PROJECT ID: 4992-03-71
WITH: N/A

COUNTY: WINNEBAGO

DRAFT April 20, 2020

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 =

N

DESIGN DESIGNATION

			N. OF BRIDGE	S. OF BRIDGE
A.A.D.T.	(2020)	=	15,200	12,000
A.A.D.T.	(2040)	=	16,700	13,700
D.H.V.		=	2.6%	2.6%
D.D.		=	59/41	59/41
T.		=	3.0%	3.0%
DESIGN SPEED		=	30 MPH	30 MPH
ESALS		=	860,000	730,000

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

RACINE STREET BRIDGE, C OF MENASHA

FOX RIVER BRIDGE & APPROACHES

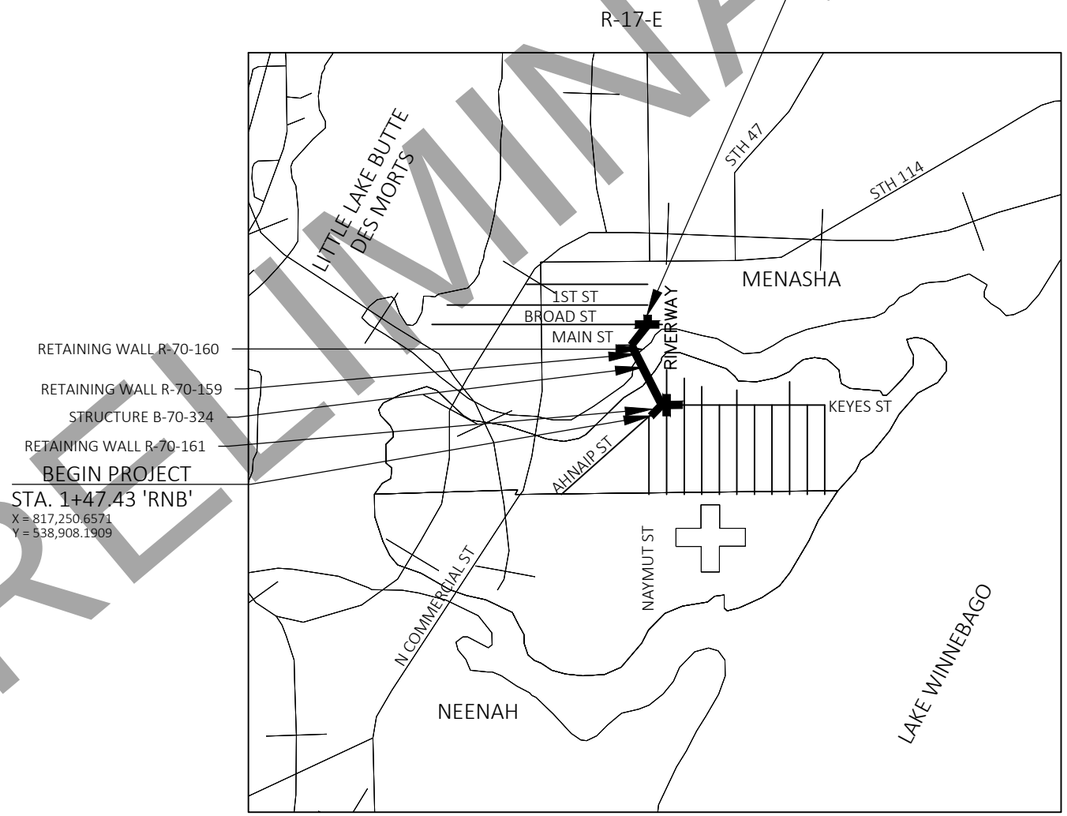
LOCAL STREET
WINNEBAGO COUNTY

STATE PROJECT NUMBER
4992-03-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4992-03-71		

DRAFT PLANS
APRIL 20, 2020

PRELIMINARY



LAYOUT
SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.371 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, WINNEBAGO COUNTY, NAD83 (1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ORIGINAL PLANS PREPARED BY

AECOM
1555 N River Center Drive, Suite 214
Milwaukee, WI 53212
T 414.944.6080
F 414.944.6081

(SIGNATURE) (DATE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JT ENGINEERING
Designer	AECOM
Project Manager	BILL BERTRAND
Regional Examiner	KRISTIN VANHOUT
Regional Supervisor	CHARLES KAROW

APPROVED FOR THE DEPARTMENT

DATE: (Signature)

E

PRE_1

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS, AS SHOWN ON THE PLANS, ARE APPROXIMATE. THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA.

PROTECT INLETS WITH PROPER INLET PROTECTION AT LOCATIONS EXHIBITING RISK OF BEING IMPACTED BY CONSTRUCTION OPERATIONS AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTOR'S EXPENSE.

ADJUST TRAFFIC CONTROL DEVICE LOCATIONS TO FIT FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

EROSION CONTROL ITEMS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS TO FIT FIELD CONDITIONS.

WETLANDS, WATERWAYS, AND OTHER ENVIRONMENTALLY SENSITIVE AREAS SHALL BE PROTECTED AT ALL TIMES. DO NOT STORE EQUIPMENT OR MATERIALS NEAR THESE SITES UNLESS APPROVED BY THE ENGINEER.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY DRAINAGE INFORMATION IN THE PLANS WITH THE ENGINEER.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

DRAFT April 20, 2020

ALIGNMENT NAMES

B	BROAD STREET
DA	DAM ACCESS
KEB	KEYES STREET EASTBOUND
KWB	KEYES STREET WESTBOUND
MEB	MAIN STREET EASTBOUND
MWB	MAIN STREET WESTBOUND
N	NAYMUT STREET/RIVERWAY
RNB	RACINE STREET NORTHBOUND
RSB	RACINE STREET SOUTHBOUND
NR	NORTH ROUNDABOUT CIRCLE
SR	SOUTH ROUNDABOUT CIRCLE
SWCR	SOUTH RAB - WEST CURB REFERENCE LINE
SECR	SOUTH RAB - EAST CURB REFERENCE LINE
SNCR	SOUTH RAB - NORTH CURB REFERENCE LINE
NWCR	NORTH RAB - WEST CURB REFERENCE LINE
NECR	NORTH RAB - EAST CURB REFERENCE LINE
NSCR	NORTH RAB - SOUTH CURB REFERENCE LINE
RSWS	RETAINING WALL SOUTHWEST
LSWS	LANDSCAPING WALL SOUTHWEST
DWNW	DOCK WALL NORTHWEST
DWNE	DOCK WALL NORTHEAST

ORDER OF PLAN SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
REMOVAL PLAN
CURB RAMP DETAILS
PAVING GRADES
PROPOSED CONTOURS
DREDGING PLAN
EROSION CONTROL PLAN - TEMPORARY
EROSION CONTROL PLAN - PERMANENT
STORM SEWER
PLANTING PLAN
PERMANENT SIGNING
LIGHTING PLAN
MARKING PLAN
TRAFFIC CONTROL
DETOUR PLAN
ALIGNMENT PLAN
BORING LOGS

DNR AREA LIAISON

JAY SCHIEFELBEIN
DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
920-662-5130
JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

UTILITY CONTACTS

JOSEPH KASSAB
AT&T WISCONSIN - COMMUNICATION LINE
FIRST FLOOR ENGINEERING
205 S JEFFERSON ST
GREEN BAY, WI 54301
(920) 735-3206
JK572K@ATT.COM

MIKE OLSEN
ATC MANAGEMENT, INC. - ELECTRICITY
801 O'KEEFE RD
P.O. BOX 6113
DE PERE, WI 54115-6113
(920) 338-6582
MOLSEN@ATCLLC.COM

KURT LITTLE
CHARTER COMMUNICATIONS - COMMUNICATION LINE
3520 E DESTINATION DR
APPLETON, WI 54915
(920) 831-9227
KURT.LITTLE@CHARTER.COM

ADAM ALIX
CITY OF MENASHA - SEWER
100 MAIN ST
MENASHA, WI 54952
(920) 967-3611
AALIX@CI.MENASHA.WI.US
COREY GORDON
(920) 967-3615
CGORDON@CI.MENASHA.WI.US

SHAD GARCIA
CENTURYLINK, INC. - COMMUNICATION LINE
OSP ENGINEER II | FIELD OPERATIONS & NETWORK IMPLEMENTATION
3235 INTERTECH DR, SUITE 600
BROOKFIELD, WI 53045
TEL: (414) 908-1009
CELL: (262) 606-0896
FAX: (414) 908-1070
SHAD.GARCIA@CENTURYLINK.COM

MELANIE KRAUSE
MENASHA ELECTRIC & WATER UTILITIES - ELECTRICITY
321 MILWAUKEE ST
P.O. BOX 340
MENASHA, WI 54952-0340
(920) 967-3412
MKRAUSE@WPPIENERGY.ORG
STEVE GRENELL
SGRENELL@WPPIENERGY.ORG

MELANIE KRAUSE
MENASHA ELECTRIC & WATER UTILITIES - WATER
321 MILWAUKEE ST
P.O. BOX 340
MENASHA, WI 54952-0340
(920) 967-3412
MKRAUSE@WPPIENERGY.ORG
STEVE GRENELL
SGRENELL@WPPIENERGY.ORG

JEFF SHAW
TDS METROCOM LLC - COMMUNICATION LINE
202 E OGDEN STREET
MEDFORD, WI 54451
(715) 748-6970
JEFF.SHAW@TDSTELECOM.COM
TIM SMITH
TIM.SMITH@TDSTELECOM.COM

JEFF MADSON
WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE
STE. 300
433 W ST. PAUL AVE
MILWAUKEE, WI 53203-3007
(414) 225-3723
JEFFREY.MADSON@DOT.WI.GOV

PRELIMINARY

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

2

2

DRAFT April 20, 2020

AHNAIP STREET

MAIN STREET

BEGIN CONSTRUCTION
STA 1+35.29 'MEB'

BEGIN CONSTRUCTION
STA 0+80.14 'B'

END OF PROJECT
STA 20+90.40 'RNB'

N

RETAINING WALL
R-70-159

STRUCTURE
B-70-001
(TO BE REMOVED)

20' RNB

RACINE STREET

RETAINING WALL
R-70-161

STRUCTURE
B-70-324

RETAINING WALL
R-70-160

END CONSTRUCTION
STA 2+88.50 'B'

R/L 'RNB'

BEGIN PROJECT
STA 1+47.43 'RNB'

RACINE STREET

NAYMUT STREET

RIVERWAY

BEGIN CONSTRUCTION
STA 0+29.26 'N'

END CONSTRUCTION
STA 2+37.81 'N'

KEYES STREET

END CONSTRUCTION
STA 11+56.22 'KWB'

FOX RIVER

BROAD STREET

1ST STREET

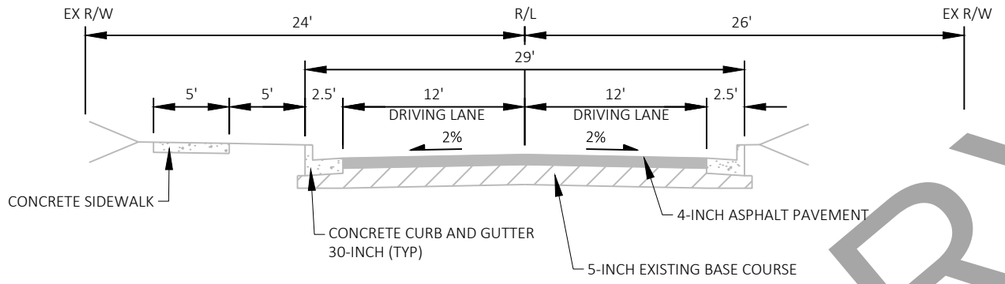
2ND STREET

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PROJECT OVERVIEW	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\020201_PO.DWG
LAYOUT NAME - 01
PLOT DATE : 2/27/2020 12:17 PM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
PRE_3
WISDOT/CADDS SHEET 42

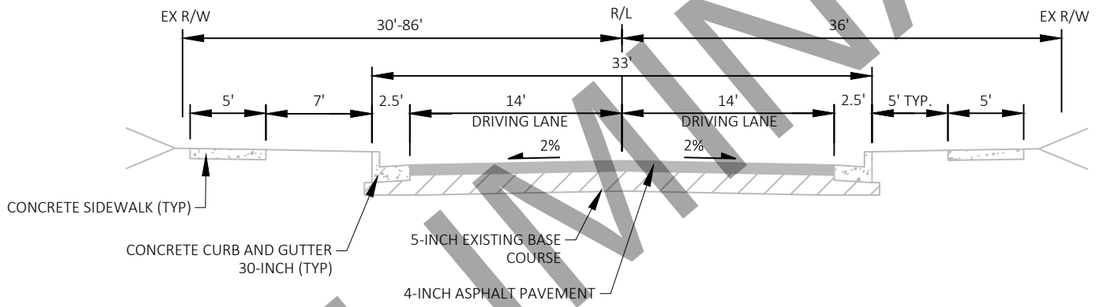
2



EXISTING TYPICAL SECTION

RIVERWAY (LOOKING NORTH)

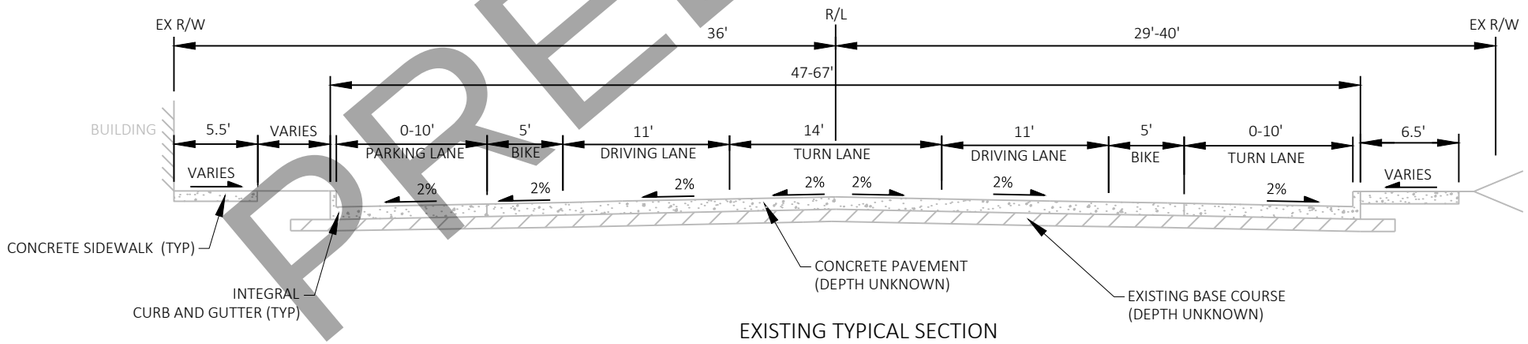
STA. 2+00.00 'N' - 2+37.81 'N'



EXISTING TYPICAL SECTION

NAYMUT ST (LOOKING NORTH)

STA. 0+29.26 'N' - 1+67.75 'N'



EXISTING TYPICAL SECTION

AHNAIP ST (LOOKING NORTHEAST)

STA. 1+47.43 'RNB' - 5+00.00 'RNB'

PRELIMINARY

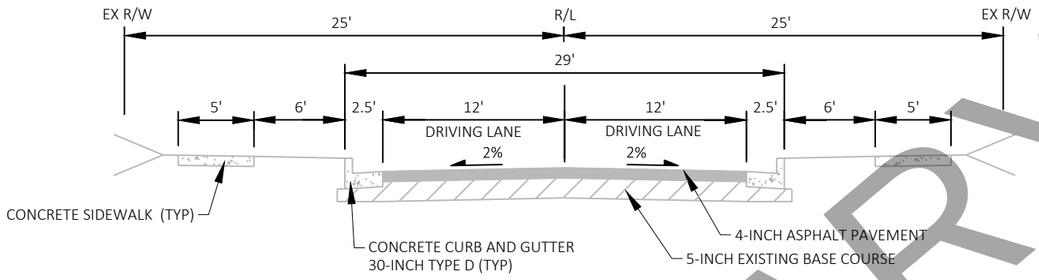
DRAFT April 20, 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\020300_TS.DWG
LAYOUT NAME - 01
PLOT DATE : 4/15/2020 5:45 PM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
PRE_4
WISDOT/CADDS SHEET 42

2

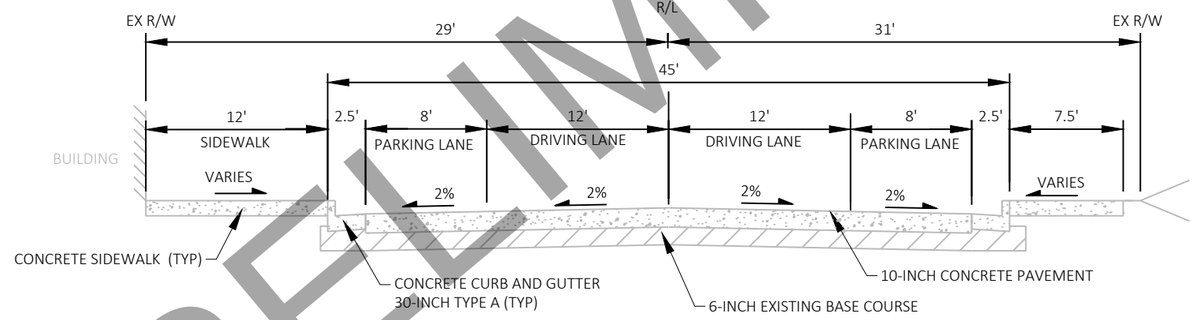
DRAFT April 20, 2020



EXISTING TYPICAL SECTION

KEYES ST (LOOKING EAST)

STA. 10+00.00 'KWB' - 11+56.22 'KWB'



EXISTING TYPICAL SECTION

MAIN ST (LOOKING EAST)

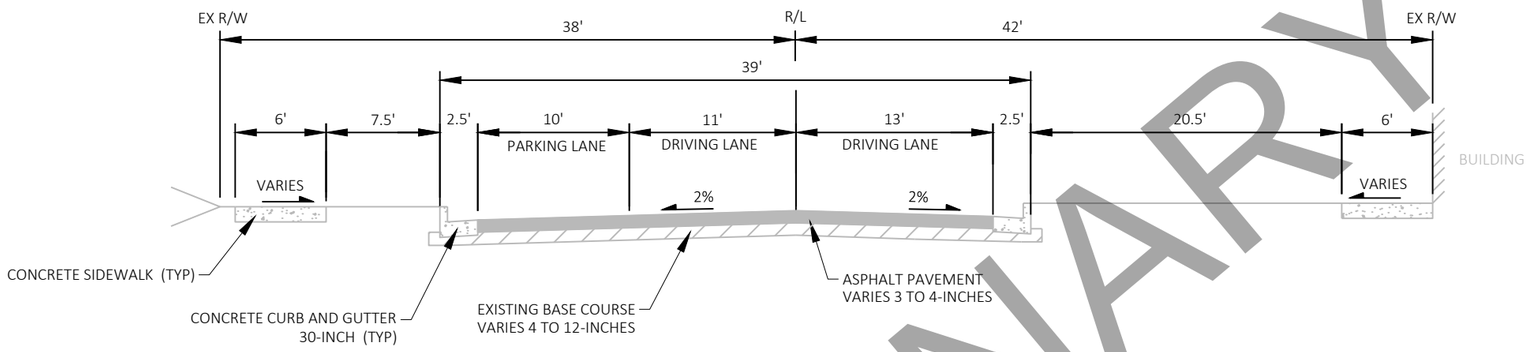
STA. 1+35.32 'MEB' - 3+42.27 'MEB'

PRELIMINARY

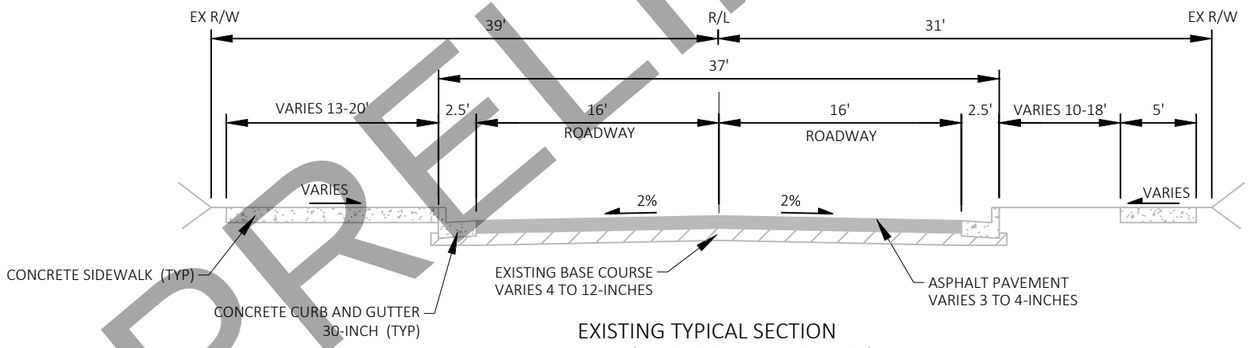
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

2

DRAFT April 20, 2020



EXISTING TYPICAL SECTION
BROAD ST (WEST OF RACINE ST INTERSECTION)
(LOOKING EAST)
STA. 0+80.14 'B' - 1+30.97 'B'

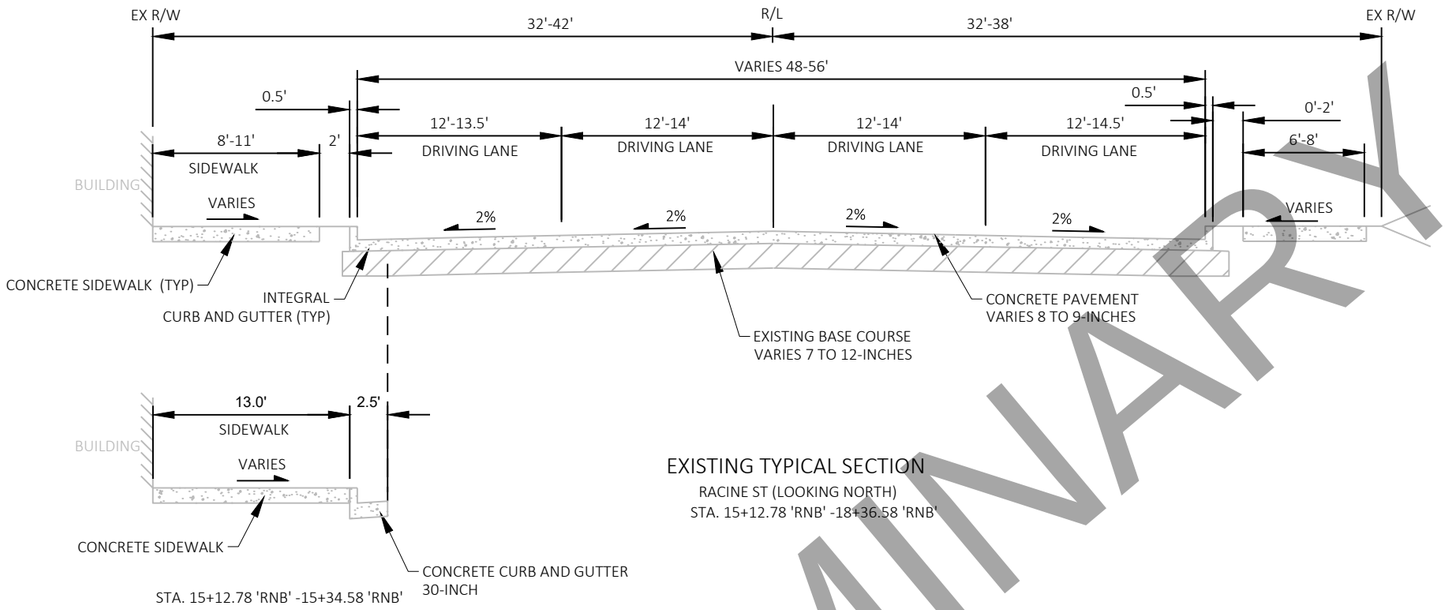


EXISTING TYPICAL SECTION
BROAD ST (EAST OF RACINE ST INTERSECTION)
(LOOKING EAST)
STA. 1+85.76 'B' - 2+88.50 'B'

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

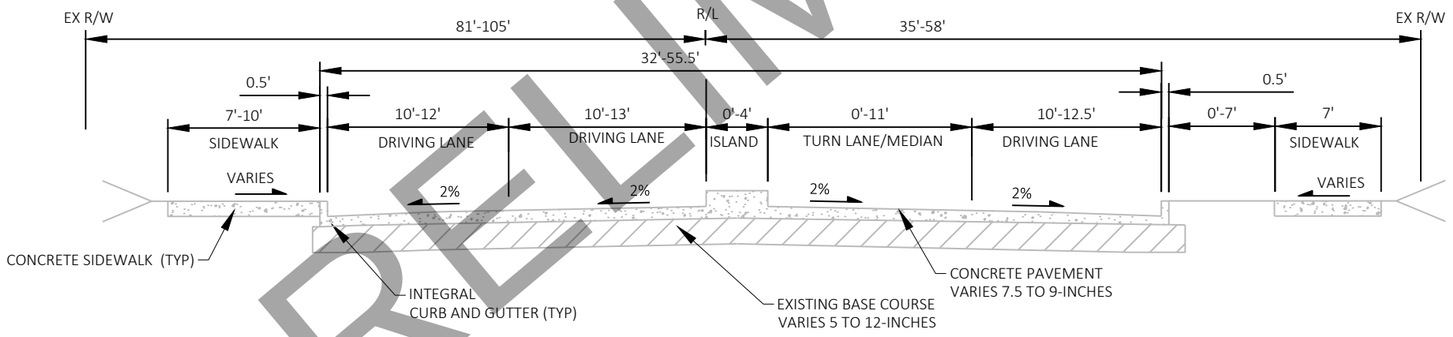
2



EXISTING TYPICAL SECTION

RACINE ST (LOOKING NORTH)

STA. 15+12.78 'RNB' -18+36.58 'RNB'



EXISTING TYPICAL SECTION

RACINE ST (LOOKING NORTH)

STA. 5+00.00 'RNB' - 6+64.99 'RNB'

STA. 14+71.41 'RNB' - 15+12.78 'RNB'

STA. 18+36.58 'RNB' -20+90.40 'RNB'

PRELIMINARY

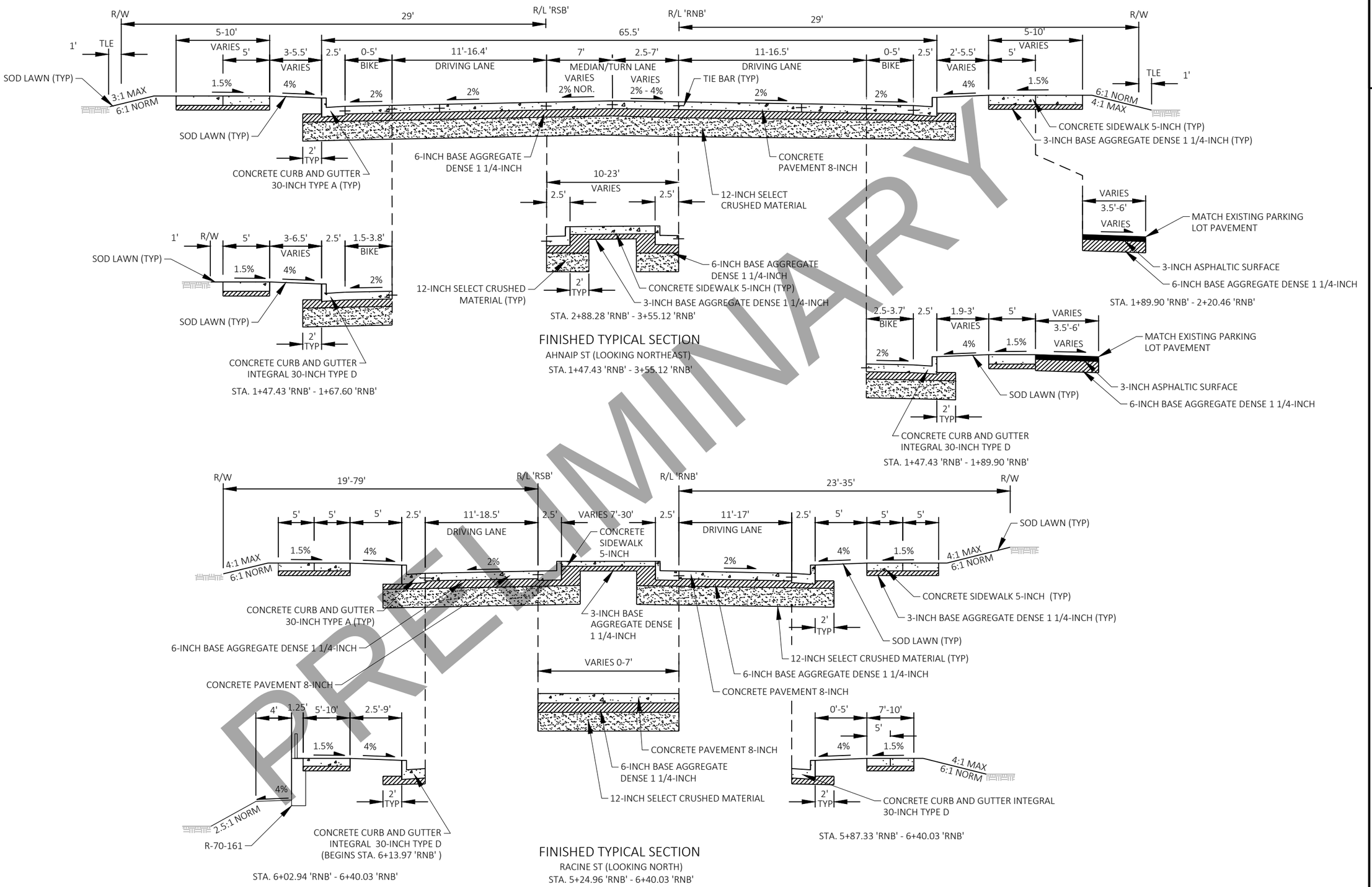
DRAFT April 20, 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\020300_TS.DWG
LAYOUT NAME - 04

PLOT DATE : 4/15/2020 5:45 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020



PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\020300_TS.DWG
LAYOUT NAME - 05
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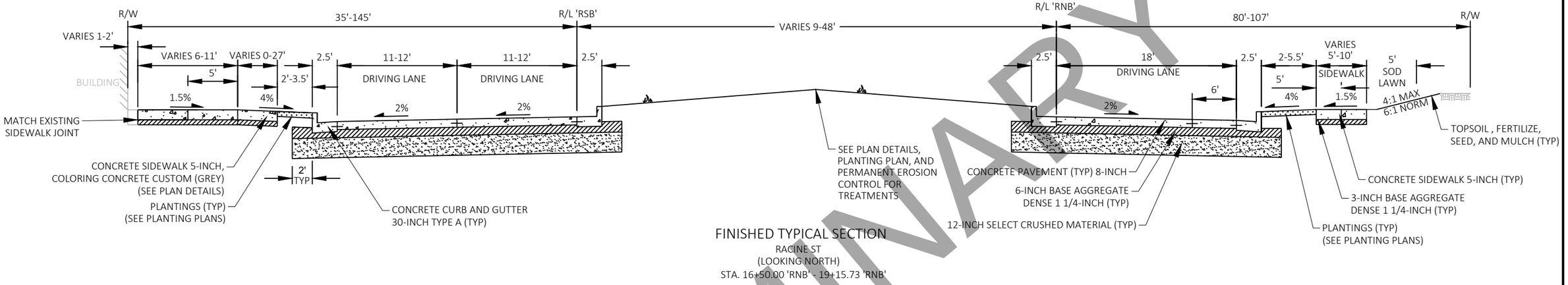
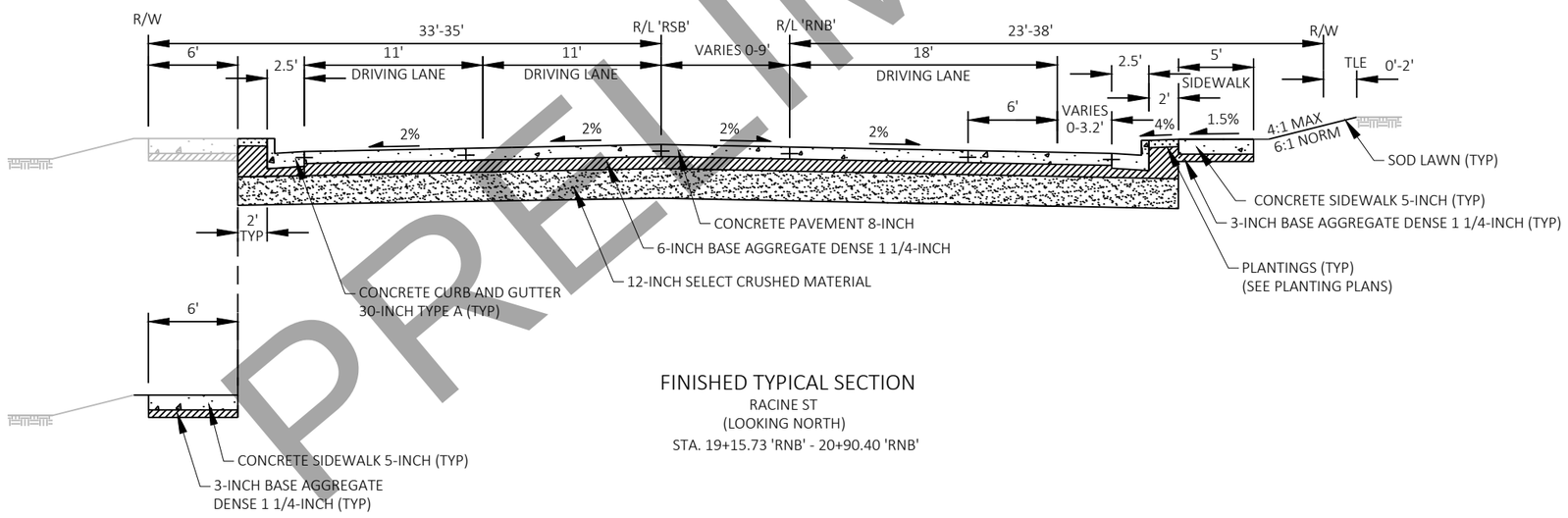
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020



FINISHED TYPICAL SECTION
RACINE ST
(LOOKING NORTH)
STA. 16+50.00 'RNB' - 19+15.73 'RNB'



FINISHED TYPICAL SECTION
RACINE ST
(LOOKING NORTH)
STA. 19+15.73 'RNB' - 20+90.40 'RNB'

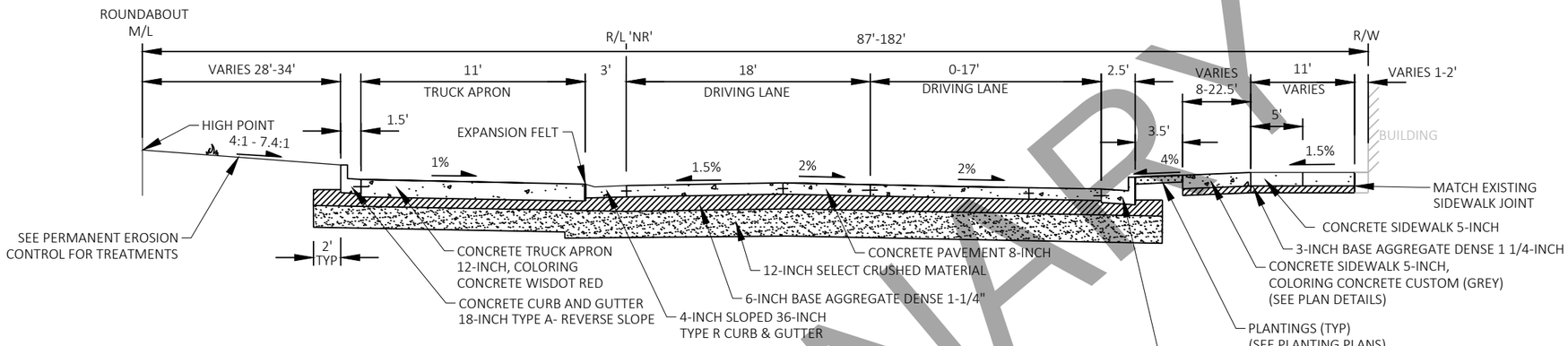
STA. 19+15.73 'RNB' - 19+23.27 'RNB'

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

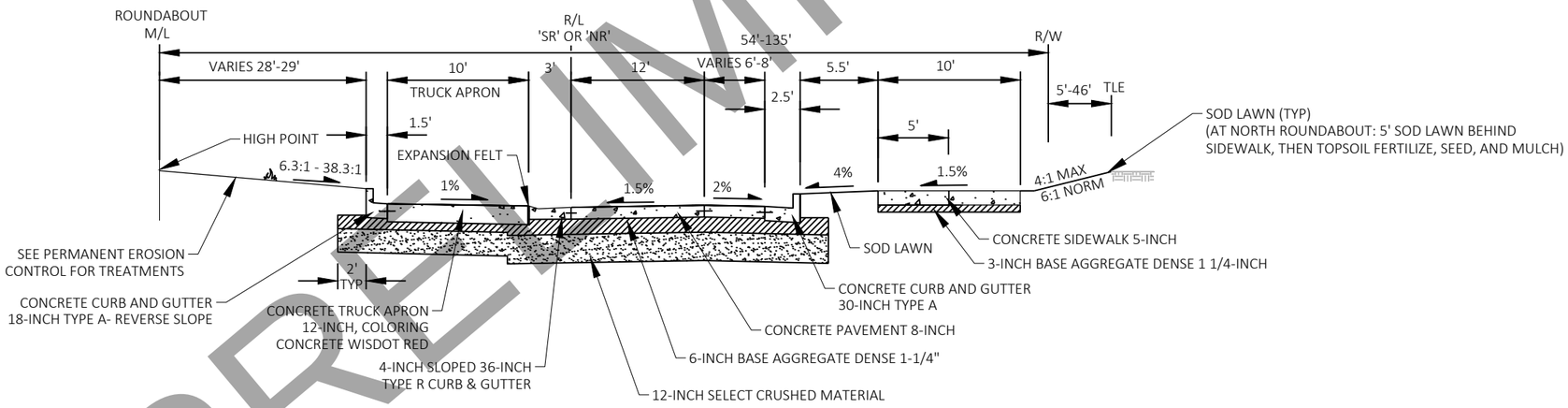
2

DRAFT April 20, 2020



FINISHED TYPICAL ROUNDABOUT SECTION

RACINE ST NORTH ROUNDABOUT
STA. 10+00.00 'NR' - 10+70.77 'NR'



FINISHED TYPICAL ROUNDABOUT SECTION

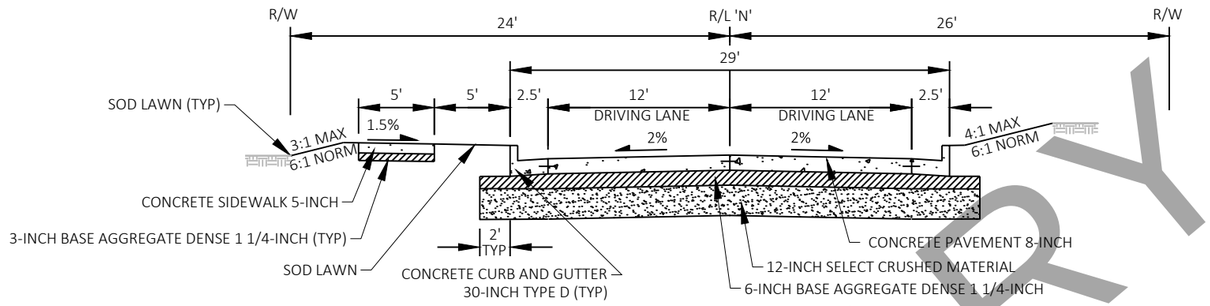
RACINE ST SOUTH ROUNDABOUT
STA. 0+00.00 'SR' - 2+ 69.06 'SR'
RACINE ST NORTH ROUNDABOUT
STA. 10+70.77 'NR' - 12+78.40 'NR'

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

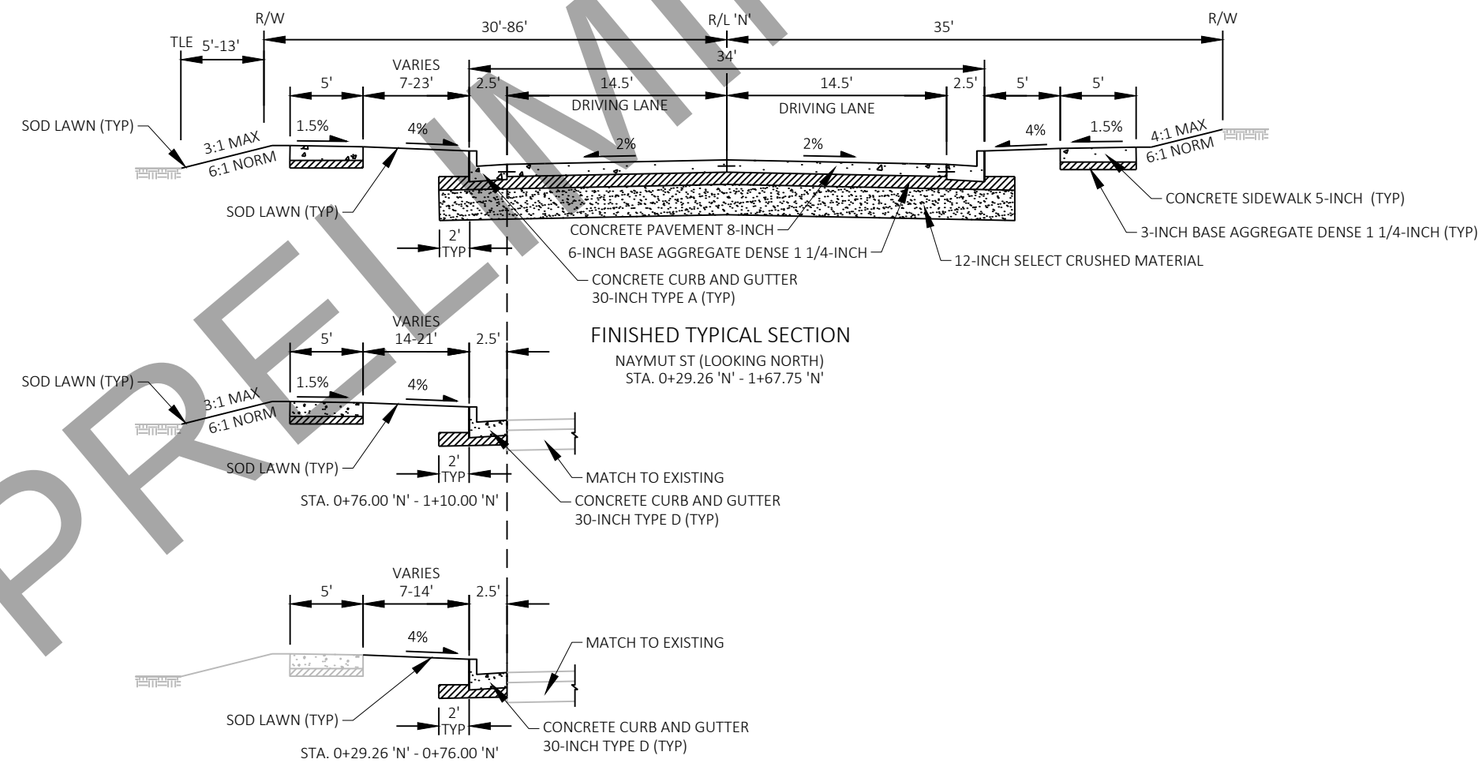
2

DRAFT April 20, 2020



FINISHED TYPICAL SECTION

RIVERWAY (LOOKING NORTH)
STA. 2+00.00 'N'- 2+27.81 'N'



FINISHED TYPICAL SECTION

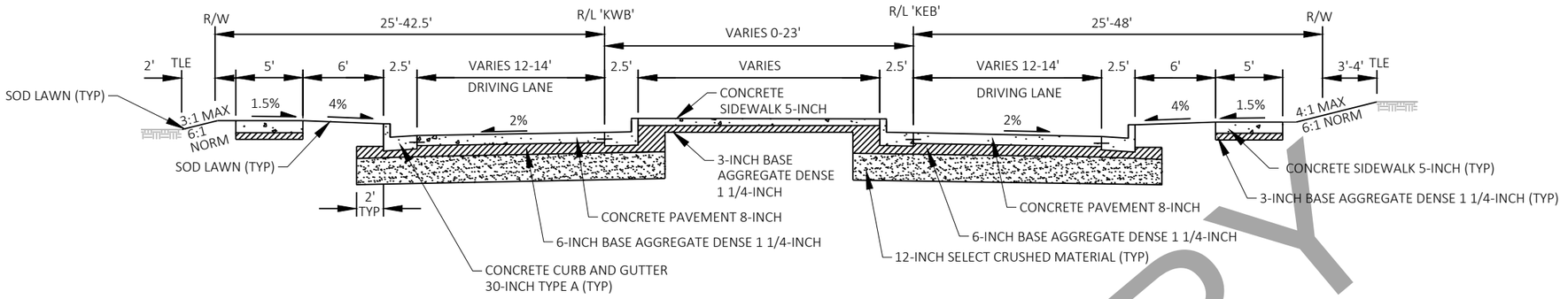
NAYMUT ST (LOOKING NORTH)
STA. 0+29.26 'N' - 1+67.75 'N'

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

DRAFT April 20, 2020

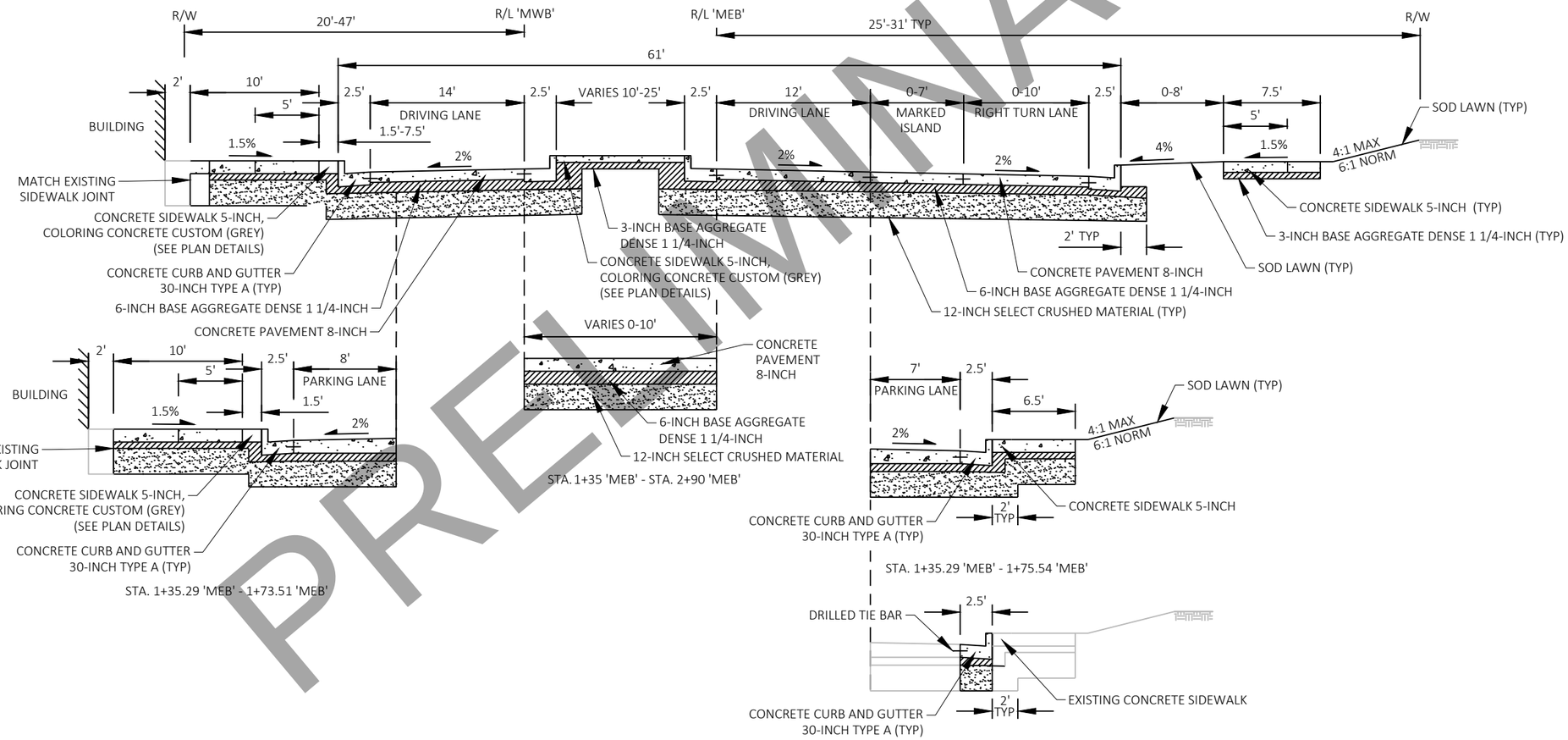
PRELIMINARY



FINISHED TYPICAL SECTION

KEYES ST (LOOKING EAST)

STA. 10+00.00 'KWB' - 11+46.22 'KWB'



FINISHED TYPICAL SECTION

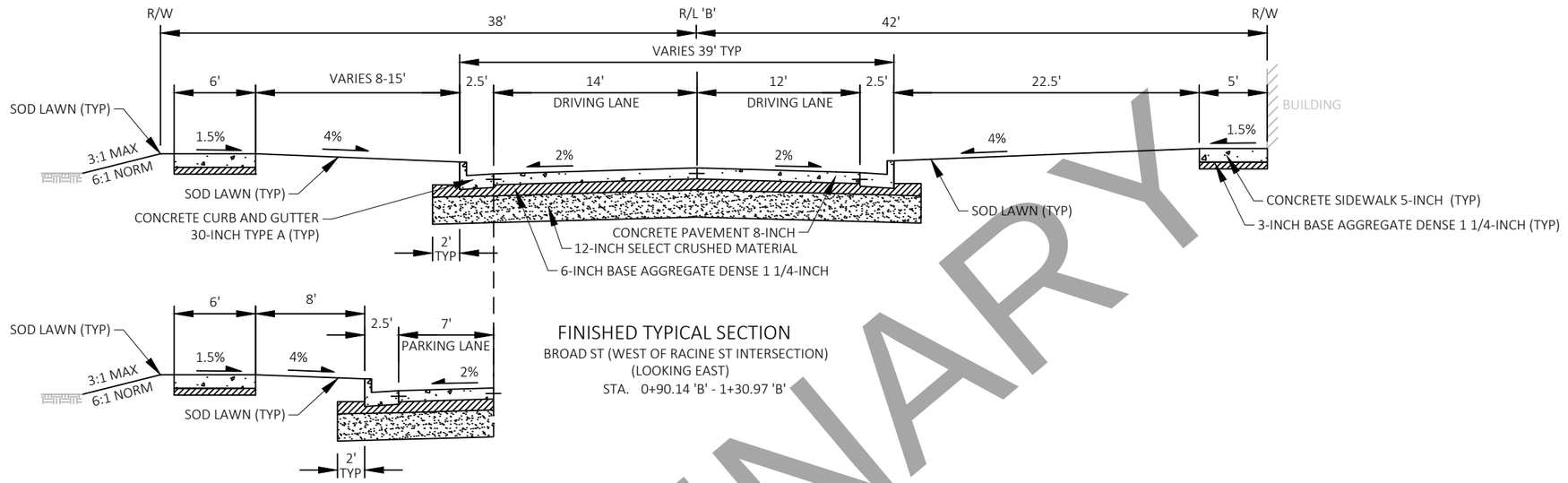
MAIN ST (LOOKING EAST)

STA. 1+35.29 'MEB' - 3+42.27 'MEB'

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

2

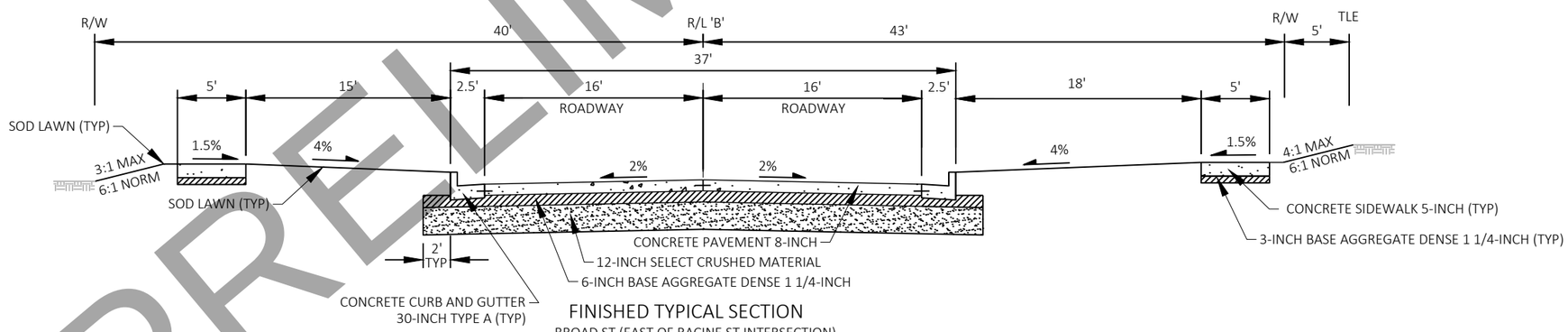
DRAFT April 20, 2020



STA. 0+90.14 'B' - 0+94.44 'B'

FINISHED TYPICAL SECTION

BROAD ST (WEST OF RACINE ST INTERSECTION)
(LOOKING EAST)
STA. 0+90.14 'B' - 1+30.97 'B'



FINISHED TYPICAL SECTION

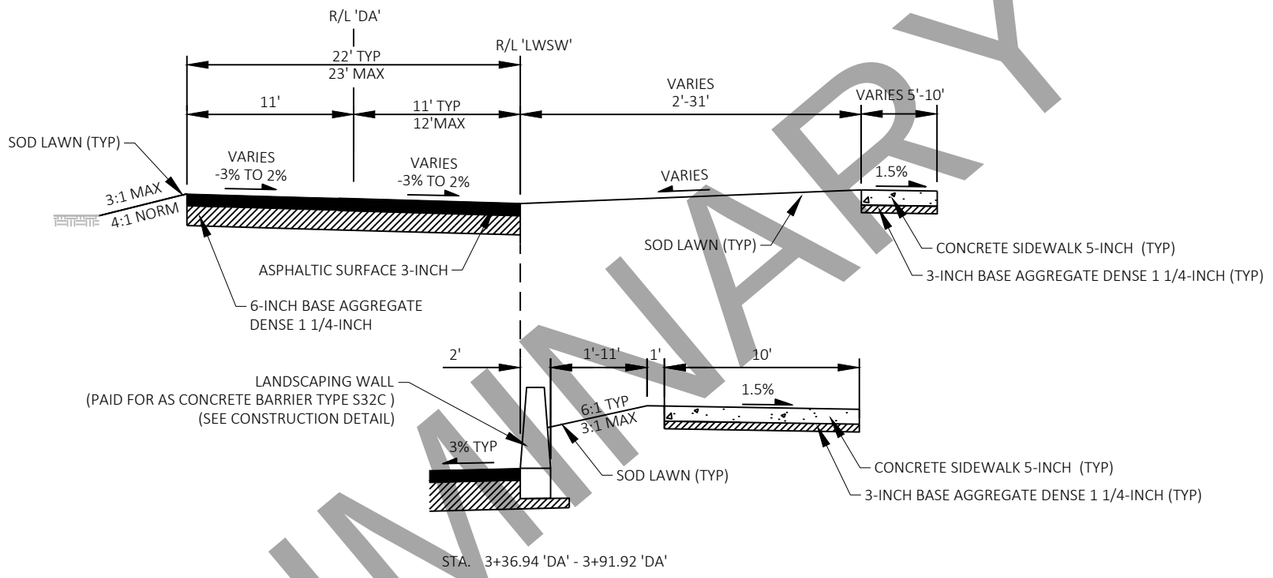
BROAD ST (EAST OF RACINE ST INTERSECTION)
(LOOKING EAST)
STA. 1+85.76 'B' - 2+78.50 'B'

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

2

DRAFT April 20, 2020



STA. 3+36.94 'DA' - 3+91.92 'DA'

FINISHED TYPICAL SECTION

DAM ACCESS

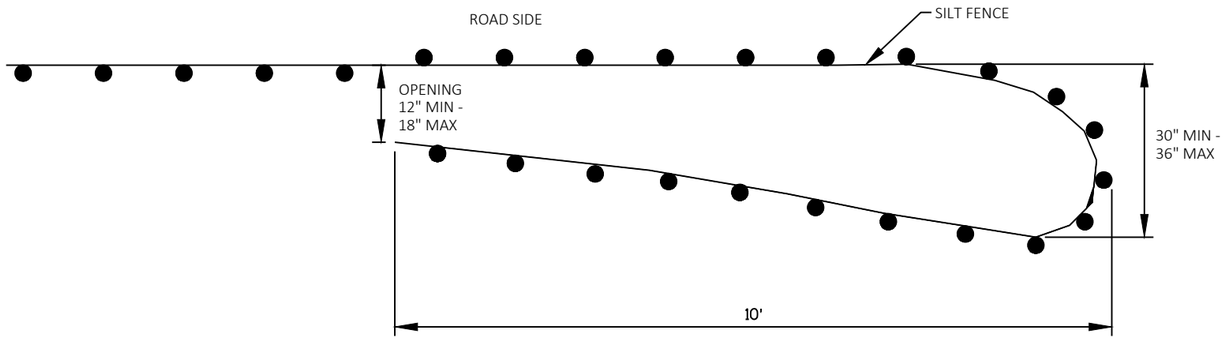
STA. 1+10.46 'DA' - 3+97.81 'DA'

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TYPICAL SECTIONS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\020300_TS.DWG
LAYOUT NAME - 11
PLOT DATE : 4/15/2020 5:45 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : #########
WISDOT/CADDS SHEET 42

2



PLAN VIEW

GENERAL NOTES:
SILT FENCE POSTS FOR THE TURN-AROUND SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND. AND TRENCHED IN ACCORDING TO SILT FENCE REQUIREMENTS.

