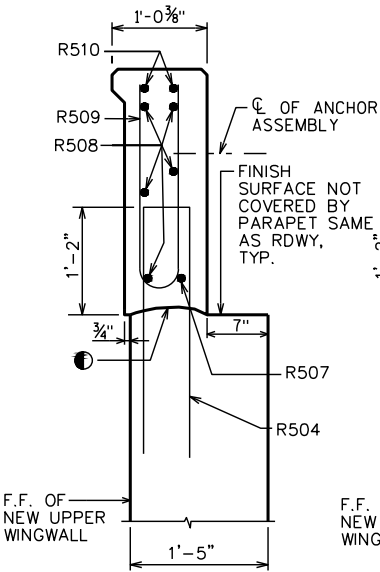
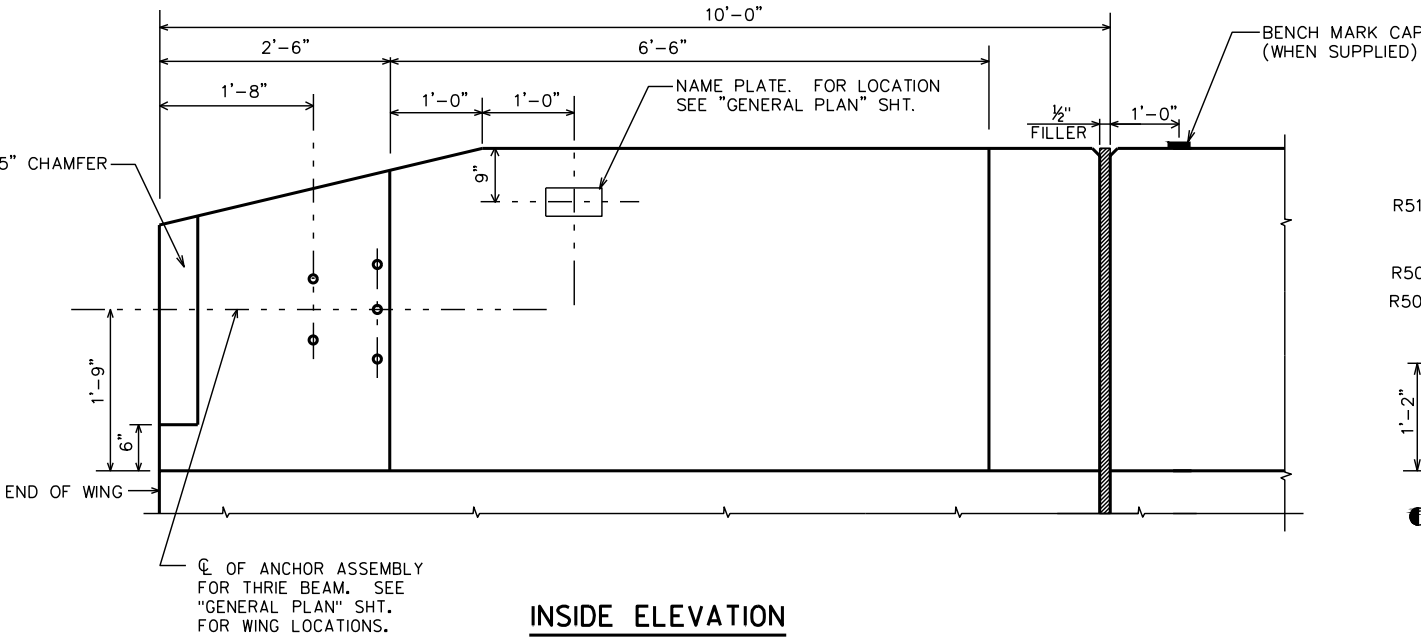
● CONST. JOINT - STRIKE OFF AS SHOWN.

■ R503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-530			
DRAWN BY WAR		PLANS CK'D. KGW	
SINGLE SLOPE PARAPET 42SS			SHEET 10 OF 11