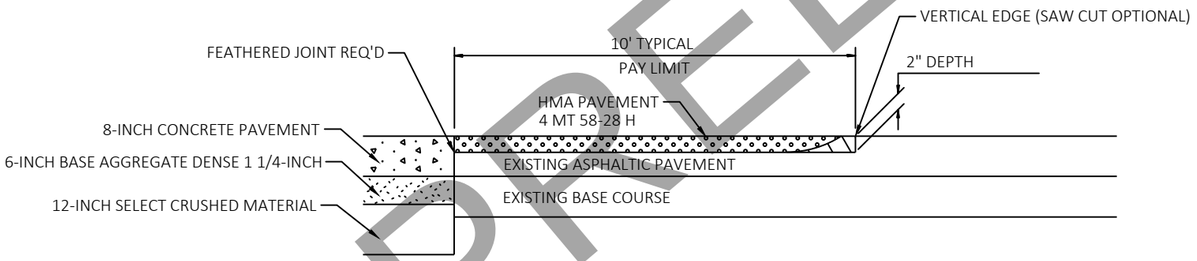
SEE TEMPORARY EROSION CONTROL PLANS FOR SILT FENCE LOCATIONS. INSTALL TURN-AROUND AT END OF SHOWN FENCING ON THE PENINSULA.

ROADSIDE OFFSETS DEPENDENT ON LOCATION.

TEMPORARY SMALL ANIMAL TURN-AROUND

DRAFT April 20, 2020

PRELIMINARY



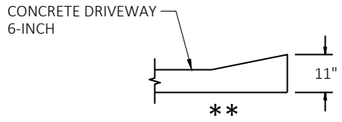
REMOVING ASPHALTIC SURFACE, MILLING

REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

PAVEMENT MATCH FOR ASPHALT SIDE ROADS

(NOT TO SCALE)

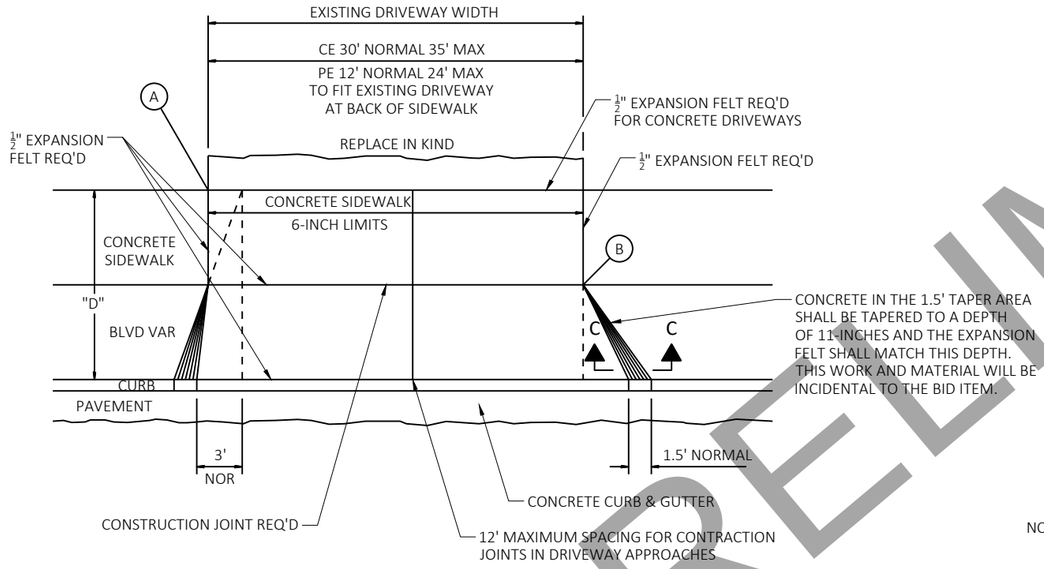
DRAFT April 20, 2020



SECTION C-C

Ⓐ WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

Ⓑ WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK



PLAN VIEW

① 6" CONCRETE DRIVEWAY OR HES CONCRETE DRIVEWAY

② 6" BASE AGGREGATE DENSE 1 1/4-INCH

③ 6" BASE AGGREGATE DENSE 1 1/4-INCH BASE WITH 3" ASPHALTIC SURFACE

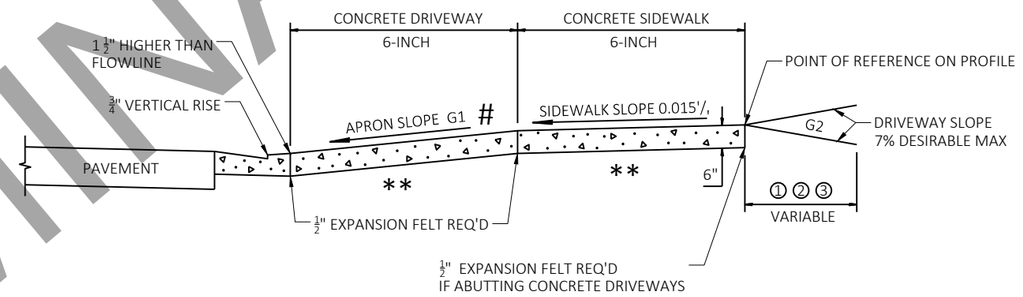
** 6" BASE AGGREGATE DENSE 1 1/4-INCH REQ'D UNDER CONCRETE DRIVEWAY

# TERRACE WIDTH	APRON SLOPE G1		
	MIN %	DESIRABLE %	MAXIMUM %
3 FT	7.0	8.5	10.0
4 FT	5.0	7.0	10.0
5 FT	4.0	7.0	10.0
6 FT	4.0	7.0	10.0
7 FT	3.5	7.0	10.0
8 FT	3.0	7.0	10.0

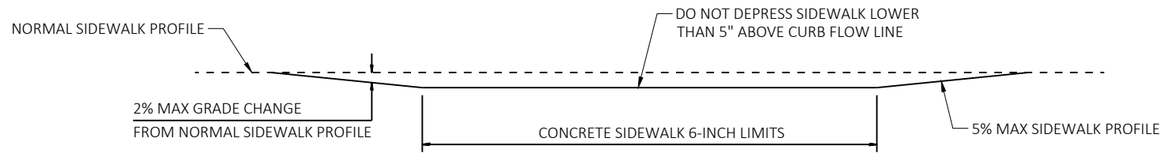
NOTE:

ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 NOT TO EXCEED 10% DESIRABLE MAXIMUM.

DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAXIMUM SLOPE.



TYPICAL SIDEWALK SECTION



DEPRESSED SIDEWALK PROFILE DETAIL

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

PRELIMINARY

2

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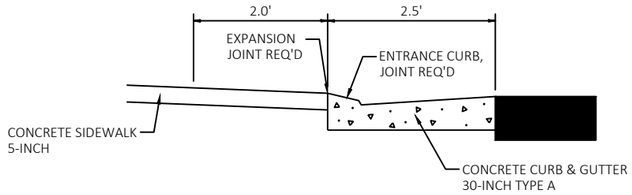
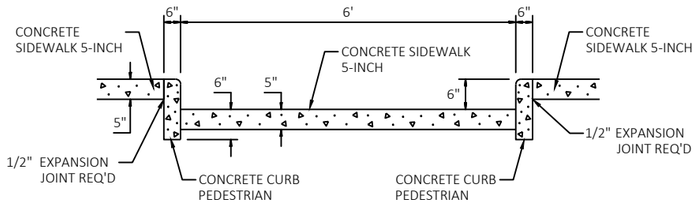
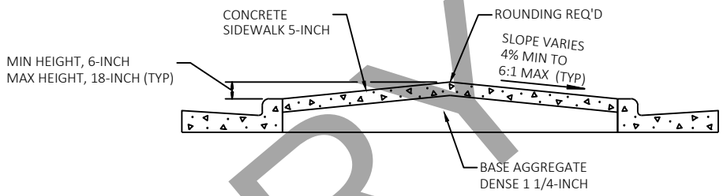


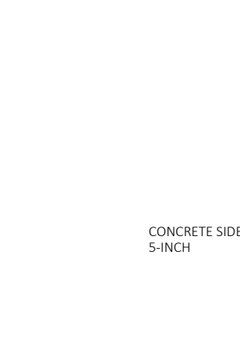
SECTION A-A



SECTION B-B



SECTION C-C



* DISTANCE TO LAID OUT IN THE FIELD BASED ON SIGN SIZE. TWO FOOT MINIMUM CLEARANCE BETWEEN THE EDGE OF SIGN AND THE FACE OF CURB.

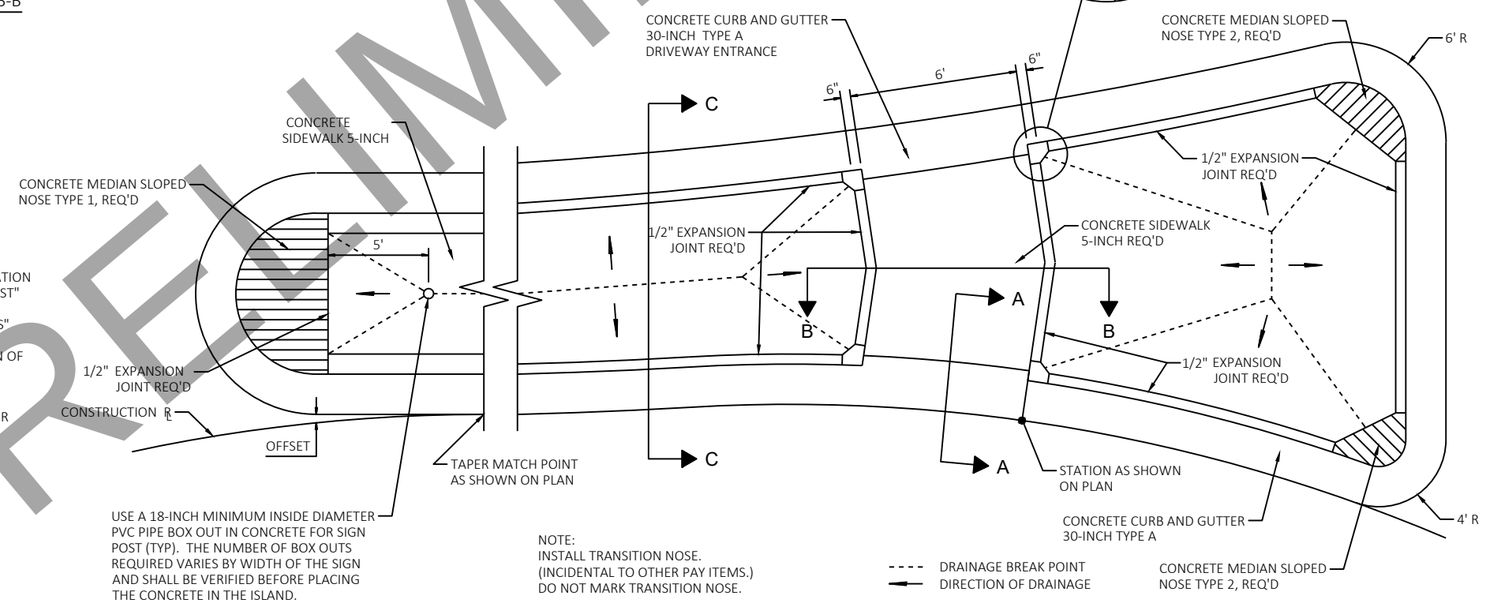
SEE A4-3 SIGN PLATE FOR "TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POST"

SEE A4-3B SIGN PLATE "SIGN POST BOX-OUTS"

** SEE A4-4 SIGN PLATE "TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE SUPPORTS"

USE A 18-INCH MINIMUM INSIDE DIAMETER PVC PIPE BOX OUT IN CONCRETE FOR SIGN POST (TYP). THE NUMBER OF BOX OUTS REQUIRED VARIES BY WIDTH OF THE SIGN AND SHALL BE VERIFIED BEFORE PLACING THE CONCRETE IN THE ISLAND.

ISLAND SIGN LOCATION DETAIL (TYP)



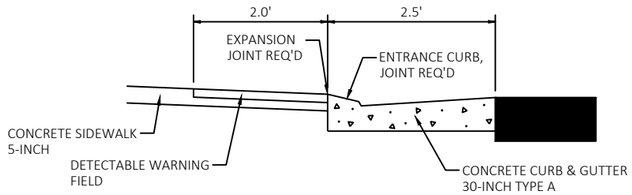
CONCRETE SPLITTER ISLAND DETAIL WITH BIKE CROSSING

PRELIMINARY

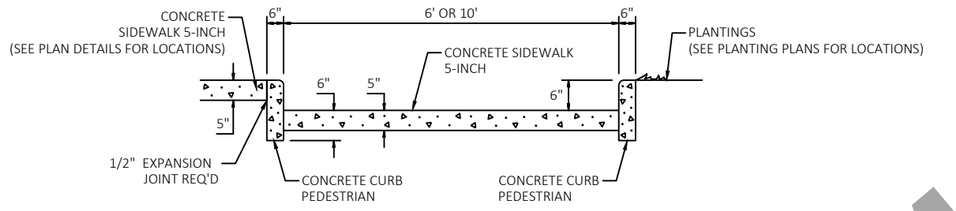
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET E

2

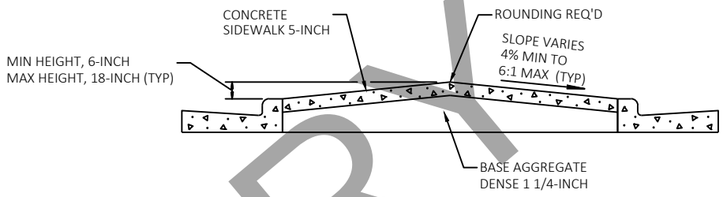
DRAFT April 20, 2020



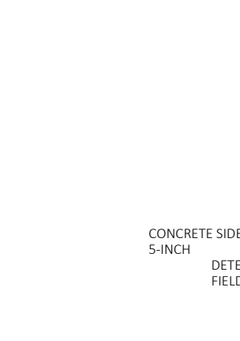
SECTION A-A



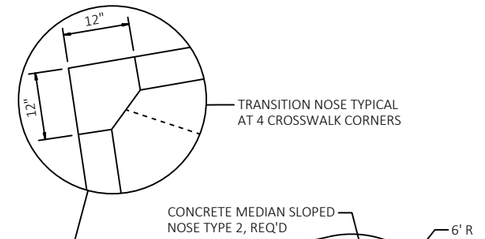
SECTION B-B

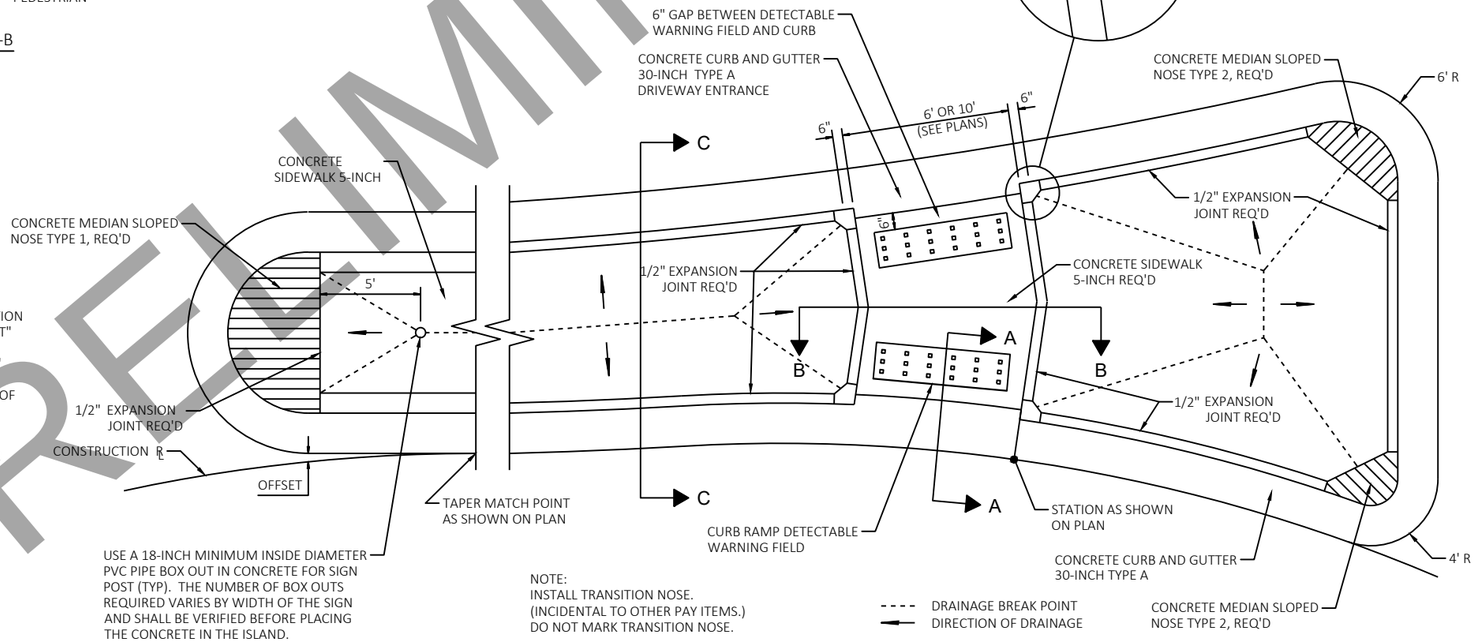


SECTION C-C



ISLAND SIGN LOCATION DETAIL (TYP)



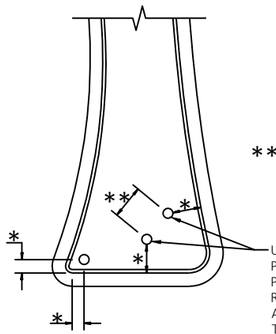


CONCRETE SPLITTER ISLAND DETAIL WITH CROSSWALK

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET E

2



* DISTANCE TO LAID OUT IN THE FIELD BASED ON SIGN SIZE. TWO FOOT MINIMUM CLEARANCE BETWEEN THE EDGE OF SIGN AND THE FACE OF CURB.

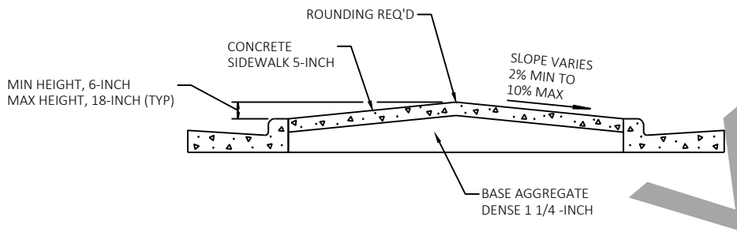
SEE A4-3 SIGN PLATE FOR "TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POST"

** SEE A4-3B SIGN PLATE "SIGN POST BOX-OUTS"

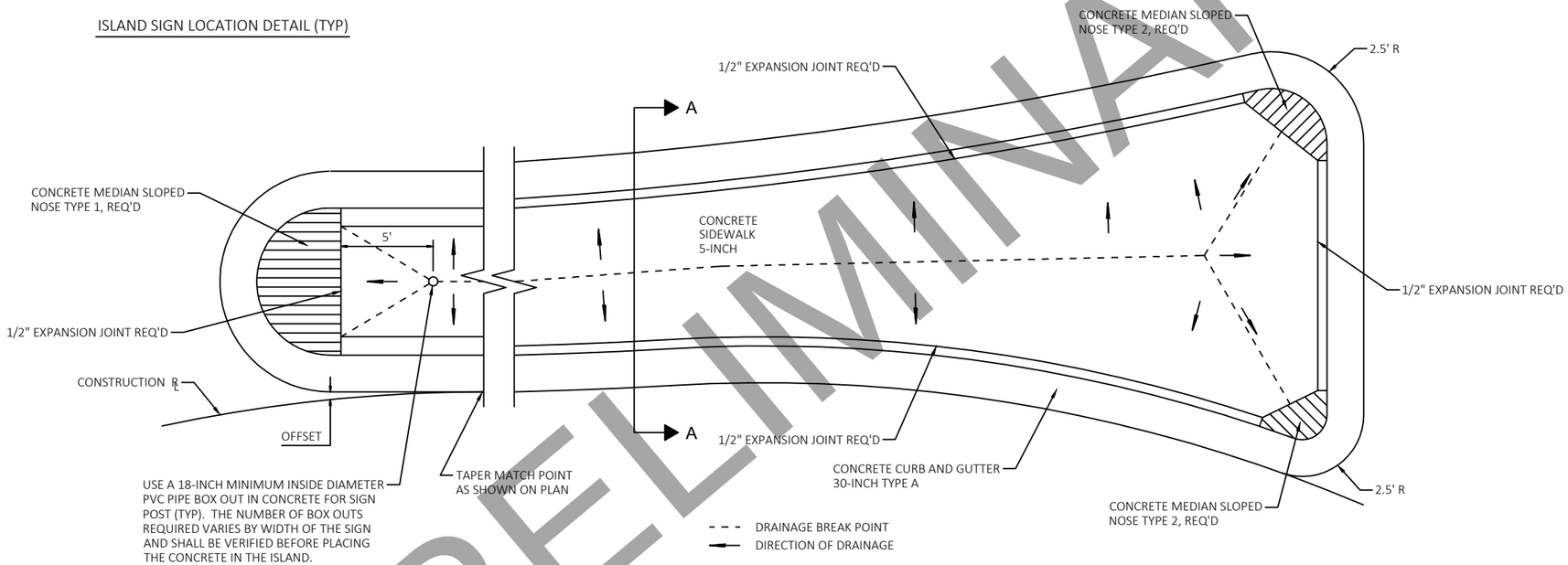
SEE A4-4 SIGN PLATE "TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE SUPPORTS"

USE A 18-INCH MINIMUM INSIDE DIAMETER PVC PIPE BOX OUT IN CONCRETE FOR SIGN POST (TYP). THE NUMBER OF BOX OUTS REQUIRED VARIES BY WIDTH OF THE SIGN AND SHALL BE VERIFIED BEFORE PLACING THE CONCRETE IN THE ISLAND.

ISLAND SIGN LOCATION DETAIL (TYP)



SECTION A-A



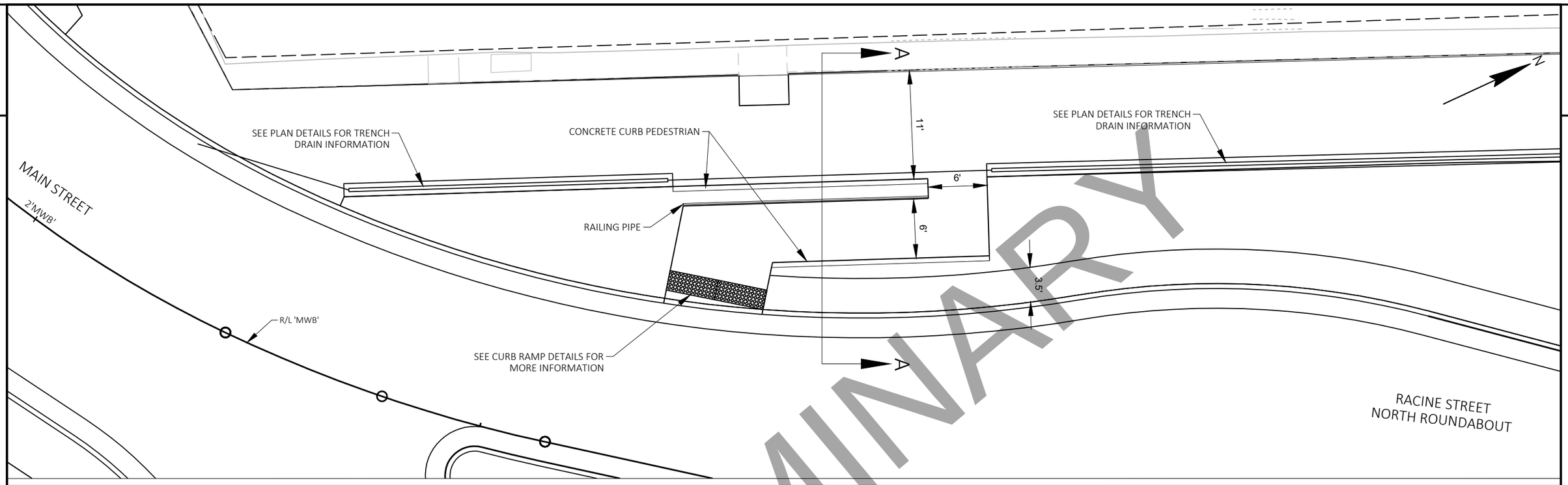
CONCRETE SPLITTER ISLAND DETAIL WITHOUT CROSSWALK

DRAFT April 20, 2020

PRELIMINARY

DRAFT April 20, 2020

PRELIMINARY

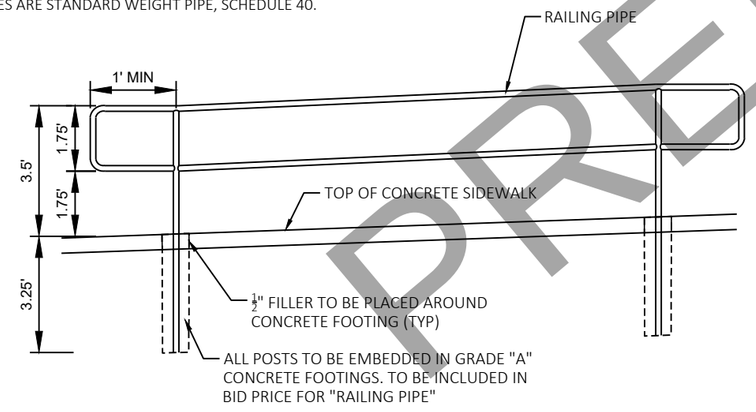


NOTES:
BID ITEM "RAILING PIPE" INCLUDES ALL ITEMS SHOWN.

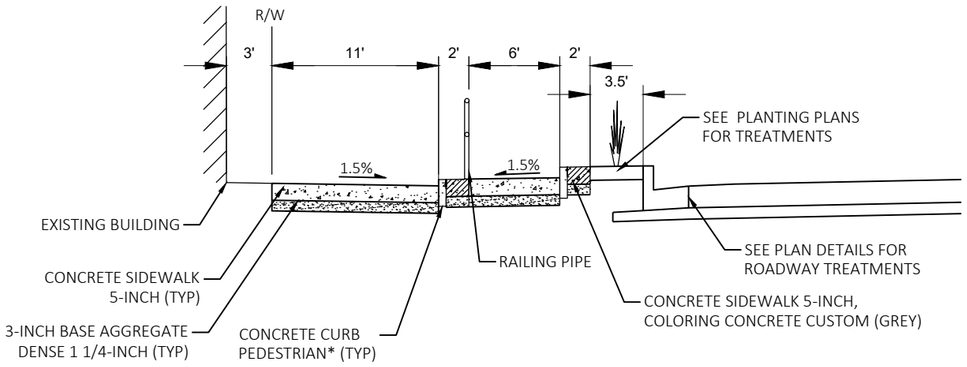
ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P .C. SPECIFICATIONS.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A 709 GRADE 36 UNLESS NOTED OTHERWISE.

ALL RAILS, POSTS AND SLEEVES ARE STANDARD WEIGHT PIPE, SCHEDULE 40.



RAILING DETAIL



SECTION A-A

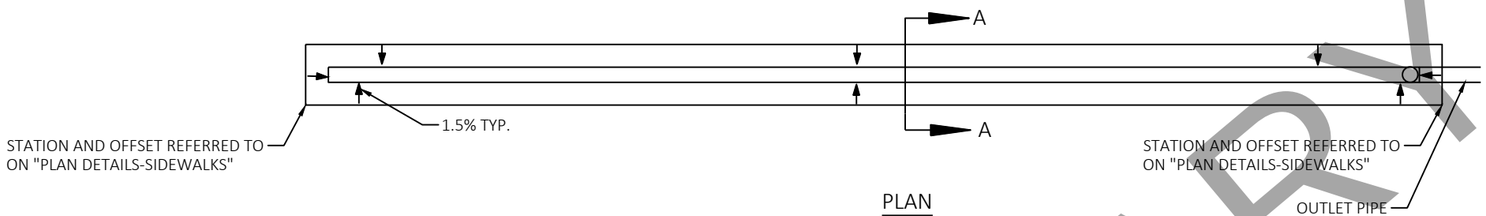
*MODIFIED CURB HEAD HEIGHT, SEE CURB RAMP DETAILS FOR ELEVATION INFORMATION.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET PRE_20 E

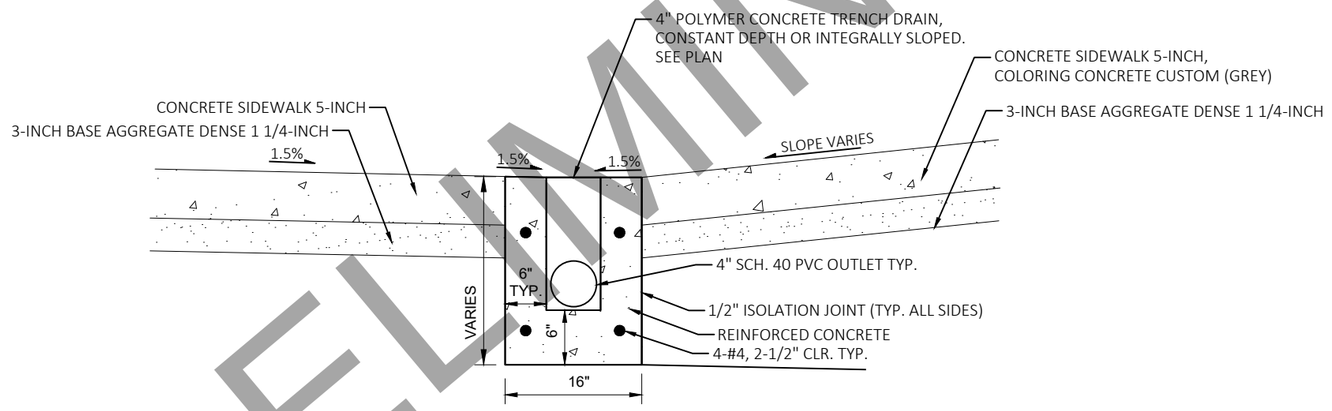
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021002_CD.DWG
LAYOUT NAME - 07
PLOT DATE : 4/16/2020 3:41 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020



PLAN



SECTION A-A

TRENCHDRAIN DETAIL

PRELIMINARY

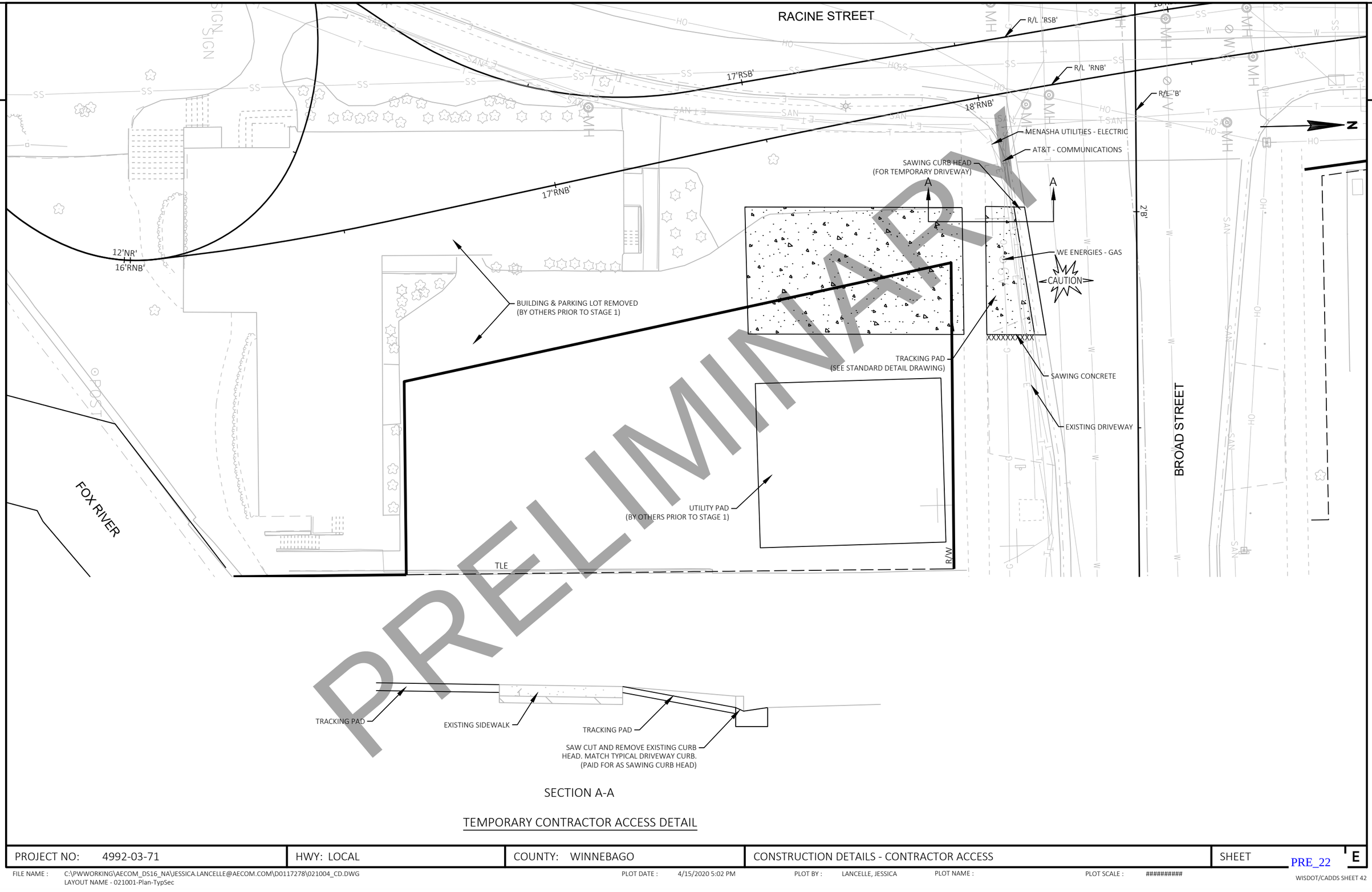
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021002_CD.DWG
LAYOUT NAME - 06

PLOT DATE : 4/7/2020 5:11 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:10 FT

DRAFT April 20, 2020

PRELIMINARY



SECTION A-A

TEMPORARY CONTRACTOR ACCESS DETAIL

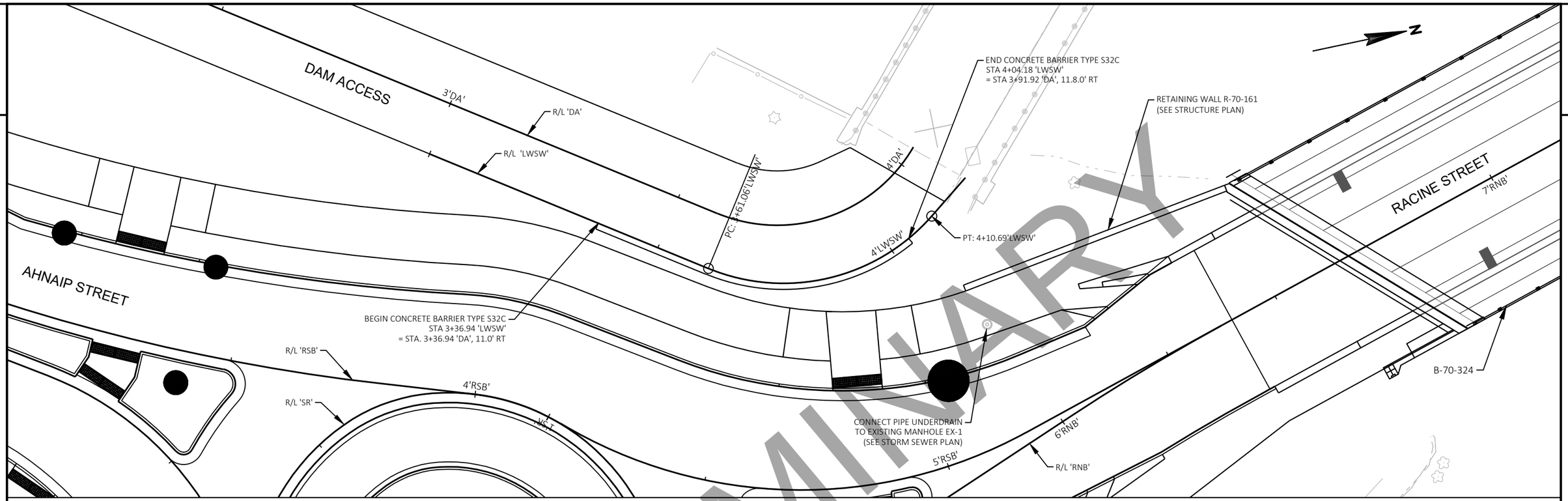
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS - CONTRACTOR ACCESS	SHEET E

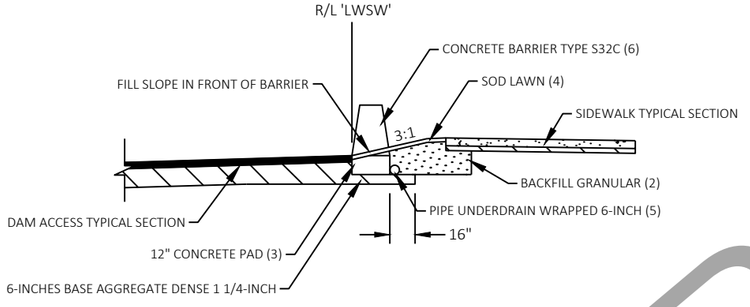
PRE_22

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021004_CD.DWG
LAYOUT NAME - 021001-Plan-TypSec
PLOT DATE : 4/15/2020 5:02 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

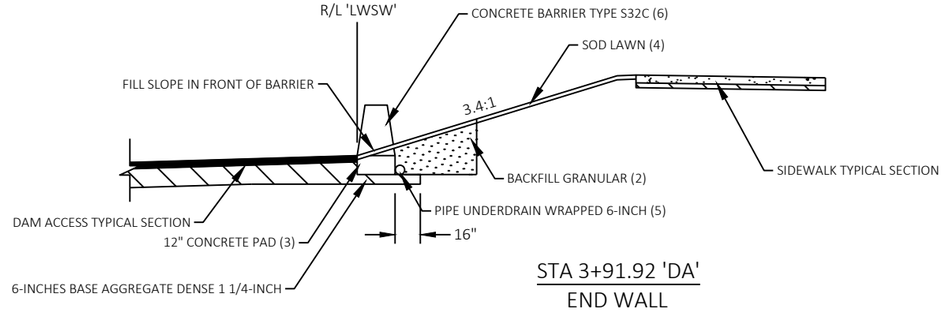
DRAFT April 20, 2020

PRELIMINARY

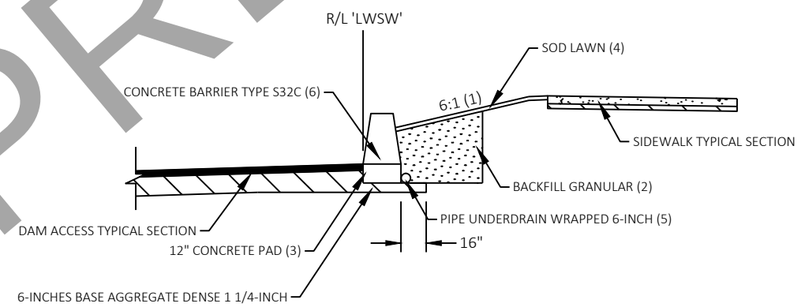




STA 3+36.94 'DA'
BEGIN WALL



STA 3+91.92 'DA'
END WALL



STA 3+36.94 'DA' - STA 3+91.92 'DA'

NOTES

(1) TERRACE SLOPE TRANSITIONS TO/FROM 6:1 SLOPE IN THE FOLLOWING LOCATIONS:
STA 3+36.94 'DA' - STA 3+43 'DA'
STA 3+87 'DA' - STA 3+91.92 'DA'

(2) BACKFILL AREA AS DIRECTED IN THE MINIMUM DESIGN OF EARTHWORK DETAIL IN SDD "SINGLE SLOPE ROADSIDE RETAINING WALL". NOTE THAT BACKFILL AREA MAY BE PLACED UNDER SIDEWALK WHEN TERRACE IS LESS THAN 6.5 FEET.

(3) DO NOT INCLUDE GUTTER PAN. FOLLOW BAR PLACEMENT NEAR INLETS DETAIL IN SDD "SINGLE SLOPE ROADSIDE RETAINING WALL" FOR THE CONCRETE PAD. CONCRETE PAD IS INCIDENTAL TO CONCRETE BARRIER TYPE S32C.

(4) SEE EROSION CONTROL PLAN - PERMANENT FOR LOCATIONS AND LIMITS.

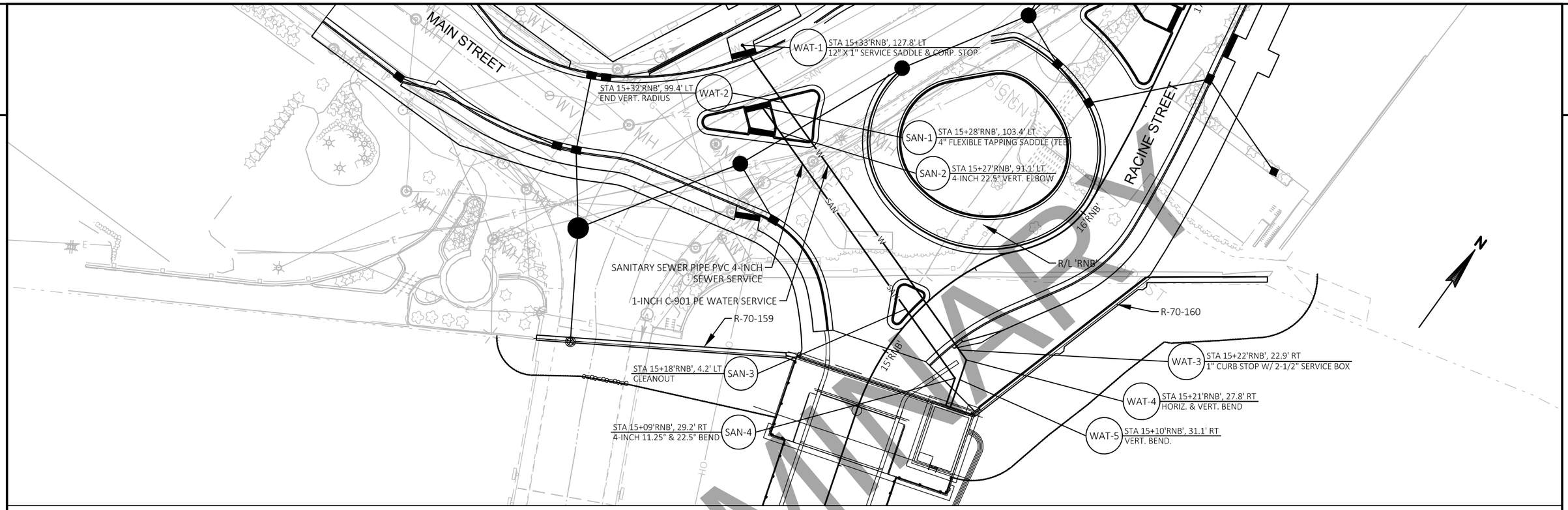
(5) SLOPE PIPE UNDERDRAIN 6-INCH, 0.5% MINIMUM SLOPE. OUTLET TO EXISTING MANHOLE EX-1 (SEE STORM SEWER PLAN).

(6) FOR INFORMATION NOT SHOWN, SEE SDD "SINGLE SLOPE ROADSIDE RETAINING WALL".

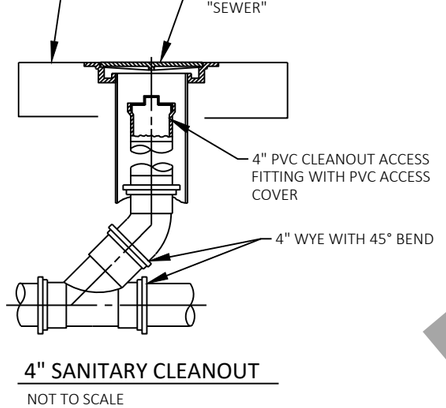
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CONSTRUCTION DETAILS - LANDSCAPING WALL	SHEET PRE_23 E

2

DRAFT April 20, 2020

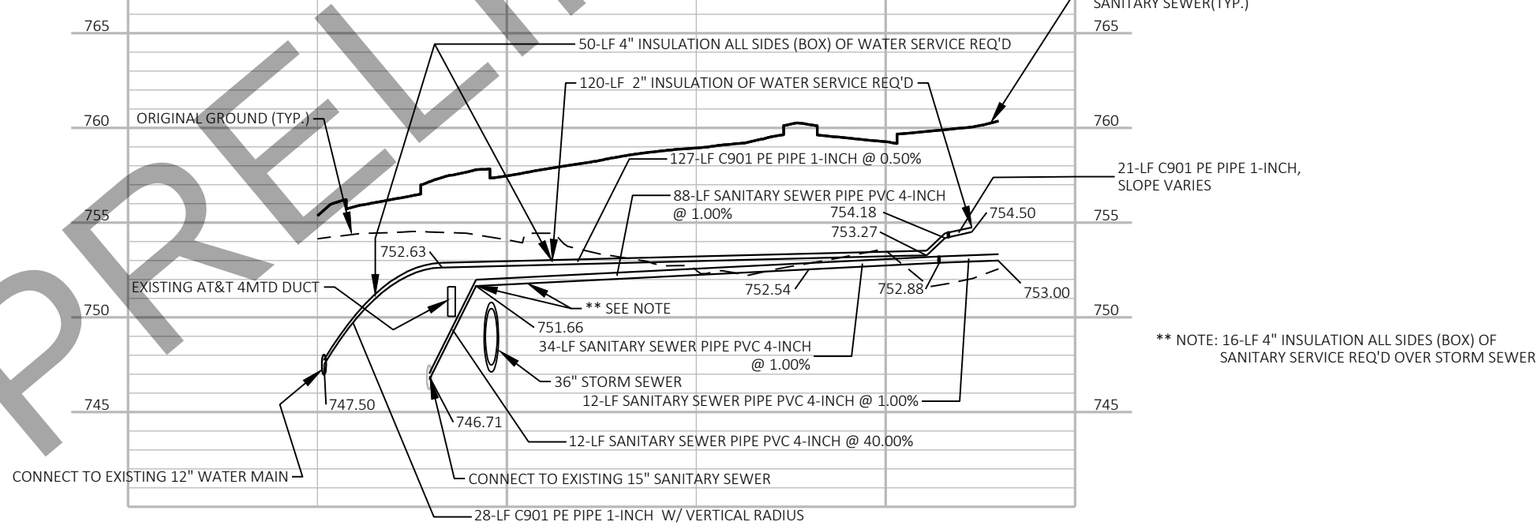


PRELIMINARY



4" SANITARY CLEANOUT

NOT TO SCALE

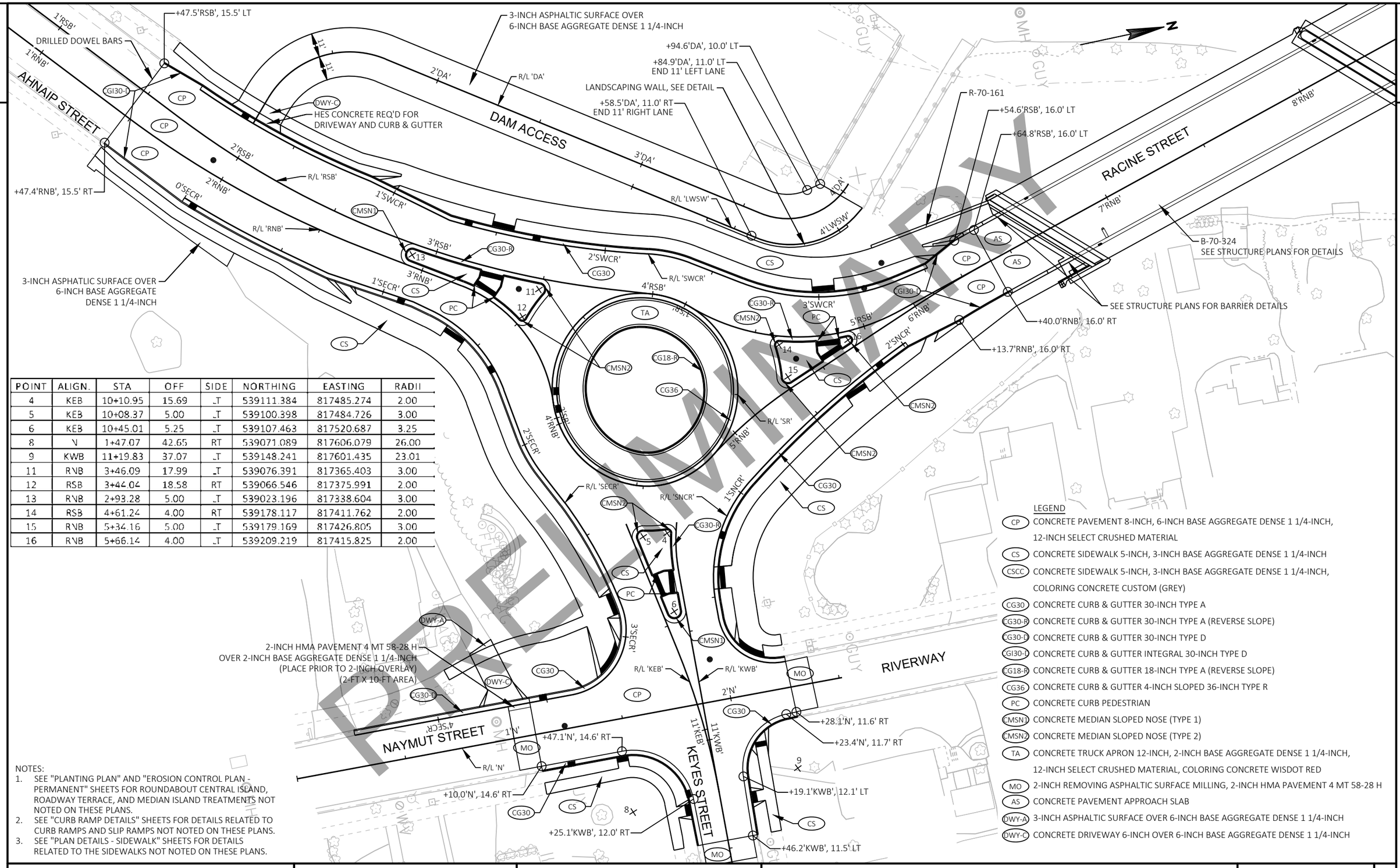


** NOTE: 16-LF 4" INSULATION ALL SIDES (BOX) OF SANITARY SERVICE REQ'D OVER STORM SEWER

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CONSTRUCTION DETAIL - OPERATOR HOUSE SANITARY & WATER SERVICE	SHEET PRE_24 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSE.WEBER@AECOM.COM\D0117278\021003_CD.DWG
LAYOUT NAME - 020103_CD
PLOT DATE : 4/17/2020 10:48 AM PLOT BY : WEBER, JESSE PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 41

DRAFT April 20, 2020



POINT	ALIGN.	STA	OFF	SIDE	NORTHING	EASTING	RADII
4	KEB	10+10.95	15.69	LT	539111.384	817485.274	2.00
5	KEB	10+08.37	5.00	LT	539100.398	817484.726	3.00
6	KEB	10+45.01	5.25	LT	539107.463	817520.687	3.25
8	N	1+47.07	42.65	RT	539071.089	817606.079	26.00
9	KWB	11+19.83	37.07	LT	539148.241	817601.435	23.01
11	RNB	3+46.09	17.99	LT	539076.391	817365.403	3.00
12	RSB	3+44.04	18.58	RT	539066.546	817375.991	2.00
13	RNB	2+93.28	5.00	LT	539023.196	817338.604	3.00
14	RSB	4+61.24	4.00	RT	539178.117	817411.762	2.00
15	RNB	5+34.16	5.00	LT	539179.169	817426.805	3.00
16	RNB	5+66.14	4.00	LT	539209.219	817415.825	2.00

NOTES:
1. SEE "PLANTING PLAN" AND "EROSION CONTROL PLAN - PERMANENT" SHEETS FOR ROUNDABOUT CENTRAL ISLAND, ROADWAY TERRACE, AND MEDIAN ISLAND TREATMENTS NOT NOTED ON THESE PLANS.
2. SEE "CURB RAMP DETAILS" SHEETS FOR DETAILS RELATED TO CURB RAMPS AND SLIP RAMPS NOT NOTED ON THESE PLANS.
3. SEE "PLAN DETAILS - SIDEWALK" SHEETS FOR DETAILS RELATED TO THE SIDEWALKS NOT NOTED ON THESE PLANS.

LEGEND

CP	CONCRETE PAVEMENT 8-INCH, 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH SELECT CRUSHED MATERIAL
CS	CONCRETE SIDEWALK 5-INCH, 3-INCH BASE AGGREGATE DENSE 1 1/4-INCH
CSCC	CONCRETE SIDEWALK 5-INCH, 3-INCH BASE AGGREGATE DENSE 1 1/4-INCH, COLORING CONCRETE CUSTOM (GREY)
CG30	CONCRETE CURB & GUTTER 30-INCH TYPE A
CG30-R	CONCRETE CURB & GUTTER 30-INCH TYPE A (REVERSE SLOPE)
CG30-D	CONCRETE CURB & GUTTER 30-INCH TYPE D
CGI30-D	CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
CG18-R	CONCRETE CURB & GUTTER 18-INCH TYPE A (REVERSE SLOPE)
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R
PC	CONCRETE CURB PEDESTRIAN
CMSN1	CONCRETE MEDIAN SLOPED NOSE (TYPE 1)
CMSN2	CONCRETE MEDIAN SLOPED NOSE (TYPE 2)
TA	CONCRETE TRUCK APRON 12-INCH, 2-INCH BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH SELECT CRUSHED MATERIAL, COLORING CONCRETE WISDOT RED
MO	2-INCH REMOVING ASPHALTIC SURFACE MILLING, 2-INCH HMA PAVEMENT 4 MT 58-28 H
AS	CONCRETE PAVEMENT APPROACH SLAB
DWY-A	3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
DWY-C	CONCRETE DRIVEWAY 6-INCH OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH

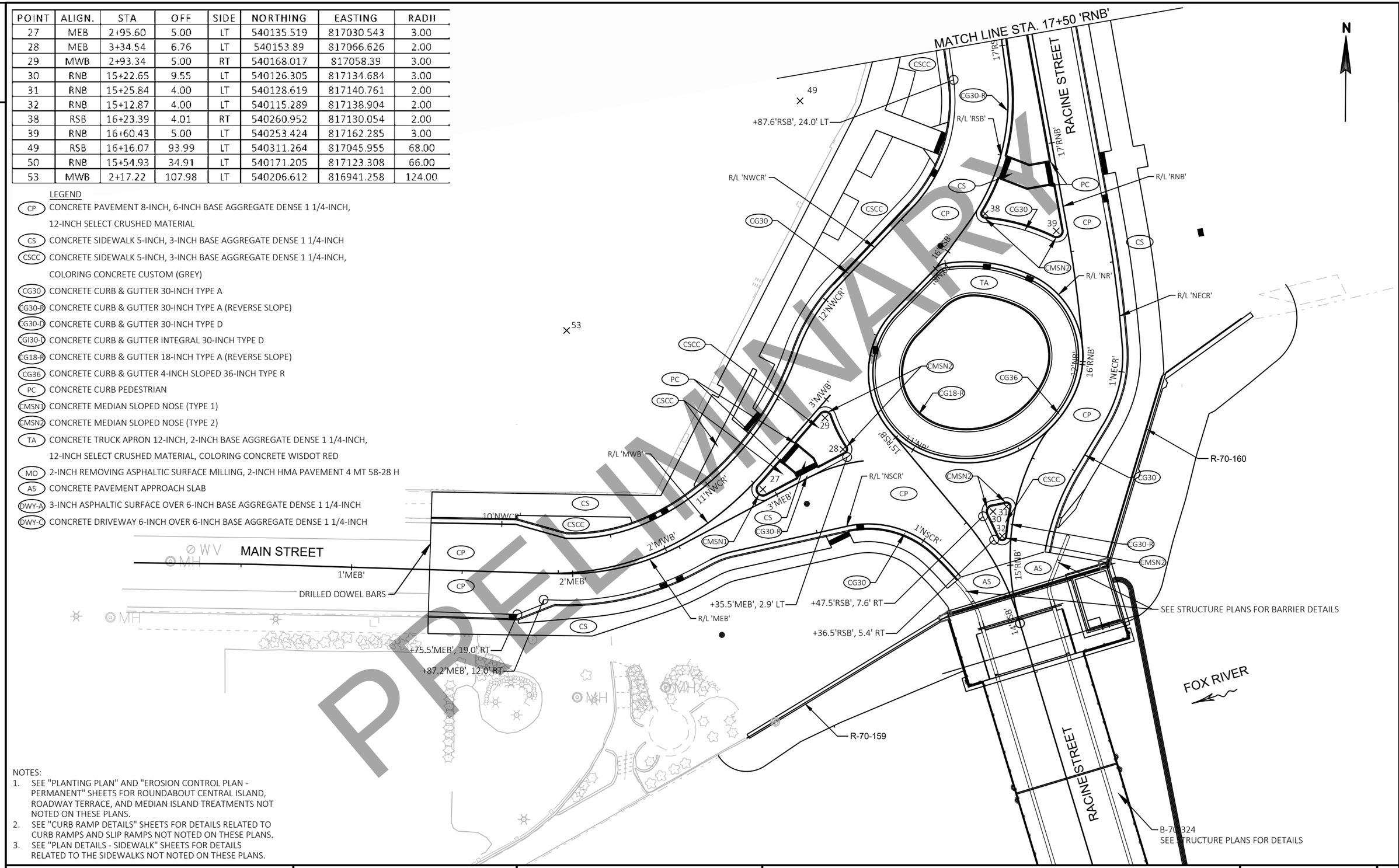
PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET E

POINT	ALIGN.	STA	OFF	SIDE	NORTHING	EASTING	RADII
27	MEB	2+95.60	5.00	LT	540135.519	817030.543	3.00
28	MEB	3+34.54	6.76	LT	540153.89	817066.626	2.00
29	MWB	2+93.34	5.00	RT	540168.017	817058.39	3.00
30	RNB	15+22.65	9.55	LT	540126.305	817134.684	3.00
31	RNB	15+25.84	4.00	LT	540128.619	817140.761	2.00
32	RNB	15+12.87	4.00	LT	540115.289	817138.904	2.00
38	RSB	16+23.39	4.01	RT	540260.952	817130.054	2.00
39	RNB	16+60.43	5.00	LT	540253.424	817162.285	3.00
49	RSB	16+16.07	93.99	LT	540311.264	817045.955	68.00
50	RNB	15+54.93	34.91	LT	540171.205	817123.308	66.00
53	MWB	2+17.22	107.98	LT	540206.612	816941.258	124.00

LEGEND

- (CP) CONCRETE PAVEMENT 8-INCH, 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH SELECT CRUSHED MATERIAL
- (CS) CONCRETE SIDEWALK 5-INCH, 3-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (CSCC) CONCRETE SIDEWALK 5-INCH, 3-INCH BASE AGGREGATE DENSE 1 1/4-INCH, COLORING CONCRETE CUSTOM (GREY)
- (CG30) CONCRETE CURB & GUTTER 30-INCH TYPE A
- (CG30-R) CONCRETE CURB & GUTTER 30-INCH TYPE A (REVERSE SLOPE)
- (CG30-D) CONCRETE CURB & GUTTER 30-INCH TYPE D
- (CGI30-D) CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
- (CG18-R) CONCRETE CURB & GUTTER 18-INCH TYPE A (REVERSE SLOPE)
- (CG36) CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R
- (PC) CONCRETE CURB PEDESTRIAN
- (CMSN1) CONCRETE MEDIAN SLOPED NOSE (TYPE 1)
- (CMSN2) CONCRETE MEDIAN SLOPED NOSE (TYPE 2)
- (TA) CONCRETE TRUCK APRON 12-INCH, 2-INCH BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH SELECT CRUSHED MATERIAL, COLORING CONCRETE WISDOT RED
- (MO) 2-INCH REMOVING ASPHALTIC SURFACE MILLING, 2-INCH HMA PAVEMENT 4 MT 58-28 H
- (AS) CONCRETE PAVEMENT APPROACH SLAB
- (DWY-A) 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
- (DWY-C) CONCRETE DRIVEWAY 6-INCH OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH



NOTES:

1. SEE "PLANTING PLAN" AND "EROSION CONTROL PLAN - PERMANENT" SHEETS FOR ROUNDABOUT CENTRAL ISLAND, ROADWAY TERRACE, AND MEDIAN ISLAND TREATMENTS NOT NOTED ON THESE PLANS.
2. SEE "CURB RAMP DETAILS" SHEETS FOR DETAILS RELATED TO CURB RAMPS AND SLIP RAMPS NOT NOTED ON THESE PLANS.
3. SEE "PLAN DETAILS - SIDEWALK" SHEETS FOR DETAILS RELATED TO THE SIDEWALKS NOT NOTED ON THESE PLANS.

PRELIMINARY

DRAFT April 20, 2020

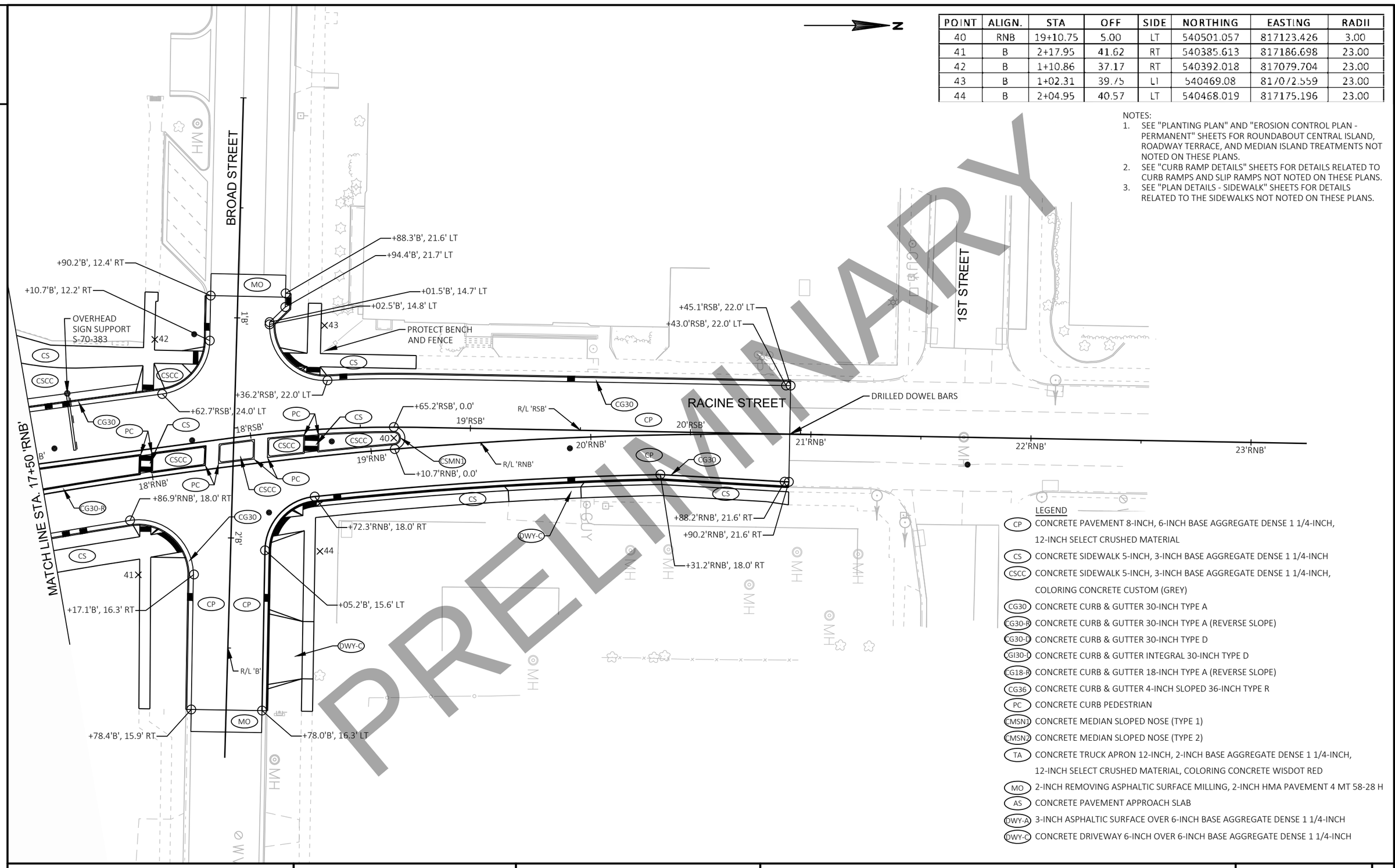
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET E

2

DRAFT April 20, 2020

POINT	ALIGN.	STA	OFF	SIDE	NORTHING	EASTING	RADII
40	RNB	19+10.75	5.00	LT	540501.057	817123.426	3.00
41	B	2+17.95	41.62	RT	540385.613	817186.698	23.00
42	B	1+10.86	37.17	RT	540392.018	817079.704	23.00
43	B	1+02.31	39.75	LT	540469.08	817072.559	23.00
44	B	2+04.95	40.57	LT	540468.019	817175.196	23.00

NOTES:
1. SEE "PLANTING PLAN" AND "EROSION CONTROL PLAN - PERMANENT" SHEETS FOR ROUNDABOUT CENTRAL ISLAND, ROADWAY TERRACE, AND MEDIAN ISLAND TREATMENTS NOT NOTED ON THESE PLANS.
2. SEE "CURB RAMP DETAILS" SHEETS FOR DETAILS RELATED TO CURB RAMPS AND SLIP RAMPS NOT NOTED ON THESE PLANS.
3. SEE "PLAN DETAILS - SIDEWALK" SHEETS FOR DETAILS RELATED TO THE SIDEWALKS NOT NOTED ON THESE PLANS.



LEGEND

CP	CONCRETE PAVEMENT 8-INCH, 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH SELECT CRUSHED MATERIAL
CS	CONCRETE SIDEWALK 5-INCH, 3-INCH BASE AGGREGATE DENSE 1 1/4-INCH
CSCC	CONCRETE SIDEWALK 5-INCH, 3-INCH BASE AGGREGATE DENSE 1 1/4-INCH, COLORING CONCRETE CUSTOM (GREY)
CG30	CONCRETE CURB & GUTTER 30-INCH TYPE A
CG30-R	CONCRETE CURB & GUTTER 30-INCH TYPE A (REVERSE SLOPE)
CG30-D	CONCRETE CURB & GUTTER 30-INCH TYPE D
CGI30-D	CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D
CG18-R	CONCRETE CURB & GUTTER 18-INCH TYPE A (REVERSE SLOPE)
CG36	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R
PC	CONCRETE CURB PEDESTRIAN
CMSN1	CONCRETE MEDIAN SLOPED NOSE (TYPE 1)
CMSN2	CONCRETE MEDIAN SLOPED NOSE (TYPE 2)
TA	CONCRETE TRUCK APRON 12-INCH, 2-INCH BASE AGGREGATE DENSE 1 1/4-INCH, 12-INCH SELECT CRUSHED MATERIAL, COLORING CONCRETE WISDOT RED
MO	2-INCH REMOVING ASPHALTIC SURFACE MILLING, 2-INCH HMA PAVEMENT 4 MT 58-28 H
AS	CONCRETE PAVEMENT APPROACH SLAB
DWY-A	3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
DWY-C	CONCRETE DRIVEWAY 6-INCH OVER 6-INCH BASE AGGREGATE DENSE 1 1/4-INCH

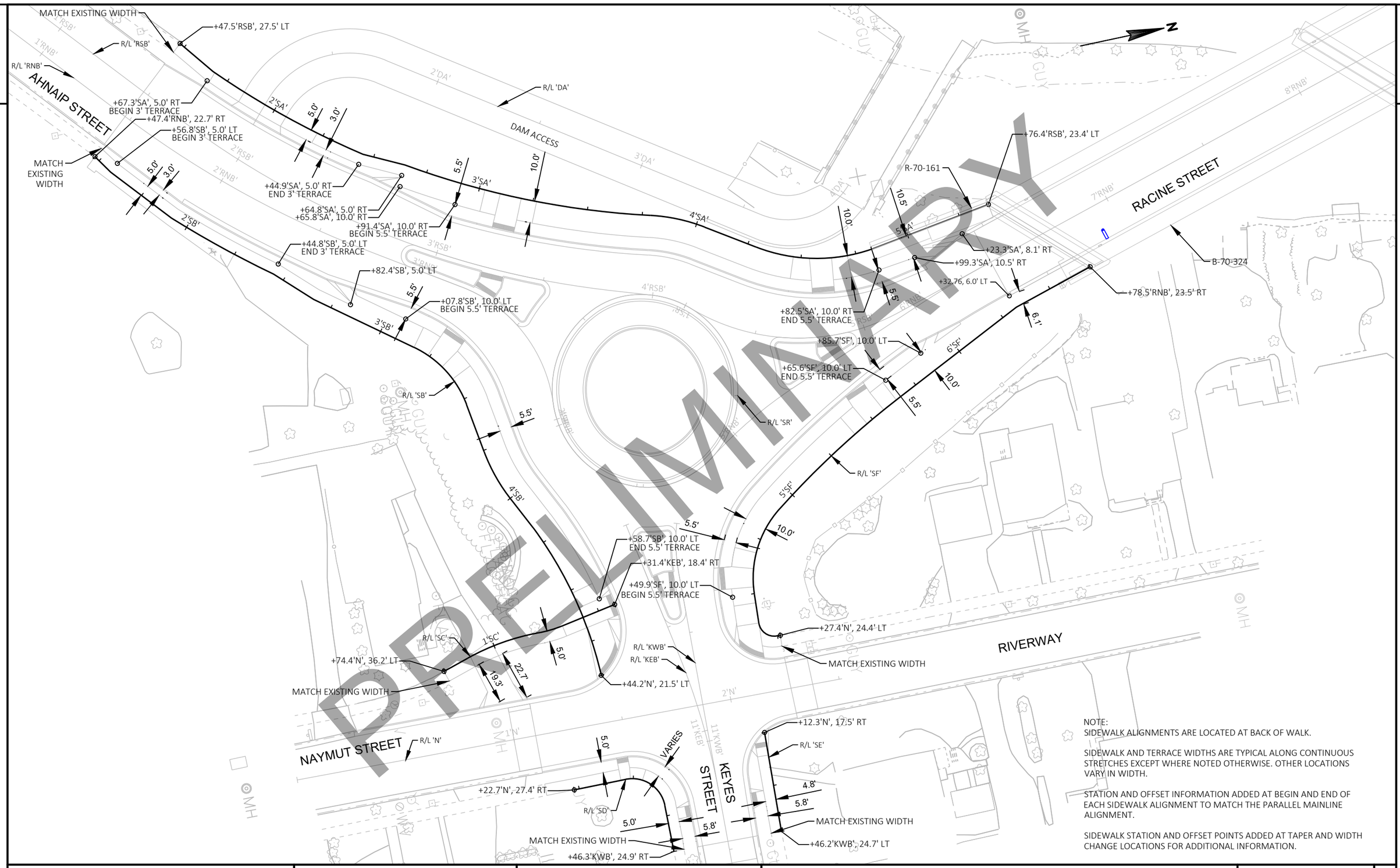
PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN DETAILS	SHEET E

2

DRAFT April 20, 2020

PRELIMINARY



NOTE:
SIDEWALK ALIGNMENTS ARE LOCATED AT BACK OF WALK.

SIDEWALK AND TERRACE WIDTHS ARE TYPICAL ALONG CONTINUOUS STRETCHES EXCEPT WHERE NOTED OTHERWISE. OTHER LOCATIONS VARY IN WIDTH.

STATION AND OFFSET INFORMATION ADDED AT BEGIN AND END OF EACH SIDEWALK ALIGNMENT TO MATCH THE PARALLEL MAINLINE ALIGNMENT.

SIDEWALK STATION AND OFFSET POINTS ADDED AT TAPER AND WIDTH CHANGE LOCATIONS FOR ADDITIONAL INFORMATION.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN DETAILS - SIDEWALKS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021201_PD.DWG
LAYOUT NAME - 021201
PLOT DATE : 4/20/2020 1:14 PM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

PRELIMINARY

MATCH LINE STA. 17+50 'RNB'

N

+58.4'SK', 19.9' RT
8.0' TYP
+37.40, 19.4' RT
R/L 'RNB'
10.0'
5.5'
R/L 'RSB'
+31.0'SK', 19.6' RT
17'SH'
5.0'
11.5'
+10.1'SK', 19.4' RT
10.0'
+78.2'SK', 9.7' RT
4'SK'
R/L 'SK'
+98.1'SK', 19.3' RT
R/L 'SH'
63-LF TRENCH DRAINS 4-INCH
W/ CONSTANT DEPTH CHANNEL
U.S. RIM = 755.63
U.S. INV. = 754.97
D.S. RIM = 755.00
D.S. INV. = 754.34
+78.1'SK', 19.1' RT
R/L 'NR'
11.0'
3.5' TYP
+14.9'SK', 9.7' RT
33-LF DRAIN PIPE PVC 4-INCH
@1.4%
+01.9'SH', 10.0' LT
BEGIN 10.0' SIDEWALK
10.0'
16'SH'
33-LF DRAIN TRENCH DRAINS 4-INCH
W/ INTEGRALLY SLOPED CHANNEL
U.S. RIM = 754.71
U.S. INV. = 753.89
D.S. RIM = 754.46
D.S. INV. = 753.48
+83.1'SK', 9.8' RT
3'SK'
+60.8'SH', 10.7' LT
R-70-160
+49.8'SK', 9.8' RT
16-LF DRAIN PIPE PVC 4-INCH @ 26.8%
U.S. INV. = 753.48
D.S. INV. = 749.19
CONNECT TO CB 9.4
10.0'
+18.0'SH', 20.3' LT
BEGIN 5.5' TERRACE
5.5'
+35.3'MEB', 35.2' LT
MAIN STREET
2'SK'
+49.8'SK', 11.2' RT
5.5'
11.5'
+25.1'SK', 10.0' RT
+73.6'SK', 10.0' RT
R/L 'MWB'
15'SH'
+94.8'RNB', 42.5' RT
3'SG'
R/L 'MEB'
5.0'
+76.2'SG', 5.3' LT
R/L 'SG'
2'SG'
+29.8'SG', 5.5' LT
BEGIN 5.5' TERRACE
BEGIN 5.0' SIDEWALK
+09.8'SG', 0.0'
+14.1'RSB', 28.3' LT
FOX RIVER
+32.6'MEB', 29.0' RT
RACINE STREET
B-70-324
R-70-159

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN DETAILS - SIDEWALKS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021201_PD.DWG
LAYOUT NAME - 021203

PLOT DATE : 4/20/2020 1:14 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

N

BROAD STREET

1ST STREET

RACINE STREET

MATCH EXISTING WIDTH
+89.4'B', 42.2' RT
+93.5'B', 37.2' RT
+93.5'B', 36.2' RT
R/L 'SL'
22.5'
1'SL
5.0'
5'SK'
R/L 'SK'
+13.0'B', 14.8' RT
3.5'
+54.0'RSB', 26.5' LT
+15.6'SK', 8.2' RT

8.0'
6.0'
1'SN
MATCH EXISTING WIDTH
+92.4'B', 38.2' LT
R/L 'SN'
+74.8'RSB', 32.6' LT
R/L 'SJ'
MATCH EXISTING WIDTH
6.0'
VARIES 3.7'-2.1'
+33.0'RSB', 24.8' LT
+15.3'B', 21.3' LT

R/L 'RSB'
R/L 'RNB'

MATCH LINE STA. 17+50 'RNB'
5.5'
R/L 'SH'
+91.0'RNB', 20.9' RT
+06.9'B', 22.0' RT
2'SM
18'SH'
10.0'
+91.9'B', 22.3' LT
+72.5'RNB', 20.5' RT
2.0'
19'SI'
20'SI'
5.0'
R/L 'SI'
+76.8'SI', 0.0'
+90.1'RNB', 32.2' RT
2'SO'
15.3'
5.0'
R/L 'SM'
16.5'
5.0'
R/L 'B'
R/L 'SO'
+77.7'B', 39.3' LT
MATCH EXISTING WIDTH
MATCH EXISTING WIDTH
+78.7'B', 39.6' RT

18'RSB'
19'RSB'
19'RNB'
20'RNB'
20'RSB'
21'RNB'
22'RNB'
23'RNB'

MH
SMH
SWV
POST

PRELIMINARY

DRAFT April 20, 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN DETAILS - SIDEWALK	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021201_PD.DWG
LAYOUT NAME - 021204

PLOT DATE : 4/20/2020 1:15 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

LEGEND

- SAWING ASPHALT PEMENT
- SAWING CONCRETE PAVEMENT
- REMOVING CURB & GUTTER
- REMOVING SIDEWALK
- REMOVING CONCRETE PAVEMENT (ADJACENT C&G INCIDENTAL)
- REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING LANDSCAPING BRICK
- CLEARING AND GRUBBING (INCH DIAMETER)
- CLEARING AND GRUBBING (STA)
- SLOPE INTERCEPTS

NOTE: ALL SIGNS TO BE REMOVED UNLESS OTHERWISE NOTED

BEGIN PROJECT
STA 1+47.43 'RNB'

W11-2, W16-7L — ON SIGNAL

S1-1, S16-9P AHEAD, NO PARKING LOADING ZONE — R7-6R

REMOVING BUILDINGS (PARCEL NO. 1)
SITE CLEARANCE (PARCEL NO. 1)
(COMPLETED PRIOR TO PROJECT 4992-03-71)

W11-2, S16-9P AHEAD, NO PARKING LOADING ZONE — R7-6L

R/L 'RNB'

AHNAIP STREET

1'RNB'

2'RNB'

3'RNB'

4'RNB'

5'RNB'

W11-15, W16-7L — ON SIGNAL

REMOVING STRUCTURAL STEEL SIGN SUPPORTS

- PLANT ENTRANCE — REMOVE
- THRU TRAFFIC — REMOVE
- MAY USE FULL LANE — R4-11
- RESTRICTED LANE ENDS — W8-5
- 15 MPH — W13-1

R3-8R ONLY ONLY ONLY — BEGIN RIGHT TURN LANE, YIELD TO BIKES — R4-4

NO TRUCKS — REMOVE

DO NOT ENTER — R5-1

R1-1 STOP, EXCEPT RIGHT TURN — R1-10P

R4-7

W12-1D

REMOVE

MOVING SIGN 'NAYMUT ST' FROM STA 11'KEB'+04, 48' RT TO STA 11'KEB'+05, 44' RT

NAYMUT ST — R1-1 STOP

NAYMUT STREET

KEYES STREET

R/L 'KWB'

STRUCTURE B-70-001
(TO BE REMOVED- SEE STRUCTURE PLANS)

R3-8 ONLY — MOVING SIGNS

RACINE STREET

7'RNB'

8'RNB'

REMOVING RAILING - 69 LF
(TUBULAR PEDESTRIAN RAIL AT BACK OF SIDEWALK. SEE STRUCTURE PLANS FOR ADJACENT DECORATIVE RAIL REMOVAL)

REMOVING RAILING - 37 LF
(TUBULAR PEDESTRIAN RAIL AT BACK OF SIDEWALK. SEE STRUCTURE PLANS FOR ADJACENT DECORATIVE RAIL REMOVAL)

WEIGHT LIMIT 30 TONS — R12-1

W1-8

AHNAIP ST
RACINE ST
R1-1 STOP
TRAFFIC FROM RIGHT DOES NOT STOP — W4-4AR

RIVERWAY

STOP — R1-1

KEYES ST
STOP — R1-1

RIVER WAY
STOP — R1-1

MOVING SIGN 'RIVERWAY' FROM STA 10'KWB'+67, 39' LT TO STA 10'KWB'+66, 34' LT

STOP — R1-1

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	REMOVAL PLAN - ROADWAY	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\SARAH.ERICSON@AECOM.COM\D0117278\021201_RM.DWG
LAYOUT NAME - 021201
PLOT DATE : 2/28/2020 10:22 AM
PLOT BY : ERICSON, SARAH
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

LEGEND

- A / C — SAWING ASPHALT PAVEMENT
- SAWING CONCRETE PAVEMENT
- REMOVING CURB & GUTTER
- REMOVING SIDEWALK
- REMOVING CONCRETE PAVEMENT (ADJACENT C&G INCIDENTAL)
- REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING LANDSCAPING BRICK
- ID — CLEARING AND GRUBBING (INCH DIAMETER)
- CLEARING AND GRUBBING (STA)
- SLOPE INTERCEPTS

NOTE: ALL SIGNS TO BE REMOVED UNLESS OTHERWISE NOTED

MOVING SIGN 'PARKS & RECREATION' FROM STA 8'RNB'+75, 44' LT TO STA 9'RNB'+70, 23' LT ON BRIDGE PIER

MENASHA — PARKS AND RECREATION DEPARTMENT 100 MAIN ST SUITE 200 — 920-967-3640

NO TRESPASSING OR LOITERING ON THIS PROPERTY — REMOVE ON SIDE OF BRIDGE

STRUCTURE B-70-001 (TO BE REMOVED- SEE STRUCTURE PLANS)

RACINE STREET

REMOVING PAVEMENT IN CANAL INCIDENTAL TO 'REMOVING PAVEMENT' ITEM

REMOVING FENCE (UNDER BRIDGE, BY OTHERS)

REMOVING CONCRETE STALL STOPS (UNDER BRIDGE, BY OTHERS)

REMOVING UTILITY TOWER AND BASE

R/L 'RNB'

8'RNB' 9'RNB' 10'RNB' 11'RNB' 12'RNB' 13'RNB' 14'RNB'

SLOW ONCOMING BICYCLE TRAFFIC — REMOVE ON RAILING

NOTICE OF OPENING OPERATOR ON DUTY DURING NAVIGATION SEASON — MENASHA POLICE DEPT RACINE ST BRIDGE TAYCO ST BRIDGE — REMOVE

BRIDGE MONITORS CHANNEL 16 — REMOVE

WEIGHT LIMIT 30 TONS — R12-1

W8-63 STEEL GRID DECK / SLIPPERY WHEN WET — REMOVE ON LIGHT POLE

RESTRICTED NO BOATS HERE TO DAM — REMOVE ON BRIDGE PIER

STOP HERE ON RED — R10-6 ON SIGNAL

W8-63 STEEL GRID DECK / SLIPPERY WHEN WET — REMOVE ON LIGHT POLE

MAIN ST / RACINE ST — STOP R1-1F

MOVING SIGN 'PAPER TRAIL' FROM STA 14'RNB'+78, 93' LT TO STA 2'MEB'+58, 18' RT ON SIGNAL

NOTICE OF OPENING OPERATOR ON DUTY DURING NAVIGATION SEASON — MENASHA POLICE DEPT RACINE ST BRIDGE TAYCO ST BRIDGE — MOVING SIGNS

BRIDGE MONITORS CHANNEL 16 — MOVING SIGNS

DRAW BRIDGE — W3-6 ON LIGHT POLE

SMITH PARK / ISLE OF VALOR / HOSPITAL — MOVING SIGN 'DESTINATION' FROM STA 8'RNB'+93, 46' LT TO STA 11'RNB'+26, 26' LT ON LIGHT POLE

FOX RIVER

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	REMOVAL PLAN - ROADWAY	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021201_RM.DWG
LAYOUT NAME - 021202

PLOT DATE : 2/27/2020 12:27 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

PRE_32

WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

LEGEND

- SAWING ASPHALT PEMENT
- SAWING CONCRETE PAVEMENT
- REMOVING CURB & GUTTER
- REMOVING SIDEWALK
- REMOVING CONCRETE PAVEMENT (ADJACENT C&G INCIDENTAL)
- REMOVING ASPHALT PAVEMENT (PAID FOR AS EXCAVATION COMMON)
- REMOVING GUARDRAIL
- REMOVING FENCE
- REMOVING LANDSCAPING BRICK
- CLEARING AND GRUBBING (INCH DIAMETER)
- CLEARING AND GRUBBING (STA)
- SLOPE INTERCEPTS

NOTE: ALL SIGNS TO BE REMOVED UNLESS OTHERWISE NOTED

PRELIMINARY

END PROJECT
STA 20+90.40 'RNB'

RACINE STREET

MAIN STREET

R/L 'MEB'

1'MEB'

2'MEB'

3'MEB'

R/L 'RNB'

20'RNB'

19'RNB'

18'RNB'

17'RNB'

16'RNB'

15'RNB'

PROTECT BENCH AND FENCE

ONLY
R3-5L

MAY USE FULL LANE
R4-11

ONLY
R3-5R

MOVING SIGN 'DESTINATION'
FROM STA 15'RSB'+59, 49' LT
TO STA 17'RSB'+25, 30' LT

Downtown Menasha
Marina/Riverwalk
Smith Park
Hospital
WATERFRONT AREA

REMOVING STRUCTURAL STEEL SIGN SUPPORTS

MOVING SIGNS 'BROAD ST' & 'RACINE ST'
FROM STA 0'B'+93, 17' RT
TO STA 1'B'+08, 17' RT

BROAD ST
RACINE ST
STOP
R1-1

REMOVE

R1-1F
STOP
MOVING SIGNS
ON SIGNAL

STOP
R1-1F
ON SIGNAL

W11-2
REMOVE
ON SIGNAL

REMOVING MODULAR BLOCK WALL

BICYCLES MAY USE SIDEWALK
SLOW ONCOMING BICYCLE TRAFFIC
REMOVE

REMOVING UTILITY TOWER AND SAWING ANCHOR ROADS. BASE TO REMAIN

REMOVE TRASH CAN (BY OTHERS)

REMOVING MASONRY (AT 2' DEPTH) (REMAINDER OF WALL TO BE BURIED)

STRUCTURE B-70-001 (TO BE REMOVED- SEE STRUCTURE PLANS)

FOX RIVER

SEE STRUCTURE PLANS FOR REMOVALS NOT SHOWN

REMOVE BENCH (BY OTHERS)

REMOVING BUILDINGS (PARCEL NO. 19)
SITE CLEARANCE (PARCEL NO. 19)
(COMPLETED PRIOR TO PROJECT 4992-03-71)

RETAINING WALL TO REMAIN

REMOVE
ON LIGHT POLE

BROAD STREET

MOVING SIGN 'EMERGENCY SERVICES'
FROM STA 20'RNB'+02, 24' RT
TO STA 20'RNB'+59, 23' RT

POLICE
FIRE
DEPARTMENT
REMOVE
ON LIGHT POLE

START
ONE WAY
R6-2L
ON LIGHT POLE

START
ONE WAY
R6-2R
ON LIGHT POLE

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	REMOVAL PLAN - ROADWAY	SHEET E

PRE_33

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021201_RM.DWG
LAYOUT NAME - 021203

PLOT DATE : 2/27/2020 12:27 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

LEGEND

REMOVING MANHOLES

REMOVING INLETS

–SS– REMOVING STORM SEWER

BEGIN PROJECT
STA 1+47.43 'RNB'

R/L 'RNB'

AHNAIP STREET

1'RNB'

CONNECT 8" DRAIN TILE TO CB 1.1
(SEE STORM SEWER PLAN)

CONNECT 15" STORM SEWER TO MH 1.0
(SEE STORM SEWER PLAN)

CONNECT 8" DRAIN TILE TO CB 1.2
(SEE STORM SEWER PLAN)

CONNECT 12" STORM SEWER TO CB 3.4
(SEE STORM SEWER PLAN)

REMOVE 18" CMP EXTENDING FROM ABUTMENT

ABANDON 18" PIPE THROUGH ABUTMENT

STRUCTURE B-70-001
(TO BE REMOVED- SEE STRUCTURE PLANS)

8'RNB'

7'RNB'

RACINE STREET

6'RNB'

42"

18"

8" DRAIN TILE

RIVERWAY

CONNECT 42" STORM SEWER TO MH 6.0
(SEE STORM SEWER PLAN)

11'KWB'

NAYMUT STREET

CONNECT TO 15" STORM SEWER
(SEE STORM SEWER PLAN)

R/L 'KWB'

KEYES STREET

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	STORM SEWER REMOVAL PLAN	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021204_RMSS.DWG
LAYOUT NAME - 021204

PLOT DATE : 2/27/2020 12:28 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

PRE_34

WISDOT/CADDS SHEET 42

2

LEGEND

REMOVING MANHOLES

REMOVING INLETS

–SS– REMOVING STORM SEWER

N

END PROJECT
STA 20+90.40 'RNB'

1'RNB'

20'RNB'

END STORM SEWER REMOVAL
AT MH 16.0

CONNECT 30" STORM TO MH 15.1
(SEE STORM SEWER PLAN)

1'B'

12"

SS 24"

10'RNB'

RACINE STREET

30"

SS 12"

30"

SS

1'RNB'

29'

R/L 'B'

MAIN STREET

R/L 'MEB'

1'MEB'

2'MEB'

12"

12"

SS

ABANDONING SEWER

12"

30"

SS

36"

12"

SS

1'MEB'

SS

15"

SS

SS

15"

SS

7'RNB'

R/L 'RNB'

15'

SS

15'

16'RNB'

15'RNB'

ABANDONING MANHOLES
MANHOLE TOP AND CASTING TO REMAIN IN PLACE

STRUCTURE B-70-001
(TO BE REMOVED- SEE
STRUCTURE PLANS)

FOX RIVER

ABANDONING SEWER (20')

BROAD STREET

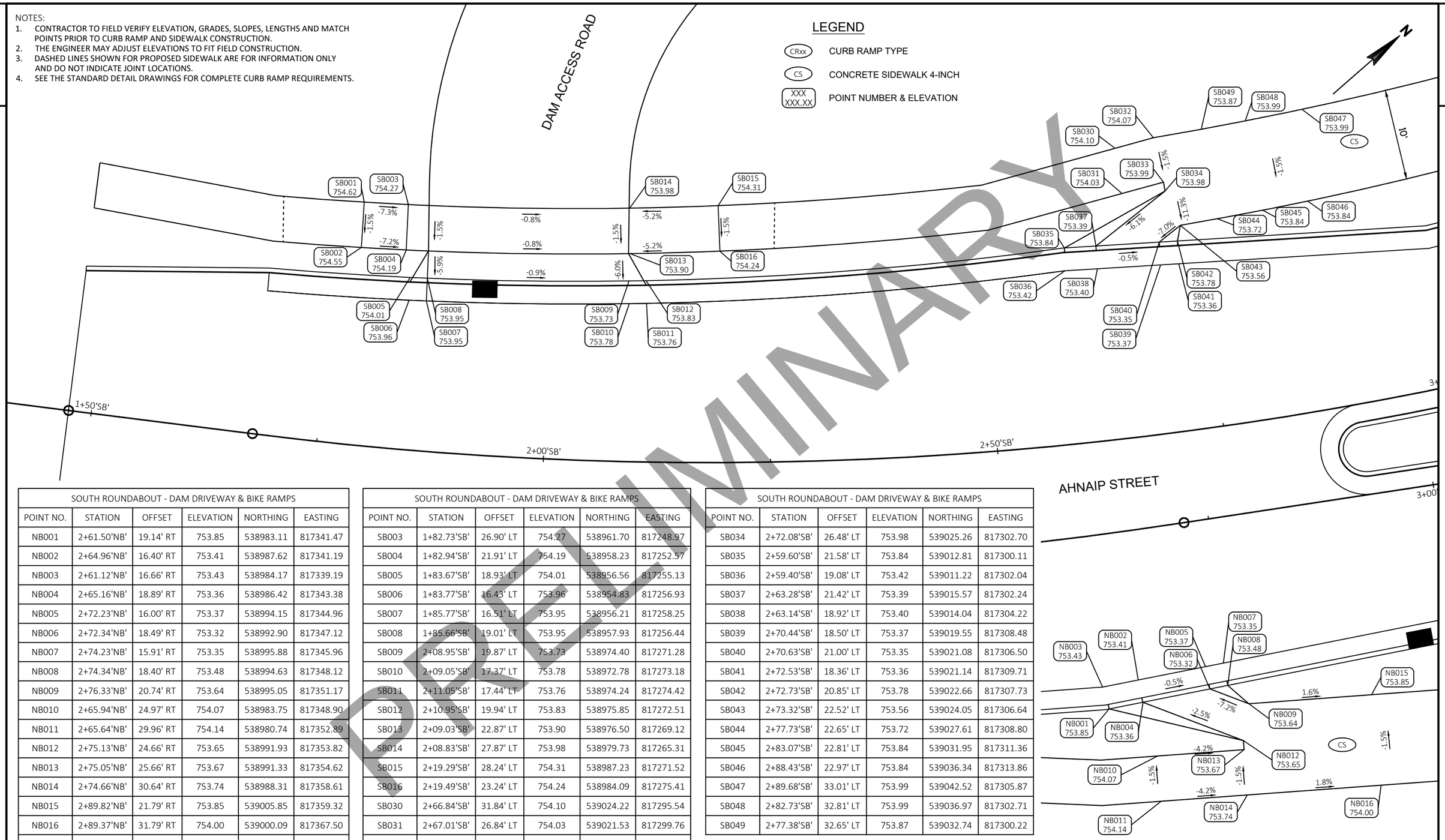
PRELIMINARY

DRAFT April 20, 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	STORM SEWER REMOVAL PLAN	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021204_RMSS.DWG
LAYOUT NAME - 021205
PLOT DATE : 2/27/2020 12:29 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.