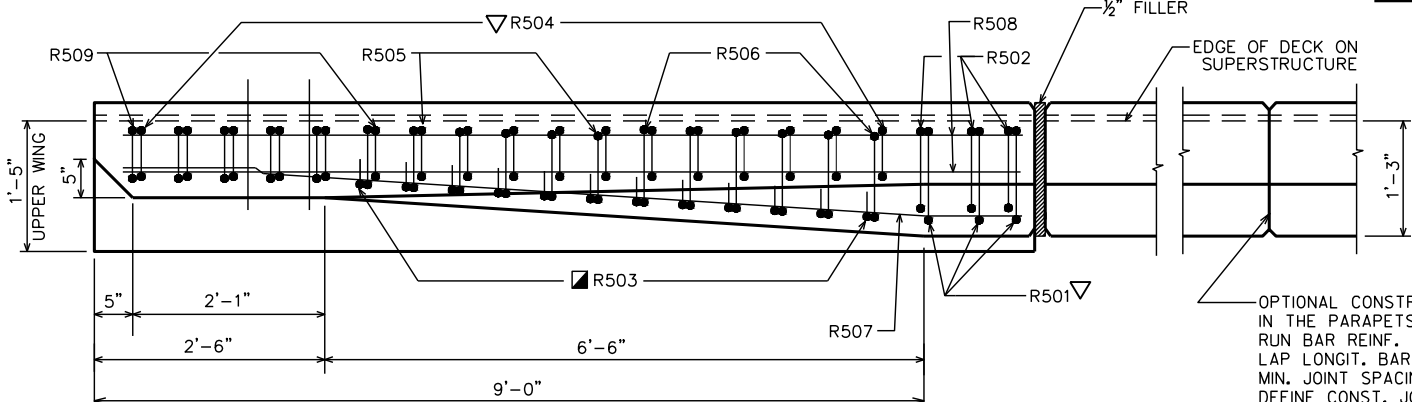
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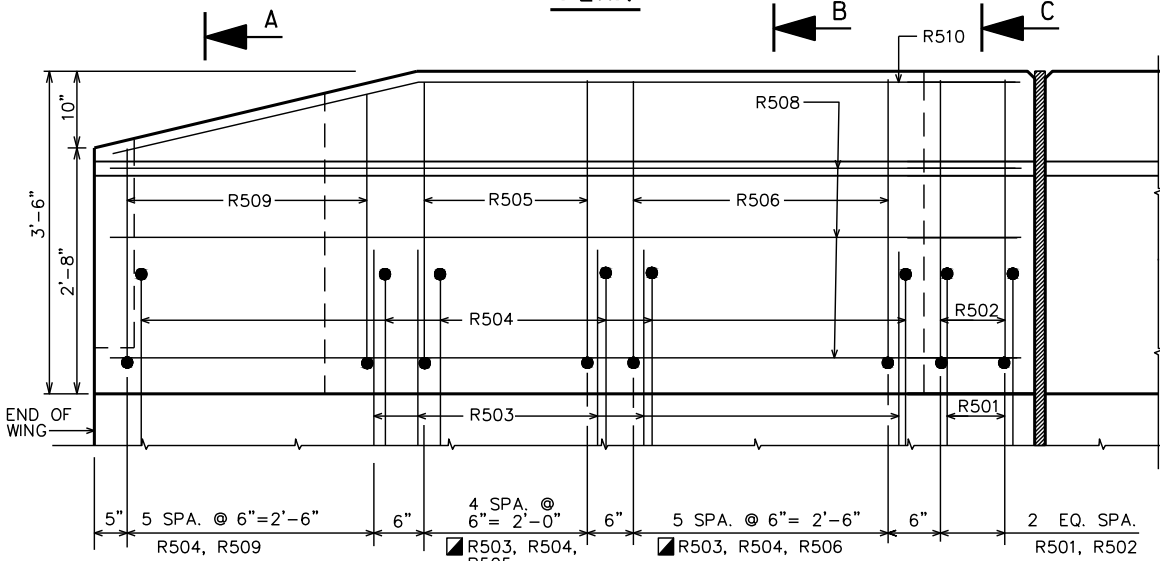
SECTION A-A *