SOUTH ROUNDABOUT - DAM DRIVEWAY & BIKE RAMPS

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
NB001	2+61.50'NB'	19.14' RT	753.85	538983.11	817341.47
NB002	2+64.96'NB'	16.40' RT	753.41	538987.62	817341.19
NB003	2+61.12'NB'	16.66' RT	753.43	538984.17	817339.19
NB004	2+65.16'NB'	18.89' RT	753.36	538986.42	817343.38
NB005	2+72.23'NB'	16.00' RT	753.37	538994.15	817344.96
NB006	2+72.34'NB'	18.49' RT	753.32	538992.90	817347.12
NB007	2+74.23'NB'	15.91' RT	753.35	538995.88	817345.96
NB008	2+74.34'NB'	18.40' RT	753.48	538994.63	817348.12
NB009	2+76.33'NB'	20.74' RT	753.64	538995.05	817351.17
NB010	2+65.94'NB'	24.97' RT	754.07	538983.75	817348.90
NB011	2+65.64'NB'	29.96' RT	754.14	538980.74	817352.89
NB012	2+75.13'NB'	24.66' RT	753.65	538991.93	817353.82
NB013	2+75.05'NB'	25.66' RT	753.67	538991.33	817354.62
NB014	2+74.66'NB'	30.64' RT	753.74	538988.31	817358.61
NB015	2+89.82'NB'	21.79' RT	753.85	539005.85	817359.32
NB016	2+89.37'NB'	31.79' RT	754.00	539000.09	817367.50
SB001	1+77.51'SB'	26.70' LT	754.62	538958.22	817245.57
SB002	1+77.73'SB'	21.71' LT	754.55	538954.70	817249.13

SOUTH ROUNDABOUT - DAM DRIVEWAY & BIKE RAMPS

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SB003	1+82.73'SB'	26.90' LT	754.27	538961.70	817248.97
SB004	1+82.94'SB'	21.91' LT	754.19	538958.23	817252.57
SB005	1+83.67'SB'	18.93' LT	754.01	538956.56	817255.13
SB006	1+83.77'SB'	16.43' LT	753.96	538954.83	817256.93
SB007	1+85.77'SB'	16.51' LT	753.95	538956.21	817258.25
SB008	1+85.66'SB'	19.01' LT	753.95	538957.93	817256.44
SB009	2+08.95'SB'	19.87' LT	753.73	538974.40	817271.28
SB010	2+09.05'SB'	17.37' LT	753.78	538972.78	817273.18
SB011	2+11.05'SB'	17.44' LT	753.76	538974.24	817274.42
SB012	2+10.95'SB'	19.94' LT	753.83	538975.85	817272.51
SB013	2+09.03'SB'	22.87' LT	753.90	538976.50	817269.12
SB014	2+08.83'SB'	27.87' LT	753.98	538979.73	817265.31
SB015	2+19.29'SB'	28.24' LT	754.31	538987.23	817271.52
SB016	2+19.49'SB'	23.24' LT	754.24	538984.09	817275.41
SB030	2+66.84'SB'	31.84' LT	754.10	539024.22	817295.54
SB031	2+67.01'SB'	26.84' LT	754.03	539021.53	817299.76
SB032	2+71.57'SB'	32.47' LT	754.07	539028.17	817297.44
SB033	2+72.05'SB'	27.48' LT	753.99	539025.79	817301.84

SOUTH ROUNDABOUT - DAM DRIVEWAY & BIKE RAMPS

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SB034	2+72.08'SB'	26.48' LT	753.98	539025.26	817302.70
SB035	2+59.60'SB'	21.58' LT	753.84	539012.81	817300.11
SB036	2+59.40'SB'	19.08' LT	753.42	539011.22	817302.04
SB037	2+63.28'SB'	21.42' LT	753.39	539015.57	817302.24
SB038	2+63.14'SB'	18.92' LT	753.40	539014.04	817304.22
SB039	2+70.44'SB'	18.50' LT	753.37	539019.55	817308.48
SB040	2+70.63'SB'	21.00' LT	753.35	539021.08	817306.50
SB041	2+72.53'SB'	18.36' LT	753.36	539021.14	817309.71
SB042	2+72.73'SB'	20.85' LT	753.78	539022.66	817307.73
SB043	2+73.32'SB'	22.52' LT	753.56	539024.05	817306.64
SB044	2+77.73'SB'	22.65' LT	753.72	539027.61	817308.80
SB045	2+83.07'SB'	22.81' LT	753.84	539031.95	817311.36
SB046	2+88.43'SB'	22.97' LT	753.84	539036.34	817313.86
SB047	2+89.68'SB'	33.01' LT	753.99	539042.52	817305.87
SB048	2+82.73'SB'	32.81' LT	753.99	539036.97	817302.71
SB049	2+77.38'SB'	32.65' LT	753.87	539032.74	817300.22

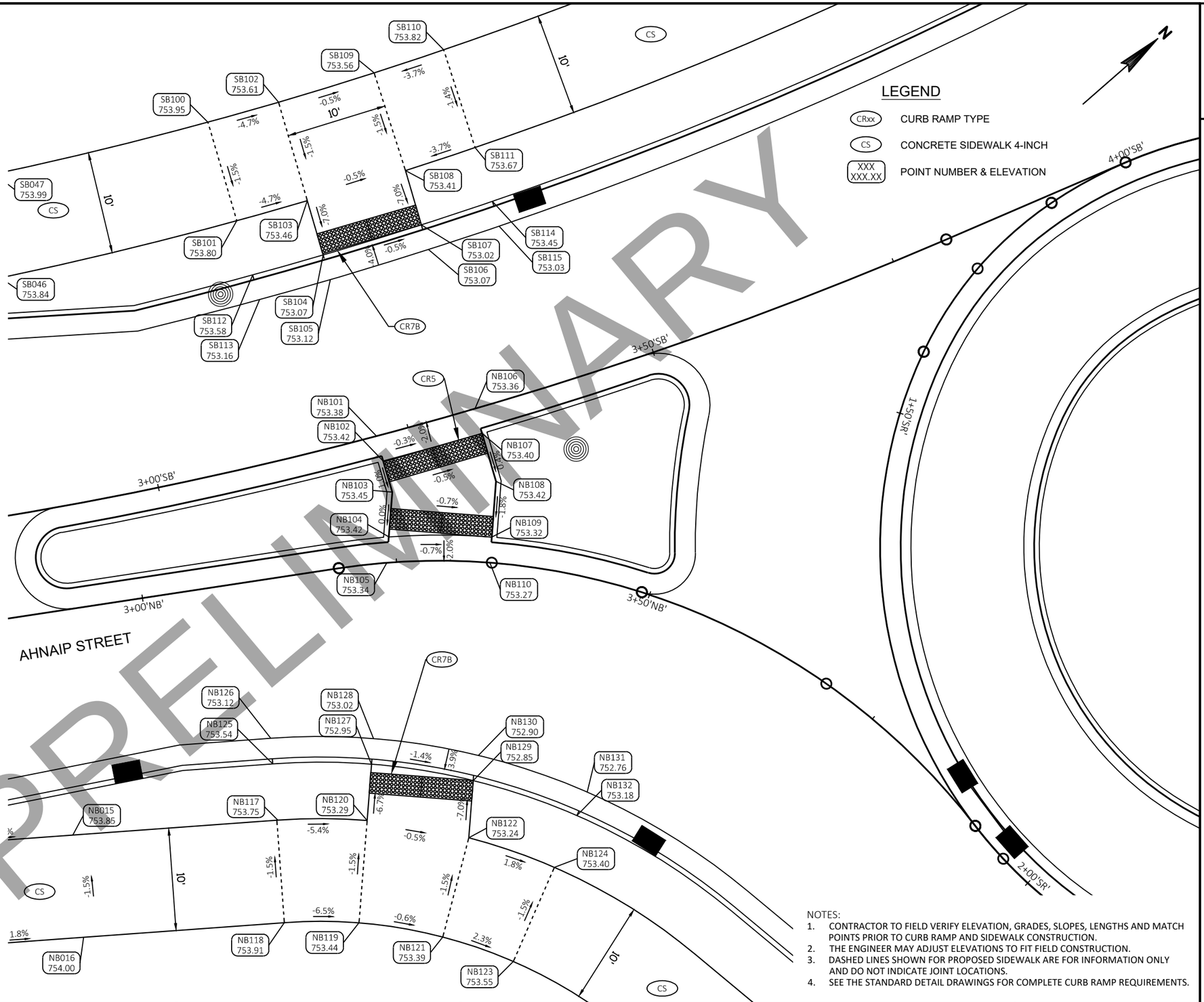
DRAFT April 20, 2020
PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CURB RAMP DETAILS - AHNAIP STREET	SHEET PRE_36 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\021301_CR.DWG
LAYOUT NAME - 01
PLOT DATE : 4/20/2020 12:14 AM PLOT BY : AECOM PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

SOUTH ROUNDABOUT - SW CROSSWALK					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
NB101	3+24.03'NB'	12.37' LT	753.38	539053.71	817349.60
NB102	3+24.42'NB'	9.91' LT	753.42	539052.60	817351.84
NB103	3+25.01'NB'	6.83' LT	753.45	539051.27	817354.70
NB104	3+24.43'NB'	2.50' LT	753.42	539048.14	817357.76
NB105	3+24.05'NB'	0.00'	753.34	539046.34	817359.53
NB106	3+31.99'NB'	14.87' LT	753.36	539062.67	817353.91
NB107	3+32.66'NB'	12.51' LT	753.40	539061.61	817356.17
NB108	3+34.09'NB'	7.94' LT	753.42	539059.56	817360.57
NB109	3+34.09'NB'	2.50' LT	753.32	539055.67	817364.38
NB110	3+34.09'NB'	0.00'	753.27	539053.89	817366.13
NB117	3+09.80'NB'	23.36' RT	753.75	539021.84	817371.39
NB118	3+08.91'NB'	33.32' RT	753.91	539015.73	817379.31
NB119	3+16.10'NB'	34.43' RT	753.44	539021.19	817384.12
NB120	3+18.39'NB'	24.69' RT	753.29	539028.36	817377.14
NB121	3+29.99'NB'	36.65' RT	753.39	539026.42	817390.54
NB122	3+34.09'NB'	26.86' RT	753.24	539034.70	817384.93
NB123	3+46.81'NB'	38.04' RT	753.55	539030.02	817396.86
NB124	3+49.26'NB'	28.11' RT	753.40	539039.06	817392.60
NB125	3+10.12'NB'	17.87' RT	753.54	539025.07	817366.94
NB126	3+10.32'NB'	15.37' RT	753.12	539026.58	817364.95
NB127	3+19.74'NB'	19.33' RT	752.95	539032.29	817373.30
NB128	3+20.49'NB'	16.89' RT	753.02	539034.08	817371.55
NB129	3+34.09'NB'	21.28' RT	752.85	539038.69	817381.03
NB130	3+34.55'NB'	18.80' RT	752.90	539040.69	817379.52
NB131	3+50.42'NB'	20.14' RT	752.76	539046.30	817389.19
NB132	3+50.10'NB'	22.63' RT	753.18	539044.04	817390.25
SB100	3+13.04'SB'	33.67' LT	753.95	539061.51	817315.78
SB101	3+13.55'SB'	23.68' LT	753.80	539057.30	817324.85
SB102	3+20.83'SB'	33.88' LT	753.61	539067.95	817318.84
SB103	3+21.14'SB'	23.88' LT	753.46	539063.75	817327.91
SB104	3+21.29'SB'	18.39' LT	753.07	539061.42	817332.90
SB105	3+21.37'SB'	15.89' LT	753.12	539060.38	817335.17
SB106	3+31.77'SB'	16.16' LT	753.07	539069.49	817339.26
SB107	3+31.77'SB'	18.66' LT	753.02	539070.55	817336.99
SB108	3+31.77'SB'	24.16' LT	753.41	539072.87	817332.01
SB109	3+31.48'SB'	34.15' LT	753.56	539076.85	817322.83
SB110	3+39.29'SB'	34.35' LT	753.82	539083.42	817325.61
SB111	3+39.37'SB'	24.35' LT	753.67	539079.45	817334.79
SB112	3+13.82'SB'	18.19' LT	753.58	539054.98	817329.84
SB113	3+13.89'SB'	15.69' LT	753.16	539053.89	817332.09
SB114	3+39.42'SB'	18.85' LT	753.45	539077.26	817339.83
SB115	3+39.32'SB'	16.35' LT	753.03	539076.17	817342.08



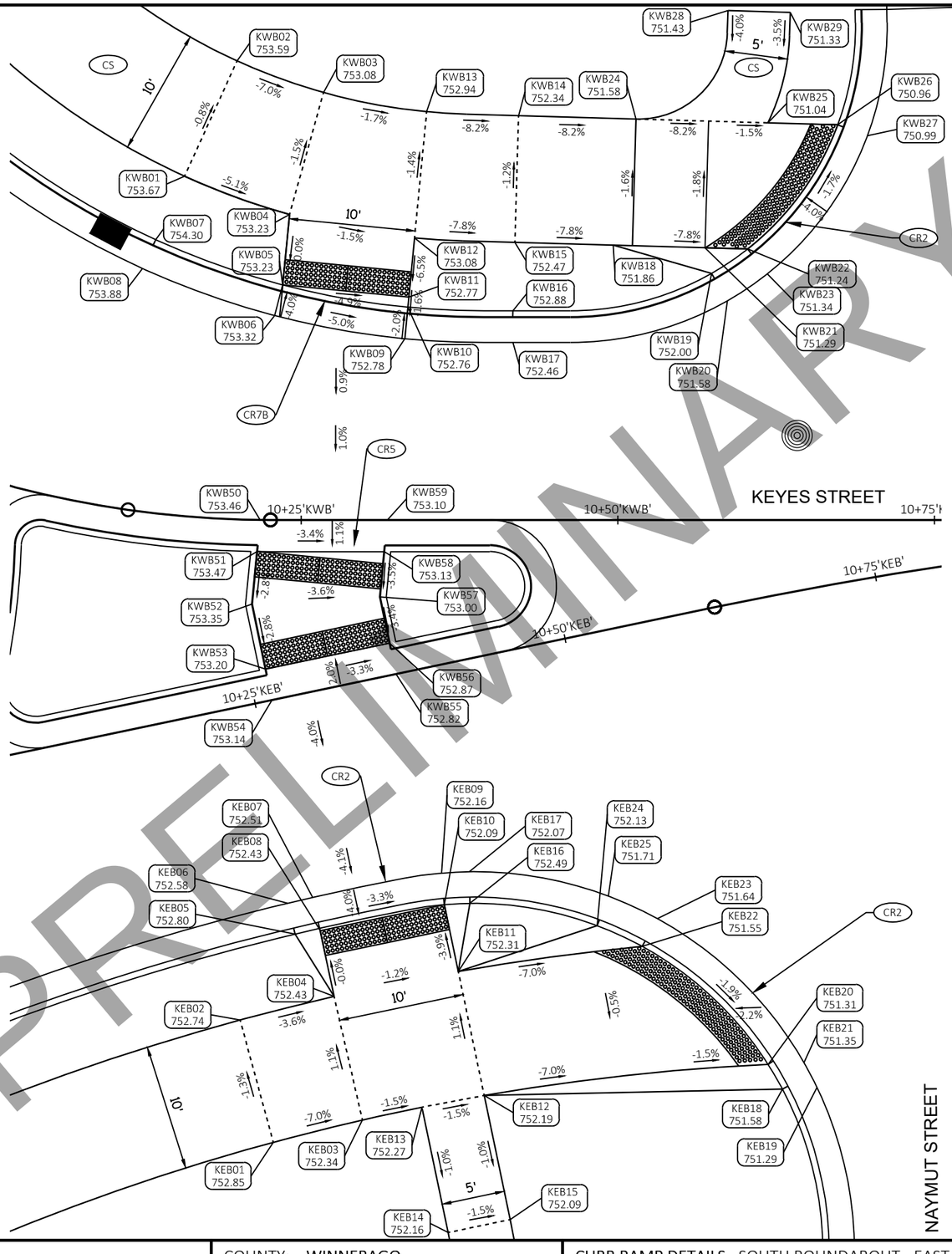
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

DRAFT April 20, 2020
PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CURB RAMP DETAILS - SOUTH ROUNDABOUT - SOUTHWEST LEG	SHEET PRE_37 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\021301_CR.DWG
LAYOUT NAME - 02
PLOT DATE : 4/20/2020 12:14 AM PLOT BY : AECOM PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

KEYES STREET NW & SW CORNERS					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
KWB01	10+12.37'KWB'	26.69' LT	753.67	539140.30	817497.23
KWB02	10+17.76'KWB'	36.15' LT	753.59	539149.31	817501.55
KWB03	10+26.77'KWB'	33.73' LT	753.08	539146.69	817508.33
KWB04	10+24.07'KWB'	24.10' LT	753.23	539137.11	817505.45
KWB05	10+23.54'KWB'	18.55' LT	753.23	539131.57	817504.81
KWB06	10+22.90'KWB'	16.13' LT	753.32	539129.17	817504.13
KWB07	10+10.15'KWB'	21.42' LT	754.30	539135.33	817494.85
KWB08	10+09.27'KWB'	19.00' LT	753.88	539133.08	817493.77
KWB09	10+33.18'KWB'	14.30' LT	752.78	539127.14	817514.36
KWB10	10+33.42'KWB'	16.79' LT	752.76	539129.62	817514.65
KWB11	10+33.49'KWB'	17.59' LT	752.77	539130.42	817514.74
KWB12	10+33.94'KWB'	22.26' LT	753.08	539135.09	817515.28
KWB13	10+34.90'KWB'	32.22' LT	752.94	539145.02	817516.43
KWB14	10+42.16'KWB'	31.90' LT	752.34	539144.56	817523.68
KWB15	10+41.87'KWB'	21.91' LT	752.47	539134.58	817523.20
KWB16	10+41.72'KWB'	16.50' LT	752.88	539129.17	817522.94
KWB17	10+41.72'KWB'	14.00' LT	752.46	539126.67	817522.90
KWB18	10+49.64'KWB'	21.68' LT	751.86	539134.21	817530.96
KWB19	10+57.40'KWB'	19.46' LT	752.00	539131.83	817538.68
KWB20	10+58.64'KWB'	17.29' LT	751.58	539129.64	817539.88
KWB21	10+56.88'KWB'	21.48' LT	751.29	539133.86	817538.21
KWB22	10+60.24'KWB'	21.38' LT	751.24	539133.70	817541.56
KWB23	10+61.79'KWB'	19.42' LT	751.34	539131.71	817543.07
KWB24	10+51.43'KWB'	31.64' LT	751.58	539144.12	817532.95
KWB25	10+61.84'KWB'	31.34' LT	751.04	539143.62	817543.35
KWB26	10+67.34'KWB'	31.18' LT	750.96	539143.36	817548.85
KWB27	10+69.69'KWB'	30.31' LT	750.99	539142.45	817551.18
KWB28	10+58.69'KWB'	40.21' LT	751.43	539152.55	817540.37
KWB29	10+63.61'KWB'	40.06' LT	751.33	539152.30	817545.28
KWB50	10+21.75'KWB'	0.00'	753.46	539113.06	817502.67
KWB51	10+21.54'KWB'	2.50' RT	753.47	539110.57	817502.38
KWB52	10+21.22'KWB'	6.65' RT	753.35	539106.44	817501.90
KWB53	10+22.24'KWB'	11.78' RT	753.20	539101.27	817502.88
KWB54	10+22.70'KWB'	14.21' RT	753.14	539098.83	817503.34
KWB55	10+32.48'KWB'	12.16' RT	752.82	539100.70	817513.16
KWB56	10+31.97'KWB'	9.71' RT	752.87	539103.15	817512.70
KWB57	10+31.21'KWB'	6.08' RT	753.00	539106.80	817512.01
KWB58	10+31.56'KWB'	2.50' RT	753.13	539110.37	817512.42
KWB59	10+31.80'KWB'	0.00'	753.10	539112.87	817512.71



PRELIMINARY

DRAFT April 20, 2020

N

LEGEND

- CRxx — CURB RAMP TYPE
- CS — CONCRETE SIDEWALK 4-INCH
- XXX / XXX.XX — POINT NUMBER & ELEVATION

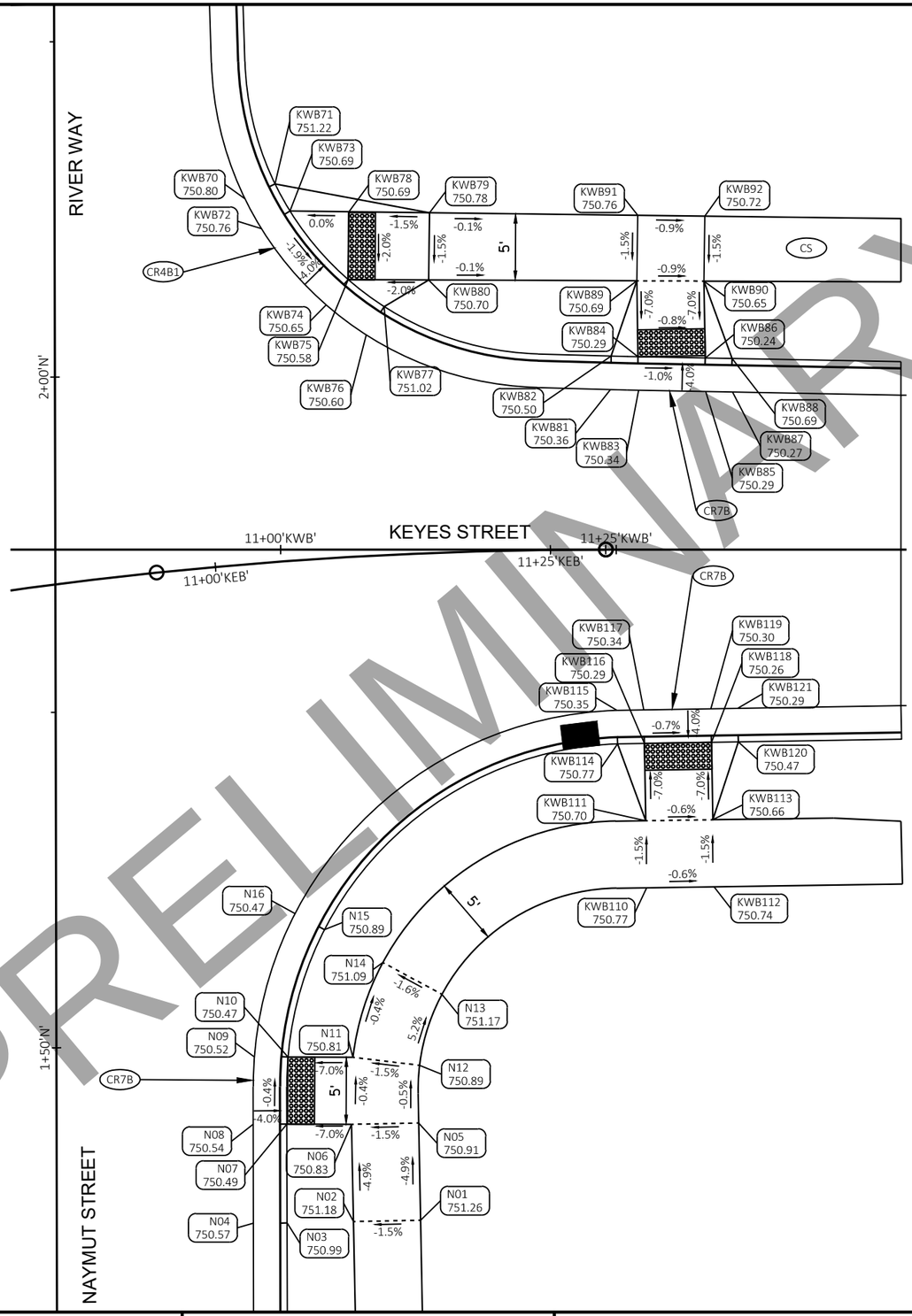
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

KEYES STREET SW CORNER					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
KEB01	10+19.31'KEB'	34.19' RT	752.85	539063.93	817502.77
KEB02	10+18.72'KEB'	24.20' RT	752.74	539073.63	817500.33
KEB03	10+26.55'KEB'	33.90' RT	752.34	539065.56	817509.83
KEB04	10+26.36'KEB'	23.91' RT	752.43	539075.35	817507.79
KEB05	10+24.36'KEB'	18.45' RT	752.80	539080.33	817504.80
KEB06	10+24.29'KEB'	15.95' RT	752.58	539082.77	817504.27
KEB07	10+26.30'KEB'	15.91' RT	752.51	539083.19	817506.23
KEB08	10+26.36'KEB'	18.60' RT	752.43	539080.56	817506.80
KEB09	10+36.66'KEB'	16.11' RT	752.16	539084.92	817516.46
KEB10	10+36.36'KEB'	18.60' RT	752.09	539082.42	817516.62
KEB11	10+36.36'KEB'	23.98' RT	752.31	539077.14	817517.63
KEB12	10+36.36'KEB'	33.98' RT	752.19	539067.31	817519.49
KEB13	10+31.36'KEB'	33.88' RT	752.27	539066.48	817514.55
KEB14	10+31.36'KEB'	43.98' RT	752.16	539056.55	817516.44
KEB15	10+36.36'KEB'	43.98' RT	752.09	539057.48	817521.35
KEB16	10+38.36'KEB'	18.91' RT	752.49	539082.49	817518.65
KEB17	10+38.84'KEB'	16.46' RT	752.07	539084.99	817518.66
KEB18	10+59.51'KEB'	38.31' RT	751.58	539067.37	817543.04
KEB19	10+62.23'KEB'	38.73' RT	751.29	539067.45	817545.77
KEB20	10+58.80'KEB'	36.16' RT	751.31	539069.34	817541.94
KEB21	10+61.61'KEB'	36.61' RT	751.35	539069.43	817544.78
KEB22	10+50.98'KEB'	25.02' RT	751.55	539078.83	817532.18
KEB23	10+52.61'KEB'	23.12' RT	751.64	539081.00	817533.43
KEB24	10+47.84'KEB'	22.69' RT	752.13	539080.53	817528.66
KEB25	10+49.18'KEB'	20.58' RT	751.71	539082.86	817529.58

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CURB RAMP DETAILS - SOUTH ROUNDABOUT - EAST LEG	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\021301_CR.DWG
LAYOUT NAME - 03
PLOT DATE : 4/20/2020 12:14 AM PLOT BY : AECOM PLOT NAME : PLOT SCALE : 1 IN:10 FT

KEYES STREET NE CORNER					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
KWB70	10+97.33'KWB'	26.16' LT	750.80	539137.76	817578.74
KWB71	10+99.58'KWB'	27.25' LT	751.22	539138.81	817581.01
KWB72	10+98.56'KWB'	23.92' LT	750.76	539135.50	817579.92
KWB73	11+00.69'KWB'	25.24' LT	750.69	539136.78	817582.08
KWB74	11+03.39'KWB'	18.23' LT	750.65	539129.72	817584.64
KWB75	11+05.03'KWB'	20.12' LT	750.58	539131.58	817586.32
KWB76	11+06.37'KWB'	16.00' LT	750.60	539127.43	817587.58
KWB77	11+07.72'KWB'	18.11' LT	751.02	539129.51	817588.96
KWB78	11+05.10'KWB'	25.18' LT	750.69	539136.64	817586.48
KWB79	11+11.10'KWB'	25.11' LT	750.78	539136.45	817592.48
KWB80	11+11.03'KWB'	20.09' LT	750.70	539131.44	817592.32
KWB81	11+24.57'KWB'	11.92' LT	750.36	539123.01	817605.70
KWB82	11+24.63'KWB'	14.42' LT	750.50	539125.51	817605.80
KWB83	11+26.67'KWB'	11.87' LT	750.34	539122.92	817607.80
KWB84	11+26.63'KWB'	14.37' LT	750.29	539125.42	817607.80
KWB85	11+31.68'KWB'	11.78' LT	750.29	539122.73	817612.80
KWB86	11+31.63'KWB'	14.28' LT	750.24	539125.23	817612.80
KWB87	11+33.68'KWB'	11.74' LT	750.27	539122.65	817614.80
KWB88	11+33.64'KWB'	14.24' LT	750.69	539125.15	817614.80
KWB89	11+26.54'KWB'	20.03' LT	750.69	539131.08	817607.82
KWB90	11+31.54'KWB'	20.01' LT	750.65	539130.96	817612.82
KWB91	11+26.60'KWB'	24.91' LT	750.76	539135.96	817607.97
KWB92	11+31.60'KWB'	24.85' LT	750.72	539135.80	817612.97



LEGEND

- CRxx — CURB RAMP TYPE
- CS — CONCRETE SIDEWALK 4-INCH
- XXX / XXX.XX — POINT NUMBER & ELEVATION

N

KEYES STREET SE CORNER					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
KWB110	11+27.28'KWB'	25.22' RT	750.77	539085.82	817607.69
KWB111	11+27.20'KWB'	20.22' RT	750.70	539090.82	817607.71
KWB112	11+32.28'KWB'	25.14' RT	750.74	539085.80	817612.69
KWB113	11+32.20'KWB'	20.14' RT	750.66	539090.80	817612.71
KWB114	11+25.11'KWB'	14.49' RT	750.77	539096.59	817605.72
KWB115	11+25.06'KWB'	11.99' RT	750.35	539099.09	817605.73
KWB116	11+27.11'KWB'	14.46' RT	750.29	539096.58	817607.72
KWB117	11+27.06'KWB'	11.96' RT	750.34	539099.08	817607.73
KWB118	11+32.10'KWB'	14.38' RT	750.26	539096.57	817612.72
KWB119	11+32.06'KWB'	11.88' RT	750.30	539099.07	817612.73
KWB120	11+34.10'KWB'	14.34' RT	750.47	539096.56	817614.72
KWB121	11+34.06'KWB'	11.84' RT	750.29	539099.06	817614.73
N01	1+37.08'N'	27.10' RT	751.26	539061.37	817590.36
N02	1+36.99'N'	22.10' RT	751.18	539061.36	817585.36
N03	11+01.10'N'	49.17' RT	750.99	539061.36	817580.41
N04	10+98.17'N'	48.96' RT	750.57	539061.39	817577.91
N05	1+44.33'N'	26.97' RT	750.91	539068.62	817590.36
N06	1+44.24'N'	21.97' RT	750.83	539068.61	817585.36
N07	1+44.27'N'	17.15' RT	750.49	539068.72	817580.53
N08	1+44.27'N'	14.65' RT	750.54	539068.77	817578.04
N09	1+49.29'N'	14.74' RT	750.52	539073.78	817578.21
N10	1+49.27'N'	17.24' RT	750.47	539073.72	817580.71
N11	1+49.24'N'	22.08' RT	750.81	539073.61	817585.55
N12	1+48.63'N'	27.04' RT	750.89	539072.92	817590.50
N13	1+53.93'N'	28.73' RT	751.17	539078.18	817592.28
N14	1+56.30'N'	24.33' RT	751.09	539080.63	817587.92
N15	1+58.76'N'	19.98' RT	750.89	539083.16	817583.62
N16	1+59.97'N'	17.80' RT	750.47	539084.40	817581.45

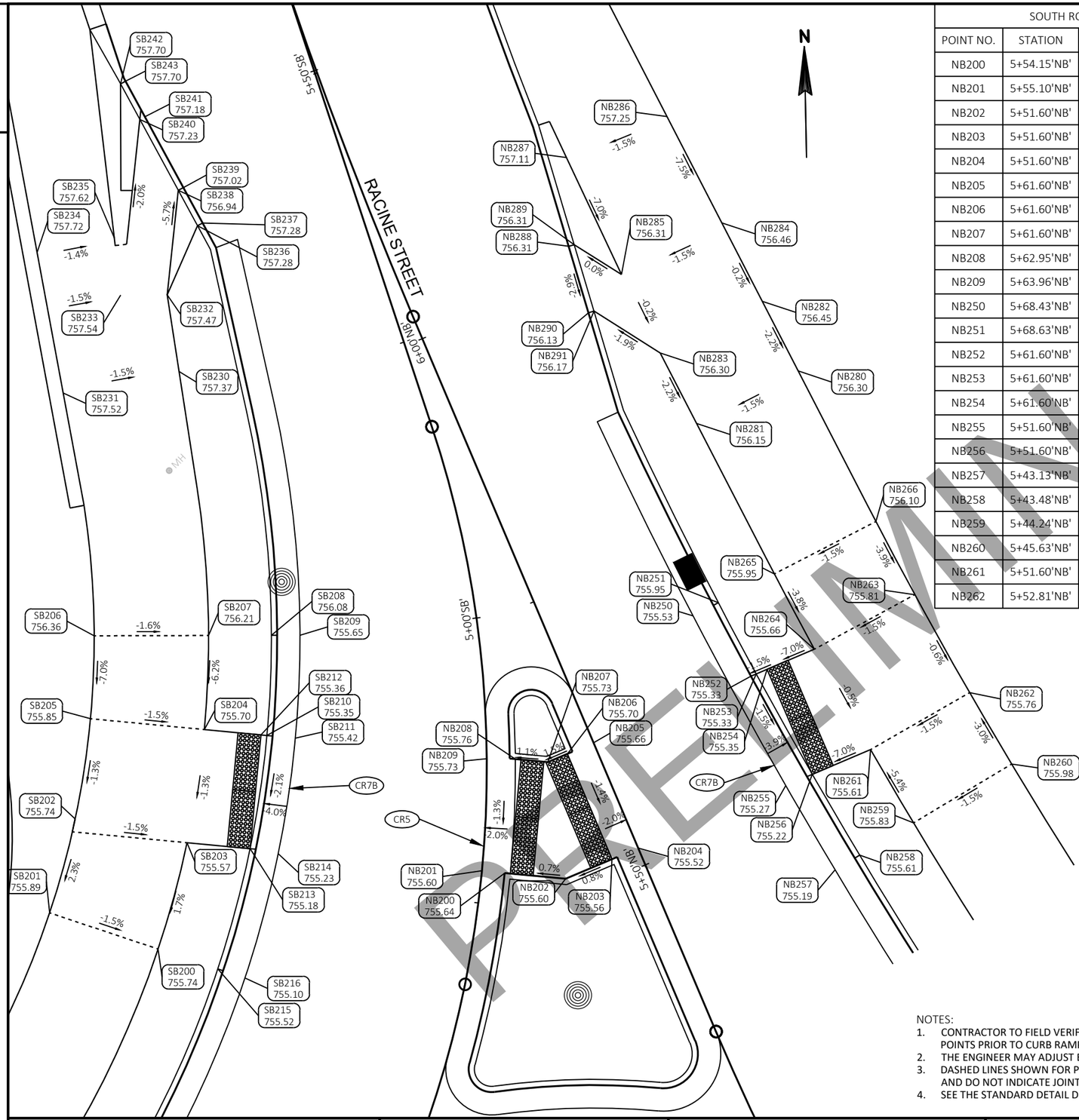
NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PRELIMINARY

DRAFT April 20, 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CURB RAMP DETAILS - KEYES STREET	SHEET PRE_39 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\021301_CR.DWG
LAYOUT NAME - 04
PLOT DATE : 4/20/2020 12:14 AM PLOT BY : AECOM PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



SOUTH ROUNDABOUT - NORTH CROSSWALK

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
NB200	5+54.15'NB'	11.59' LT	755.64	539195.26	817413.24
NB201	5+55.10'NB'	13.36' LT	755.60	539195.49	817411.25
NB202	5+51.60'NB'	6.89' LT	755.60	539194.65	817418.56
NB203	5+51.60'NB'	2.50' LT	755.56	539196.29	817422.63
NB204	5+51.60'NB'	0.00'	755.52	539197.22	817424.95
NB205	5+61.60'NB'	0.00'	755.66	539206.50	817421.23
NB206	5+61.60'NB'	2.50' LT	755.70	539205.57	817418.91
NB207	5+61.60'NB'	4.35' LT	755.73	539204.88	817417.18
NB208	5+62.95'NB'	6.86' LT	755.76	539205.20	817414.36
NB209	5+63.96'NB'	9.15' LT	755.73	539205.28	817411.86
NB250	5+68.43'NB'	12.33' RT	755.53	539217.43	817430.13
NB251	5+68.63'NB'	14.83' RT	755.95	539218.54	817432.37
NB252	5+61.60'NB'	14.94' RT	755.33	539212.06	817435.09
NB253	5+61.60'NB'	15.44' RT	755.33	539212.25	817435.56
NB254	5+61.60'NB'	16.47' RT	755.35	539212.63	817436.51
NB255	5+51.60'NB'	14.01' RT	755.27	539202.44	817437.95
NB256	5+51.60'NB'	16.53' RT	755.22	539203.37	817440.29
NB257	5+43.13'NB'	15.11' RT	755.19	539194.98	817442.13
NB258	5+43.48'NB'	17.58' RT	755.61	539196.22	817444.30
NB259	5+44.24'NB'	23.03' RT	755.83	539198.96	817449.07
NB260	5+45.63'NB'	32.93' RT	755.98	539203.94	817457.74
NB261	5+51.60'NB'	22.07' RT	755.61	539205.44	817445.43
NB262	5+52.81'NB'	31.99' RT	755.76	539210.26	817454.19

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
NB263	5+62.57'NB'	30.92' RT	755.81	539218.92	817449.56
NB264	5+61.60'NB'	20.97' RT	755.66	539214.31	817440.69
NB265	5+69.04'NB'	20.31' RT	755.95	539220.97	817437.31
NB266	5+69.79'NB'	30.28' RT	756.10	539225.38	817446.28
NB280	5+84.57'NB'	29.16' RT	756.30	539238.68	817439.74
NB281	5+83.82'NB'	19.19' RT	756.15	539234.26	817430.76
NB282	5+91.41'NB'	28.65' RT	756.45	539244.83	817436.71
NB283	5+90.73'NB'	18.67' RT	756.30	539240.49	817427.70
NB284	5+99.11'NB'	28.07' RT	756.46	539251.76	817433.30
NB285	5+98.37'NB'	18.23' RT	756.31	539247.41	817424.45
NB286	6+10.03'NB'	27.21' RT	757.25	539261.14	817428.70
NB287	6+10.00'NB'	17.70' RT	757.11	539257.73	817419.81
NB288	6+02.45'NB'	14.93' RT	756.31	539249.96	817419.88
NB289	6+02.39'NB'	15.43' RT	756.31	539250.09	817420.36
NB290	5+96.41'NB'	14.26' RT	756.13	539244.11	817421.50
NB291	5+96.36'NB'	14.76' RT	756.17	539244.26	817421.99
SB200	4+64.54'SB'	26.87' LT	755.74	539189.19	817382.81
SB201	4+65.95'SB'	36.83' LT	755.89	539192.53	817373.38
SB202	4+79.66'SB'	35.82' LT	755.74	539200.71	817375.78
SB203	4+77.83'SB'	25.90' LT	755.57	539198.44	817385.51
SB204	4+91.37'SB'	24.62' LT	755.70	539208.31	817387.21
SB205	4+93.60'SB'	34.51' LT	755.85	539209.45	817377.28
SB206	5+04.72'SB'	33.24' LT	756.36	539216.69	817377.75

POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SB207	5+02.27'SB'	23.39' LT	756.21	539216.53	817387.74
SB208	5+01.20'SB'	17.96' LT	756.08	539216.44	817393.24
SB209	5+00.76'SB'	15.48' LT	755.65	539216.40	817395.74
SB210	4+90.39'SB'	19.18' LT	755.35	539207.69	817392.68
SB211	4+90.00'SB'	16.70' LT	755.42	539207.40	817395.16
SB212	4+90.48'SB'	19.70' LT	755.36	539207.75	817392.15
SB213	4+77.83'SB'	20.37' LT	755.18	539197.81	817391.01
SB214	4+77.57'SB'	17.87' LT	755.23	539197.32	817393.46
SB215	4+63.92'SB'	21.39' LT	755.52	539187.35	817387.99
SB216	4+63.67'SB'	18.90' LT	755.10	539186.52	817390.35
SB230	5+28.74'SB'	19.47' LT	757.37	539239.68	817385.61
SB231	5+30.13'SB'	29.69' LT	757.52	539237.99	817375.43
SB232	5+35.42'SB'	18.35' LT	757.47	539246.39	817384.70
SB233	5+36.68'SB'	22.23' LT	757.54	539246.45	817380.63
SB234	5+42.52'SB'	28.00' LT	757.72	539250.32	817373.39
SB235	5+41.59'SB'	21.19' LT	757.62	539251.45	817380.17
SB236	5+40.33'SB'	13.94' LT	757.28	539252.38	817387.47
SB237	5+40.42'SB'	13.45' LT	757.28	539252.61	817387.91
SB238	5+43.80'SB'	14.57' LT	756.94	539255.52	817385.84
SB239	5+43.89'SB'	14.07' LT	757.02	539255.75	817386.29
SB240	5+50.75'SB'	15.82' LT	757.23	539261.78	817387.50
SB241	5+50.84'SB'	15.32' LT	757.18	539262.01	817385.04
SB242	5+54.22'SB'	16.44' LT	757.70	539264.92	817380.97

LEGEND

- CRxx — CURB RAMP TYPE
- CS — CONCRETE SIDEWALK 4-INCH
- XXX / XXX.XX — POINT NUMBER & ELEVATION

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

DRAFT April 20, 2020
PRELIMINARY

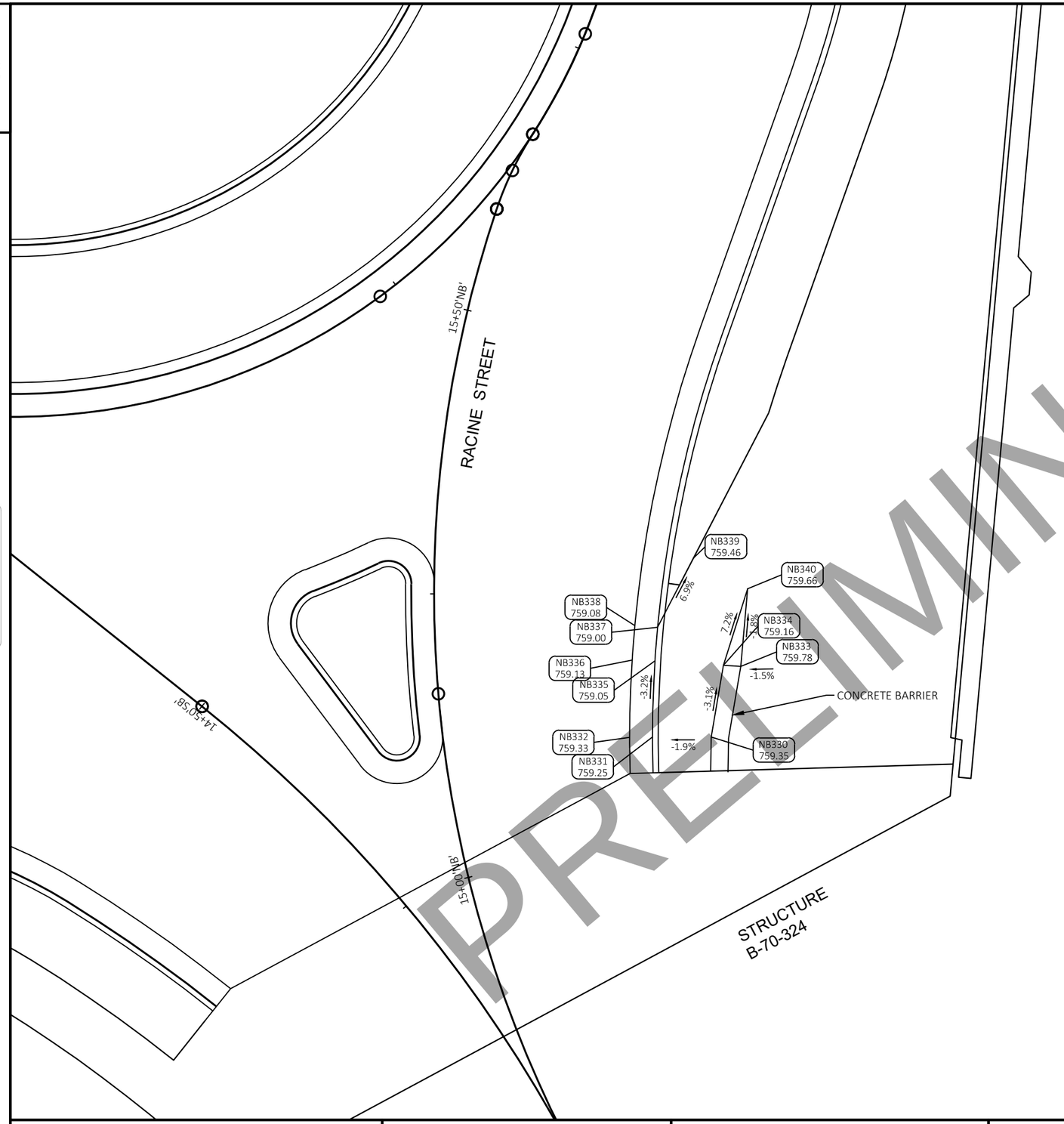
PROJECT NO: 4992-03-71 | HWY: LOCAL | COUNTY: WINNEBAGO | CURB RAMP DETAILS - SOUTH ROUNDABOUT - NORTH LEG | SHEET E

2

NORTH BIKE RAMP					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
NB330	15+08.83'Null Structure'	23.24' RT	759.35	540110.06	817165.88
NB331	15+09.79'Null Structure'	18.16' RT	759.25	540111.06	817160.84
NB332	15+10.10'Null Structure'	16.18' RT	759.33	540111.41	817158.87
NB333	15+16.46'Null Structure'	26.53' RT	759.78	540115.62	817169.60
NB334	15+16.75'Null Structure'	25.04' RT	759.16	540116.01	817168.14
NB335	15+17.80'Null Structure'	19.09' RT	759.05	540117.54	817162.33
NB336	15+18.06'Null Structure'	17.11' RT	759.13	540118.00	817160.39
NB337	15+21.38'Null Structure'	19.48' RT	759.00	540120.37	817163.13
NB338	15+21.65'Null Structure'	17.49' RT	759.08	540120.91	817161.20
NB339	15+28.90'Null Structure'	22.58' RT	759.46	540125.68	817167.32
NB340	15+25.54'Null Structure'	27.41' RT	759.66	540122.15	817171.50

DRAFT April 20, 2020

PRELIMINARY



LEGEND

- CRxx — CURB RAMP TYPE
- CS — CONCRETE SIDEWALK 4-INCH
- XXX / XXX.XX — POINT NUMBER & ELEVATION

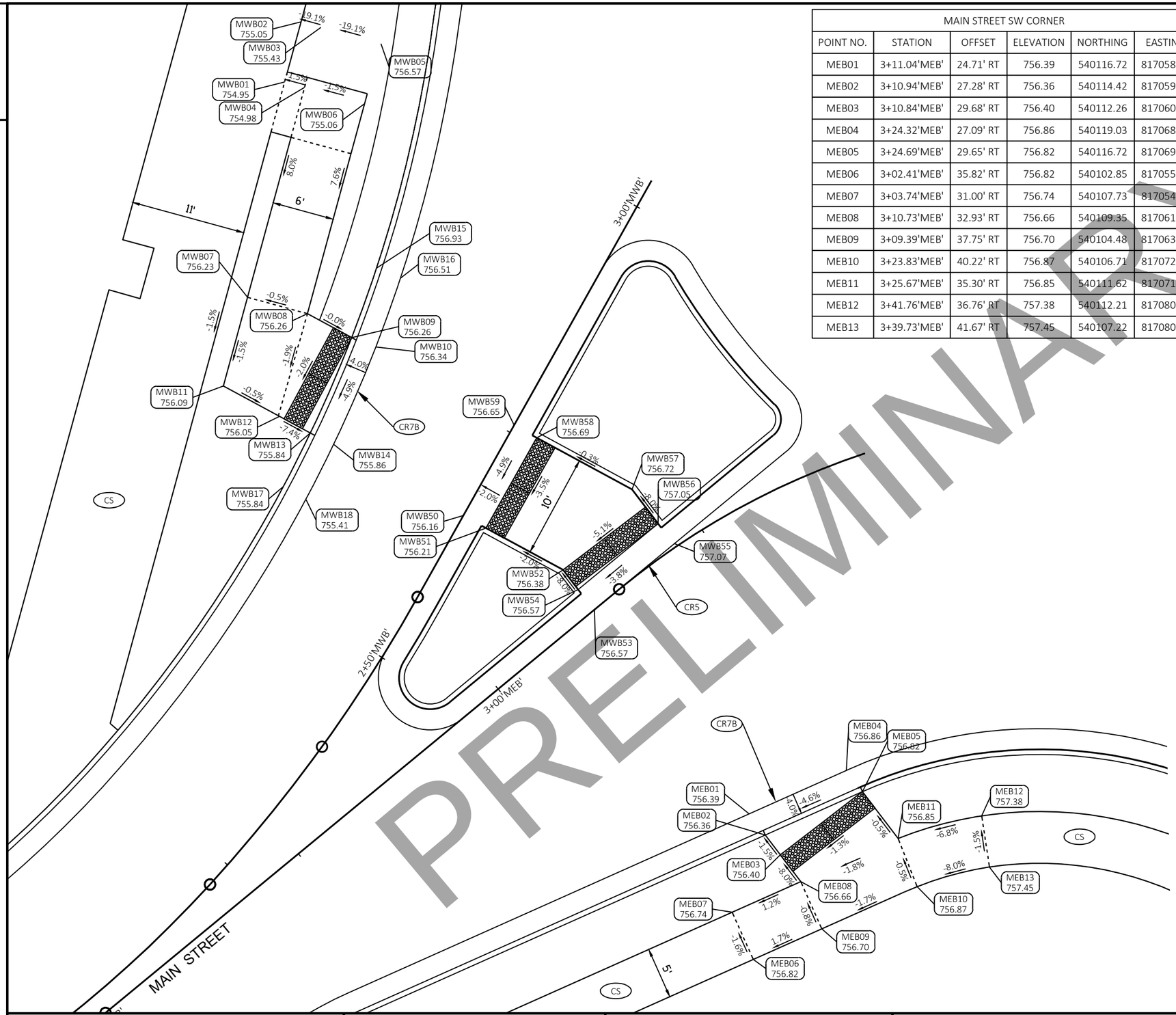
N

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CURB RAMP DETAILS - NORTH ROUNDABOUT - WEST LEG	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\021301_CR.DWG
LAYOUT NAME - 06

PLOT DATE : 4/20/2020 12:14 AM PLOT BY : AECOM PLOT NAME : PLOT SCALE : 1 IN:10 FT



MAIN STREET SW CORNER					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
MEB01	3+11.04'MEB'	24.71' RT	756.39	540116.72	817058.26
MEB02	3+10.94'MEB'	27.28' RT	756.36	540114.42	817059.39
MEB03	3+10.84'MEB'	29.68' RT	756.40	540112.26	817060.45
MEB04	3+24.32'MEB'	27.09' RT	756.86	540119.03	817068.27
MEB05	3+24.69'MEB'	29.65' RT	756.82	540116.72	817069.40
MEB06	3+02.41'MEB'	35.82' RT	756.82	540102.85	817055.94
MEB07	3+03.74'MEB'	31.00' RT	756.74	540107.73	817054.82
MEB08	3+10.73'MEB'	32.93' RT	756.66	540109.35	817061.89
MEB09	3+09.39'MEB'	37.75' RT	756.70	540104.48	817063.01
MEB10	3+23.83'MEB'	40.22' RT	756.87	540106.71	817072.83
MEB11	3+25.67'MEB'	35.30' RT	756.85	540111.62	817071.92
MEB12	3+41.76'MEB'	36.76' RT	757.38	540112.21	817080.26
MEB13	3+39.73'MEB'	41.67' RT	757.45	540107.22	817080.05

MAIN STREET NW CORNER					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
MWB01	2+93.83'MWB'	35.55' LT	754.95	540194.69	817027.84
MWB02	2+99.65'MWB'	37.01' LT	755.05	540200.07	817030.50
MWB03	3+00.14'MWB'	35.07' LT	755.43	540199.18	817032.29
MWB04	2+94.32'MWB'	33.61' LT	754.98	540193.80	817029.63
MWB05	3+01.60'MWB'	29.25' LT	756.57	540196.52	817037.67
MWB06	2+95.78'MWB'	27.79' LT	755.06	540191.14	817035.01
MWB07	2+73.95'MWB'	28.50' LT	756.23	540174.98	817020.32
MWB08	2+75.42'MWB'	22.68' LT	756.26	540172.32	817025.70
MWB09	2+75.49'MWB'	17.82' LT	756.26	540169.23	817029.44
MWB10	2+75.84'MWB'	15.35' LT	756.34	540167.89	817031.56
MWB11	2+65.36'MWB'	26.34' LT	756.09	540167.04	817016.39
MWB12	2+65.45'MWB'	20.17' LT	756.05	540163.11	817021.14
MWB13	2+65.51'MWB'	16.79' LT	755.84	540160.96	817023.76
MWB14	2+65.65'MWB'	14.29' LT	755.86	540159.44	817025.75
MWB15	2+82.52'MWB'	19.01' LT	756.93	540175.35	817033.09
MWB16	2+82.80'MWB'	16.52' LT	756.51	540173.95	817035.18
MWB17	2+59.71'MWB'	16.53' LT	755.84	540156.38	817020.19
MWB18	2+59.73'MWB'	14.03' LT	755.41	540154.77	817022.11
MWB50	2+65.81'MWB'	0.00'	756.16	540150.30	817036.73
MWB51	2+65.81'MWB'	2.50' RT	756.21	540148.69	817038.64
MWB52	2+65.95'MWB'	10.97' RT	756.38	540143.29	817045.17
MWB53	2+64.08'MWB'	15.48' RT	756.57	540138.95	817047.40
MWB54	2+65.00'MWB'	13.16' RT	756.57	540141.16	817046.23
MWB55	2+73.41'MWB'	19.10' RT	757.07	540143.71	817056.20
MWB56	2+74.33'MWB'	16.77' RT	757.05	540145.91	817055.03
MWB57	2+75.98'MWB'	12.96' RT	756.72	540149.64	817053.19
MWB58	2+75.81'MWB'	2.50' RT	756.69	540156.30	817045.12
MWB59	2+75.81'MWB'	0.00'	756.65	540157.91	817043.21

LEGEND

- CRxx — CURB RAMP TYPE
- CS — CONCRETE SIDEWALK 4-INCH
- XXX / XXX.XX — POINT NUMBER & ELEVATION

N

NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

DRAFT April 20, 2020

PRELIMINARY

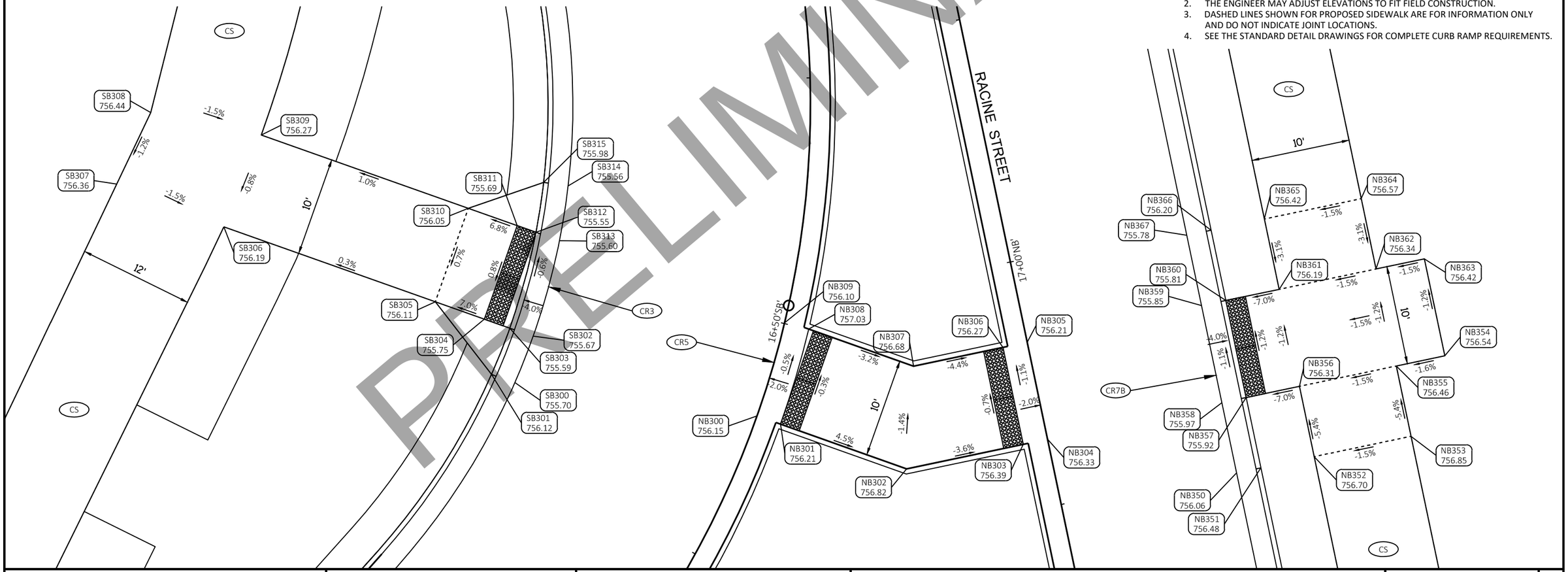
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CURB RAMP DETAILS - NORTH ROUNDABOUT - WEST LEG	SHEET PRE_42 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\021301_CR.DWG
LAYOUT NAME - 07
PLOT DATE : 4/20/2020 12:14 AM PLOT BY : AECOM PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

NORTH ROUNDABOUT NORTH CROSSWALK NW					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
SB300	16+33.56'SB'	24.00' LT	755.70	540282.03	817109.55
SB301	16+33.31'SB'	26.50' LT	756.12	540282.91	817107.20
SB302	16+40.33'SB'	24.00' LT	755.67	540286.68	817111.49
SB303	16+40.28'SB'	26.50' LT	755.59	540287.53	817109.13
SB304	16+40.28'SB'	29.23' LT	755.75	540288.49	817106.58
SB305	16+40.28'SB'	34.48' LT	756.11	540290.33	817101.66
SB306	16+40.26'SB'	57.14' LT	756.19	540298.30	817080.45
SB307	16+41.99'SB'	68.78' LT	756.36	540302.84	817069.71
SB308	16+69.61'SB'	66.63' LT	756.44	540309.98	817073.29
SB309	16+64.87'SB'	55.36' LT	756.27	540307.50	817084.41
SB310	16+55.92'SB'	33.66' LT	756.05	540299.69	817105.17
SB311	16+54.68'SB'	28.47' LT	755.69	540297.85	817110.09
SB312	16+54.25'SB'	26.49' LT	755.55	540297.15	817111.96
SB313	16+53.75'SB'	24.00' LT	755.60	540296.26	817114.32
SB314	16+61.27'SB'	24.00' LT	755.56	540301.77	817115.30
SB315	16+61.34'SB'	26.50' LT	755.98	540302.16	817112.83

NORTH ROUANDABOUT NORTH LEG NE					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
NB300	16+90.06'NB'	28.22' LT	756.15	540278.21	817133.94
NB301	16+88.76'NB'	26.08' LT	756.21	540277.33	817136.29
NB302	16+81.73'NB'	14.53' LT	756.82	540272.57	817148.94
NB303	16+81.73'NB'	2.51' LT	756.39	540274.81	817160.76
NB304	16+81.73'NB'	0.00'	756.33	540275.28	817163.22
NB305	16+91.73'NB'	0.00'	756.21	540285.11	817161.36
NB306	16+91.73'NB'	2.50' LT	756.27	540284.64	817158.90
NB307	16+91.73'NB'	11.73' LT	756.68	540282.92	817149.84
NB308	16+97.57'NB'	21.32' LT	757.03	540286.87	817139.32
NB309	16+98.69'NB'	23.56' LT	756.10	540287.55	817136.91
NB350	16+74.48'NB'	18.00' RT	756.06	540271.52	817182.26
NB351	16+74.48'NB'	20.50' RT	756.48	540271.98	817184.72
NB352	16+74.48'NB'	26.00' RT	756.70	540273.01	817190.12
NB353	16+74.48'NB'	36.00' RT	756.85	540274.87	817199.95

NORTH ROUANDABOUT NORTH LEG NE					
POINT NO.	STATION	OFFSET	ELEVATION	NORTHING	EASTING
NB354	16+81.73'NB'	41.00' RT	756.54	540282.93	817203.51
NB355	16+81.73'NB'	36.00' RT	756.46	540282.00	817198.59
NB356	16+81.73'NB'	26.00' RT	756.31	540280.13	817188.77
NB357	16+81.73'NB'	20.50' RT	755.92	540279.11	817183.37
NB358	16+81.73'NB'	18.00' RT	755.97	540278.64	817180.91
NB359	16+91.73'NB'	18.00' RT	755.85	540288.46	817179.04
NB360	16+91.73'NB'	20.51' RT	755.81	540288.93	817181.51
NB361	16+91.73'NB'	26.00' RT	756.19	540289.96	817186.90
NB362	16+91.73'NB'	36.00' RT	756.34	540291.82	817196.73
NB363	16+91.73'NB'	41.00' RT	756.42	540292.75	817201.64
NB364	16+98.98'NB'	36.00' RT	756.57	540298.94	817195.38
NB365	16+98.98'NB'	26.00' RT	756.42	540297.08	817185.55
NB366	16+98.98'NB'	20.50' RT	756.20	540296.05	817180.15
NB367	16+98.98'NB'	18.00' RT	755.78	540295.59	817177.69



NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.

DRAFT April 20, 2020

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CURB RAMP DETAILS - NORTH ROUNDABOUT - NORTH LEG	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\021301_CR.DWG
LAYOUT NAME - 08
PLOT DATE : 4/20/2020 12:14 AM PLOT BY : AECOM PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

AHNAIP STREET

DAM ACCESS

R/L 'RSB'

R/L 'RNB'

R/L 'SR'

NOTE:
SEE STANDARD DETAILS FOR ADDITIONAL JOINTING LAYOUT INFORMATION:
"CONCRETE PAVEMENT JOINTING"
"CONCRETE PAVEMENT STEEL REINFORCEMENT"
"CONCRETE PAVEMENT JOINT TYPES"
"CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES"
"CONCRETE PAVEMENT JOINTING AND STEEL REINFORCEMENT IN ROUNDABOUTS"

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PAVING GRADES	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021301_JD.DWG
LAYOUT NAME - 01

PLOT DATE : 4/19/2020 12:22 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

RACINE STREET

RIVERWAY

NAYMUT STREET

KEYES STREET

R/L 'SR'

R/L 'RNB'

R/L 'KWB'

R/L 'KEB'

R/L 'N'

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PAVING GRADES	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021301_JD.DWG
LAYOUT NAME - 02

PLOT DATE : 4/19/2020 12:22 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

N

B-70-324

R-70-161

AHNAIP STREET

DAM ACCESS

RACINE STREET

KEYES STREET

R/L 'RSB'

R/L 'SR'

R/L 'RNB'

R/L 'KEB'

R/L 'KWB'

2.07%

1.96%

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PAVING GRADES	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021301_JD.DWG
LAYOUT NAME - 03
PLOT DATE : 4/19/2020 12:22 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:20 FT

DRAFT April 20, 2020

N

MATCH EXISTING CURB AND GUTTER

MAIN STREET

RACINE STREET

R-70-159

B-70-324

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PAVING GRADES	SHEET E

PRE_47

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021301_JD.DWG
LAYOUT NAME - 04

PLOT DATE : 4/19/2020 12:22 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

PRELIMINARY

RACINE STREET

BROAD STREET

OVERHEAD SIGN SUPPORT S-70-383

R/L 'NR'

R/L 'RNB'

R/L 'RSB'

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PAVING GRADES	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021301_JD.DWG
LAYOUT NAME - 05

PLOT DATE : 4/19/2020 12:22 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:20 FT

PRE_48

WISDOT/CADDS SHEET 42

2

2

N

BROAD STREET

RACINE STREET

R/L 'RSB'

R/L 'RNB'

R/L 'B'

19'RSB'

20'RSB'

21'RNB'

18'RNB'

19'RNB'

20'RNB'

18'B'

19'B'

20'B'

21'B'

FLAG

MH

PRELIMINARY

DRAFT April 20, 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PAVING GRADES	SHEET	E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021301_JD.DWG
LAYOUT NAME - 06

PLOT DATE : 4/19/2020 12:23 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:20 FT

PRE_49

WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

2

2

AHNAIP STREET

RACINE STREET

RIVERWAY

NAYMUT STREET

KEYES STREET

DAM ACCESS

MATCH LINE STA. 8+00 'RNB'

R-70-161

B-70-324

SI (TYP.)

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PROPOSED CONTOURS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021600_CM.DWG
LAYOUT NAME - 021201

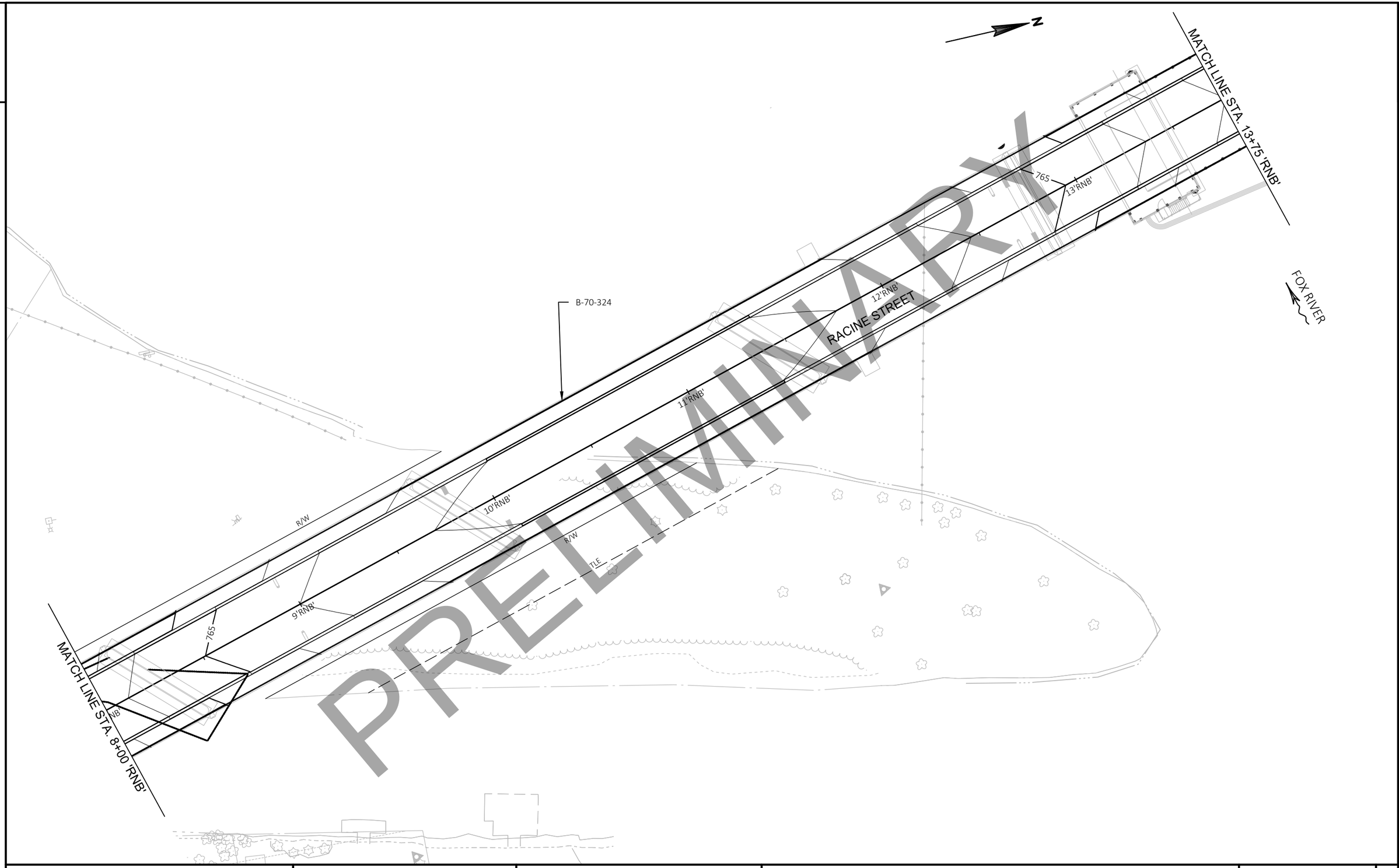
PLOT DATE : 4/19/2020 12:40 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN: 40 FT

PRE_50

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020



PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PROPOSED CONTOURS	SHEET	E

DRAFT April 20, 2020

PRELIMINARY

MATCH LINE STA. 17+50 'RNB'

N

R/W

MAIN STREET

1'MEB'

2'MEB'

SI (TYP.)

2'MWB'

3'MWB'

3'MEB'

16'RSB'

17'RNB'

17'RSB'

15'RNB'

11'NR'

12'NR'

16'RNB'

14'RSB'

18'NR'

18'NB'

R-70-160

R-70-159

B-70-324

RACINE STREET

FOX RIVER

MATCH LINE STA. 13+75 'RNB'

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PROPOSED CONTOURS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021600_CM.DWG
LAYOUT NAME - 021203

PLOT DATE : 4/19/2020 12:40 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:40 FT

PRE_52

WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

PRELIMINARY

BROAD STREET

1ST STREET

RACINE STREET

MATCH LINE STA. 17+50'RNB'

18'RSB'

19'RSB'

20'RSB'

18'RNB'

19'RNB'

20'RNB'

21'RNB'

22'RNB'

23'RNB'

756

SI (TYP.)

R/W

TLE

MH

WV

POST

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PROPOSED CONTOURS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021600_CM.DWG
LAYOUT NAME - 021204

PLOT DATE : 4/19/2020 12:40 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : 1 IN:40 FT

PRE_53

WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

PRELIMINARY

APPROXIMATE DREDGING AREA BOUNDARY

PROPOSED RETAINING WALL R-70-159

MATCH INTO EXISTING GRADE AT 50H:1V

DREDGING PROFILE SECTION BASE LINES

740 739 738 737 736.54 737.33

739.40 738.58 736.54

R/L 'DLT2' 10+00'DLT2' 11+00'DLT2' 12+00'DLT2' 13+00'DLT2' 14+00'DLT2'

739.51 738.58 738.20 736.30

R/L 'DLT' 10+00'DLT' 11+00'DLT' 12+00'DLT' 13+00'DLT' 14+00'DLT'

B-70-324

739.79 739.81 738.20

RACINE STREET

R/L 'RNB' 10'RNB' 11'RNB' 12'RNB' 13'RNB' 14'RSB' 15'RNB'

743.52 742 741 740 739 738.20 738.20 736.30 736.30

R/L 'DRT' 10+00'DRT' 11+00'DRT' 12+00'DRT' 13+00'DRT' 14+00'DRT'

738.60 736.65 736.65

R/L 'DRT2' 10+00'DRT2' 11+00'DRT2' 12+00'DRT2' 13+00'DRT2' 14+00'DRT2'

741.96 739.20 739.20 737.78

EXISTING WALL

PROPOSED RETAINING WALL R-70-160

MATCH INTO EXISTING GRADE AT 20H:1V

FOX RIVER

N

0 40' 80'

LEGEND

XXX.XX PROPOSED SPOT ELEVATION

740 EXISTING CONTOUR

740 PROPOSED CONTOUR

NOTE: ALL ELEVATIONS ARE PROVIDED IN NAVD88

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	DREDGING PLAN VIEW	SHEET E

PRE_54

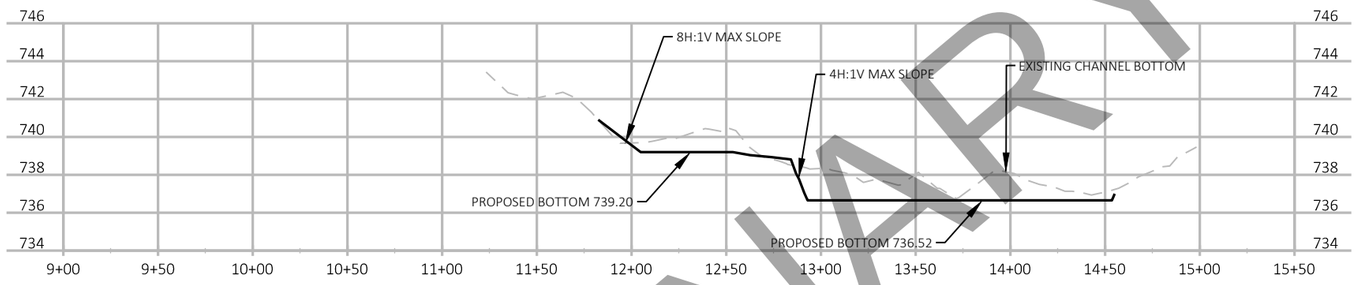
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MICHAEL.SCHNEIDER2@AECOM.COM\D0117278\021601_CM.DWG
LAYOUT NAME - 021601-2

PLOT DATE : 1/8/2020 3:38 PM PLOT BY : SCHNEIDER, MICHAEL PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

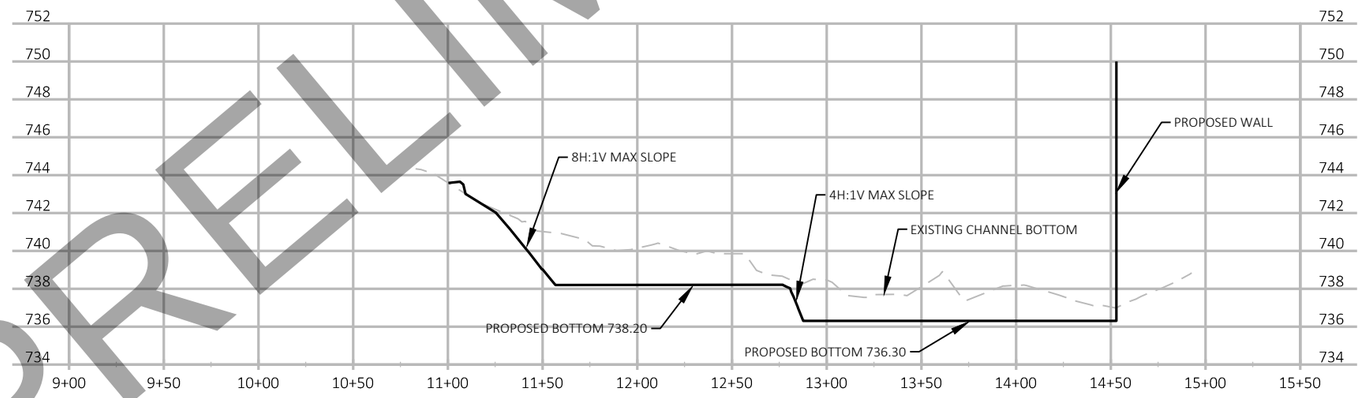
2

DRAFT April 20, 2020



ALIGNMENT 1-1 "DRT2" PROFILE

APPROXIMATE WATER SURFACE ELEVATION = 747.0 FT.
(FROM AUGUST 2015 BATHYMETRIC SURVEY)



ALIGNMENT 2-2 "DRT" PROFILE

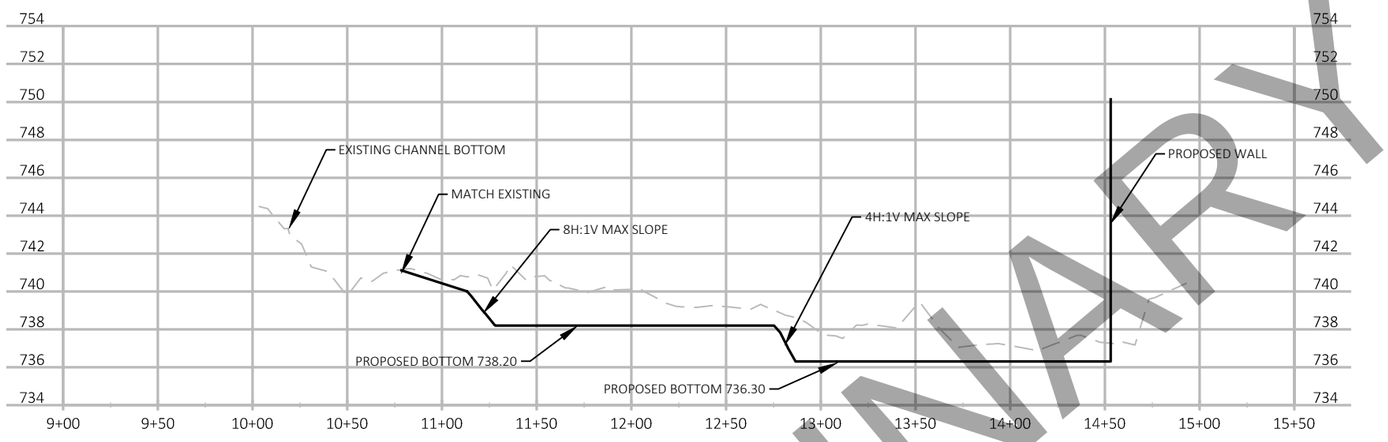
PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	DREDGING PLAN SECTIONS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MICHAEL.SCHNEIDER2@AECOM.COM\D0117278\021601_CM.DWG
LAYOUT NAME - 021601-3

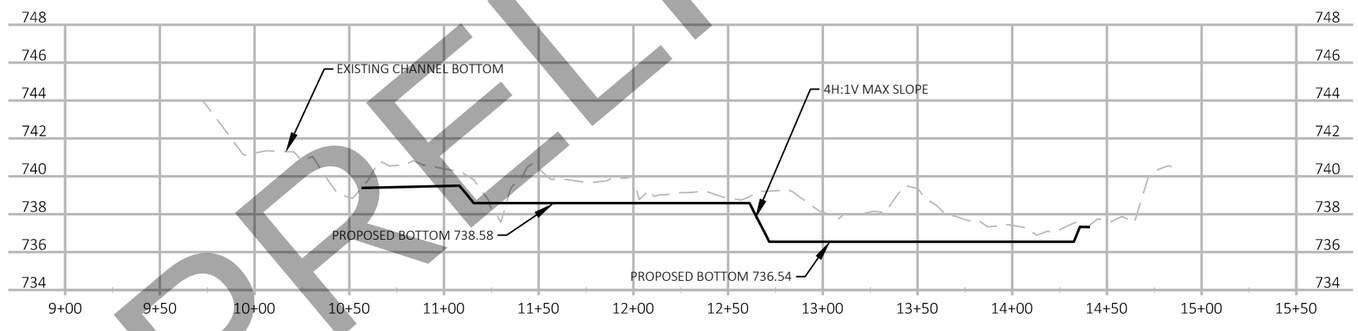
PLOT DATE : 1/8/2020 2:02 PM PLOT BY : SCHNEIDER, MICHAEL PLOT NAME : PLOT SCALE : ##########

2



ALIGNMENT 3-3 "DLT" PROFILE

APPROXIMATE WATER SURFACE ELEVATION = 747.0 FT.
(FROM AUGUST 2015 BATHYMETRIC SURVEY)



ALIGNMENT 4-4 "DLT2" PROFILE

DRAFT April 20, 2020

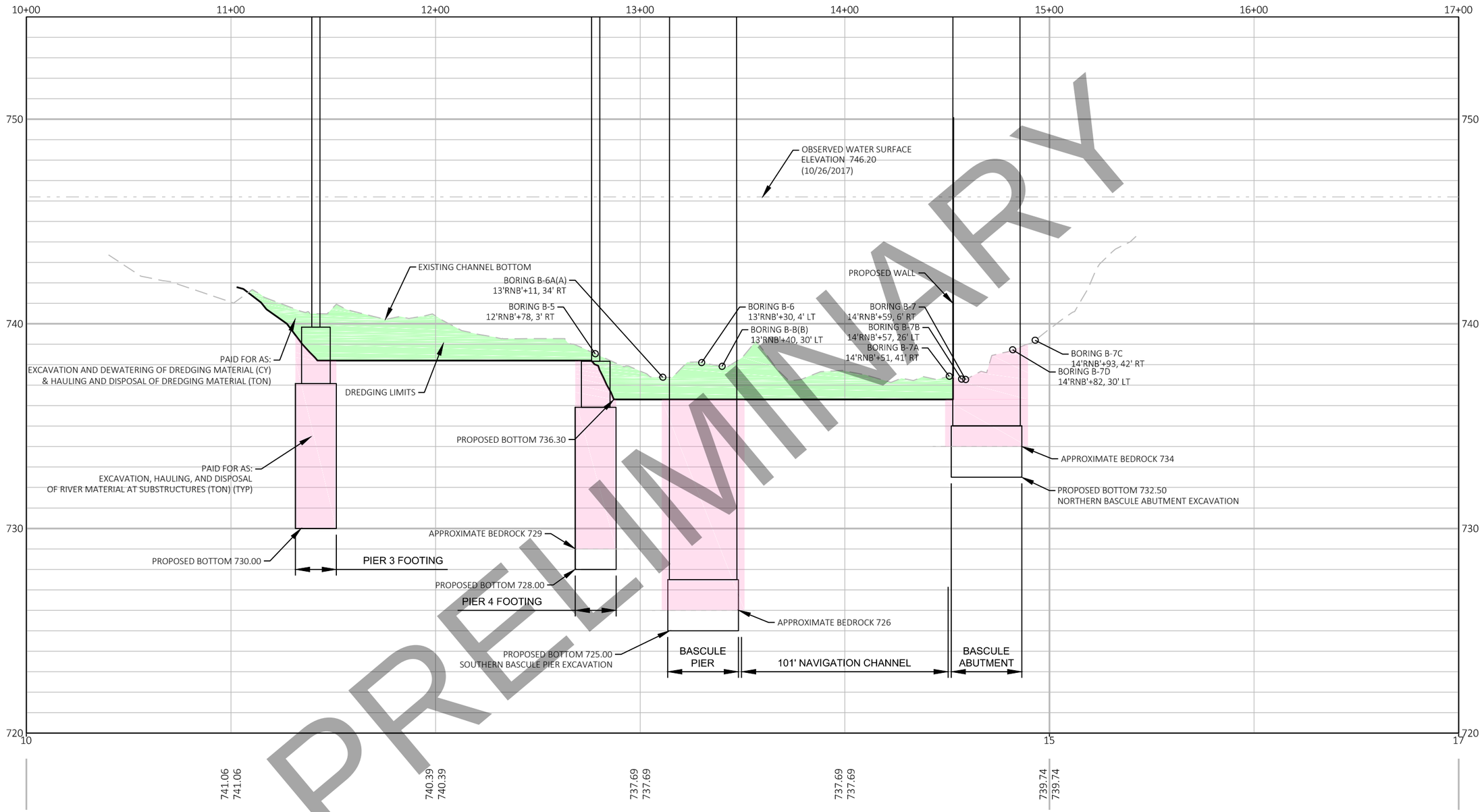
PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	DREDGING PLAN SECTIONS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MICHAEL.SCHNEIDER2@AECOM.COM\D0117278\021601_CM.DWG
LAYOUT NAME - 021601-4
PLOT DATE : 1/8/2020 2:02 PM PLOT BY : SCHNEIDER, MICHAEL PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

PRELIMINARY



ALIGNMENT "RNB" DREDGING PROFILE

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	DREDGING PLAN SECTIONS	SHEET E

PRE_57

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\021601_CM.DWG
LAYOUT NAME - 021601-5

PLOT DATE : 2/3/2020 11:11 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

AHNAIP STREET

RACINE STREET

RIVERWAY

NAYMUT STREET

KEYES STREET

MATCH LINE STA. 8+00 'RNB'

TEMPORARY SMALL ANIMAL TURN AROUND, (TYP. ALL)

STRUCTURE B-70-001

STRUCTURE B-70-324

1'RSB'
1'RNB'
2'RSB'
2'RNB'
3'RSB'
3'RNB'
4'RSB'
4'RNB'
5'RSB'
5'RNB'
6'RNB'
7'RNB'
8'RNB'
1'SR'
2'N'
1'N'
11'KWB'
11'KEB'
R/L 'RSB'
R/L 'RNB'
R/L 'SR'
R/L 'KWB'
R/L 'KEB'
R/L 'N'

R/W
P/L
TLE
PLE
MH
CU
WV

3A/C
3A/D
2,3C
2,3
2,3B
3C

LEGEND

- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SHEET PILING
- TURBIDITY BARRIER SPECIAL
- 3C — INLET PROTECTION PER STAGE AND TYPE
- SURFACE WATER FLOW

NOTE:
STAGE 3 WILL REQUIRE DIFFERENT INLET PROTECTION PRIOR TO FINAL CASTINGS BEING PLACED. TYPE A USED PRIOR TO CASTING, TYPE C USED AFTER CASTING INSTALLED. SEE CALLOUTS FOR TYPE AND STAGE.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - TEMPORARY	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\022001_EC.DWG
LAYOUT NAME - 021201
PLOT DATE : 4/20/2020 1:20 PM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

FOX RIVER

N

STRUCTURE B-70-001 (TO BE REMOVED)

STRUCTURE B-70-324

MATCH LINE STA. 8+00 'RNB'

MATCH LINE STA. 14+00 'RNB'

8'RNB' 9'RNB' 10'RNB' 11'RNB' 12'RNB' 13'RNB'

RACINE STREET

R/L 'RNB'

TLE

2,3B

2,3

1,2,3B

TEMPORARY SMALL ANIMAL TURN AROUND, (TYP. ALL)

SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM, SEE STRUCTURE PLANS

LEGEND

- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SHEET PILING
- TURBIDITY BARRIER SPECIAL
- 3C — INLET PROTECTION PER STAGE AND TYPE
- SURFACE WATER FLOW

NOTE:
STAGE 3 WILL REQUIRE DIFFERENT INLET PROTECTION PRIOR TO FINAL CASTINGS BEING PLACED. TYPE A USED PRIOR TO CASTING, TYPE C USED AFTER CASTING INSTALLED. SEE CALLOUTS FOR TYPE AND STAGE.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - TEMPORARY	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\022001_EC.DWG
LAYOUT NAME - 021202

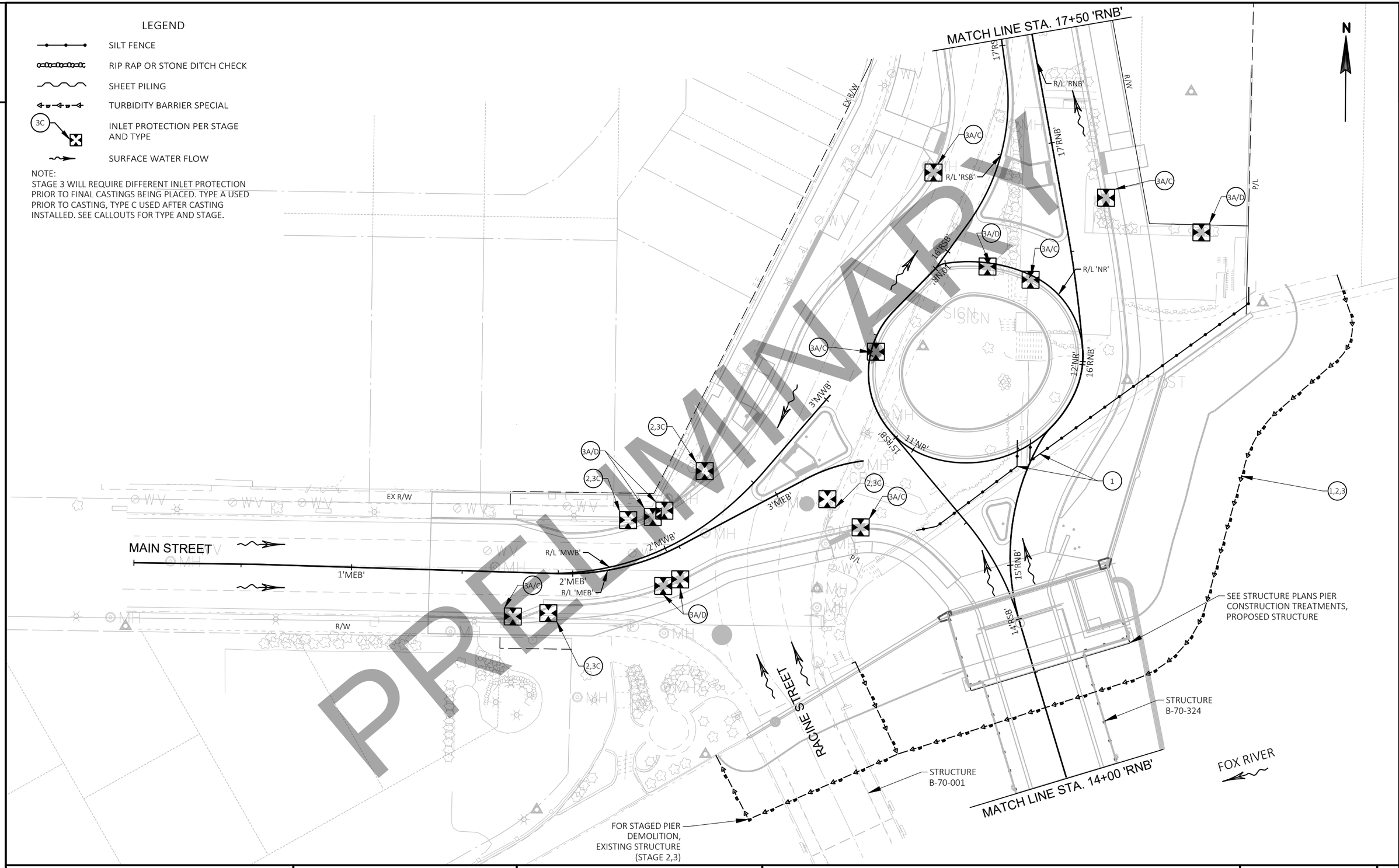
PLOT DATE : 4/20/2020 1:20 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

LEGEND

- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SHEET PILING
- TURBIDITY BARRIER SPECIAL
- 3C — INLET PROTECTION PER STAGE AND TYPE
- SURFACE WATER FLOW

NOTE:
STAGE 3 WILL REQUIRE DIFFERENT INLET PROTECTION PRIOR TO FINAL CASTINGS BEING PLACED. TYPE A USED PRIOR TO CASTING, TYPE C USED AFTER CASTING INSTALLED. SEE CALLOUTS FOR TYPE AND STAGE.



PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - TEMPORARY	SHEET E

2

N

LEGEND

- SILT FENCE
- RIP RAP OR STONE DITCH CHECK
- SHEET PILING
- TURBIDITY BARRIER SPECIAL
- 3C — INLET PROTECTION PER STAGE AND TYPE
- SURFACE WATER FLOW

NOTE:
STAGE 3 WILL REQUIRE DIFFERENT INLET PROTECTION PRIOR TO FINAL CASTINGS BEING PLACED. TYPE A USED PRIOR TO CASTING, TYPE C USED AFTER CASTING INSTALLED. SEE CALLOUTS FOR TYPE AND STAGE.

BROAD STREET

1ST STREET

RACINE STREET

MATCH LINE STA. 17+50 'RNB'

R/W

TLE

18'

2'B'

R/L 'B'

R/L 'RSB'

R/L 'RNB'

18'RSB'

19'RSB'

20'RSB'

18'RNB'

19'RNB'

20'RNB'

21'RNB'

22'RNB'

23'RNB'

3A/D

3A/C

3C

MH

SAN

POS POST

PRELIMINARY

DRAFT April 20, 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - TEMPORARY	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\022001_EC.DWG
LAYOUT NAME - 021204

PLOT DATE : 4/20/2020 1:20 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020

PRELIMINARY

AHNAIP STREET

DAM ACCESS

RACINE STREET

NAYMUT STREET

KEYES STREET

RIVERWAY

MATCH LINE STA. 8+00 'RNB'

STRUCTURE B-70-324

R-70-161

SEE STRUCTURE PLANS FOR RIP RAP AT PIERS

1'RSB'
1'RNB'
2'RSB'
2'RNB'
2'DA'
3'DA'
4'DA'
3'RSB'
3'RNB'
4'RSB'
4'RNB'
5'RSB'
5'RNB'
6'RNB'
7'RNB'
8'RSB'
11'KEB'
11'KWB'
2'N'
1'N'

R/W
P/L
TLE
R/L 'RSB'
R/L 'RNB'
R/L 'DA'
R/L 'SR'
R/L 'KEB'
R/L 'KWB'
R/L 'N'

LEGEND

- 3/4-INCH BASE AGGREGATE DENSE, 4-INCH OVER GEOTEXTILE FABRIC TYPE R
- TOPSOIL, MULCHING
- TOPSOIL, MULCHING, FERTILIZER TYPE B, SEED MIX NO. 40
- SOD LAWN
- SEE LANDSCAPING PLANS FOR TREATMENTS
- SLOPE INTERCEPT
- SURFACE WATER FLOW

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - PERMANENT	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\022001_EC_PROP.DWG
LAYOUT NAME - 021201

PLOT DATE : 4/16/2020 8:28 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

N

FOX RIVER

RACINE STREET

MATCH LINE STA. 8+00 'RNB'

MATCH LINE STA. 14+00'RNB'

9'RNB'

10'RNB'

11'RNB'

12'RNB'

13'RNB'

SEE STRUCTURE PLANS FOR RIP RAP AT PIERS

TREATMENTS SHOWN ARE LOCATED UNDER THE STRUCTURE

R/L 'RNB'

STRUCTURE B-70-324

LEGEND

- 3/4-INCH BASE AGGREGATE DENSE, 4-INCH OVER GEOTEXTILE FABRIC TYPE R
- TOPSOIL, MULCHING
- TOPSOIL, MULCHING, FERTILIZER TYPE B, SEED MIX NO. 40
- SOD LAWN
- SEE LANDSCAPING PLANS FOR TREATMENTS
- SLOPE INTERCEPT
- SURFACE WATER FLOW

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - PERMANENT	SHEET E

PRE_63

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\022001_EC_PROP.DWG
LAYOUT NAME - 021202

PLOT DATE : 4/16/2020 8:29 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020

PRELIMINARY

MATCH LINE STA. 17+50 'RNB'

EX R/W

17'RNB'

R/L 'RNB'

17'RNB'

UTILITY PAD
(BY OTHERS)

SOD 5' BEYOND SIDEWALK,
SEED REMAINING AREA TO
SLOPE LIMITS

R/L 'RSB'

T.L.E.

R/W

P/L

SEE PLAN DETAILS FOR
TERRACE TREATMENT NEAR
BUILDINGS (TYP)

16'RSB'

16'RNB'

R/L 'NR'

16'RNB'

SOD 10' BEYOND SIDEWALK,
TOPSOIL/MULCH REMAINING AREA

3'MWB'

15'RSB'

13'NB'

3'MEB'

EX R/W

SEE LANDSCAPING PLAN FOR TREATMENTS OF
TERRACES AND ISLANDS

MAIN STREET

R/L 'MWB'

2'MWB'

1'MEB'

2'MEB'

R/L 'MEB'

15'RNB'

14'RSB'

R-70-160

R/W

LEGEND

3/4-INCH BASE AGGREGATE DENSE,
4-INCH OVER GEOTEXTILE FABRIC TYPE R

TOPSOIL, MULCHING

TOPSOIL, MULCHING, FERTILIZER TYPE B, SEED MIX NO. 40

SOD LAWN

SEE LANDSCAPING PLANS FOR TREATMENTS

SLOPE INTERCEPT

SURFACE WATER FLOW

R-70-159

FOX RIVER

RACINE STREET

STRUCTURE
B-70-324

MATCH LINE STA. 14+00 'RNB'

N

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - PERMANENT	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\022001_EC_PROP.DWG
LAYOUT NAME - 021203

PLOT DATE : 4/16/2020 8:29 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

PRE_64

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

N

LEGEND

- 3/4-INCH BASE AGGREGATE DENSE, 4-INCH OVER GEOTEXTILE FABRIC TYPE R
- TOPSOIL, MULCHING
- TOPSOIL, MULCHING, FERTILIZER TYPE B, SEED MIX NO. 40
- SOD LAWN
- SEE LANDSCAPING PLANS FOR TREATMENTS
- SLOPE INTERCEPT
- SURFACE WATER FLOW

BROAD STREET

1ST STREET

RACINE STREET

MATCH LINE STA. 17+50 'RNB'

SEE PLAN DETAILS FOR TERRACE TREATMENT NEAR BUILDINGS (TYP)

PROTECT BENCH AND FENCE

SOD 5' BEYOND SIDEWALK, SEED REMAINING AREA TO SLOPE LIMITS

UTILITY PAD (BY OTHERS)

R/L 'RSB'

R/L 'RNB'

R/L 'B'

18'RSB'

19'RSB'

20'RSB'

18'RNB'

19'RNB'

20'RNB'

21'RNB'

22'RNB'

23'RNB'

17'B'

2'B'

TLE

R/W

EX R/W

MH

WV

POST

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	EROSION CONTROL PLAN - PERMANENT	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\022001_EC_PROP.DWG
LAYOUT NAME - 021204

PLOT DATE : 4/16/2020 8:29 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

2

2

N

STA 1+94'RNB', 30.7' LT
CATCH BASINS 2x3-H W/ CURB PLATE 1.1

CONNECT EXISTING 8" DRAIN TILE TO CATCH BASIN 1.1
CONTRACTOR VERIFY EXISTING DEPTH

STA 1+92'RNB', 5.6' LT
MANHOLES 4-J 1.0

STA 3+35'RNB', 35.6' LT
CATCH BASINS 4-H-S 3.0

STA 3+40'RNB', 12.0' LT
MANHOLES 4-J 3.5

STA 3+12'RNB', 28.1' LT
CATCH BASINS 4-H 2.0

STA 5+42'RNB', 9.9' LT
MANHOLES 6-J 8.0

RACINE STREET

CONNECT TO EXISTING 15" STORM SEWER
CONTRACTOR TO VERIFY EXISTING SIZE AND DEPTH

AHNAIP STREET

1'RNB'

2'RNB'

R/L 'RNB'

3'RNB'

4'RNB'

5'RNB'

RIVERWAY

CONNECT EXISTING 8" DRAIN TILE TO CATCH BASIN 1.2
CONTRACTOR VERIFY EXISTING DEPTH

STA 1+95'RNB', 17.3' RT
CATCH BASINS 2x3-H 1.2

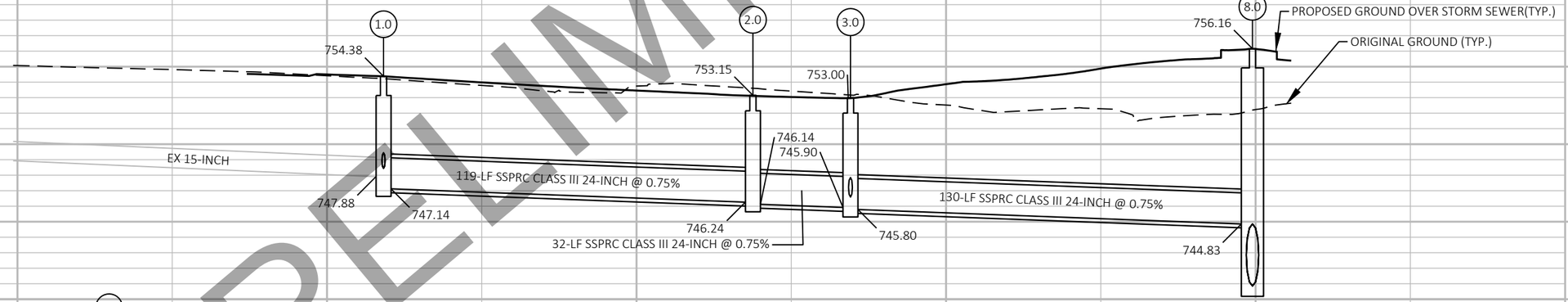
STA 2+96'RNB', 16.5' RT
CATCH BASINS 2x3-H 3.4

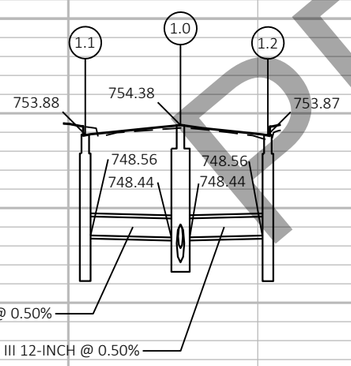
CONNECT EXISTING 12" STORM SEWER TO CB 3.4

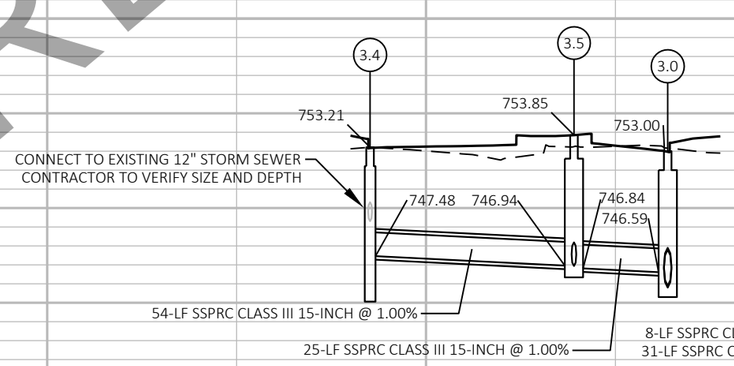
STA 3+61'RNB', 22.1' RT
CATCH BASINS 4-H-S 3.1

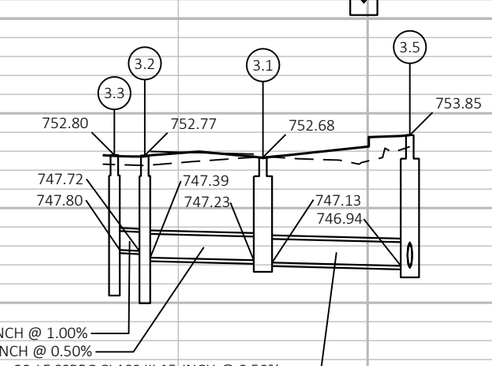
STA 3+85'RNB', 2.1' LT
INLETS 2x2.5-T, SPECIAL 3.2

STA 3+93'RNB', 1.7' LT
INLETS 2x2.5-T, SPECIAL 3.3









PRELIMINARY

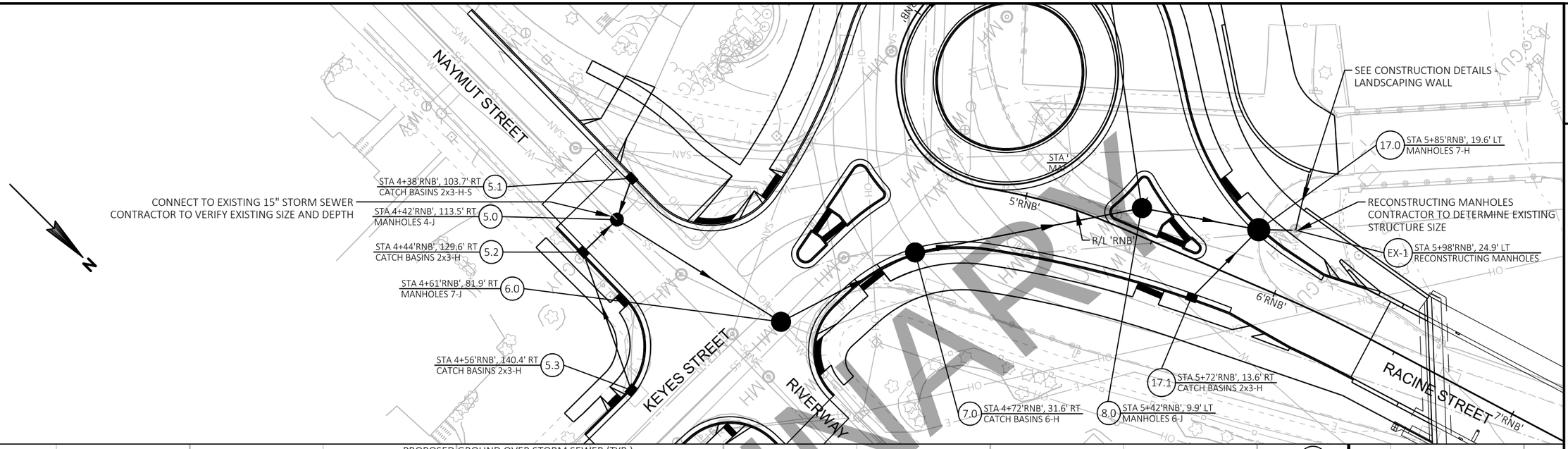
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	STORM SEWER	SHEET E

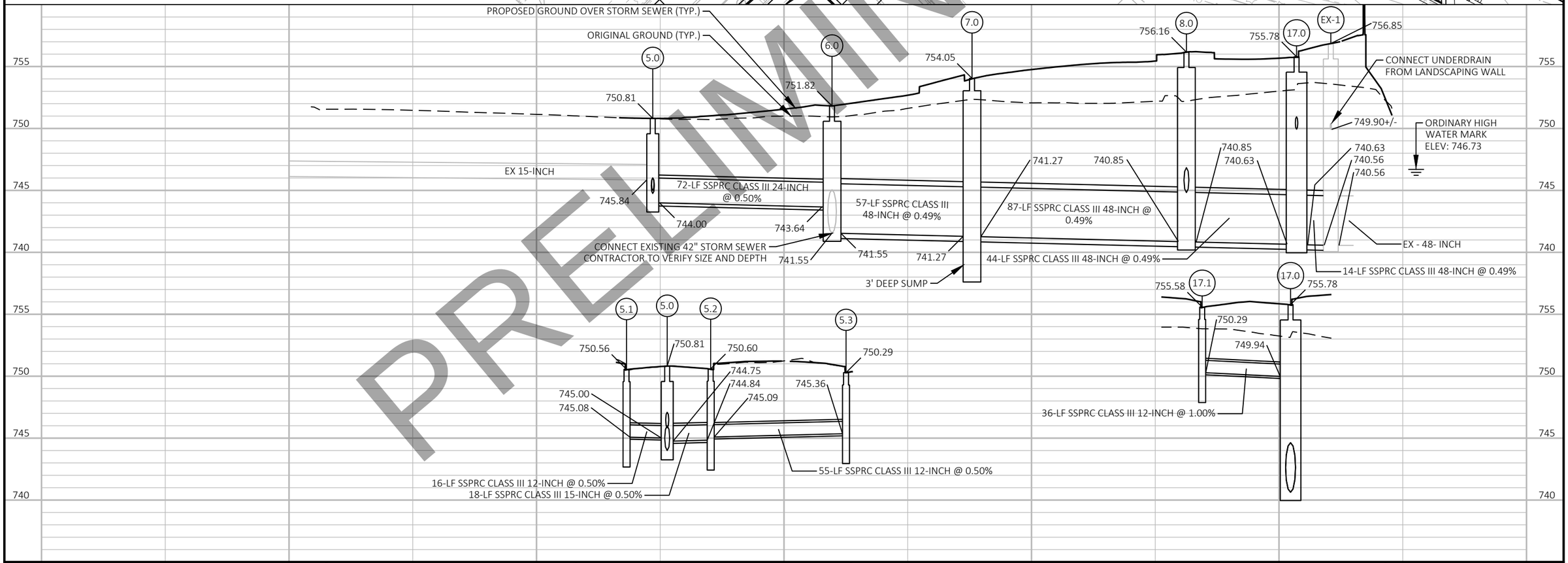
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSE.WEBER@AECOM.COM\D0117278\022501_SS.DWG
LAYOUT NAME - 022501