SECTION B-B *

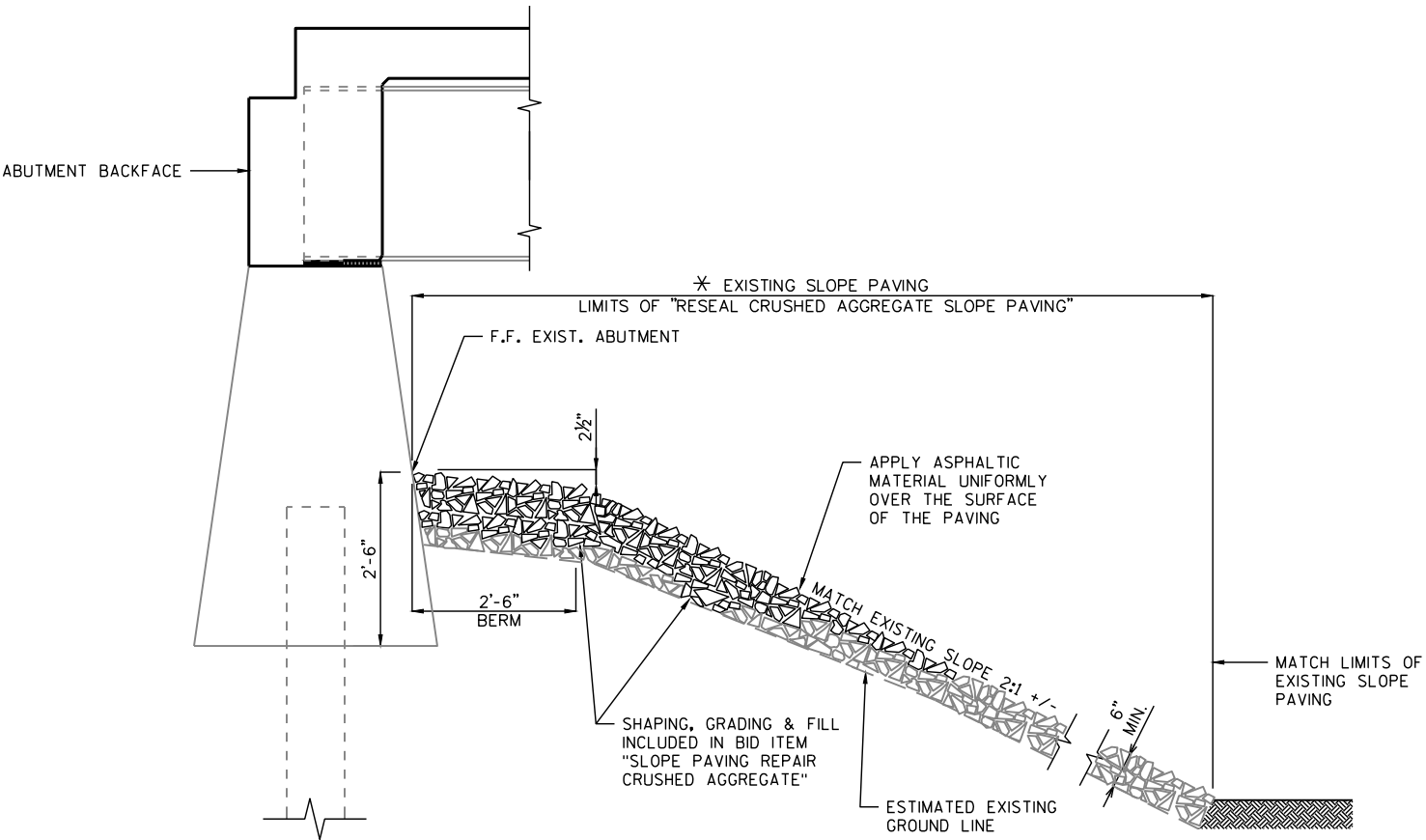
SECTION C-C *



PLAN

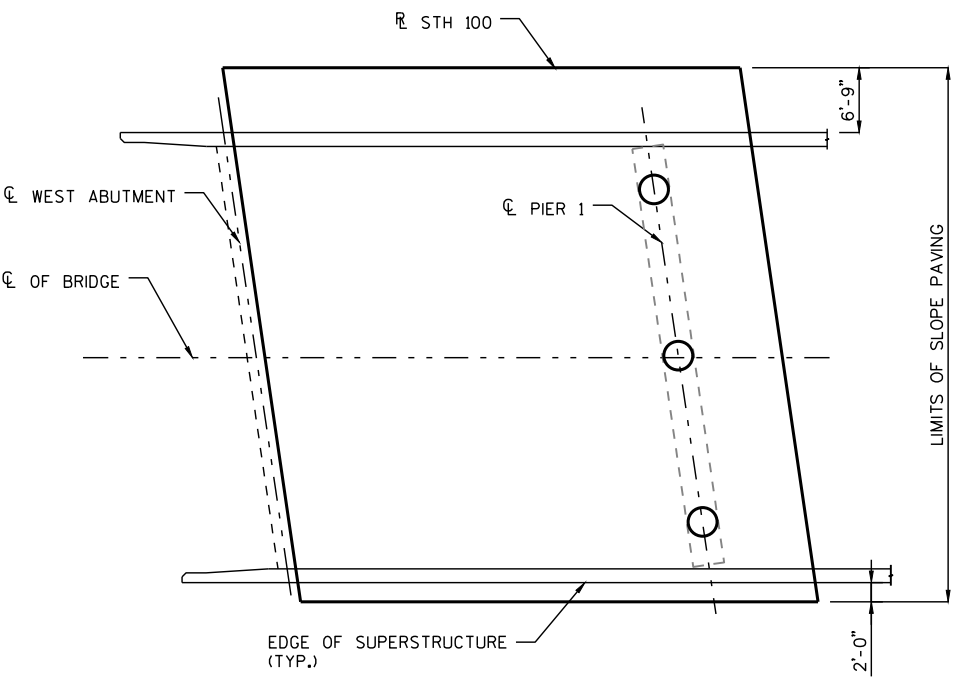


OUTSIDE ELEVATION



CROSS SECTION THRU CRUSHED AGGREGATE SLOPE PAVING

ROUND STONE WILL NOT BE ACCEPTED



PLAN

WEST ABUTMENT SHOWN, EAST ABUTMENT SIMILAR

NOTES

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

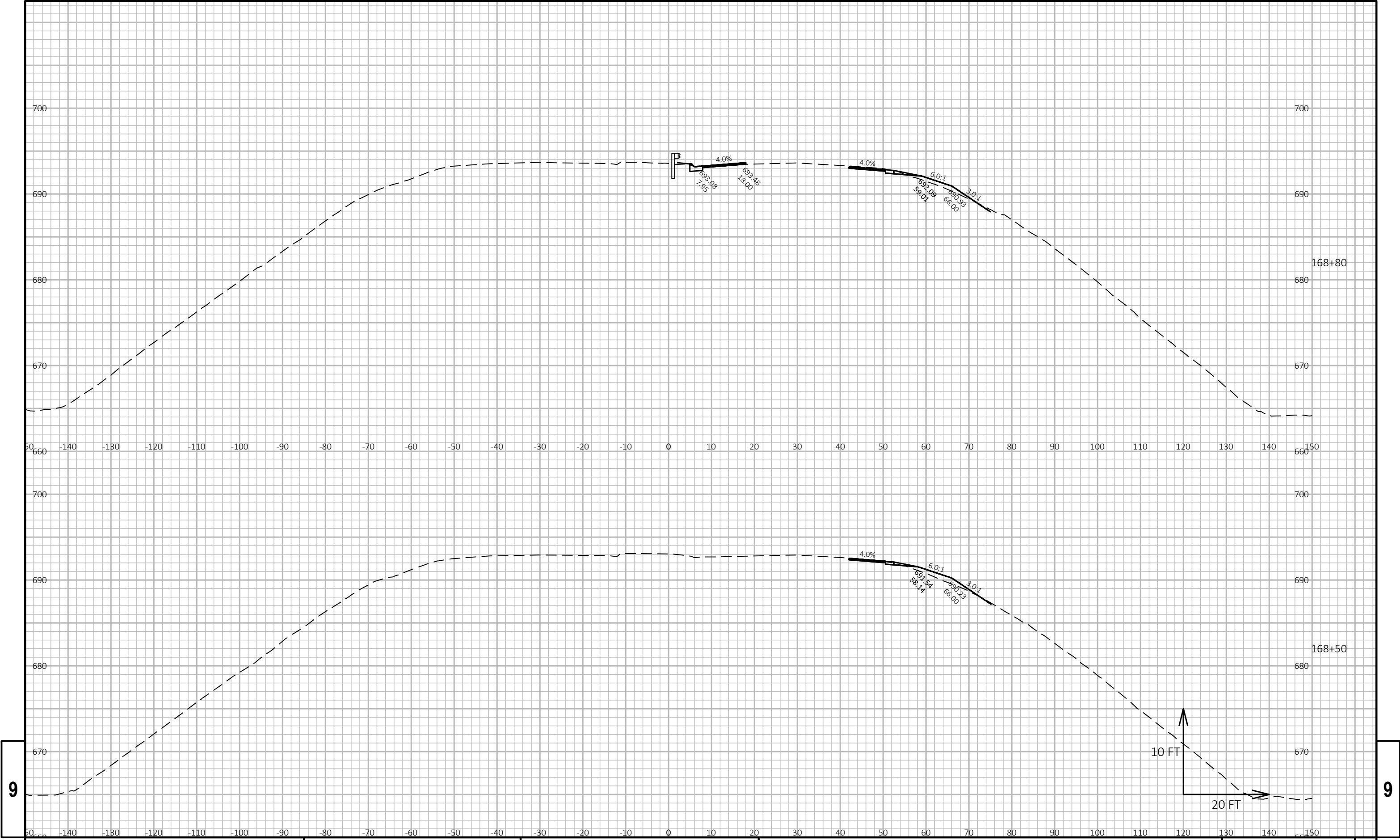
LEGEND

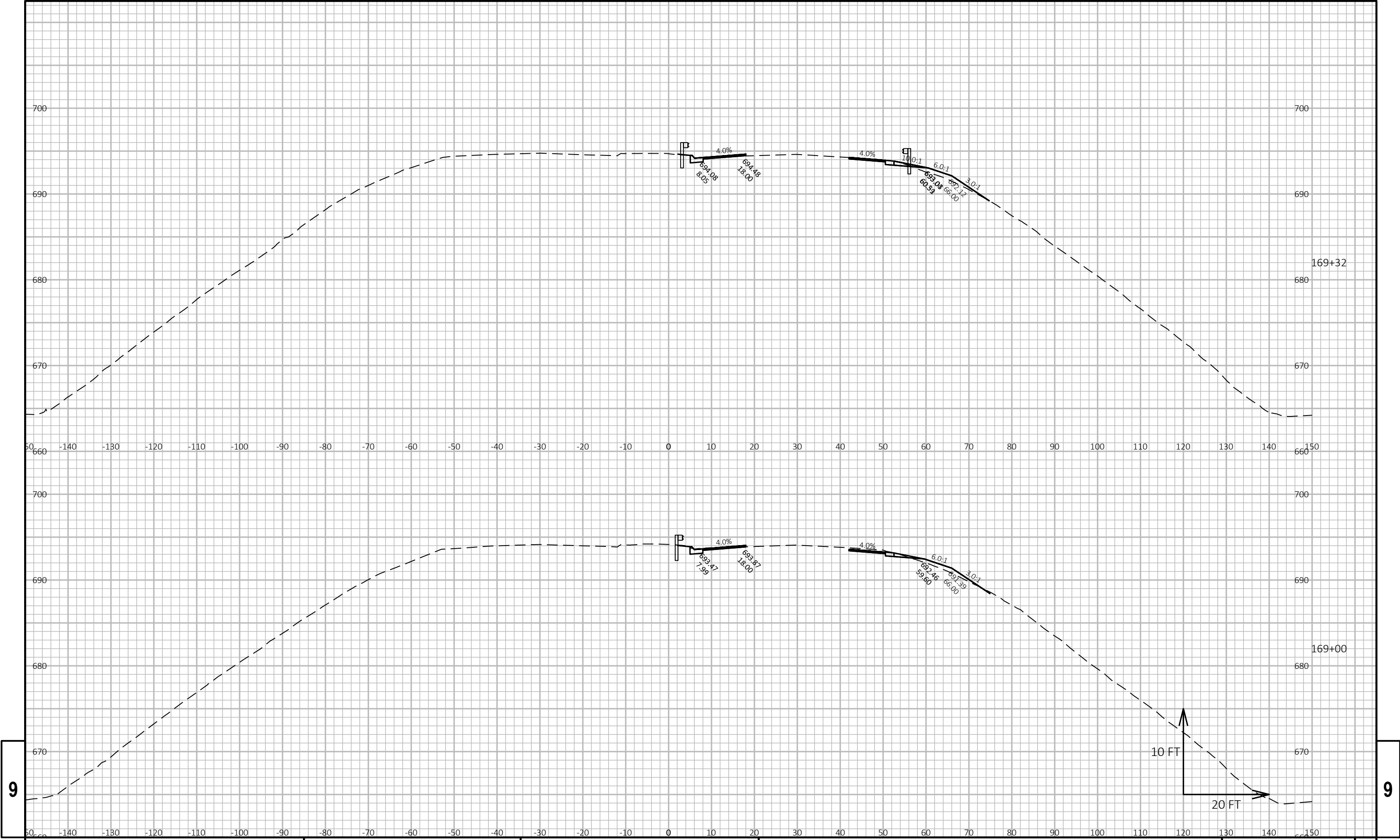
* ENTIRE LIMITS OF EXISTING SLOPE PAVING CRUSHED AGGREGATE SHOWN, EXISTING SETTLED AND DETERIORATED AREAS TO BE REPAIRED. REPAIR LIMITS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