PLOT DATE : 4/17/2020 10:34 AM PLOT BY : WEBER, JESSE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 41

DRAFT April 20, 2020





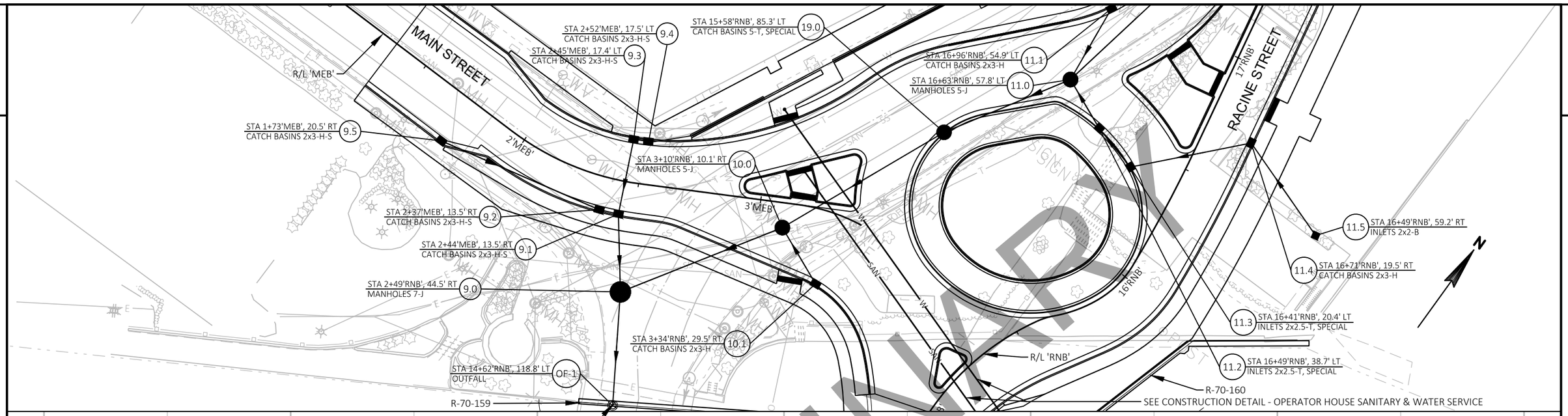
PRELIMINARY

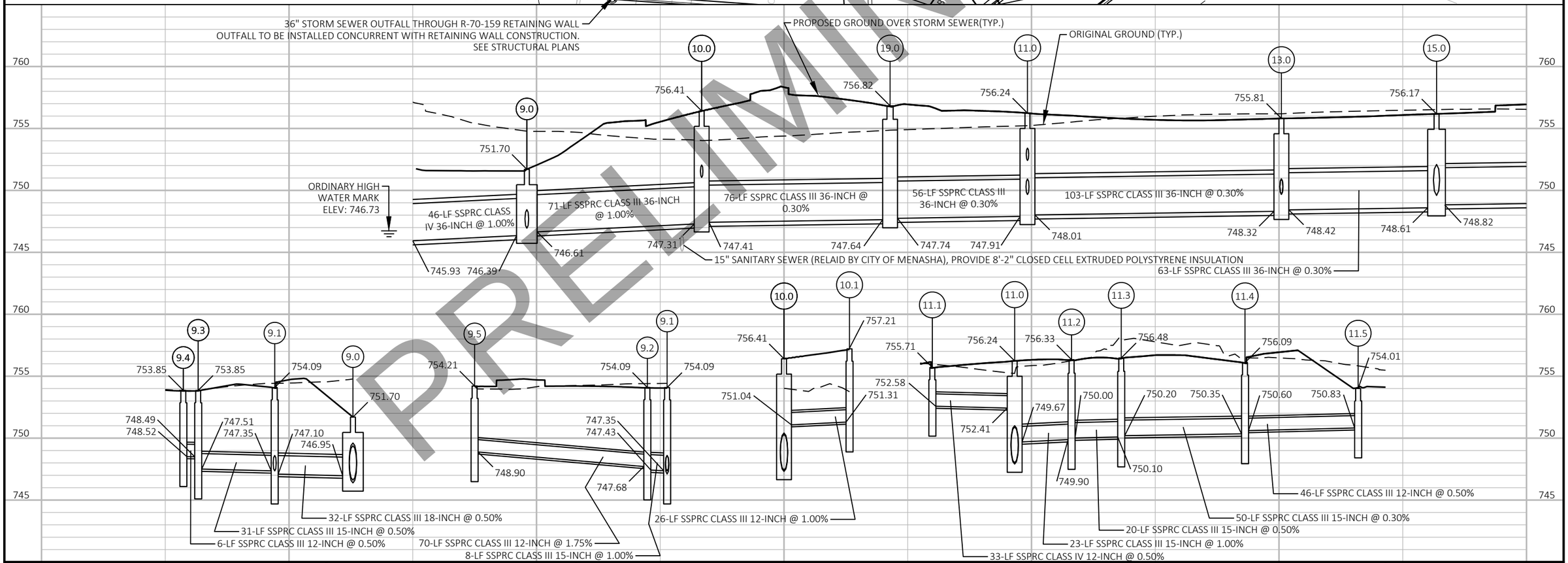
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	STORM SEWER	SHEET PRE_67 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSE.WEBER@AECOM.COM\D0117278\022501_SS.DWG
LAYOUT NAME - 022502
PLOT DATE : 4/17/2020 10:34 AM
PLOT BY : WEBER, JESSE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

DRAFT April 20, 2020

PRELIMINARY





PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	STORM SEWER	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSE.WEBER@AECOM.COM\D0117278\022501_SS.DWG
LAYOUT NAME - 022503
PLOT DATE : 4/17/2020 10:34 AM
PLOT BY : WEBER, JESSE
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

DRAFT April 20, 2020

PRELIMINARY

2

2

CONNECT TO EXISTING 30" STORM SEWER
CONTRACTOR TO VERIFY EXISTING SIZE AND DEPTH

STA 18+33'RNB', 64.3' LT
CATCH BASINS 2x3-H-S — 15.2

STA 18+27'RNB', 61.7' LT
MANHOLES 5-J — 15.1

STA 17+67'RNB', 38.9' LT
CATCH BASINS 2x3-H-S — 13.1

STA 17+59'RNB', 39.2' LT
CATCH BASINS 2x3-H-S — 13.2

STA 18+70'RNB', 71.5' LT
CATCH BASINS 2x3-H-S — 15.3

STA 19+92'RNB', 27.0' LT
CATCH BASINS 2x3-H — 18.1

STA 18+91'RNB', 35.0' LT
CATCH BASINS 2x3-H-S — 16.1

STA 18+20'RNB', 14.0' LT
MANHOLES 6-J — 15.0

RACINE STREET

R/L 'RNB'

16'RNB'

17'RNB'

18'RNB'

19'RNB'

20'RNB'

21'RNB'

BROAD STREET

1ST STREET

STA 18+83'RNB', 6.1' LT
MANHOLES 5-J — 16.0

STA 19+90'RNB', 4.8' RT
MANHOLES 5-J — 18.0

STA 18+83'RNB', 19.5' RT
CATCH BASINS 2x3-H — 16.2

STA 19+90'RNB', 19.5' RT
CATCH BASINS 2x3-H W/ CURB PLATE — 18.2

CONNECT 6-INCH PVC STORM DRAIN TO CB 15.7
CONTRACTOR TO VERIFY EXISTING SIZE AND DEPTH

STA 18+51'RNB', 22.9' RT
MANHOLES 4-J — 16.3

STA 18+45, 61.3' RT
CATCH BASINS 2x3-H-S W/ CURB PLATE — 16.4

STA 18+09'RNB', 56.3' RT
INLETS 2x3-H-S — 16.5

A 17+58'RNB', 19.7' LT
ANHOLES 5-J — 13.0

STA 17+57'RNB', 19.5' RT
CATCH BASINS 2x3-H-S — 13.3

STA 17+65'RNB', 19.5' RT
CATCH BASINS 2x3-H-S — 13.4

SEE PREVIOUS PAGE FOR PLAN AND PROFILE
INFORMATION NOT SHOWN ON THIS PAGE

PROPOSED GROUND OVER STORM SEWER (TYP.)

ORIGINAL GROUND (TYP.)

760
755
750
745

13.0 — 755.81
15.0 — 756.17
16.0 — 757.00
18.0 — 756.95

63-LF SSPRC CLASS III
36-INCH @ 0.30%

108-LF SSPRC CLASS III 36-INCH @ 0.30%

748.32 748.42 748.61 748.82 749.01 749.11 749.43 750.21

63-LF SSPRC CLASS III 36-INCH @ 0.30%

CONNECT TO EXISTING 24" STORM SEWER
CONTRACTOR TO VERIFY EXISTING SIZE AND DEPTH

EX 24-INCH

765
760
755
750

13.0 13.1 13.2 13.3 13.4

755.39 755.40 755.81 755.45 755.44
749.67 749.77 750.02 750.06 749.80 749.69 750.05 750.09

8-LF SSPRC CLASS III 12-INCH @ 0.50%
19-LF SSPRC CLASS III 15-INCH @ 0.50%
39-LF SSPRC CLASS III 15-INCH @ 0.30%
8-LF SSPRC CLASS III 12-INCH @ 0.50%

15.0 15.1 15.2 15.3

756.01 755.81 756.41 756.17
751.33 751.13 750.88 750.85 749.60 749.74

39-LF SSPRC CLASS IV 12-INCH @ 0.50%
7-LF SSPRC CLASS IV 15-INCH @ 0.50%
30-LF SSPRC CLASS IV 12-INCH @ 0.50%
48-LF SSPRC CLASS IV 30-INCH @ 0.30%

15" SANITARY SEWER, PROVIDE 8'-2" CLOSED CELL
EXTRUDED POLYSTYRENE INSULATION

16.0 16.1 16.2 16.3 16.4 16.5

756.10 757.00 756.04 755.74 754.95 754.92
750.93 750.78 753.2+/- 750.71 750.61 750.53 750.81 750.91 751.03 751.28 751.45

26-LF SSPRC CLASS IV 15-INCH @ 0.30%
32-LF SSPRC CLASS IV 15-INCH @ 0.30%
39-LF SSPRC CLASS IV 15-INCH @ 0.30%
35-LF SSPRC CLASS IV 12-INCH @ 0.50%

NO SUMP
CONTRACTOR VERIFY DEPTH OF F.O. DUCT BANK

18.0 18.1 18.2

756.64 756.95 756.67
751.34 751.03 751.19 751.34

32-LF SSPRC CLASS III 12-INCH @ 1.00%
15-LF SSPRC CLASS III 12-INCH @ 1.00%

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	STORM SEWER	SHEET E

PRE_69

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSE.WEBER@AECOM.COM\D0117278\022501_SS.DWG
LAYOUT NAME - 022504

PLOT DATE : 4/17/2020 10:35 AM PLOT BY : WEBER, JESSE PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 41

2

DRAFT April 20, 2020

LEGEND

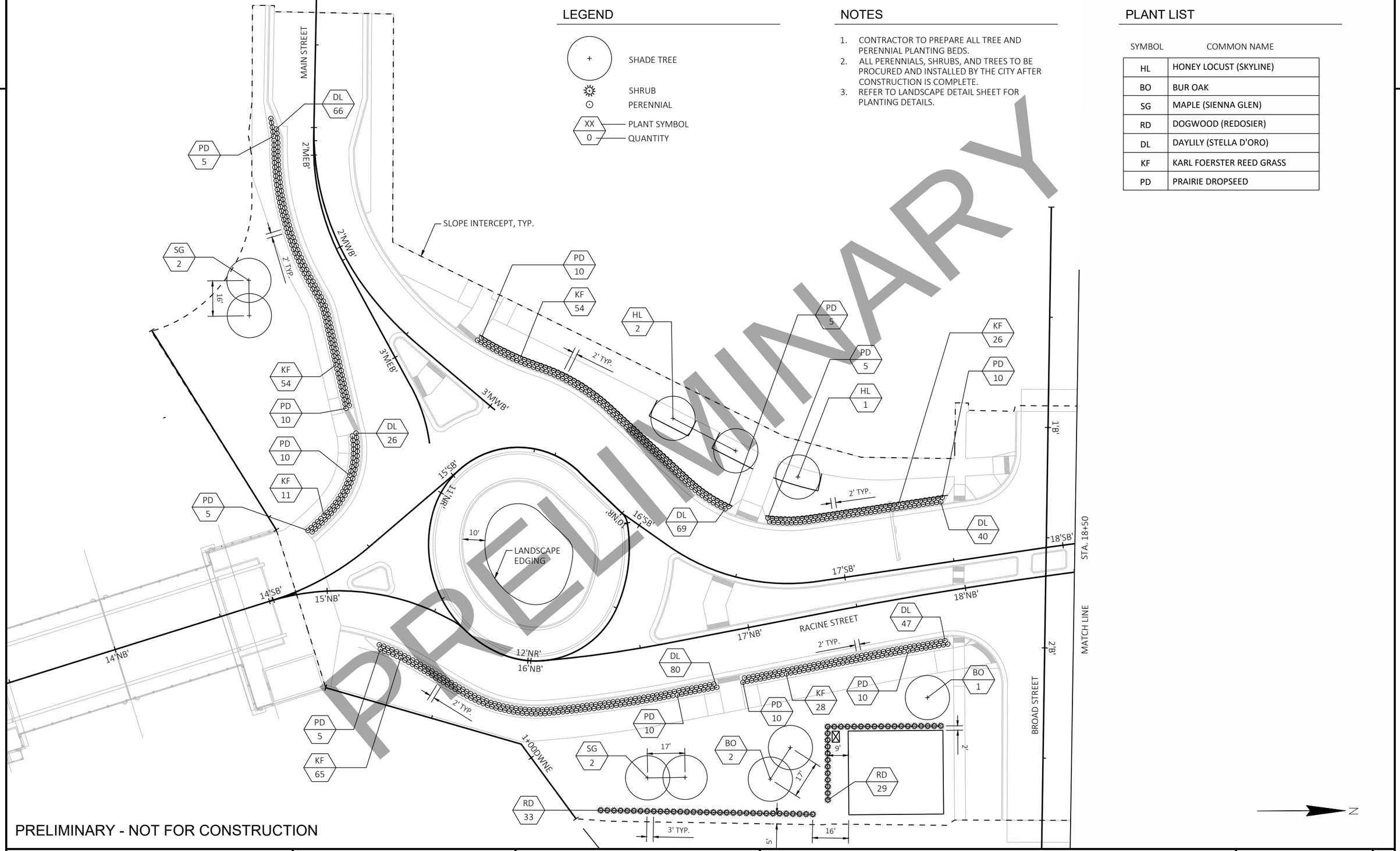
- + — SHADE TREE
- ✲ — SHRUB
- ⊙ — PERENNIAL
- XX / 0 — PLANT SYMBOL / QUANTITY

NOTES

1. CONTRACTOR TO PREPARE ALL TREE AND PERENNIAL PLANTING BEDS.
2. ALL PERENNIALS, SHRUBS, AND TREES TO BE PROCURED AND INSTALLED BY THE CITY AFTER CONSTRUCTION IS COMPLETE.
3. REFER TO LANDSCAPE DETAIL SHEET FOR PLANTING DETAILS.

PLANT LIST

SYMBOL	COMMON NAME
HL	HONEY LOCUST (SKYLINE)
BO	BUR OAK
SG	MAPLE (SIENNA GLEN)
RD	DOGWOOD (REDOSIER)
DL	DAYLILY (STELLA D'ORO)
KF	KARL FOERSTER REED GRASS
PD	PRAIRIE DROPSEED



PRELIMINARY

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT NO: 4992-03-00 - STAGE 2	HWY: RACINE STREET BRIDGE	COUNTY: WINNEBAGO	PLANTING PLAN	SHEET E

FILE NAME : \\MAD-FILE01\80000\8058_S_ RACINE STREET BRIDGE STAGE 2\PRODUCTION\CAD\PLANS\023101-PL.DWG
LAYOUT NAME - 1
PLOT DATE : 2/26/2020 3:35 PM PLOT BY : NOAH HALBACH PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

DRAFT April 20, 2020

LEGEND

+ SHADE TREE

SHRUB

PERENNIAL

XX — PLANT SYMBOL

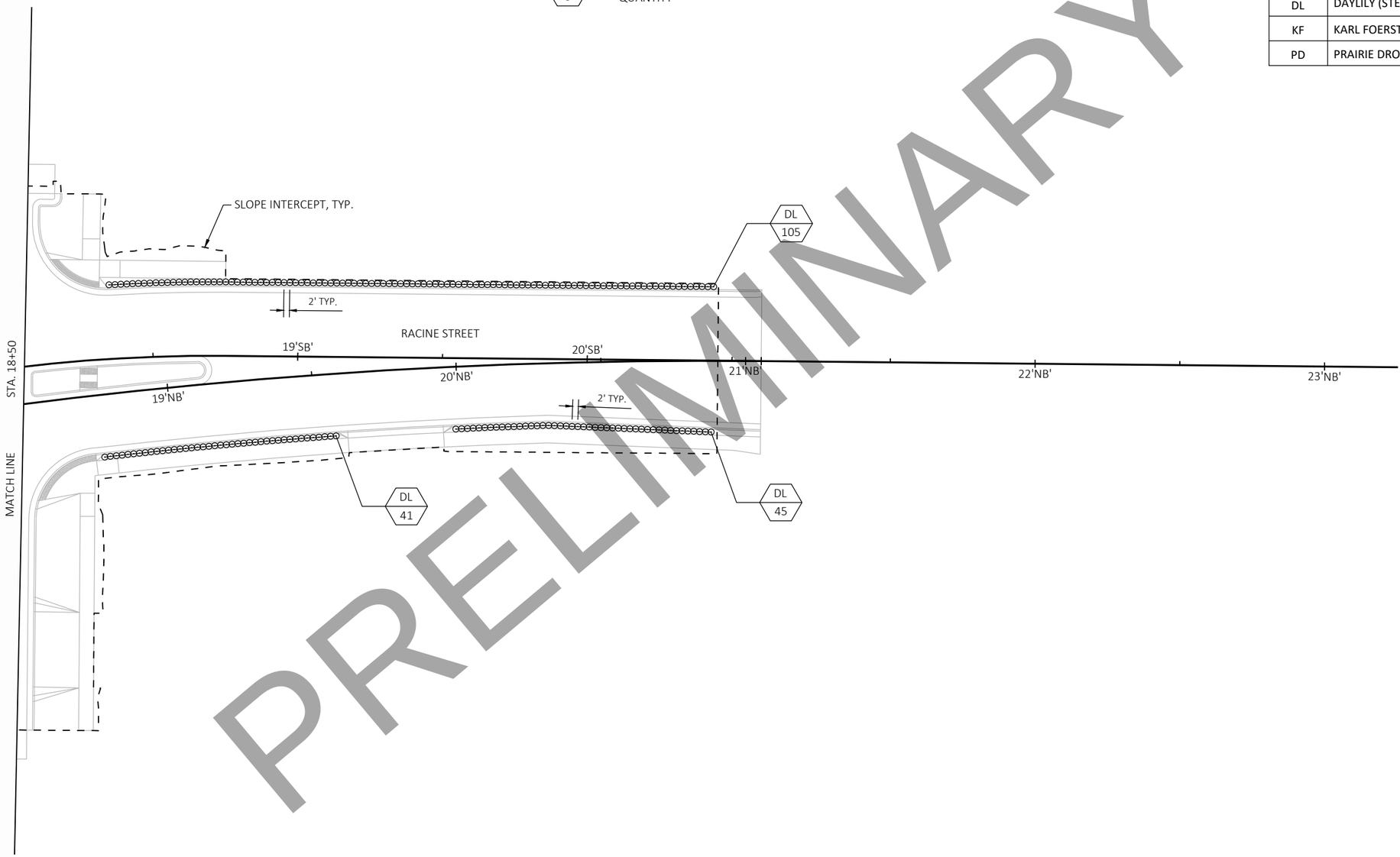
0 — QUANTITY

NOTES

1. CONTRACTOR TO PREPARE ALL TREE AND PERENNIAL PLANTING BEDS.
2. ALL PERENNIALS, SHRUBS, AND TREES TO BE PROCURED AND INSTALLED BY THE CITY AFTER CONSTRUCTION IS COMPLETE.
3. REFER TO LANDSCAPE DETAIL SHEET FOR PLANTING DETAILS.

PLANT LIST

SYMBOL	COMMON NAME
HL	HONEY LOCUST (SKYLINE)
BO	BUR OAK
SG	MAPLE (SIENNA GLEN)
RD	DOGWOOD (REDOSIER)
DL	DAYLILY (STELLA D'ORO)
KF	KARL FOERSTER REED GRASS
PD	PRAIRIE DROPSEED



PRELIMINARY

N

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT NO: 4992-03-00 - STAGE 2	HWY: RACINE STREET BRIDGE	COUNTY: WINNEBAGO	PLANTING PLAN	SHEET E

PRE_71

FILE NAME : \\MAD-FILE01\80000\8058_S_ RACINE STREET BRIDGE STAGE 2\PRODUCTION\CAD\PLANS\023101-PL.DWG
LAYOUT NAME - 2

PLOT DATE : 2/26/2020 3:19 PM PLOT BY : NOAH HALBACH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

LEGEND

- TREE PLANTING BED (SEE PLANTING DETAIL L2)
- PERENNIAL PLANTING BED (SEE PLANTING DETAIL L4)

NOTES

1. CONTRACTOR TO PREPARE ALL TREE AND PERENNIAL PLANTING BEDS.
2. ALL PERENNIALS, SHRUBS, AND TREES TO BE PROCURED AND INSTALLED BY THE CITY AFTER CONSTRUCTION IS COMPLETE.
3. REFER TO LANDSCAPE DETAIL SHEET FOR PLANTING DETAILS.

PRELIMINARY

MAIN STREET
2'MEB'
2'MWB'
3'MEB'
3'MWB'
SLOPE INTERCEPT, TYP.
PERENNIAL PLANTING BED
TREE PLANTING BED
PERENNIAL PLANTING BED
LANDSCAPE EDGING
PERENNIAL PLANTING BED
PERENNIAL PLANTING BED
15'SB'
11'NR'
10'NR'
16'SB'
PERENNIAL PLANTING BED
17'SB'
18'SB'
14'SB'
15'NB'
18'NB'
17'NB'
RACINE STREET
14'NB'
12'NR'
16'NB'
PERENNIAL PLANTING BED
1+00DWNE
1'B'
2'B'
BROAD STREET
STA. 18+50
MATCH LINE
N

PRELIMINARY - NOT FOR CONSTRUCTION

PROJECT NO: 4992-03-00 - STAGE 2	HWY: RACINE STREET BRIDGE	COUNTY: WINNEBAGO	PLANTING PLAN	SHEET E

PRE_72

FILE NAME : \\MAD-FILE01\80000\8058_S_ RACINE STREET BRIDGE STAGE 2\PRODUCTION\CAD\PLANS\023101-PL.DWG
LAYOUT NAME - 3

PLOT DATE : 2/26/2020 3:38 PM PLOT BY : NOAH HALBACH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

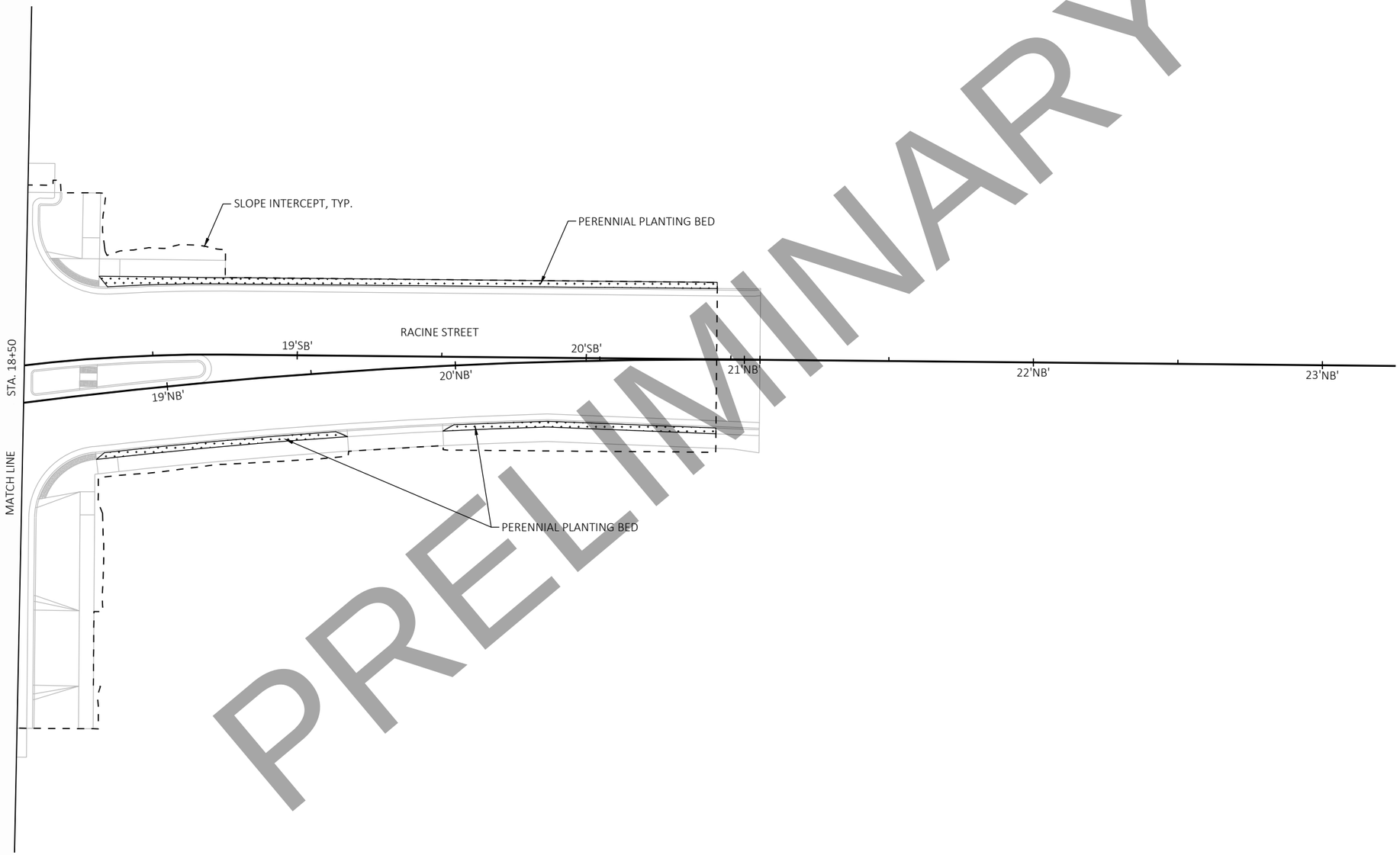
LEGEND

TREE PLANTING BED
(SEE PLANTING DETAIL L2)

PERENNIAL PLANTING BED
(SEE PLANTING DETAIL L4)

NOTES

1. CONTRACTOR TO PREPARE ALL TREE AND PERENNIAL PLANTING BEDS.
2. ALL PERENNIALS, SHRUBS, AND TREES TO BE PROCURED AND INSTALLED BY THE CITY AFTER CONSTRUCTION IS COMPLETE.
3. REFER TO LANDSCAPE DETAIL SHEET FOR PLANTING DETAILS.



PRELIMINARY

PRELIMINARY - NOT FOR CONSTRUCTION

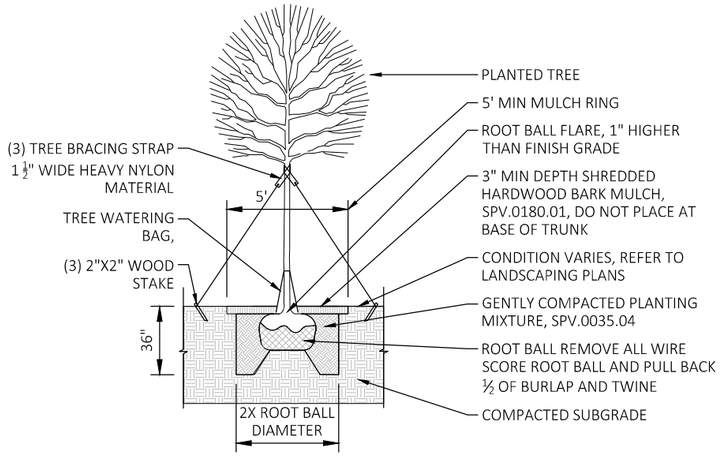
PROJECT NO: 4992-03-00 - STAGE 2	HWY: RACINE STREET BRIDGE	COUNTY: WINNEBAGO	PLANTING PLAN	SHEET E

PRE_73

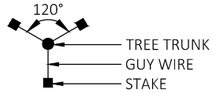
FILE NAME : \\MAD-FILE01\80000\8058_S_ RACINE STREET BRIDGE STAGE 2\PRODUCTION\CAD\PLANS\023101-PL.DWG
LAYOUT NAME - 4

PLOT DATE : 2/26/2020 3:39 PM PLOT BY : NOAH HALBACH PLOT NAME : PLOT SCALE : 1 IN:40 FT

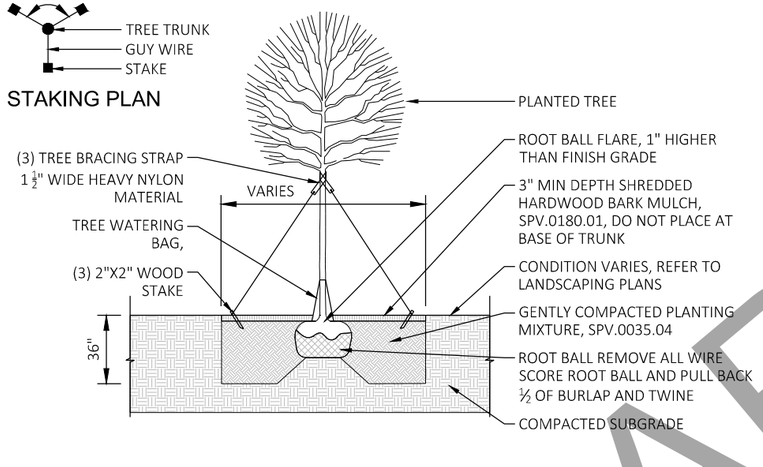
WISDOT/CADDS SHEET 42



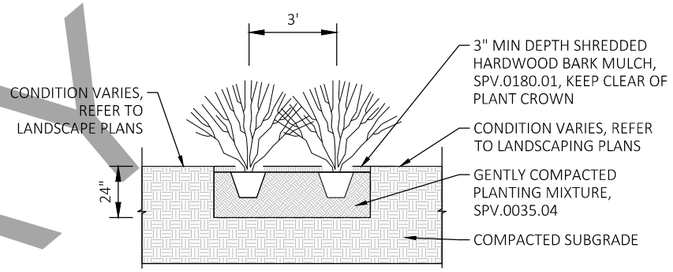
L1 TREE PLANTING
NTS



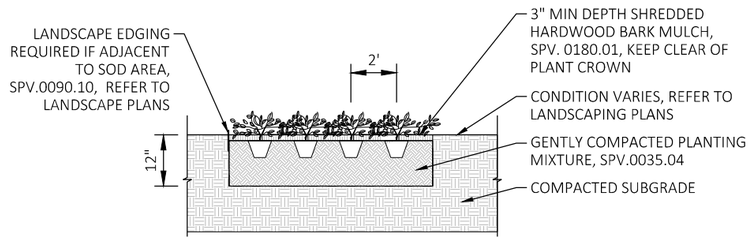
STAKING PLAN



L2 TREE PLANTING BED
NTS



L3 SHRUB PLANTING
NTS



L4 PERENNIAL PLANTING BED
NTS

NOTES

1. CONTRACTOR TO PREPARE ALL TREE AND PERENNIAL PLANTING BEDS.
2. ALL PERENNIALS, SHRUBS, AND TREES TO BE PROCURED AND INSTALLED BY THE CITY AFTER CONSTRUCTION IS COMPLETE.

MATERIAL SCHEDULE

ITEM	QTY.
PLANTING MIXTURE, SPV.0035.04	300 CY
SHREDDED HARDWOOD BARK MULCH, SPV.0180.01	800 SY
LANDSCAPE EDGING, SPV.0090.10	140 LF

PLANT SCHEDULE (CITY TO PROCURE AND INSTALL AFTER CONSTRUCTION IS COMPLETE)

SYM.	QTY.	COMMON NAME	BOTANICAL NAME	AVG. MATURE HEIGHT	SPACING	SIZE & TYPE	BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROT. REQ'D	MULCH RING DIAM.	PLANTING DETAIL
		SHADE TREES									
BO	3	BUR OAK	QUERCUS MACROCARPA	75'	AS SHOWN	2" CAL. B&B	GUY	3	YES	60"	L1
SG	4	MAPLE (SIENNA GLEN)	ACER X FREEMANII 'SIENNA'	75'	AS SHOWN	2" CAL. B&B	GUY	3	YES	60"	L1
HL	3	HONEY LOCUST (SKYLINE)	GLEDITISIA TRIACANTHOS VAR. INERMIS 'SKYCOLE'	50'	AS SHOWN	2" CAL. B&B	GUY	3	NO	BED	L2
		SHRUBS									
RD	62	DOGWOOD (REDOSIER)	CORNUS SERRICEA	8'	3' O.C.	5 GAL. CG	NO	1	NO	36"	L3
		PERENNIALS	PERENNIALS								
DL	519	DAYLILY (STELLA D'ORO)	HEMEROCALLIS 'STELLA D'ORO'	12"	2' O.C.	1 GAL. CG	N/A	N/A	N/A	BED	L4
KF	238	KARL FOERSTER REED GRASS	CALAMAGROSTIS X ACUTIFLORA ' KARL FOERSTER'	5'	2' O.C.	3 GAL. CG	N/A	N/A	N/A	BED	L4
PD	95	PRAIRIE DROPSEED	SPOROBOLUS HETEROLEPIS	3'	2' O.C.	3 GAL. CG	N/A	N/A	N/A	BED	L4

B&B = BALLED AND BURLAPPED
CG = CONTAINER GROWN

PRELIMINARY

PRELIMINARY - NOT FOR CONSTRUCTION

DRAFT April 20, 2020

PROJECT NO: 4992-03-00 - STAGE 2	HWY: RACINE STREET BRIDGE	COUNTY: WINNEBAGO	PLANTING DETAILS AND SCHEDULES	SHEET E

FILE NAME : \\MAD-FILE01\80000\8058_S_ RACINE STREET BRIDGE STAGE 2\PRODUCTION\CAD\PLANS\023101-PL.DWG
LAYOUT NAME - 5
PLOT DATE : 4/15/2020 11:59 AM PLOT BY : NOAH HALBACH PLOT NAME : PLOT SCALE : NTS
WISDOT/CADDS SHEET 42

2

2

DRAFT April 20, 2020

BEGIN PROJECT
STA 1+47.43 'RNB'

AHNAIP STREET

OAK STREET

SIGN

DAM ACCESS

RACINE STREET

STRUCTURE B-70-324

RIVERWAY

KEYES STREET

NAYMUT STREET

1'RSB'
1'RNB'
2'RSB'
2'RNB'
3'RSB'
3'RNB'
4'RSB'
4'RNB'
5'RNB'
5'RSB'
6'RNB'
7'RNB'
8'RNB'
11'KWB'
11'KEB'

1-1 W2-6 30"X30"
1-2 W13-1 18"X18" 15 MPH
1-3 R3-17 30"X24" BIKE LANE
1-4 ENDS R3-17BP 30"X12"
1-5 R4-7 24"X30"
1-6 W11-15 30"X30"
1-7 W16-7L 24"X12" ON LIGHT POLE
1-8 R1-2 36"X31" YIELD
1-9 R6-2R 24"X30" ONE WAY
1-10 R1-2 36"X31" YIELD
1-11 R1-54 24"X15" TO TRAFFIC FROM LEFT
1-12 R6-1R 36"X12" ONE WAY
1-13 R6-4B 60"X24"
1-14 Keyes St D1-1 66"X15"
1-15 W11-15 30"X30"
1-16 W16-7L 24"X12"
1-17 NAYMUT ST M1-2 STOP R1-1 30"X30"
MOVING SIGN 'NAYMUT ST' FROM STA 11'KEB'+04, 48' RT TO STA 11'KEB'+05, 44' RT
1-18 W11-15 30"X30"
1-19 W16-7L 24"X12"
1-20 W2-6 30"X30"
1-21 15 MPH W13-1 18"X18" ON LIGHT POLE
1-22 W11-15 30"X30"
1-23 W16-7L 24"X12"
1-24 R4-7 24"X30"
MOVING SIGN 'RIVERWAY' FROM STA 10'KWB'+67, 39' LT TO STA 10'KWB'+66, 34' LT
M1-1 RIVER WAY
1-25 STOP R1-1 30"X30"
1-26 W11-15 30"X30"
1-27 W16-7L 24"X12" ON LIGHT POLE
1-28 R1-2 36"X31" YIELD
1-29 ONE WAY R6-2R 24"X30"
1-30 R1-2 36"X31" YIELD
1-31 TO TRAFFIC FROM LEFT R1-54 24"X15"
1-32 ONE WAY R6-1R 36"X12"
1-33 R6-4B 60"X24"
1-34 Racine St D1-1 66"X15"
1-35 W11-15 30"X30"
1-36 W16-7L 24"X12"
1-37 DRAW BRIDGE W3-6 36"X36" ON SIGNAL SEE DETAIL
1-38 R3-17 30"X24" BIKE LANE ON LIGHT POLE
1-39 W2-6 30"X30"
1-40 W13-1 18"X18" 15 MPH ON LIGHT POLE
1-41 R3-17 30"X24" BIKE LANE
1-42 ENDS R3-17BP 30"X12"
1-43 W11-15 30"X30"
1-44 W16-7L 24"X12" ON LIGHT POLE
1-45 R4-7 24"X30"
1-46 R1-2 36"X31" YIELD
1-47 R6-2R 24"X30" ONE WAY
1-48 R1-2 36"X31" YIELD
1-49 R1-54 24"X15" TO TRAFFIC FROM LEFT
1-50 R6-1R 36"X12" ONE WAY
1-51 R6-4B 60"X24"
1-52 W11-15 30"X30"
1-53 W16-7L 24"X12"
1-54 Ahnaip St D1-1 72"X15"
1-55 BIKE LANE R3-17 30"X24"
1-56 S1-1 36"X36"
1-57 AHEAD S16-9P 24"X12"
1-58 ONLY ONLY R3-8E 36"X30"
1-59 W4-4B 30"X12" ONCOMING TRAFFIC DOES NOT STOP
MOUNTED ON POST WITH SIGN 1-24

LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED AS INDICATED

X-X DENOTES SIGN NUMBER

SEE LIGHTING PLAN AND SIGNAL DETAIL SHEETS FOR INFORMATION REGARDING LIGHTING AND SIGNAL SYMBOLS

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET E

2

DRAFT April 20, 2020

PRELIMINARY

N

MOVING SIGN 'PARKS & RECREATION'
FROM STA 8'RNB'+75, 44' LT
TO STA 9'RNB'+70, 23' LT
ON NEW POSTS

MENASHA
PARKS AND RECREATION DEPARTMENT
100 MAIN ST SUITE 200
920-967-3680

2-7

MOVING SIGN 'DESTINATION'
FROM STA 8'RNB'+93, 46' LT
TO STA 11'RNB'+26, 26' LT

SMITH PARK
ISLE OF VALOR HOSPITAL

M2-1

R2-1
24"X30"
SPEED LIMIT 25
2-6

ON LIGHT POLE

W2-6
30"X30"
1-39

W13-1
18"X18"
15 MPH
1-40

ON LIGHT POLE

STRUCTURE
B-70-324

RESTRICTED
KEEP BACK
AWAY OF DAM

NOTICE OF OPENING
OPERATOR ON DUTY
DURING NAVIGATION SEASON

MENASHA POLICE DEPT
RACINE St. BRIDGE
LADDO St. BRIDGE

BRIDGE MONITORS CHANNEL 16

SIGNS TO BE MOUNTED TO STRUCTURE FOR WATERWAY NAVIGATION. WILL BE FINALIZED PENDING COORDINATION WITH WISDOT NER.

R/L 'RNB'

8'RNB'
9'RNB'
10'RNB'
11'RNB'
12'RNB'
13'RNB'
14'RNB'
14'RSB'

RACINE STREET

SPECIALTY SIGN
54"X24"
DRAWBRIDGE SIGNAL
2-2

ON SIGNAL
SEE DETAIL

R2-1
24"X30"
SPEED LIMIT 25
2-1

ON LIGHT POLE

R10-6
24"X36"
STOP HERE ON RED
2-3

ON SIGNAL
SEE DETAIL

W2-6
30"X30"
2-4

W13-1
18"X18"
15 MPH
2-5

ON LIGHT POLE

FOX RIVER

LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED AS INDICATED
- X-X DENOTES SIGN NUMBER

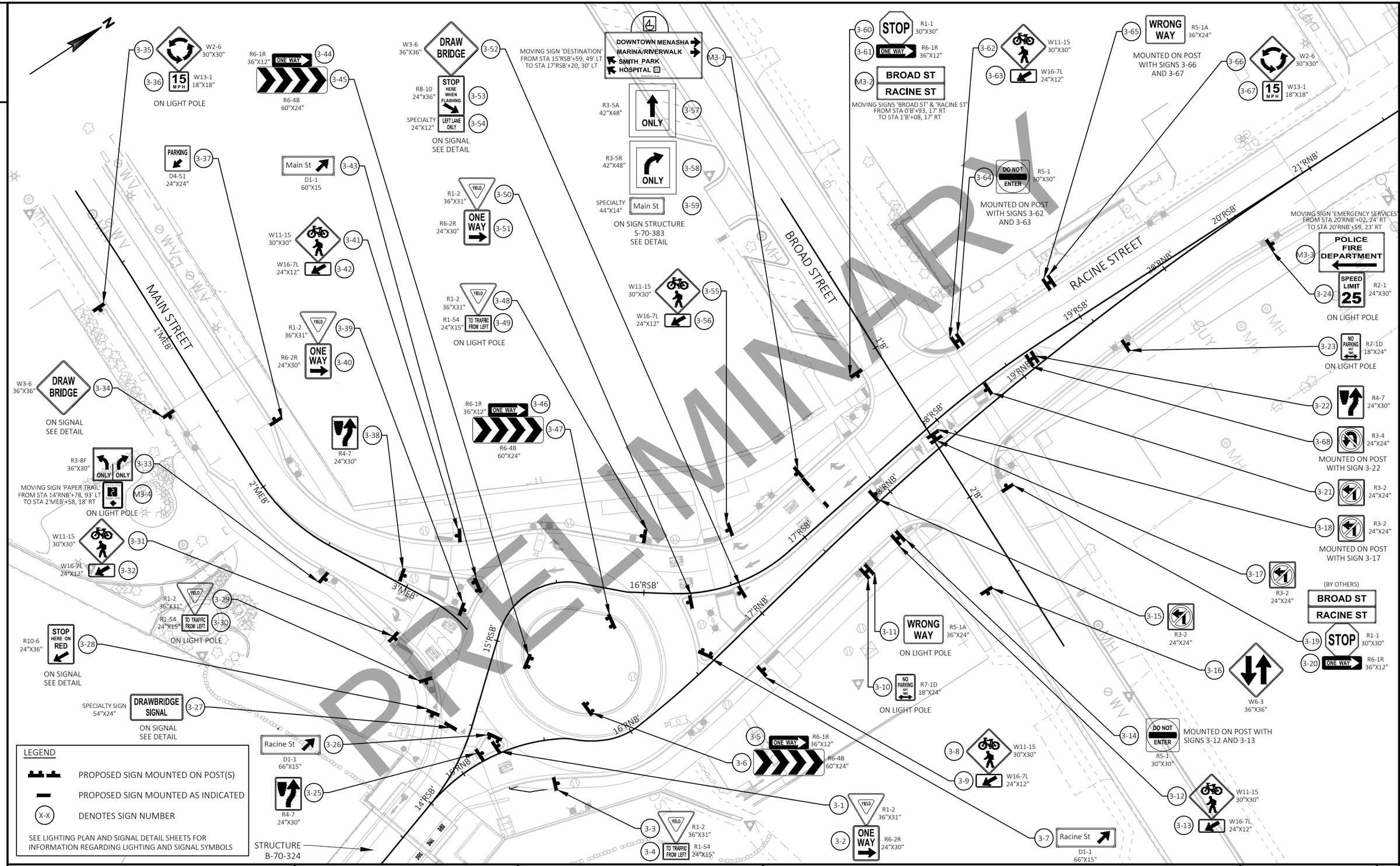
SEE LIGHTING PLAN AND SIGNAL DETAIL SHEETS FOR INFORMATION REGARDING LIGHTING AND SIGNAL SYMBOLS

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\023202_PS.DWG
LAYOUT NAME - 023203

PLOT DATE : 2/27/2020 12:43 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

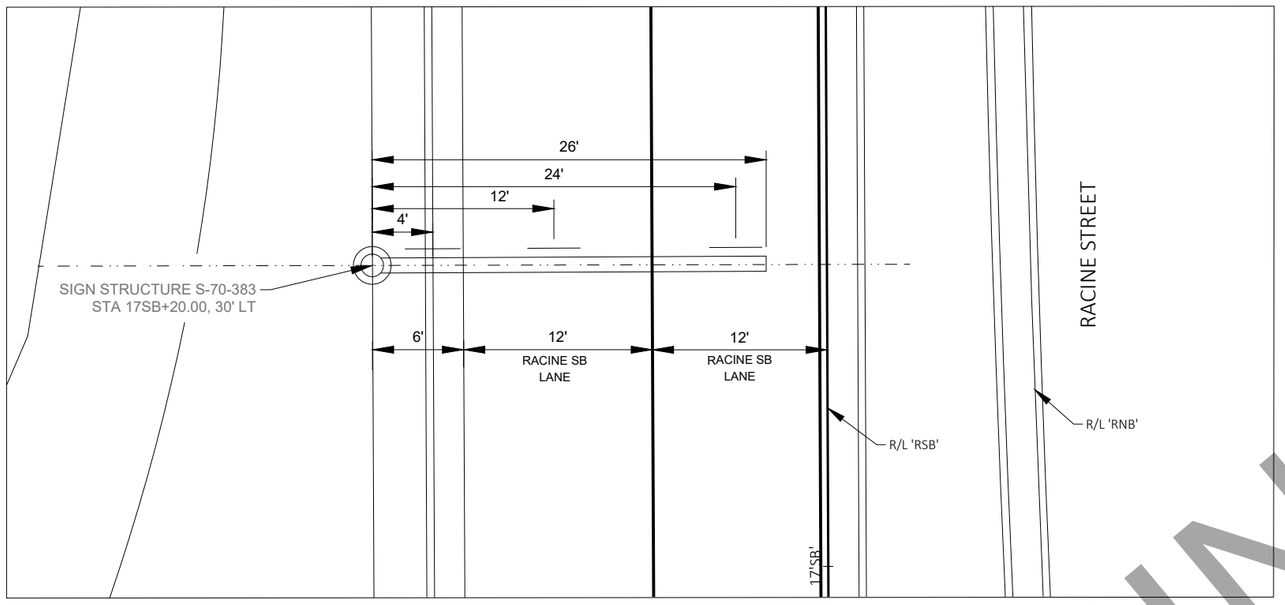


PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PERMANENT SIGNING	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\023202_PS.DWG
LAYOUT NAME - 023204
PLOT DATE : 2/27/2020 12:43 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

PRE_77
WISDOT/CADDS SHEET 42

2



NOTES

1) PROVIDE AN IDENTIFICATION PLAQUE FOR OVERHEAD SIGN SUPPORTS AS SPECIFIED IN STANDARD SPEC 641.3.1.4

2) DESIGN NEW OVERHEAD SIGN SUPPORTS ACCORDING TO THE AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS", 6TH EDITION AND INTERIM EDITIONS.
-FATIGUE CATEGORY III

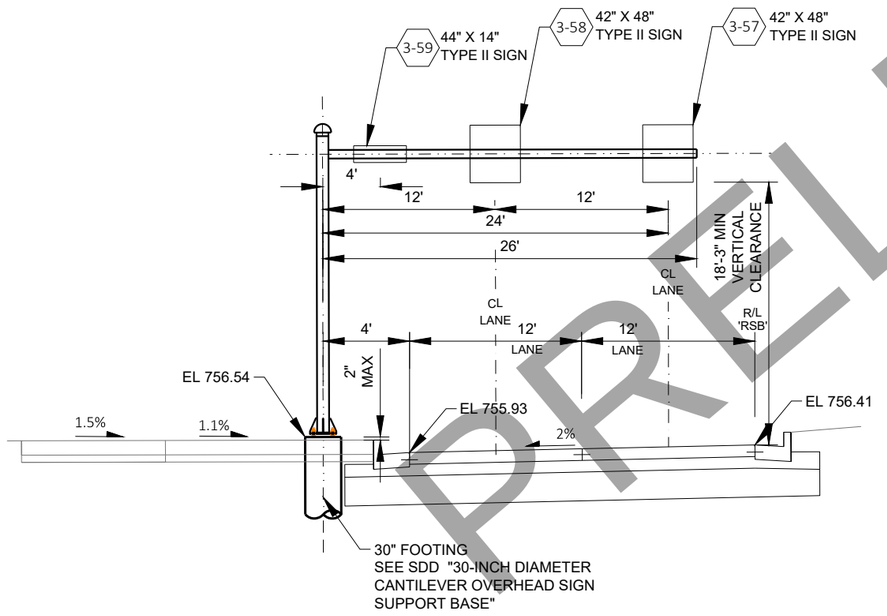
3) PROVIDE TAPERED COLUMN AND CHORD WITH A MINIMUM TAPER OF 0.14 INCH PER FOOT FOR STRUCTURES DESIGNED WITH RING STIFFENER MAST ARM TYPE CONNECTION

4) SIZE THE ANCHOR ROD/TEMPLATE ASSEMBLY TO FIT WITHIN THE BAR CAGE OF THE FOOTING BASE SHOWN IN THE CONTRACT PLANS IN ADDITION TO MEETING ALL APPLICABLE DESIGN REQUIREMENTS FOR THE DESIGN OF THE UPRIGHT BASE CONNECTION.

5) INSTALL SIGNS OR BLANKS ON OVERHEAD SIGN SUPPORTS AT THE TIME OF ERECTION AS SPECIFIED IN STANDARD SPEC 641.3.1.4. SEE PERMANENT SIGNING PLAN FOR SPECIFIC SIGN MESSAGES.