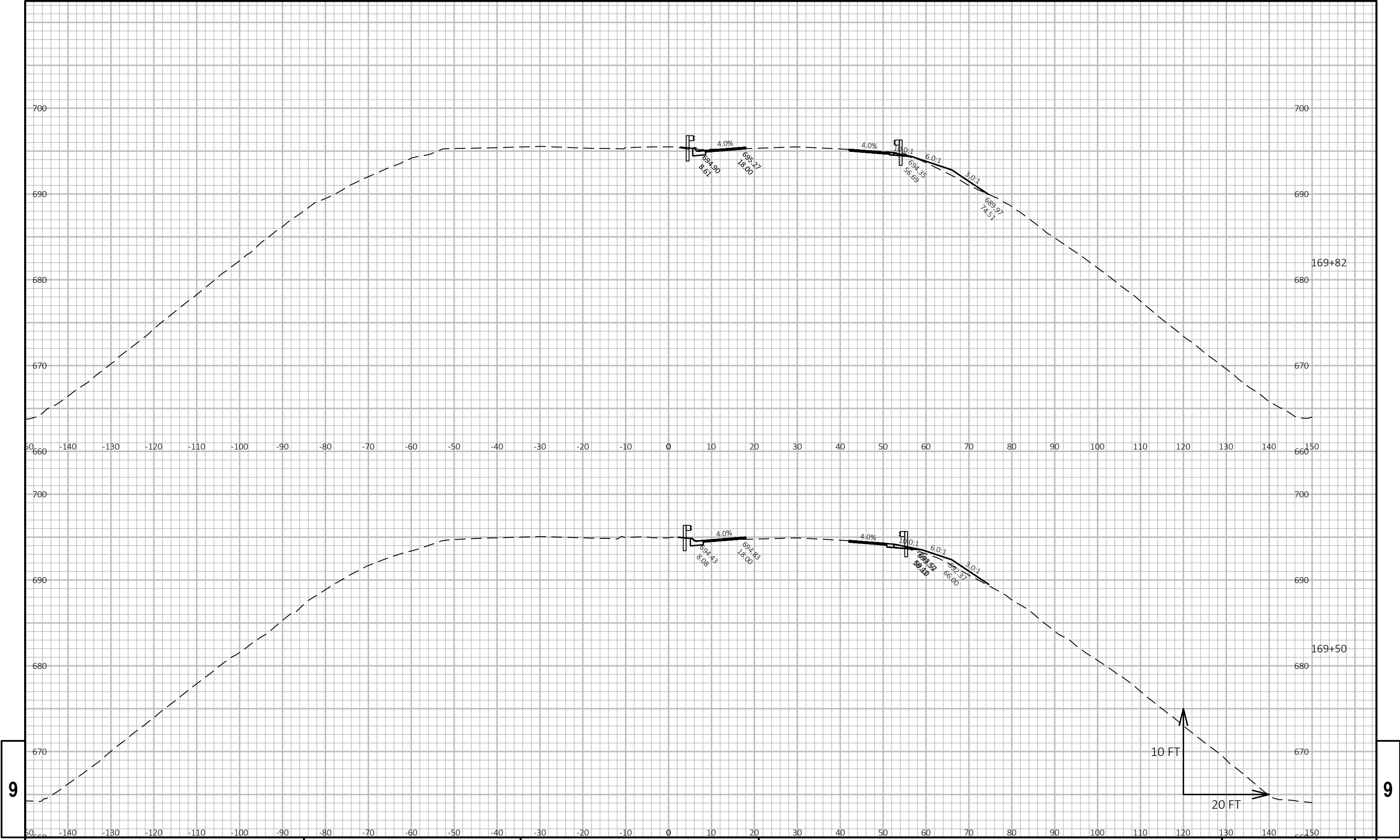
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-530			
DRAWN BY		WAR	PLANS CK'D. KGW
SLOPE PAVING REPAIR		SHEET 11 OF 11	

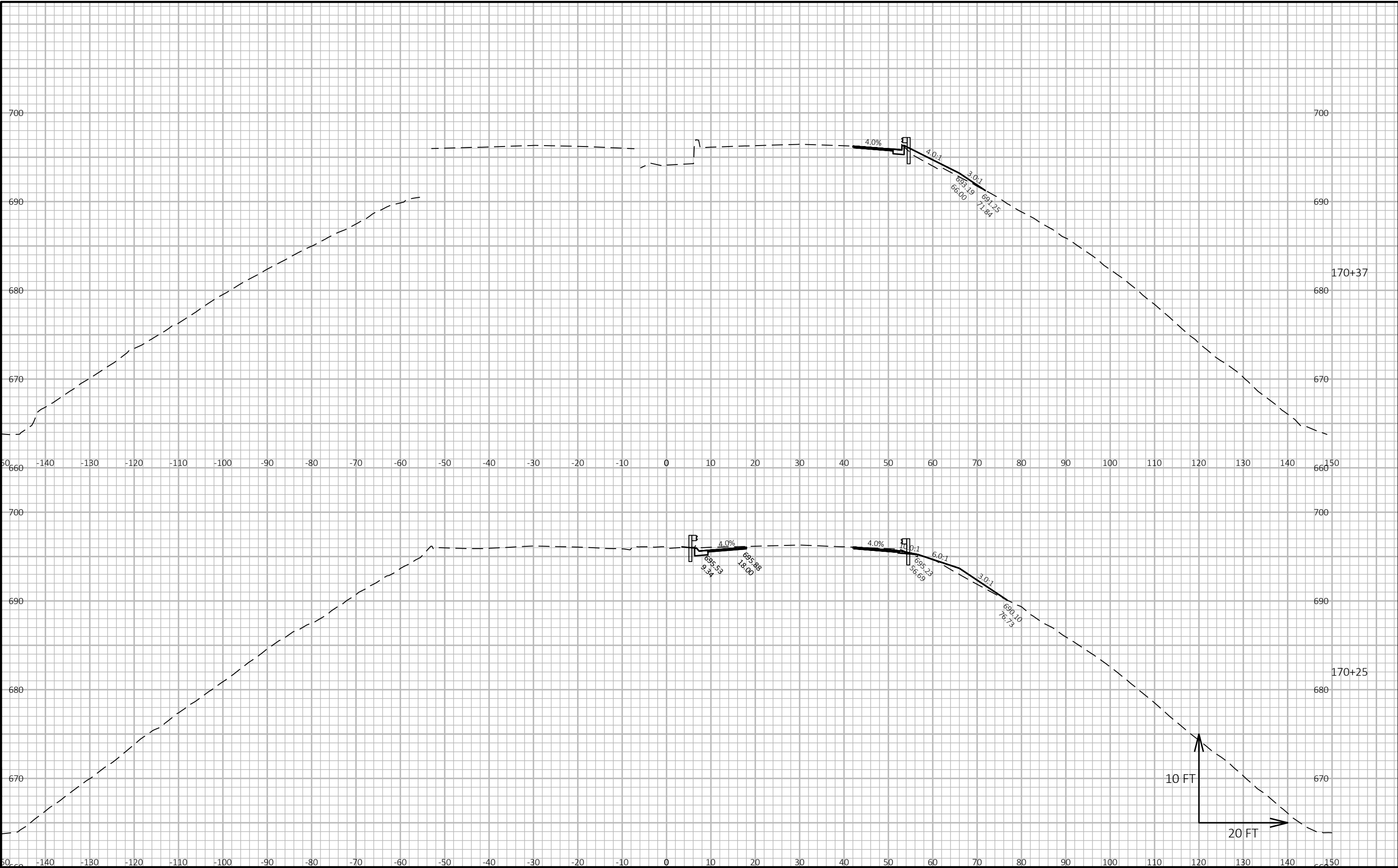
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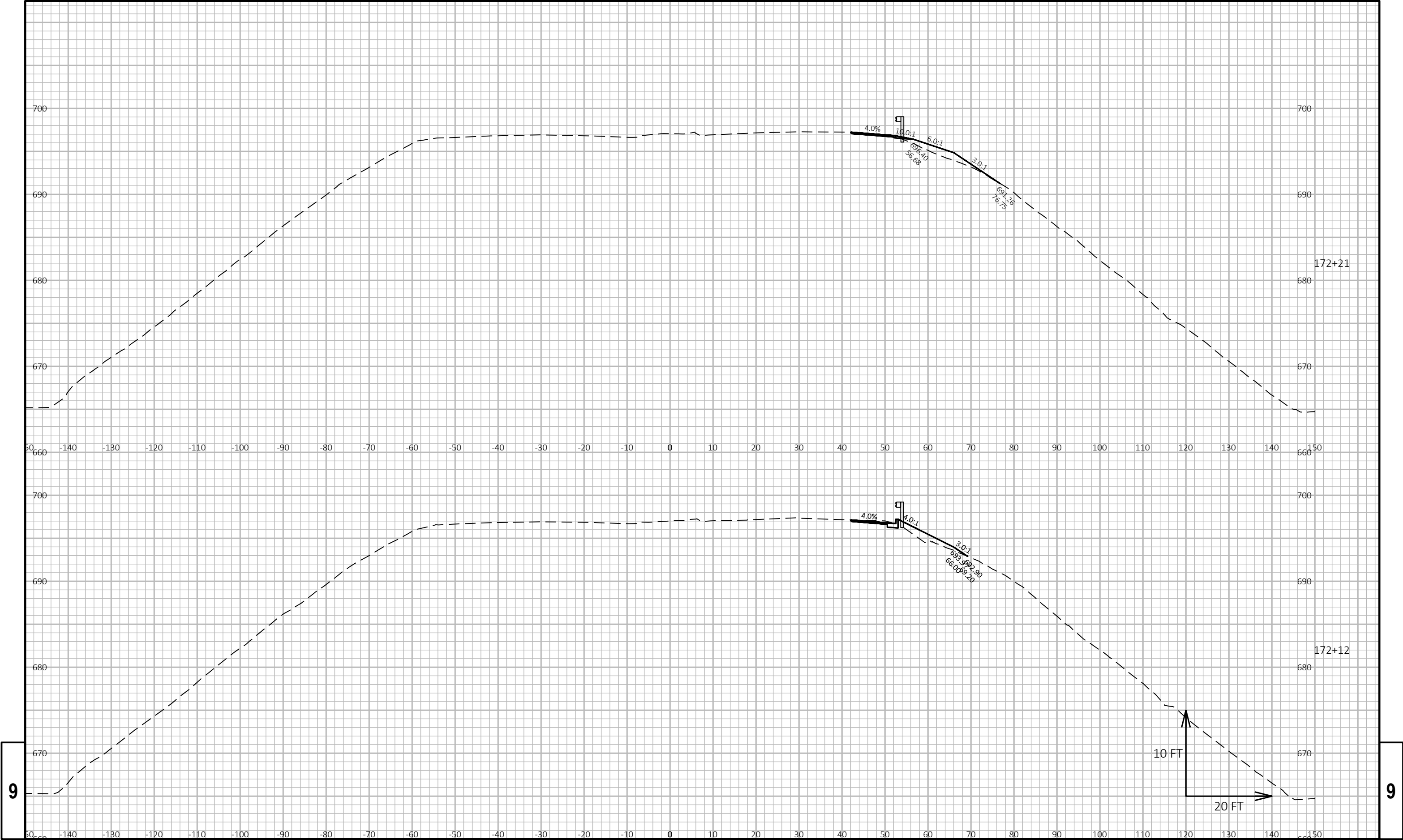
DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (1)		AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13)	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
		CUT (2)	EBS EXCAVATION (3)			FACTOR 1.20				
DIVISION 1	172+07/173+50 168+00/170+40	0	0	0	58	70	-70	0	70	
QR-100_GUARDRAIL_EAST										
QR-100_GUARDRAIL_WEST		2	0	2	70	84	-82	0	82	
DIVISION 1 SUBTOTAL		2	0	2	128	154	-152	0	152	
GRAND TOTAL		2	0	2	128	154	-152	0	152	
TOTAL COMMON EXC		2								