6) DESIGN THE STRUCTURE BASE PLATE CONNECTION TO ACCOMMODATE A MINIMUM OF SIX (6) ANCHOR RODS

7) REFER TO SIGN PLATE NO. A4-7.4 FOR ATTACHMENT OF SIGNS TO OVERHEAD SIGN SUPPORTS



SIGN STRUCTURE
(LOOKING UPSTATION)
STA. 17'RSB'+20.00, 30' LT

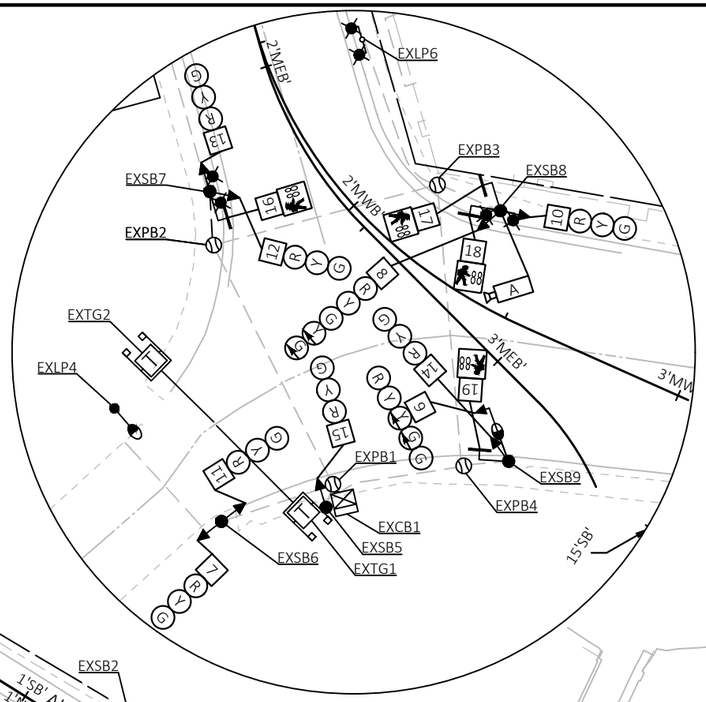
PRELIMINARY

DRAFT April 20, 2020

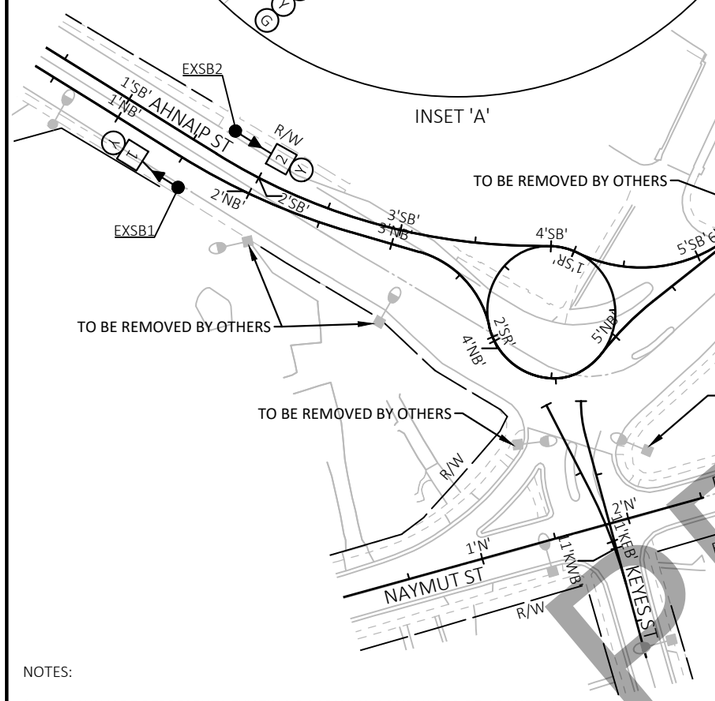
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PERMANENT SIGNING DETAIL	SHEET E

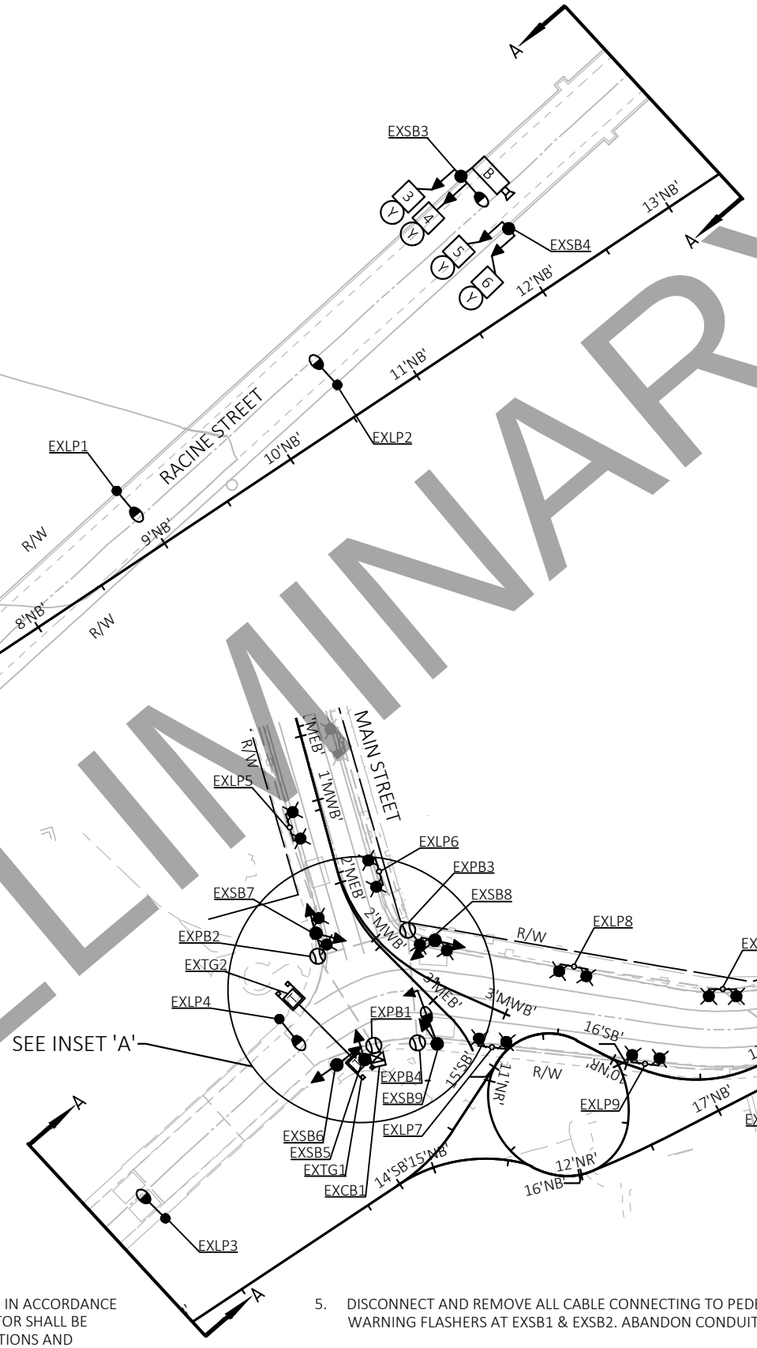
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\023201-PS.DWG
LAYOUT NAME - 023201-ps
PLOT DATE : 2/27/2020 12:44 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : XXXX
WISDOT/CADDS SHEET 42

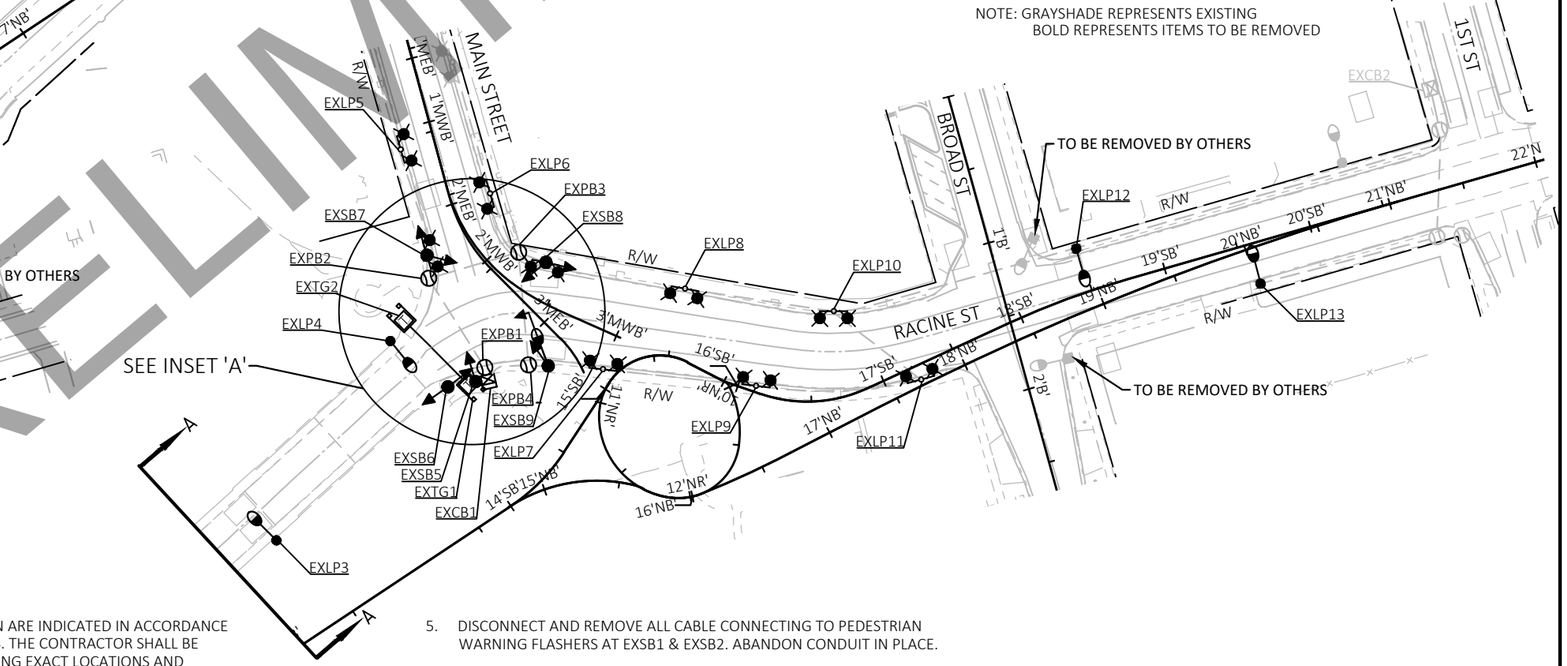
DRAFT April 20, 2020



INSET 'A'







PRELIMINARY

LEGEND

- CONTROL CABINET
- LIGHTING UNIT
- LIGHT ON UTILITY POLE
- DECORATIVE LIGHTING UNIT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PULL BOX
- CONDUIT
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 16"
  WALK INDICATOR 16"
- X VIDEO CAMERA
- TRAFFIC GATE

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED

NOTES:

1. GRAYSHADE REPRESENTS EXISTING ROADWAY, CONDUIT TO BE ABANDONED, AND UTILITIES.
2. BOLD REPRESENTS LIGHTING AND SIGNAL UNITS TO BE SALVAGED. SALVAGE ALL ABOVE-GROUND SIGNAL EQUIPMENT AND BEACONS PER PLAN.
3. REMOVE ALL TRAFFIC SIGNAL CABLE, LIGHTING WIRE AND CABLE, LOOP DETECTOR LEAD-IN CABLE, AND GROUNDING WIRES FROM EXISTING CONDUIT SYSTEM. ABANDON CONDUIT IN PLACE.
4. EXISTING UTILITIES SHOWN ARE INDICATED IN ACCORDANCE WITH AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES, INCLUDING SEWER AND WATER, FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITY OWNERS SHALL BE NOTIFIED BY THE CONTRACTOR 3 WORKING DAYS PRIOR TO EXCAVATION.
5. DISCONNECT AND REMOVE ALL CABLE CONNECTING TO PEDESTRIAN WARNING FLASHERS AT EXSB1 & EXSB2. ABANDON CONDUIT IN PLACE.
6. EXISTING ELECTRICAL CABINET, EXCB1, SHALL BE REMOVED AFTER CONSTRUCTION STAGE 2. TRAFFIC SIGNAL AND LIGHTING POWERED FROM EXCB1 SHALL REMAIN OPERATIONAL THROUGH CONSTRUCTION STAGE 2.

SCALE, FEET 0 50 100

PROJECT NO: 4992-03-00	HWY: RACINE ST	COUNTY: WINNEBAGO	SIGNAL AND LIGHTING REMOVAL PLAN	SHEET E

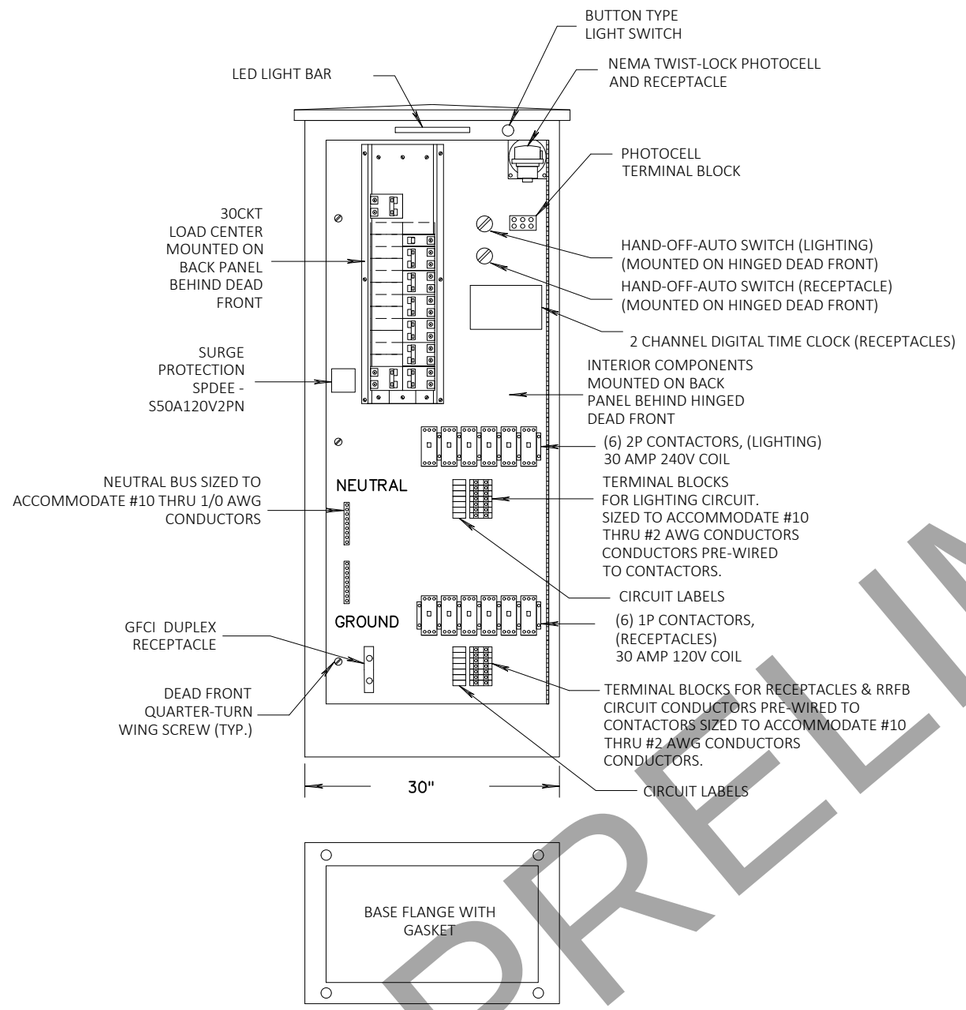
PRE_79

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\BENJAMIN.GIESE@AECOM.COM\D0117278\023401_LR.DWG
LAYOUT NAME - rem_ltg
PLOT DATE : 4/14/2020 12:26 PM
PLOT BY : GIESE, BENJAMIN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

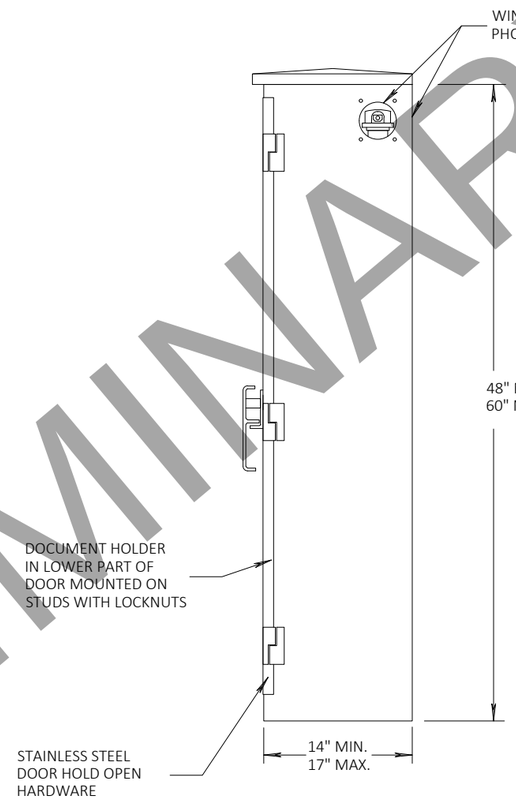
2

DRAFT April 20, 2020

FRONT INTERIOR ELEVATION



SIDE VIEW



GENERAL NOTES

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

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

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

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

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

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

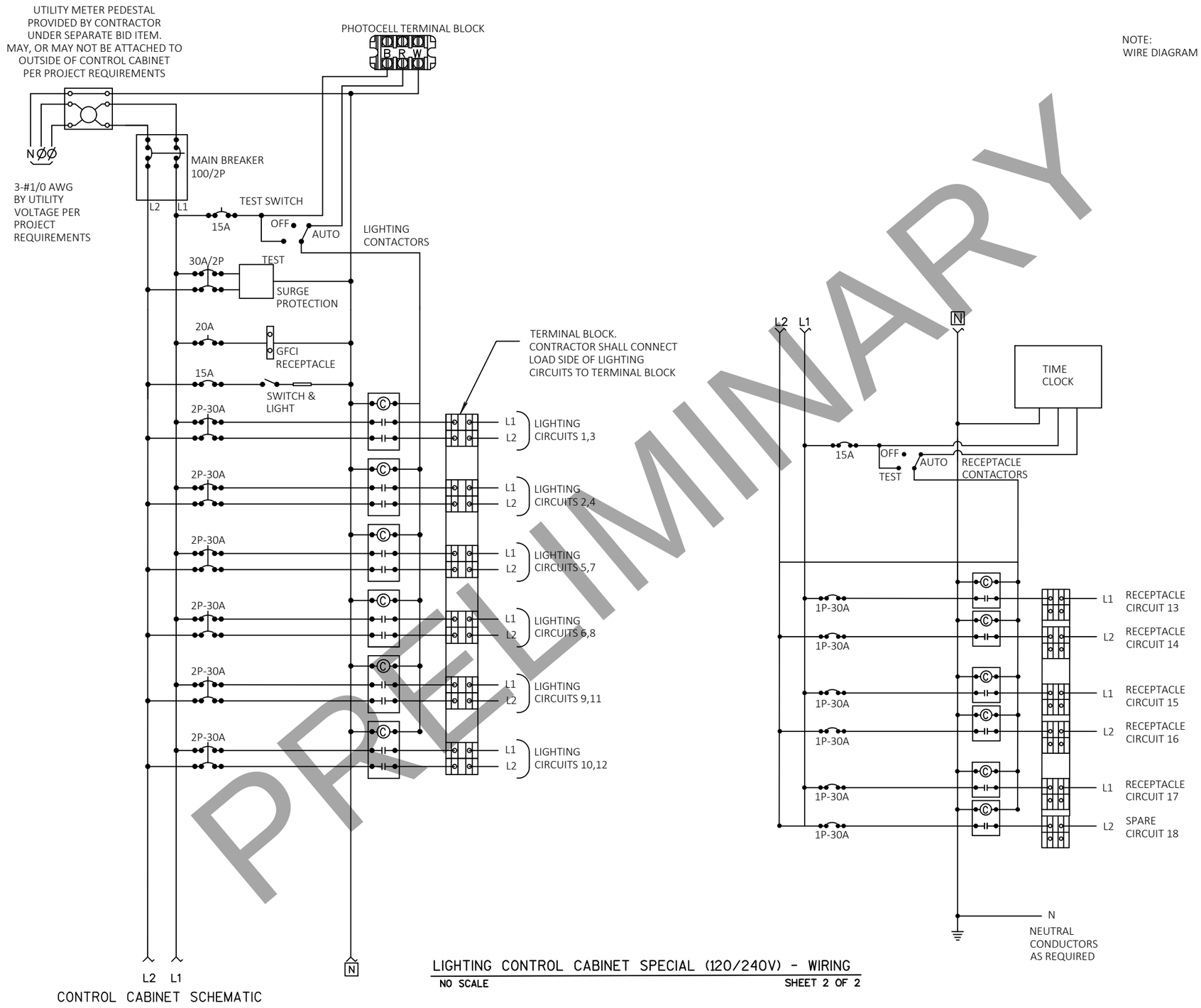
PRELIMINARY

LIGHTING CONTROL CABINET SPECIAL (120/240V) - LAYOUT

NO SCALE SHEET 1 OF 2

2

DRAFT April 20, 2020



NOTE:
WIRE DIAGRAM IS FOR LIGHTING CONTROL CABINET LC2

PRELIMINARY

LIGHTING CONTROL CABINET SPECIAL (120/240V) - WIRING

NO SCALE

PROJECT NO: 4992-03-00	HWY: RACINE ST	COUNTY: WINNEBAGO	LIGHTING - CONSTRUCTION DETAILS - CONTROL CABINET SCHEMATICS	SHEET PRE_81 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\BENJAMIN.GIESE@AECOM.COM\D0117278\023601_LP.DWG
LAYOUT NAME - Lighting Detail 2
PLOT DATE : 4/14/2020 12:43 PM PLOT BY : GIESE, BENJAMIN PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

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

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 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 NONMETALLIC 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 OF CABLE OR SIRE.

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

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FULL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE 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).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE 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 1" X 60".

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.

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

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

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

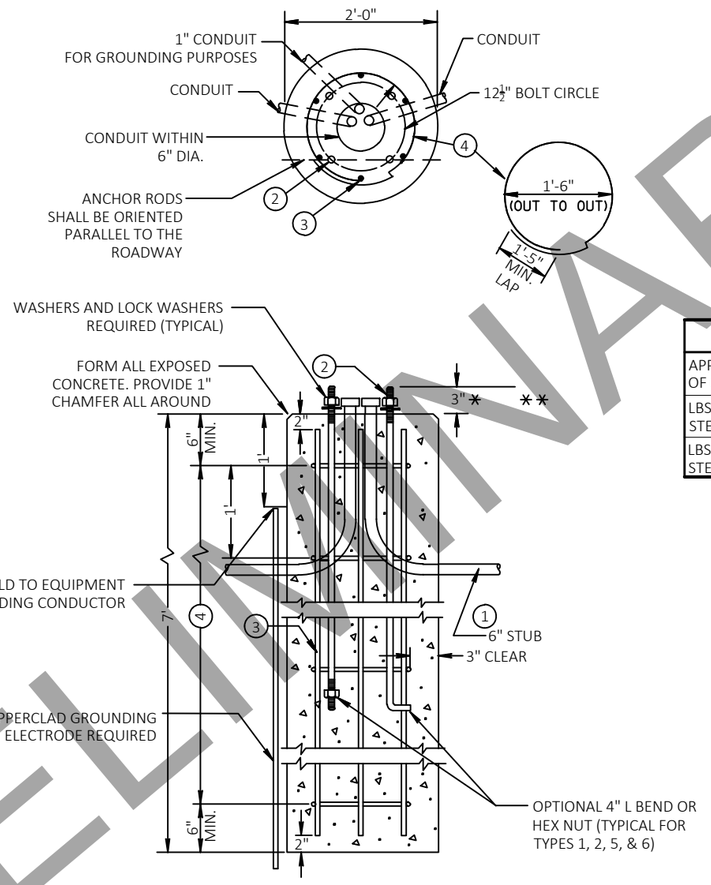
BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION)

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

(2) (4) 1" DIA. X 5'-0" ANCHOR RODS.

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

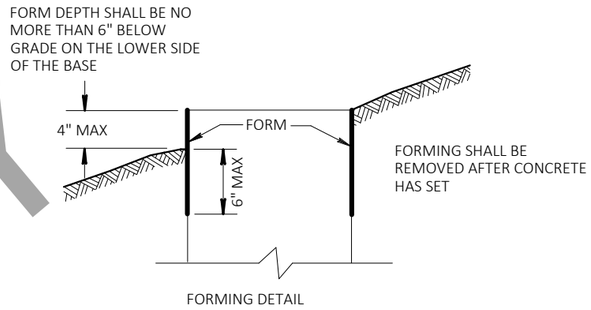
(4) (7) NO.4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C



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

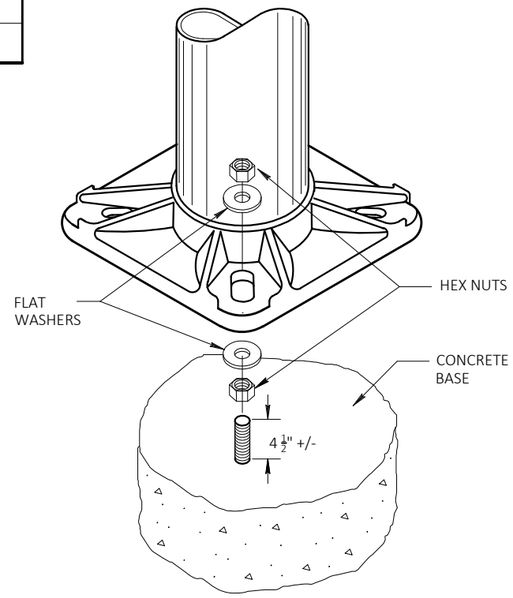
** FOR NONBREAKAWAY INSTALLATIONS. 4½"+/- ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASE, TYPE 7 MODIFIED
(12 1/2 INCH BOLT CIRCLE)



FORMING DETAIL

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	0.8
LBS. OF HOOP BAR STEEL	29
LBS. OF VERTICAL BAR STEEL	60



NON-BREAKAWAY INSTALLATION
(LEVELING UNIT)

PRELIMINARY

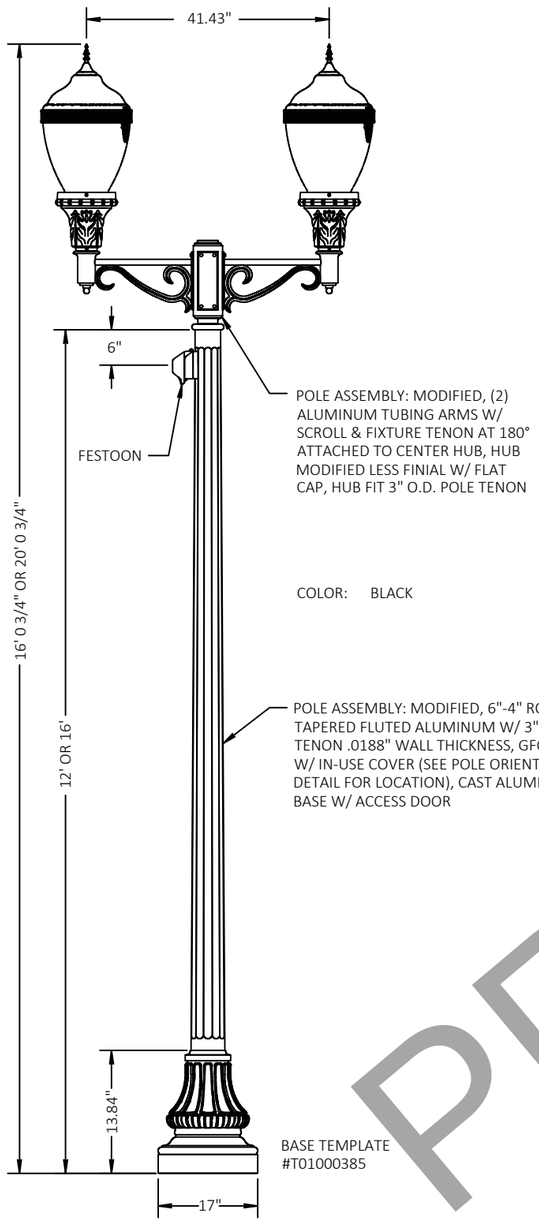
DRAFT April 20, 2020

PROJECT NO: 4992-03-00	HWY: RACINE ST	COUNTY: WINNEBAGO	LIGHT POLE CONCRETE BASE DETAILS	SHEET E

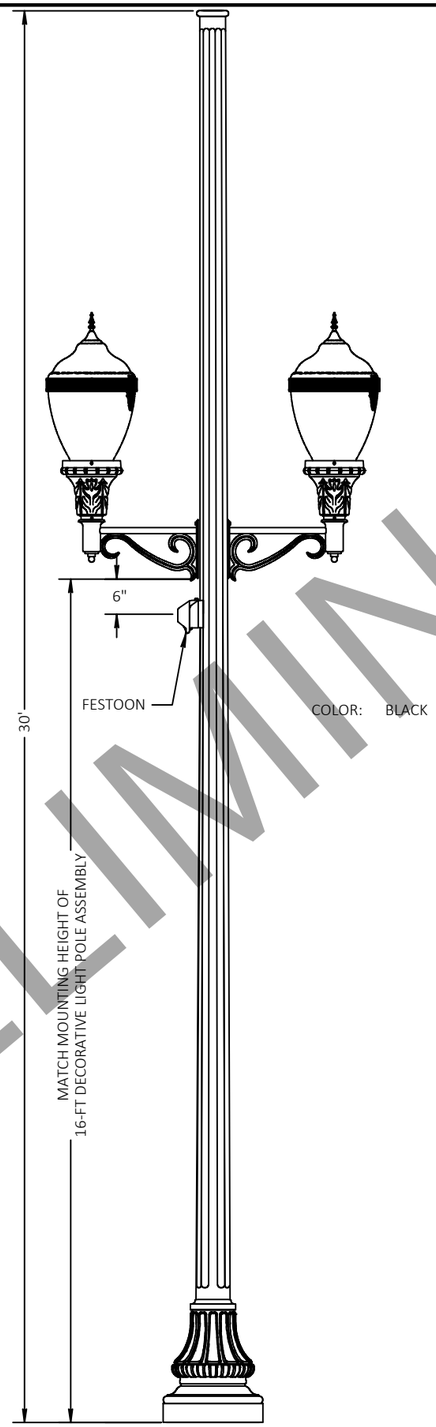
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\BENJAMIN.GIESE@AECOM.COM\D0117278\023601_LP.DWG
LAYOUT NAME - Lighting Detail 3
PLOT DATE : 4/14/2020 12:43 PM PLOT BY : GIESE, BENJAMIN PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

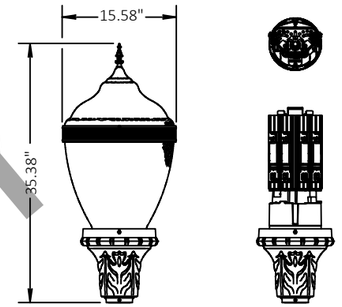


DECORATIVE LIGHT POLE ASSEMBLY
12-FT & 16-FT DETAIL



DECORATIVE LIGHT POLE ASSEMBLY
30-FT DETAIL

LUMINAIRE DETAIL



FITTER: RIBBED

COLOR: BLACK

GLOBE: LARGE CLEAR TEXTURED POLYCARBONATE

PHOTOEYE: NONE

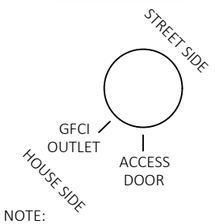
CAGE: PERFORATED BAND

FINIAL: GROSSE POINTE

LUMILOCK LED SPECIFICATIONS:

- 64,400K (NEUTRAL) LEDS, TYPICAL 75 COLOR RENDERING INDEX (CRI), >100,000 HOURS OF OPERATIONAL LIFE (AT 25°C AMBIENT TEMPERATURE & 70% LUMEN MAINTENANCE), INJECTION MOLDED TYPE III WIDE OPTICAL PLATES, IP66 RATED OPTICAL SYSTEM
- INTEGRAL PHILIPS ADVANCE XITANIUM LED DRIVER, CLASS 1, IP66 RATED, 350 mA, INTELLIVOLT 120-277 VAC, 50-60Hz, RoHS COMPIANT, FIELD REPLACEABLE 10kV/10kA SURGE SUPPRESSION
- MANUFACTURED TO ISO 9001:2008 STANDARDS
- C14419B FIXTURE AS SHOWN IS NOT THIRD PARTY (ETL/UL) LISTED

POLE ORIENTATION



NOTE:
POLE ORIENTATION FOR DRAWING PURPOSES ONLY, POUR CONCRETE PER ANCHOR ROD TEMPLATE

PRELIMINARY

PROJECT NO: 4992-03-00	HWY: RACINE ST	COUNTY: WINNEBAGO	LIGHTING DETAILS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\BENJAMIN.GIESE@AECOM.COM\D0117278\023601_LP.DWG
LAYOUT NAME - Lighting Detail 4
PLOT DATE : 4/14/2020 1:37 PM PLOT BY : GIESE, BENJAMIN PLOT NAME : PLOT SCALE : 1 IN:100 FT

NOTES:

1. GRAYSHADE REPRESENTS EXISTING & PROPOSED ROADWAY AND UTILITIES.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. PROVIDE SEPARATE 120V FESTOON RECEPTACLE CIRCUIT TO EACH DECORATIVE LIGHTING UNIT.
4. MOUNT FESTOONS 6" BELOW TOP OF POLE WITH 20 AMP/125 VOLT, GFCI TYPE RECEPTACLE AND WEATHERPROOF ENCLOSURE AND COVER.
5. INSTALL A JUNCTION BOX IN THE TRAFFIC BARRIER ADJACENT TO EACH LIGHTING ASSEMBLY ON THE BRIDGE. SEE STRUCTURE PLAN B-70-324 FOR DETAILS.
6. INSTALL LIGHT POLES L-0009, L-0010, L-0011, AND L-0012 ON A DECORATIVE PEDESTAL BASE. SEE STRUCTURE PLAN B-70-324.
7. INSTALL LIGHT POLE L-0027 ON A DECORATIVE PEDESTAL BASE. SEE STRUCTURE PLAN R-70-160.

LIGHTING PLAN LEGEND

- LIGHTING CONTROL CABINET
- ELECTRICAL SERVICE METER BREAKER PEDESTAL
- LIGHTING UNIT SPECIAL
- DECORATIVE LIGHTING UNIT (^ AIMING ORIENTATION OF LUMINAIRE)
- PULL BOX NON-CONDUCTIVE, 24" X 42"
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

NOTE: GRAYSHADE REPRESENTS EXISTING AND PROPOSED ROADWAY AND STRUCTURES

STA. XXX+XX', XX' RT
TYPE-30-12-5-1,3-13 (L-XXXX)

- STATION (LOCATION)
- LIGHT POLE NUMBER
- RECEPTACLE CIRCUIT (WHEN APPLICABLE)
- LIGHTING CIRCUIT
- BASE TYPE (DEC=SEE NOTES 6/7, 7=TYPE 7 MODIFIED, 5= TYPE 5)
- MAST ARM BRACKET LENGTH IN FEET
- POLE HEIGHT
- LUMINAIRES TYPE (LED=STANDARD & DEC=DECORATIVE)

DRAFT April 20, 2020

PRELIMINARY

AHNAIP ST
NAYMUT ST
KEYES ST
RIVERWAY
RACINE STREET
MAIN STREET
BROAD ST
1ST ST
R/W

1+87'NB', 28' RT
LED-30-6-5-6,8 (L-0001)

3+09'NB', 22' RT
LED-30-6-5-2,4 (L-0002)

4+06'NB', 25' RT
LED-30-6-5-5,7 (L-0003)

4+66'NB', 63' RT
LED-30-6-5-5,7 (L-0004)

4+97'NB', 27' RT
LED-30-6-5-1,3 (L-0005)

3+59'NB', 78' LT
LED-30-6-5-6,8 (L-0006)

5+80'NB', 26' LT
LED-30-6-5-2,4 (L-0007)

6+50'NB', 28' RT
LED-30-6-5-1,3 (L-0008)

SEE STRUCTURE PLAN B-70-324
FOR CONDUIT LOCATED IN TRAFFIC BARRIER.
CONDUIT SHOWN FOR LOCATION ONLY

8+11'NB', 26' LT
LED-30-6-DEC-2,4 (L-0009)

9+99'NB', 26' RT
LED-30-6-DEC-1,3 (L-0010)

11+26'NB', 26' LT
LED-30-6-DEC-2,4 (L-0011)

12+79'NB', 26' RT
LED-30-6-DEC-1,3 (L-0012

14+85'NB', 33' LT
LED-30-6-5-9,11 (L-0013)

14+66'SB', 32' LT
DEC-16-1.75-7-10,12-17 (L-0014)

15+13'SB', 30' LT
DEC-16-1.75-7-9,11-17 (L-0015)

15+05'SB', 103' LT
DEC-16-1.75-7-9,11-17 (L-0016)

15+13'SB', 205' LT
DEC-12-1.75-7-10,12-17 (L-0017)

15+18'SB', 146' LT
DEC-12-1.75-7-6,8-16 (L-0018)

15+48'SB', 35' LT
DEC-30-1.75-7-5,7-16 (L-0019)

15+97'SB', 32' LT
DEC-16-1.75-7-6,8-16 (L-0020)

16+97'SB', 33' LT
DEC-16-1.75-7-5,7-15 (L-0021)

16+30'NB', 24' RT
DEC-30-1.75-7-1,3-13 (L-0026)

16+77'NB', 16' LT
DEC-16-1.75-7-5,7-15 (L-0025)

17+59'NB', 24' RT
DEC-16-1.75-7-2,4-14 (L-0028)

17+70'SB', 35' LT
DEC-16-1.75-7-6,8-15 (L-0022)

18+57'NB', 36' RT
DEC-16-1.75-7-1,3-14 (L-0029)

18+66'SB', 26' LT
DEC-16-1.75-7-5,7-15 (L-0023)

19+55'NB', 21' RT
DEC-16-1.75-7-2,4-14 (L-0030)

19+66'SB', 25' LT
DEC-16-1.75-7-6,8-15 (L-0024)

20+59'NB', 23' RT
DEC-16-1.75-7-1,3-14 (L-0031)

15+73'NB', 43' RT
DEC-12-1.75-DEC-2,4-13 (L-0027)

SEE STRUCTURE PLAN R-70-160 FOR
RETAINING WALL CONNECTION TO L-0027.

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15 PB16 PB17 PB18 PB19
MB1 MB2
LC1 LC2

SCALE, FEET 0 50 100

PROJECT NO: 4992-03-00	HWY: RACINE ST	COUNTY: WINNEBAGO	LIGHTING PLAN	SHEET PRE_84 E

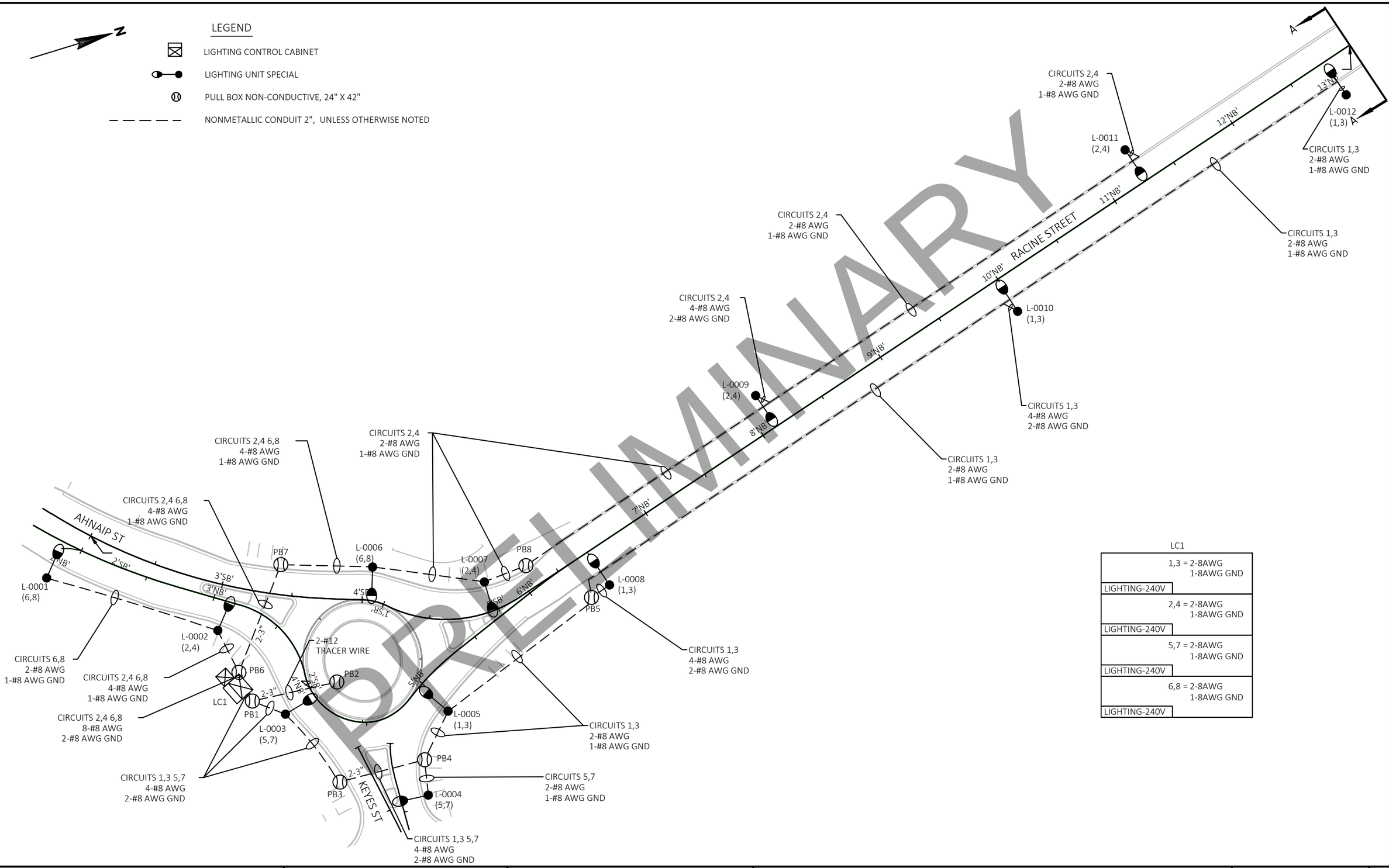
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\BENJAMIN.GIESE@AECOM.COM\D0117278\023601_LP.DWG
LAYOUT NAME - 023601_LP
PLOT DATE : 4/14/2020 1:44 PM PLOT BY : GIESE, BENJAMIN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

LEGEND

- LIGHTING CONTROL CABINET
- LIGHTING UNIT SPECIAL
- PULL BOX NON-CONDUCTIVE, 24" X 42"
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED



LC1

1,3 = 2-8AWG 1-8AWG GND	
LIGHTING-240V	
2,4 = 2-8AWG 1-8AWG GND	
LIGHTING-240V	
5,7 = 2-8AWG 1-8AWG GND	
LIGHTING-240V	
6,8 = 2-8AWG 1-8AWG GND	
LIGHTING-240V	

PRELIMINARY

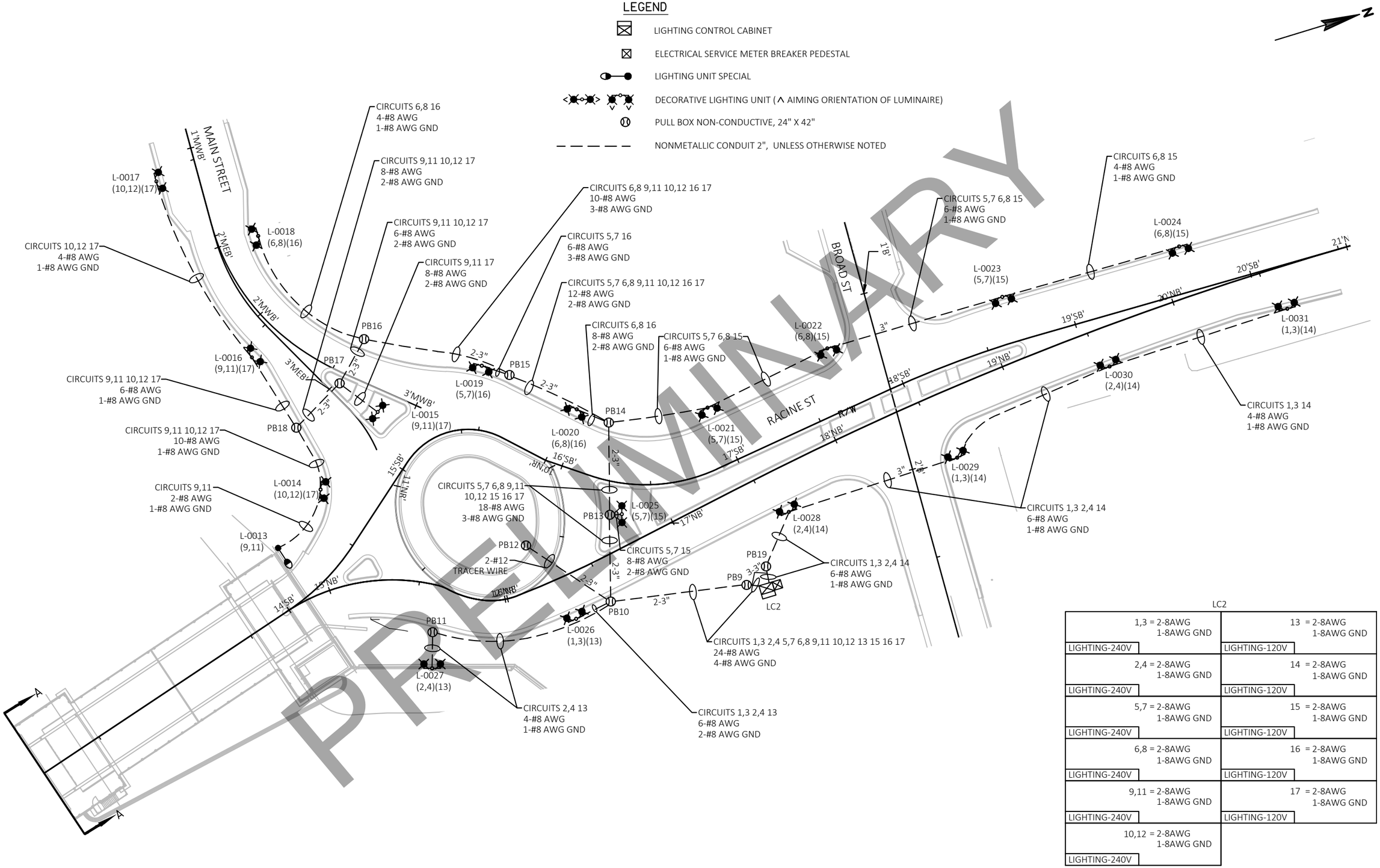
PROJECT NO: 4992-03-00	HWY: RACINE ST	COUNTY: WINNEBAGO	LIGHTING WIRE DIAGRAM	SHEET PRE_85 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\BENJAMIN.GIESE@AECOM.COM\D0117278\023602_LP.DWG
LAYOUT NAME - 023602_LP
PLOT DATE : 4/14/2020 1:49 PM PLOT BY : GIESE, BENJAMIN PLOT NAME : PLOT SCALE : NTS

DRAFT April 20, 2020

LEGEND

- LIGHTING CONTROL CABINET
- ELECTRICAL SERVICE METER BREAKER PEDESTAL
- LIGHTING UNIT SPECIAL
- DECORATIVE LIGHTING UNIT (^ AIMING ORIENTATION OF LUMINAIRE)
- PULL BOX NON-CONDUCTIVE, 24" X 42"
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED



PRELIMINARY

LC2

1,3 = 2-8AWG 1-8AWG GND LIGHTING-240V	13 = 2-8AWG 1-8AWG GND LIGHTING-120V
2,4 = 2-8AWG 1-8AWG GND LIGHTING-240V	14 = 2-8AWG 1-8AWG GND LIGHTING-120V
5,7 = 2-8AWG 1-8AWG GND LIGHTING-240V	15 = 2-8AWG 1-8AWG GND LIGHTING-120V
6,8 = 2-8AWG 1-8AWG GND LIGHTING-240V	16 = 2-8AWG 1-8AWG GND LIGHTING-120V
9,11 = 2-8AWG 1-8AWG GND LIGHTING-240V	17 = 2-8AWG 1-8AWG GND LIGHTING-120V
10,12 = 2-8AWG 1-8AWG GND LIGHTING-240V	

PROJECT NO: 4992-03-00	HWY: RACINE ST	COUNTY: WINNEBAGO	LIGHTING WIRE DIAGRAM	SHEET E

PRE_86

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\BENJAMIN.GIESE@AECOM.COM\D0117278\023602_LP.DWG
LAYOUT NAME - 023603_LP