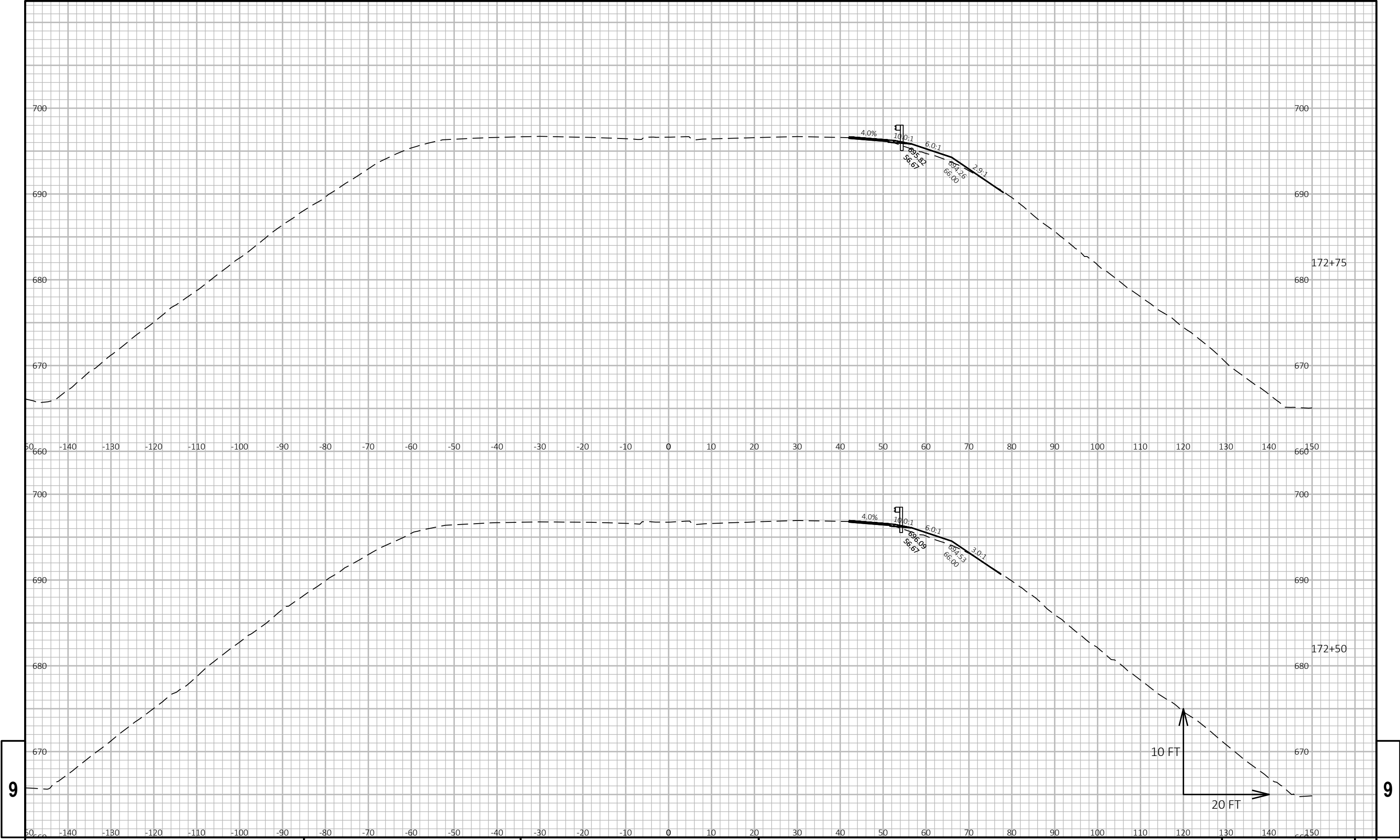




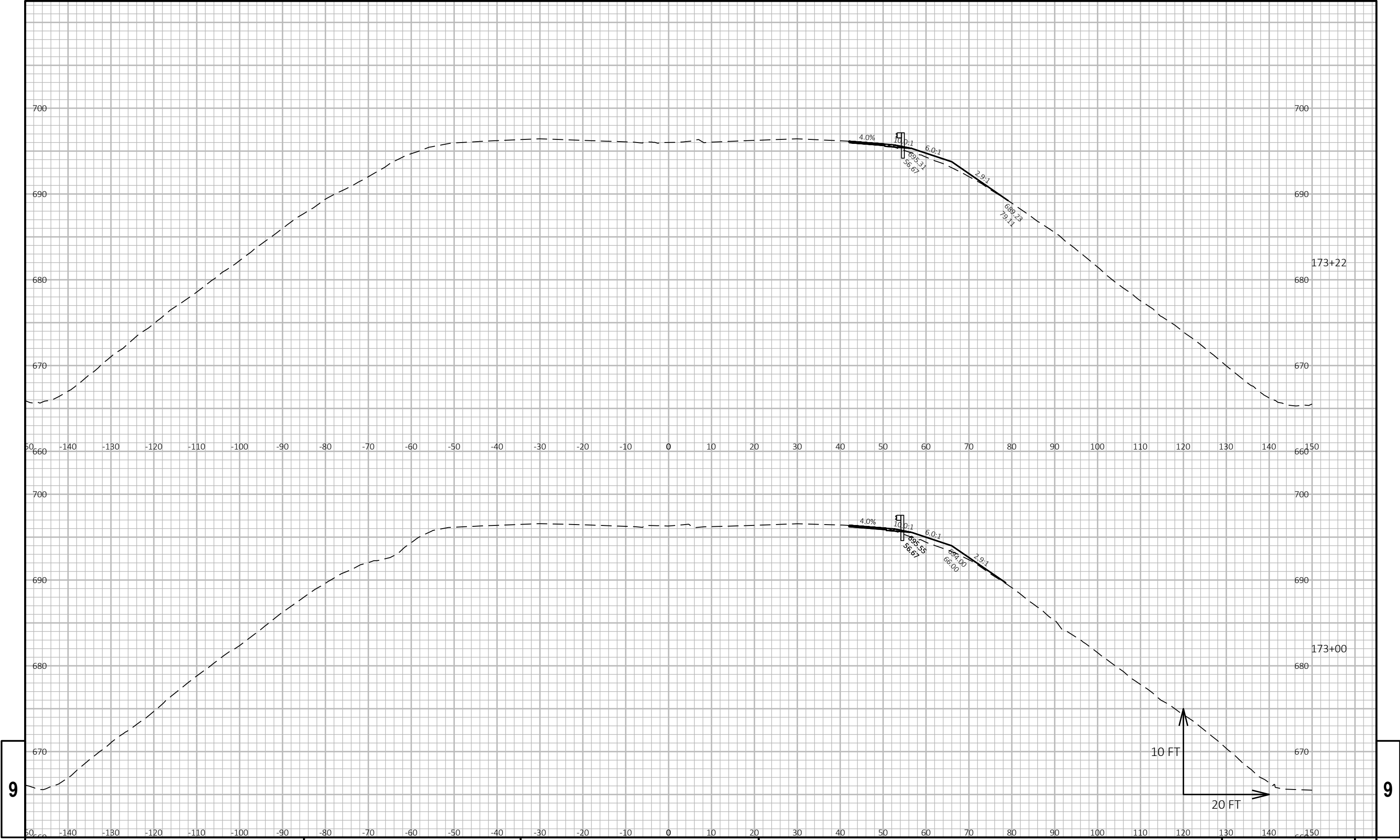




9																																																																																																																																													9																																									
	PROJECT NO: 2040-20-70																																								HWY: STH 100																																								COUNTY: MILWAUKEE																																								CROSS SECTIONS: BEAM GUARD CROSS SECTIONS																																								SHEET																				E	



PROJECT NO: 2040-20-70	HWY: STH 100	COUNTY: MILWAUKEE	CROSS SECTIONS: BEAM GUARD CROSS SECTIONS	SHEET E
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PROJECT NO: 2040-20-70			HWY: STH 100			COUNTY: MILWAUKEE			CROSS SECTIONS: BEAM GUARD CROSS SECTIONS			SHEET			E
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EPlans Preliminary Sheet Numbering Tool

This sheet: ftp://ftp.dot.state.wi.us/transp/roads/eplans/prelim_sheet_numbers.pdf

Notes

- Acrobat 5 or higher is required to use this tool.
- The Bureau of Highway Construction places sheet numbers in the final plan.
- This sheet is for placing preliminary sheet numbers with a "PRE_" prefix.
- If a plan contains multiple projects, number each plan individually.
- Leave this sheet in the plan.

TO ADD PRELIMINARY SHEET NUMBERS

1. Insert this sheet at the end of the plan

- a. With the plan open in Acrobat, select Document > Insert Pages.
- b. In the Select File to Insert dialog box, select this file (prelim_sheet_numbers.pdf)
- c. In the Insert dialog box, choose After for Location and Last page for Page.
- d. Click OK.

2. Click the Place Preliminary Sheet Numbers button

- a. Go to the last sheet of the plan.
- b. Click the Place Preliminary Sheet Numbers button once.
(The preliminary sheet number appears in the bottom right corner of the sheets.
The number should match the page number in the Acrobat Status bar).

3. Re-Save the PDF

- a. Select File > Save As and save the PDF.

TO REMOVE PRELIMINARY SHEET NUMBERS