PLOT DATE : 4/14/2020 1:51 PM PLOT BY : GIESE, BENJAMIN PLOT NAME : PLOT SCALE : NTS

WISDOT/CADDS SHEET 42

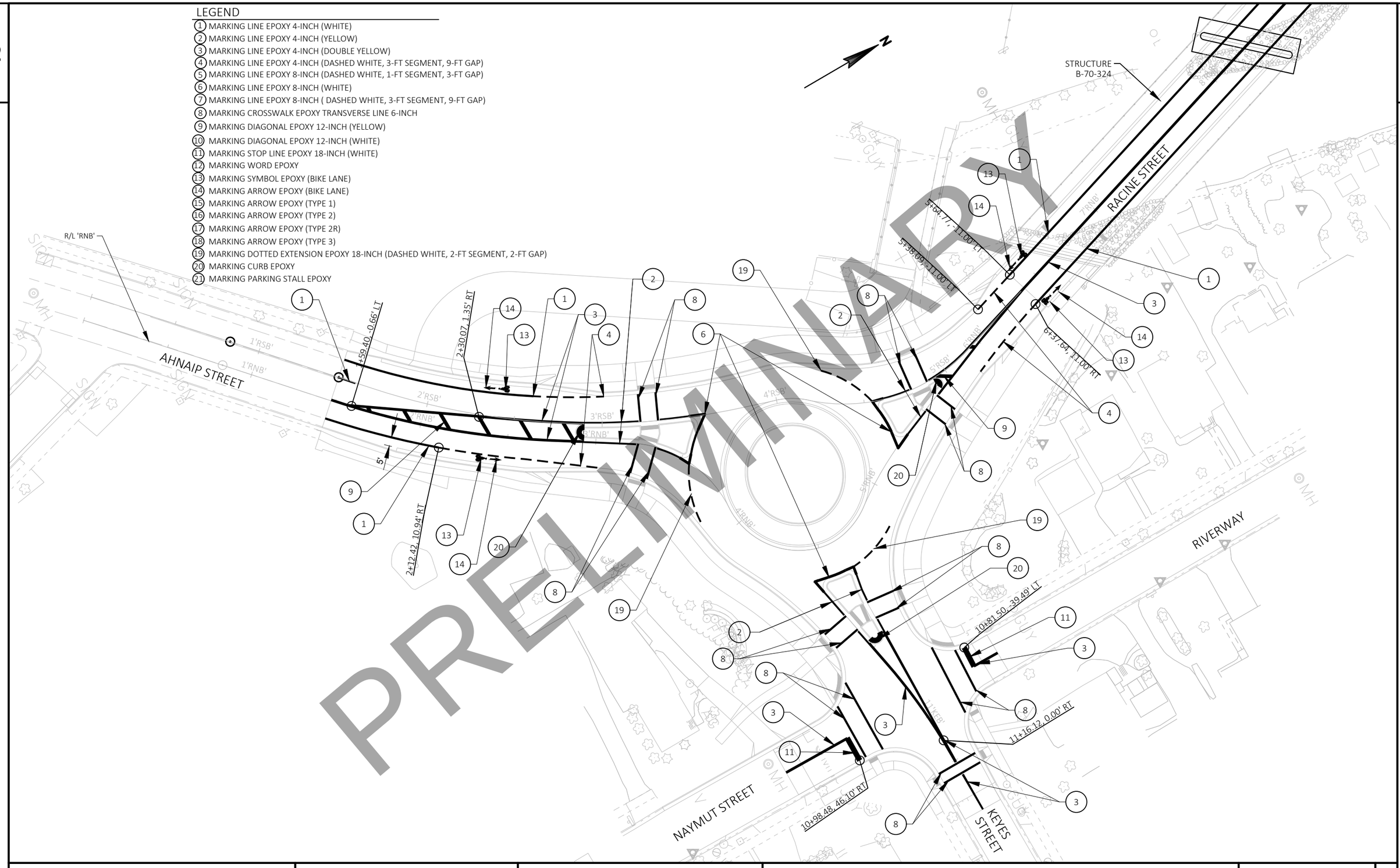
2

2

DRAFT April 20, 2020

LEGEND

1. MARKING LINE EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
4. MARKING LINE EPOXY 4-INCH (DASHED WHITE, 3-FT SEGMENT, 9-FT GAP)
5. MARKING LINE EPOXY 8-INCH (DASHED WHITE, 1-FT SEGMENT, 3-FT GAP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
7. MARKING LINE EPOXY 8-INCH (DASHED WHITE, 3-FT SEGMENT, 9-FT GAP)
8. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
9. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. MARKING STOP LINE EPOXY 18-INCH (WHITE)
12. MARKING WORD EPOXY
13. MARKING SYMBOL EPOXY (BIKE LANE)
14. MARKING ARROW EPOXY (BIKE LANE)
15. MARKING ARROW EPOXY (TYPE 1)
16. MARKING ARROW EPOXY (TYPE 2)
17. MARKING ARROW EPOXY (TYPE 2R)
18. MARKING ARROW EPOXY (TYPE 3)
19. MARKING DOTTED EXTENSION EPOXY 18-INCH (DASHED WHITE, 2-FT SEGMENT, 2-FT GAP)
20. MARKING CURB EPOXY
21. MARKING PARKING STALL EPOXY



PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	MARKING LINE PLAN	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\024501_PM.DWG
LAYOUT NAME - 024501

PLOT DATE : 2/27/2020 12:49 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

2

DRAFT April 20, 2020

LEGEND

1. MARKING LINE EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
4. MARKING LINE EPOXY 4-INCH (DASHED WHITE, 3-FT SEGMENT, 9-FT GAP)
5. MARKING LINE EPOXY 8-INCH (DASHED WHITE, 1-FT SEGMENT, 3-FT GAP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
7. MARKING LINE EPOXY 8-INCH (DASHED WHITE, 3-FT SEGMENT, 9-FT GAP)
8. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
9. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. MARKING STOP LINE EPOXY 18-INCH (WHITE)
12. MARKING WORD EPOXY
13. MARKING SYMBOL EPOXY (BIKE LANE)
14. MARKING ARROW EPOXY (BIKE LANE)
15. MARKING ARROW EPOXY (TYPE 1)
16. MARKING ARROW EPOXY (TYPE 2)
17. MARKING ARROW EPOXY (TYPE 2R)
18. MARKING ARROW EPOXY (TYPE 3)
19. MARKING DOTTED EXTENSION EPOXY 18-INCH (DASHED WHITE, 2-FT SEGMENT, 2-FT GAP)
20. MARKING CURB EPOXY
21. MARKING PARKING STALL EPOXY

N

STRUCTURE B-70-324

R/L 'RNB'

RACINE STREET

9'RNB'

10'RNB'

11'RNB'

12'RNB'

13'RNB'

14'RNB'

14'BSB'

3

1

11

13

14

11+47.50, 16.00' RT

3+02.57, 12.00' LT

14+74.75, 0.00'

FOX RIVER

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	MARKING LINE PLAN	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\024501_PM.DWG
LAYOUT NAME - 024502

PLOT DATE : 2/27/2020 12:49 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

PRE_88

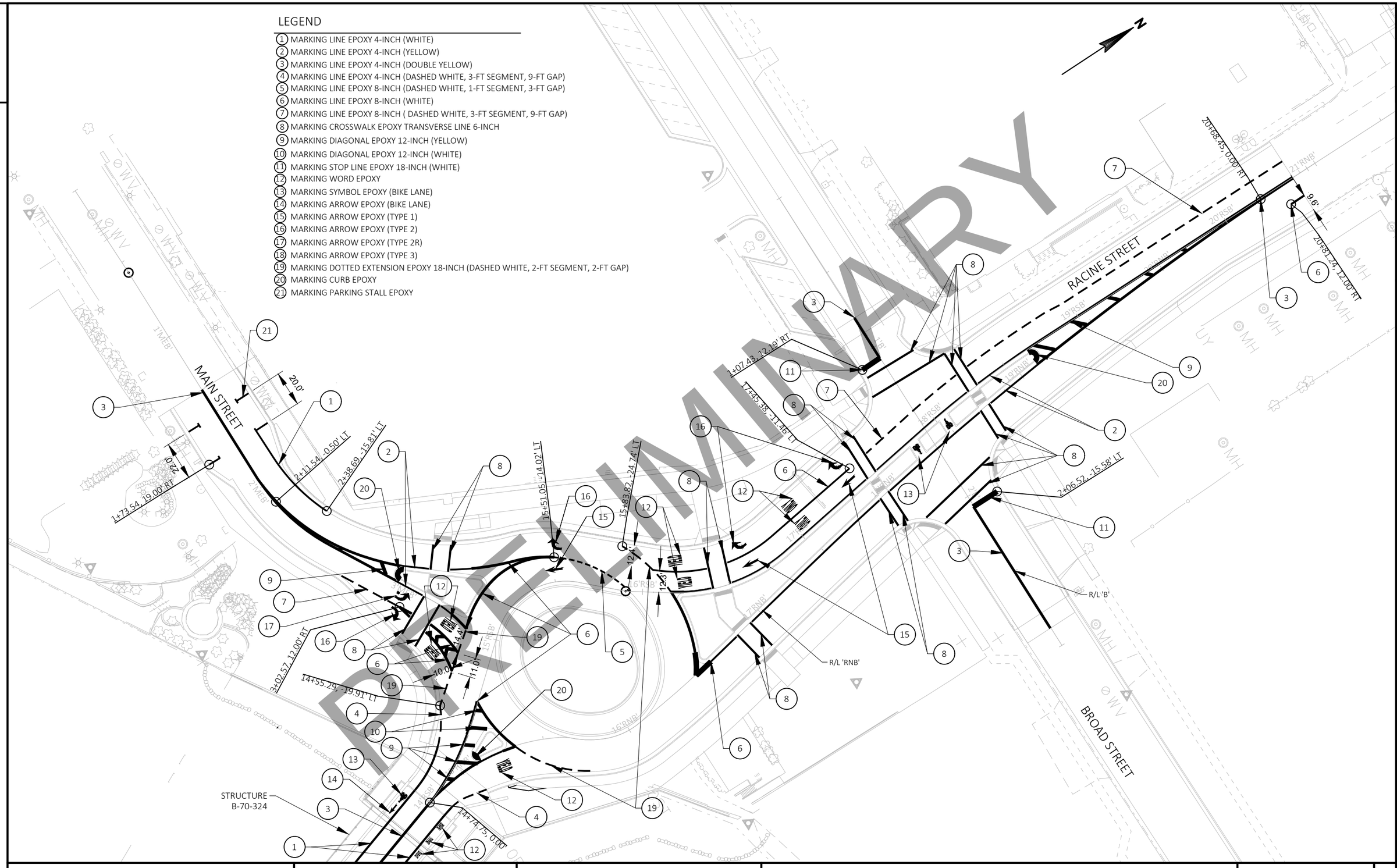
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

LEGEND

1. MARKING LINE EPOXY 4-INCH (WHITE)
2. MARKING LINE EPOXY 4-INCH (YELLOW)
3. MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
4. MARKING LINE EPOXY 4-INCH (DASHED WHITE, 3-FT SEGMENT, 9-FT GAP)
5. MARKING LINE EPOXY 8-INCH (DASHED WHITE, 1-FT SEGMENT, 3-FT GAP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
7. MARKING LINE EPOXY 8-INCH (DASHED WHITE, 3-FT SEGMENT, 9-FT GAP)
8. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
9. MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
10. MARKING DIAGONAL EPOXY 12-INCH (WHITE)
11. MARKING STOP LINE EPOXY 18-INCH (WHITE)
12. MARKING WORD EPOXY
13. MARKING SYMBOL EPOXY (BIKE LANE)
14. MARKING ARROW EPOXY (BIKE LANE)
15. MARKING ARROW EPOXY (TYPE 1)
16. MARKING ARROW EPOXY (TYPE 2)
17. MARKING ARROW EPOXY (TYPE 2R)
18. MARKING ARROW EPOXY (TYPE 3)
19. MARKING DOTTED EXTENSION EPOXY 18-INCH (DASHED WHITE, 2-FT SEGMENT, 2-FT GAP)
20. MARKING CURB EPOXY
21. MARKING PARKING STALL EPOXY



PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	MARKING LINE PLAN	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\024501_PM.DWG
LAYOUT NAME - 024503

PLOT DATE : 2/27/2020 12:49 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020

PRELIMINARY

PRELIMINARY

AHNAIP STREET

MAIN STREET

N

NORMAL TRAFFIC PATTERN TO REMAIN ALONG RACINE STREET, MAIN STREET, AND BROAD STREET

NORMAL TRAFFIC PATTERN TO REMAIN ALONG AHNAIP STREET, KEYES STREET. NAYMUT STREET, AND RIVERWAY

CONSTRUCT BASCULE SPAN AND BRIDGE PIERS OFF ALIGNMENT TO NOT INTERFERE WITH NORMAL TRAFFIC

STRUCTURE B-70-001

STRUCTURE B-70-324

WORK ZONE

RETAINING WALL R-70-160

10+00'RNB'

20+00'RNB'

R/L 'RNB'

5+00'RNB'

RACINE STREET

RACINE STREET

MB

TRUCKS ENTERING & LEAVING

W8-6A (MOD)

BRIDGE WORK AHEAD | BEGINS XX/XX

PLACE BEHIND WALK IN GRASS

BRIDGE WORK AHEAD | BEGINS XX/XX

PLACE ON CORNER IN STAGING AREA

NAYMUT STREET

RIVERWAY

KEYES STREET

FOX RIVER

BROAD STREET

1ST STREET

2ND STREET

NOTES:
1. PEDESTRIAN ACCESS AND TRAFFIC TO REMAIN UNCHANGED DURING THIS STAGE.
2. ALL SIGNS SIZE 48"X48" UNLESS OTHERWISE NOTED.
3. PCMS (MB) TO BE PLACED IN ADVANCE OF EACH STAGING SWITCH. SEE SPECIAL PROVISIONS.

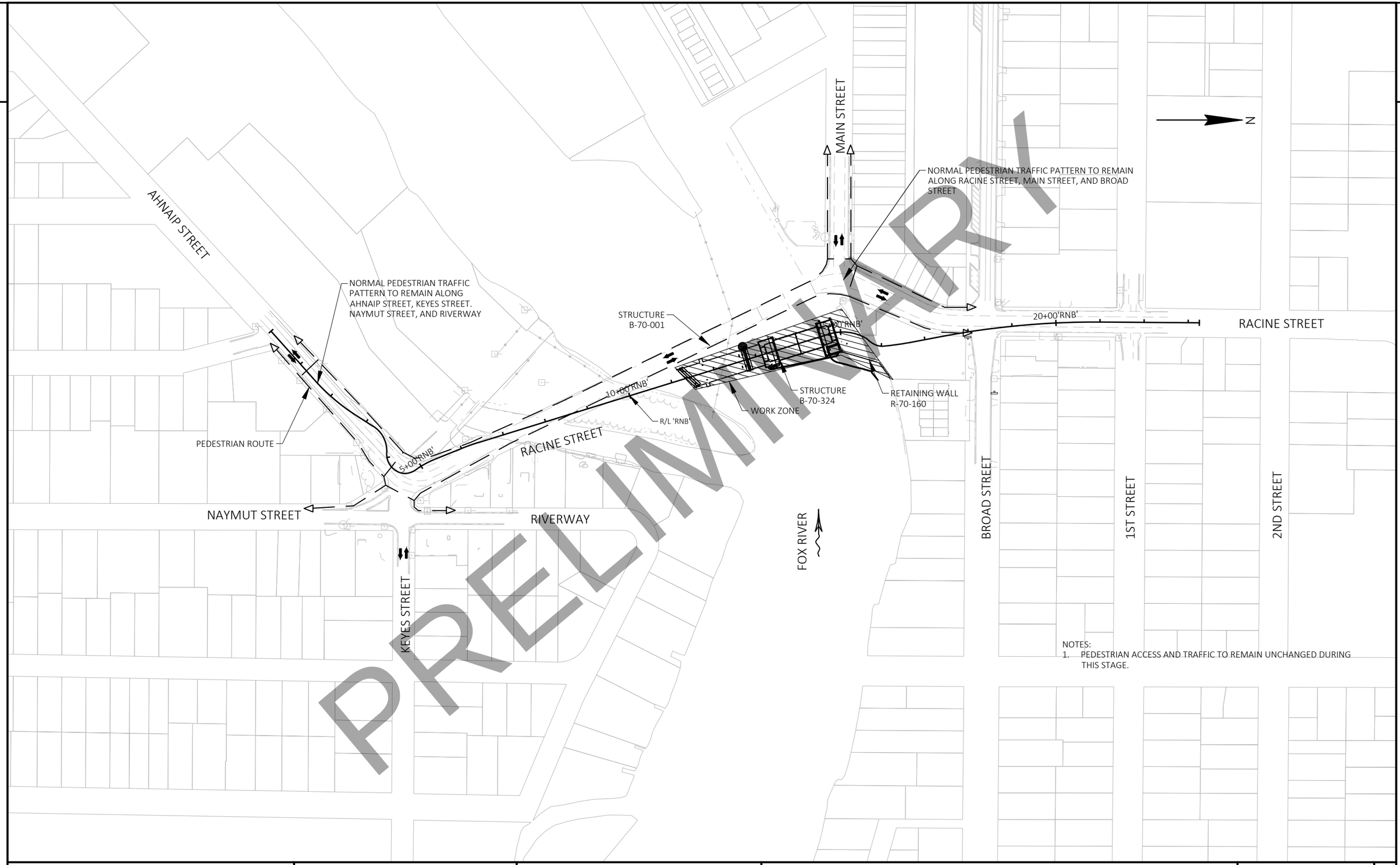
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 1	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\025001_TC.DWG
LAYOUT NAME - 01
PLOT DATE : 4/16/2020 9:07 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

2

DRAFT April 20, 2020



NOTES:
1. PEDESTRIAN ACCESS AND TRAFFIC TO REMAIN UNCHANGED DURING THIS STAGE.

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 1 - PEDESTRIAN ACCOMMODATIONS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\025001_TC.DWG
LAYOUT NAME - 02
PLOT DATE : 4/16/2020 9:08 AM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

PRELIMINARY

N

AHNAIP STREET

MAIN STREET

TEMPORARY MARKING LINE PAINT 4-INCH (SOLID WHITE)

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

TEMPORARY MARKING LINE PAINT 4-INCH (DOUBLE YELLOW)

MARKING LINE REMOVAL WIDE (FOR STOP LINES ON RACINE ST. AND MAIN ST.)

RETAINING WALL R-70-159

LANE CLOSED
R11-2L
48"X30"

COVER OVERHEAD 'LEFT TURN ONLY' SIGN

CONTINUE BASCULE SPAN CONSTRUCTION. BEGIN CONSTRUCTION OF FIXED SPAN PIERS ON ALIGNMENT AND DEMOLITION OF EXISTING STRUCTURE.

STRUCTURE B-70-001

INSTALL TEMPORARY PEDESTRIAN BARRICADE WITH SIGN

DO NOT ENTER
R5-1
30"X30"

10+00 'RNB'

20+00 'RNB'

RACINE STREET

MB

STRUCTURE B-70-324

RETAINING WALL R-70-160

R/L 'RNB'

WORK ZONE

TRUCKS ENTERING & LEAVING
W6-6A

BRIDGE TO CLOSE | BEGINS XX/XX

PLACE ON CORNER IN STAGING AREA

BRIDGE TO CLOSE | BEGINS XX/XX

PLACE BEHIND WALK IN GRASS

5+00 'RNB'

BIW

NAYMUT STREET

RIVERWAY

BRIDGE OUT
R11-2B
48"X30"

BRIDGE OUT
R11-2B
48"X30"

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

KEYES STREET

FOX RIVER

BROAD STREET

1ST STREET

2ND STREET

NOTES:
1. FIELD FIT SIGNS AND TRAFFIC CONTROL DEVICES TO FIELD CONDITIONS.
2. ALL SIGNS SIZE 48"X48" UNLESS OTHERWISE NOTED.
3. PCMS (MB) TO BE PLACED IN ADVANCE OF EACH STAGING SWITCH. SEE SPECIAL PROVISIONS.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 2	SHEET E

PRE_92

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\025002_TC.DWG
LAYOUT NAME - 01
PLOT DATE : 4/16/2020 9:10 AM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

AHNAIP STREET

UTILIZE EXISTING CROSSWALK

PEDESTRIAN ROUTE

5+00 'RNB'

NAYMUT STREET

UTILIZE EXISTING CROSSWALK

KEYES STREET

RACINE STREET

10+00 'RNB'

R/L 'RNB'

WORK ZONE

STRUCTURE B-70-324

RETAINING WALL R-70-159

RETAINING WALL R-70-160

MAIN STREET

UTILIZE EXISTING CROSSWALK

15+00 'RNB'

20+00 'RNB'

RACINE STREET

RIVERWAY

FOX RIVER

BROAD STREET

1ST STREET

2ND STREET

N

NOTES:
1. FIELD FIT SIGNS AND TRAFFIC CONTROL DEVICES TO FIELD CONDITIONS.
2. UTILIZE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" & "TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN ACCESS.
3. SEE PEDESTRIAN DETOUR FOR ADDITIONAL SIGNING.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 2 - PEDESTRIAN ACCOMMODATIONS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\025002_TC.DWG
LAYOUT NAME - 02
PLOT DATE : 4/16/2020 9:10 AM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

AHNAIP STREET

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

INSTALL TEMPORARY PEDESTRIAN BARRICADES WITH SIGN R5-1 (FROM PREVIOUS STAGE)

RETAINING WALL R-70-161

CONTINUE BASCULE SPAN CONSTRUCTION. BEGIN CONSTRUCTION OF FIXED SPAN PIERS ON ALIGNMENT AND DEMOLITION OF EXISTING STRUCTURE.

RETAINING WALL R-70-159

MAIN STREET

REFER TO SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES, DETAIL 1"

RACINE STREET

REFER TO SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

MAINTAIN BUSINESS ACCESS DURING CONSTRUCTION

REFER TO SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES, DETAIL 4"

STRUCTURE B-70-324

WORK ZONE

RETAINING WALL R-70-160

RACINE STREET

NAYMUT STREET

RIVERWAY

KEYES STREET

FOX RIVER

BROAD STREET

1ST STREET

2ND STREET

N

ROAD TO CLOSE	BEGINS XX/XX

PLACE IN PARKING LANE

PLACE BEHIND WALK IN GRASS

PLACE ON CORNER IN STAGING AREA

NOTES:
1. FIELD FIT SIGNS AND TRAFFIC CONTROL DEVICES TO FIELD CONDITIONS.
2. MAINTAIN PENINSULA ACCESS DURING STAGE 3 FOR THE ARMY CORPS OF ENGINEERS TO SERVICE THE DAM.
3. PCMS (MB) TO BE PLACED IN ADVANCE OF EACH STAGING SWITCH. SEE SPECIAL PROVISIONS. PLACE 4 DRUM ARRAY WITH WARNING LIGHTS IN FRONT OF PCMS ON THE ROADWAY.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 3	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\025003_TC.DWG
LAYOUT NAME - 01

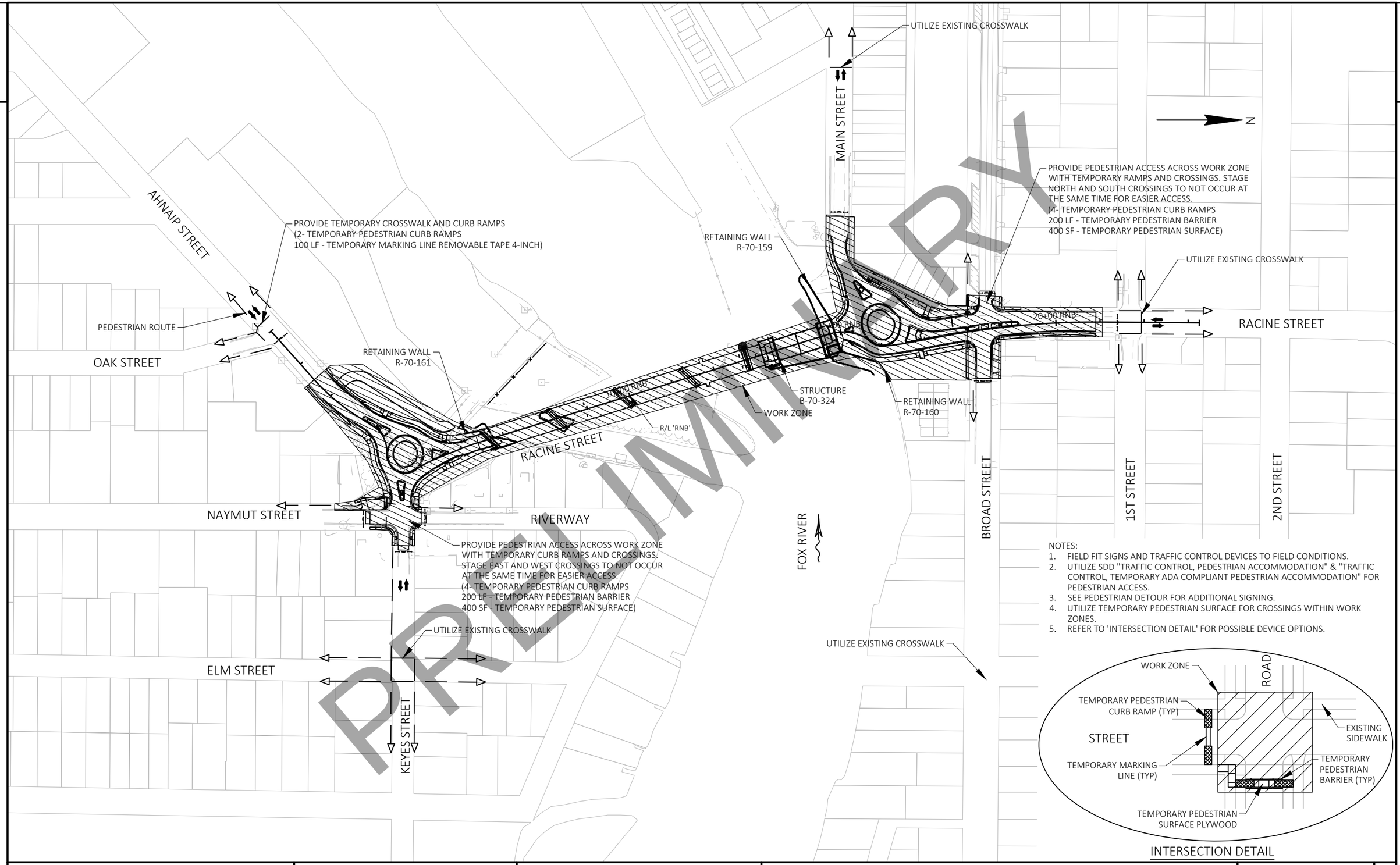
PLOT DATE : 4/16/2020 9:12 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY



NOTES:

1. FIELD FIT SIGNS AND TRAFFIC CONTROL DEVICES TO FIELD CONDITIONS.
2. UTILIZE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" & "TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION" FOR PEDESTRIAN ACCESS.
3. SEE PEDESTRIAN DETOUR FOR ADDITIONAL SIGNING.
4. UTILIZE TEMPORARY PEDESTRIAN SURFACE FOR CROSSINGS WITHIN WORK ZONES.
5. REFER TO 'INTERSECTION DETAIL' FOR POSSIBLE DEVICE OPTIONS.

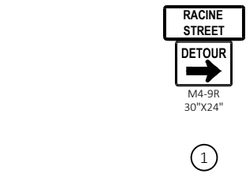
INTERSECTION DETAIL

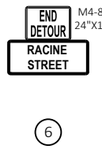
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	TRAFFIC CONTROL STAGE 3 - PEDESTRIAN ACCOMMODATIONS	SHEET E

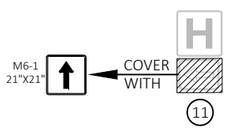
PRE_95

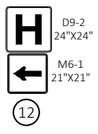
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\025003_TC.DWG
LAYOUT NAME - 02
PLOT DATE : 4/16/2020 9:12 AM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

DRAFT April 20, 2020









LEGEND

- WORK-ZONE/CLOSURE
- SIGN ON PERMANENT SUPPORT
- VEHICLE DETOUR

PRELIMINARY

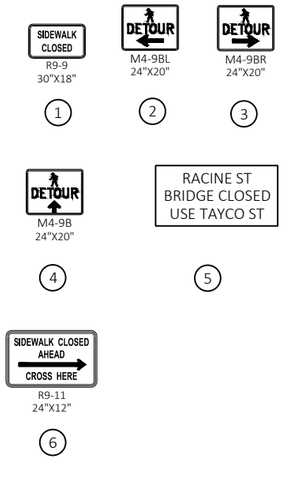
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	DETOUR PLAN	SHEET E

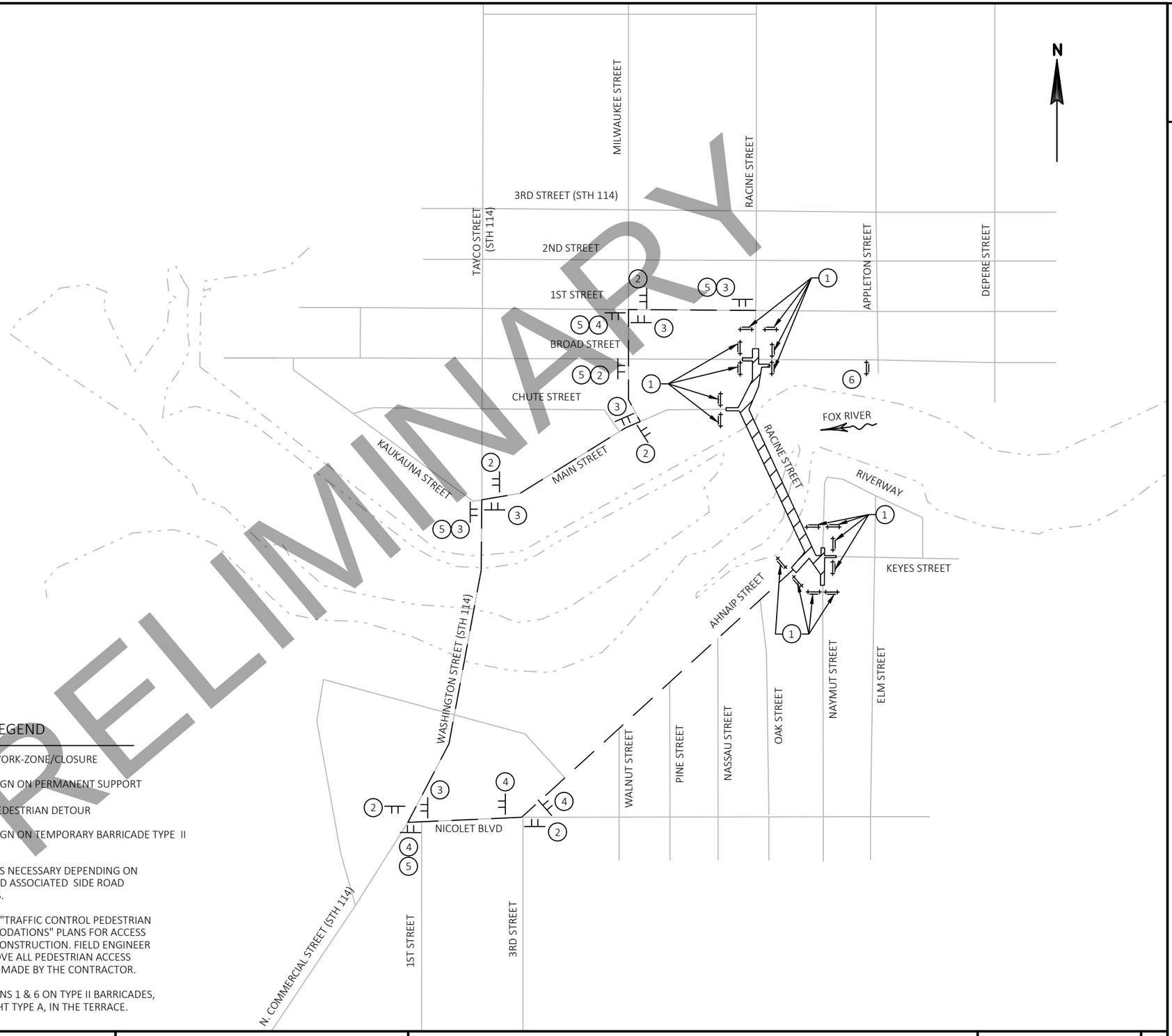
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027001_DT.DWG
LAYOUT NAME - vehicle

PLOT DATE : 4/16/2020 9:13 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020





PRELIMINARY

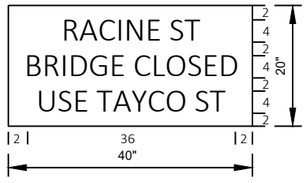
LEGEND

- WORK-ZONE/CLOSURE
- SIGN ON PERMANENT SUPPORT
- PEDESTRIAN DETOUR
- SIGN ON TEMPORARY BARRICADE TYPE II

NOTE:
UPDATE AS NECESSARY DEPENDING ON STAGE AND ASSOCIATED SIDE ROAD CLOSURES.

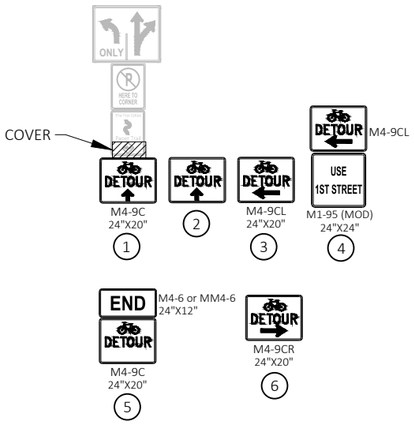
REFER TO "TRAFFIC CONTROL PEDESTRIAN ACCOMMODATIONS" PLANS FOR ACCESS DURING CONSTRUCTION. FIELD ENGINEER TO APPROVE ALL PEDESTRIAN ACCESS CHANGES MADE BY THE CONTRACTOR.

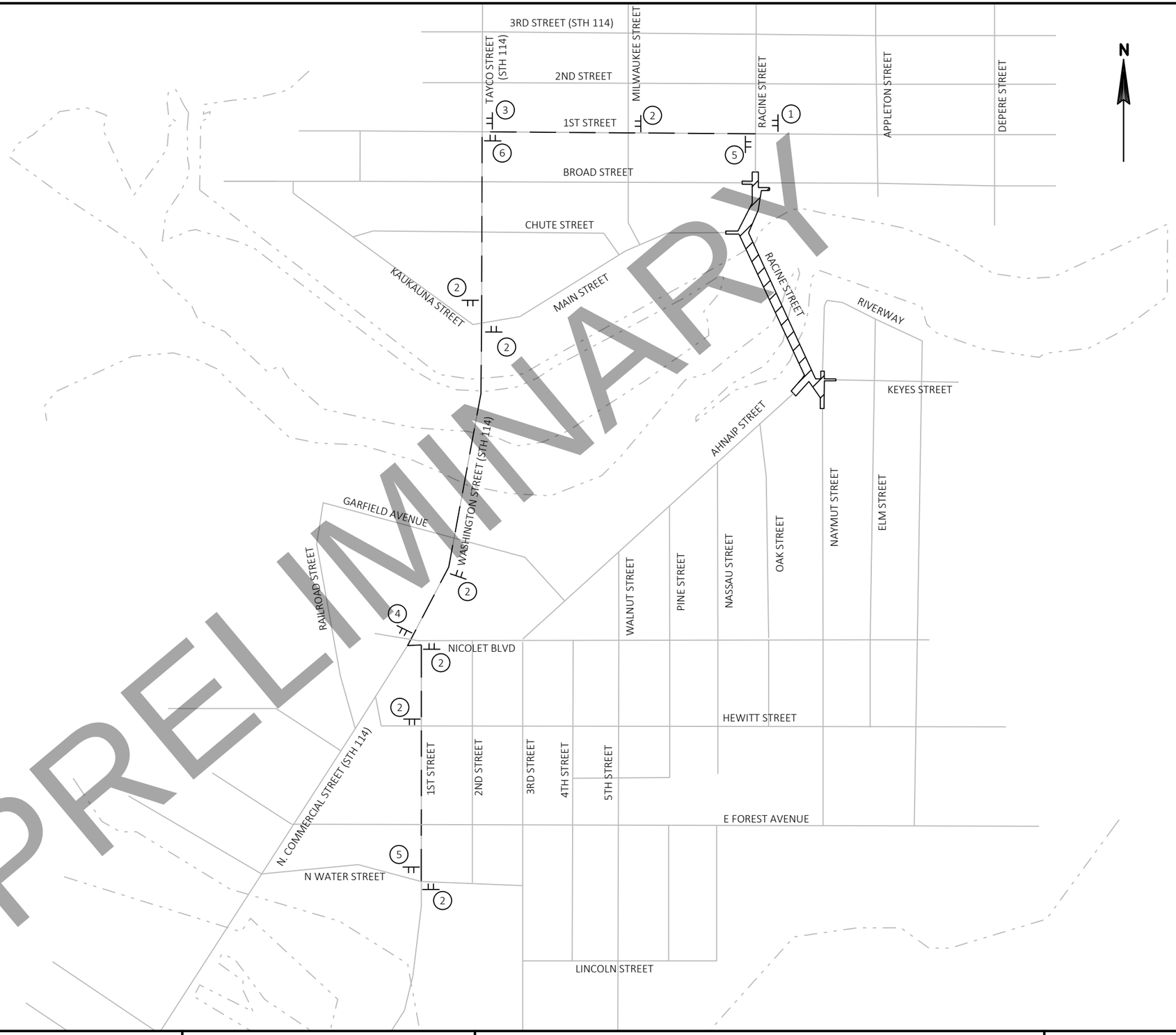
PLACE SIGNS 1 & 6 ON TYPE II BARRICADES, WITH LIGHT TYPE A, IN THE TERRACE.



PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PEDESTRIAN DETOUR PLAN	SHEET E

DRAFT April 20, 2020





PRELIMINARY

LEGEND

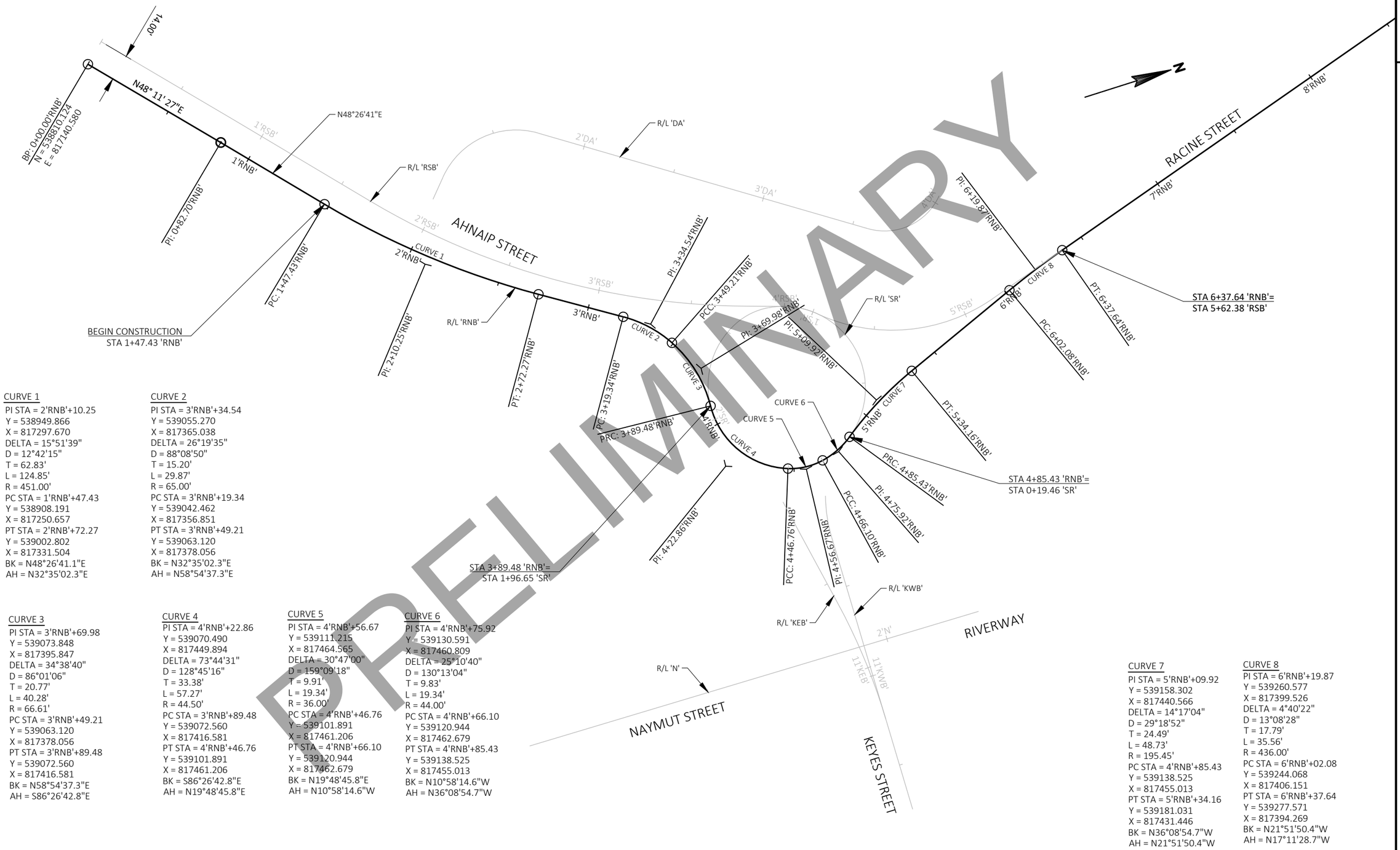
- WORK-ZONE/CLOSURE
- SIGN ON PERMANENT SUPPORT
- BICYCLE DETOUR

NOTE:
UPDATE AS NECESSARY DEPENDING ON STAGE AND ASSOCIATED SIDE ROAD CLOSURES.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	BICYCLE DETOUR PLAN	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027001_DT.DWG
LAYOUT NAME - bike
PLOT DATE : 4/16/2020 9:13 AM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########

DRAFT April 20, 2020



PRELIMINARY

CURVE 1
PI STA = 2'RNB'+10.25
Y = 538949.866
X = 817297.670
DELTA = 15°51'39"
D = 12°42'15"
T = 62.83'
L = 124.85'
R = 451.00'
PC STA = 1'RNB'+47.43
Y = 538908.191
X = 817250.657
PT STA = 2'RNB'+72.27
Y = 539002.802
X = 817331.504
BK = N48°26'41.1"E
AH = N32°35'02.3"E

CURVE 2
PI STA = 3'RNB'+34.54
Y = 539055.270
X = 817365.038
DELTA = 26°19'35"
D = 88°08'50"
T = 15.20'
L = 29.87'
R = 65.00'
PC STA = 3'RNB'+19.34
Y = 539042.462
X = 817356.851
PT STA = 3'RNB'+49.21
Y = 539063.120
X = 817378.056
BK = N32°35'02.3"E
AH = N58°54'37.3"E

CURVE 3
PI STA = 3'RNB'+69.98
Y = 539073.848
X = 817395.847
DELTA = 34°38'40"
D = 86°01'06"
T = 20.77'
L = 40.28'
R = 66.61'
PC STA = 3'RNB'+49.21
Y = 539063.120
X = 817378.056
PT STA = 3'RNB'+89.48
Y = 539072.560
X = 817416.581
BK = N58°54'37.3"E
AH = S86°26'42.8"E

CURVE 4
PI STA = 4'RNB'+22.86
Y = 539070.490
X = 817449.894
DELTA = 73°44'31"
D = 128°45'16"
T = 33.38'
L = 57.27'
R = 44.50'
PC STA = 3'RNB'+89.48
Y = 539072.560
X = 817416.581
PT STA = 4'RNB'+46.76
Y = 539101.891
X = 817461.206
BK = S86°26'42.8"E
AH = N19°48'45.8"E

CURVE 5
PI STA = 4'RNB'+56.67
Y = 539111.215
X = 817464.565
DELTA = 30°47'00"
D = 159°09'18"
T = 9.91'
L = 19.34'
R = 36.00'
PC STA = 4'RNB'+46.76
Y = 539101.891
X = 817461.206
PT STA = 4'RNB'+66.10
Y = 539120.944
X = 817462.679
BK = N19°48'45.8"E
AH = N10°58'14.6"W

CURVE 6
PI STA = 4'RNB'+75.92
Y = 539130.591
X = 817460.809
DELTA = 25°10'40"
D = 130°13'04"
T = 9.83'
L = 19.34'
R = 44.00'
PC STA = 4'RNB'+66.10
Y = 539120.944
X = 817462.679
PT STA = 4'RNB'+85.43
Y = 539138.525
X = 817455.013
BK = N10°58'14.6"W
AH = N36°08'54.7"W

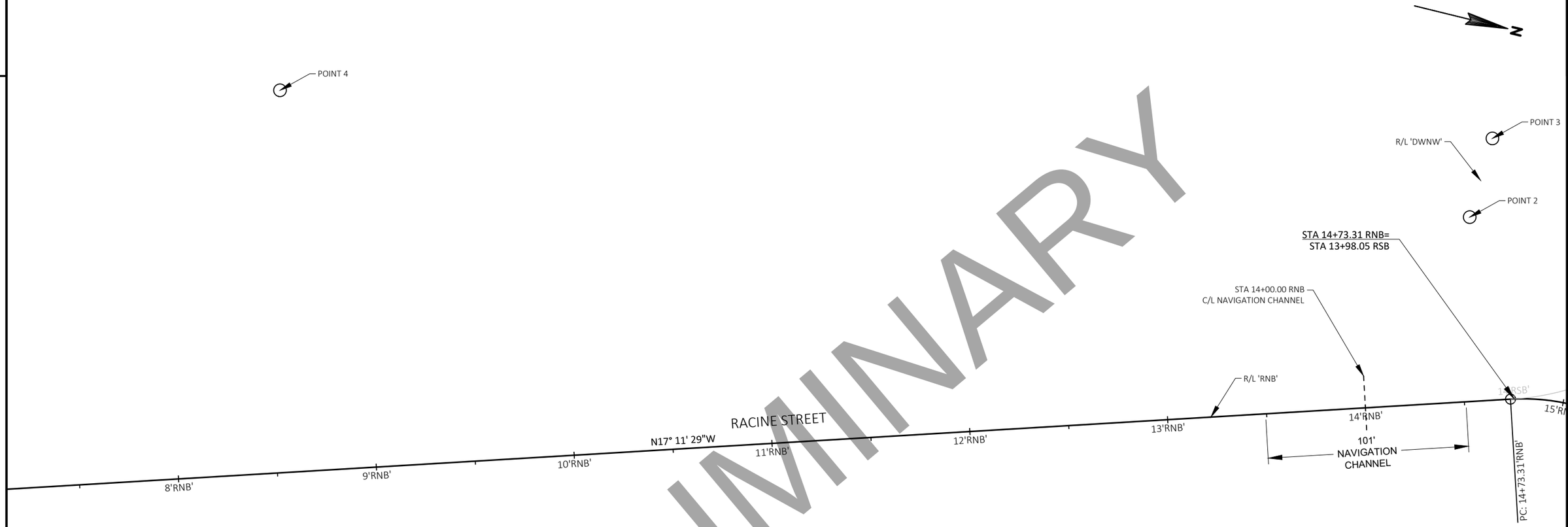
CURVE 7
PI STA = 5'RNB'+09.92
Y = 539158.302
X = 817440.566
DELTA = 14°17'04"
D = 29°18'52"
T = 24.49'
L = 48.73'
R = 195.45'
PC STA = 4'RNB'+85.43
Y = 539138.525
X = 817455.013
PT STA = 5'RNB'+34.16
Y = 539181.031
X = 817431.446
BK = N36°08'54.7"W
AH = N21°51'50.4"W

CURVE 8
PI STA = 6'RNB'+19.87
Y = 539260.577
X = 817399.526
DELTA = 4°40'22"
D = 13°08'28"
T = 17.79'
L = 35.56'
R = 436.00'
PC STA = 6'RNB'+02.08
Y = 539244.068
X = 817406.151
PT STA = 6'RNB'+37.64
Y = 539277.571
X = 817394.269
BK = N21°51'50.4"W
AH = N17°11'28.7"W

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: RACINE STREET NB	SHEET E

2

DRAFT April 20, 2020



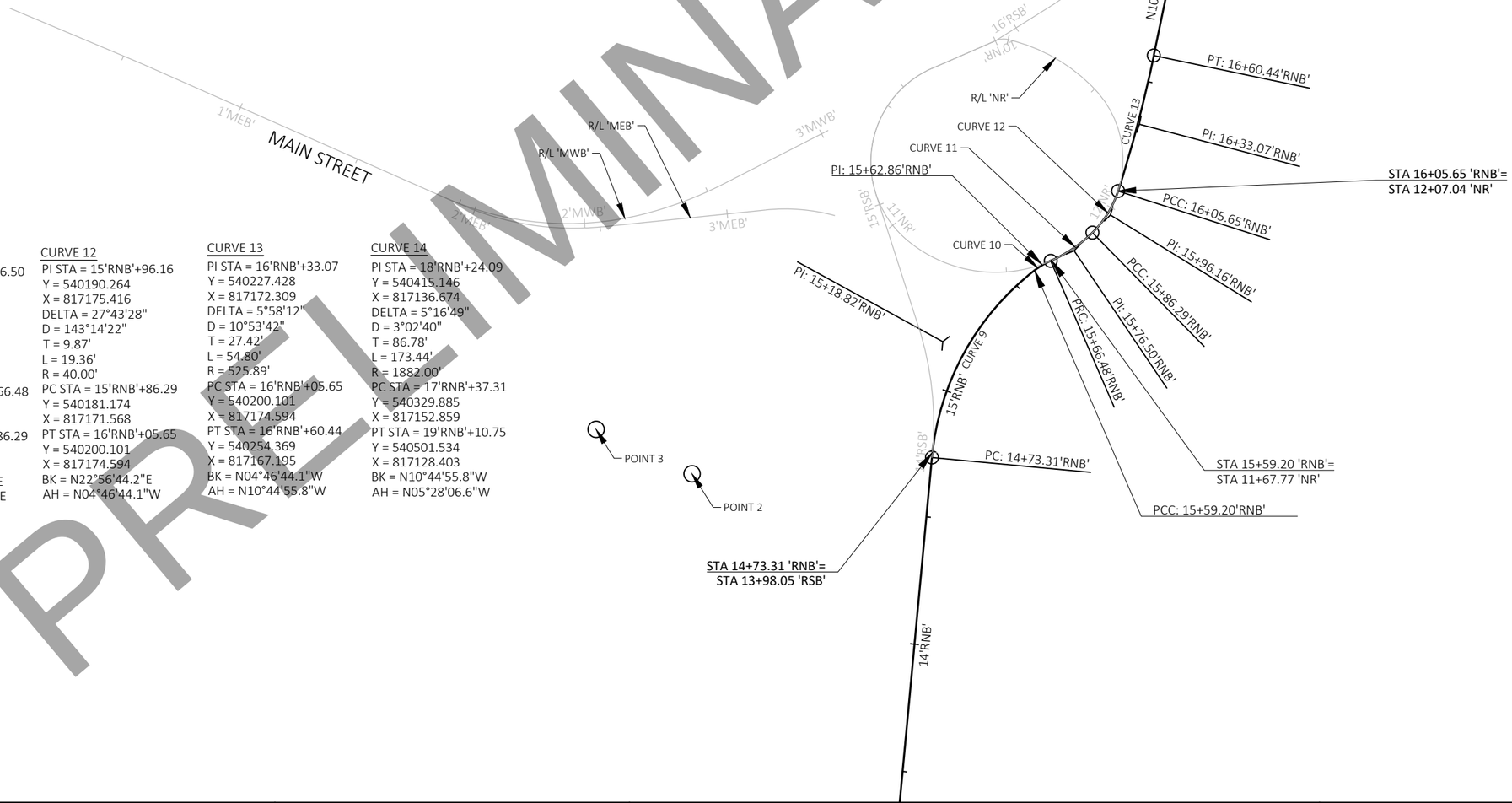
PRELIMINARY

POINT #	NORTHING	EASTING	ELEVATION	STA	OFF	ALI	DESCRIPTION	LOCATION
2	540034.06	817063.01	757.76	14+58	92' LT	RNB	MON/COE DISK 80-33	North end of Racine Street bridge; east side of road; in concrete walk near southwest corner of draw bridge operator house
3	540035.72	817021.69	756.93	14+75	131' LT	RNB	MON/WISDOT DISK	North end of Racine Street bridge; west side or road; in concrete walk; near rail at the light pole
4	539435.72	817143.66	751.24	8+62	192' LT	RNB	MON/COE DISK 94-6	West of Racine Street bridge; south side of Fox River; near damn; in grass between parking lot guardrail and retaining wall separating terrain from river edge.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: RACINE STREET NB	SHEET E

DRAFT April 20, 2020

PRELIMINARY



CURVE 9
PI STA = 15'RNB'+18.82
Y = 540119.384
X = 817133.824
DELTA = 46°51'58"
D = 54°34'03"
T = 45.51'
L = 85.89'
R = 105.00'
PC STA = 14'RNB'+73.31
Y = 540075.907
X = 817147.275
PT STA = 15'RNB'+59.20
Y = 540158.925
X = 817156.355
BK = N17°11'28.7"W
AH = N29°40'29.5"E

CURVE 10
PI STA = 15'RNB'+62.86
Y = 540162.103
X = 817158.166
DELTA = 14°17'36"
D = 196°22'36"
T = 3.66'
L = 7.28'
R = 29.18'
PC STA = 15'RNB'+59.20
Y = 540158.925
X = 817156.355
PT STA = 15'RNB'+66.48
Y = 540164.736
X = 817160.706
BK = N29°40'29.5"E
AH = N43°58'05.4"E

CURVE 11
PI STA = 15'RNB'+76.50
Y = 540171.947
X = 817167.662
DELTA = 21°01'21"
D = 106°06'12"
T = 10.02'
L = 19.81'
R = 54.00'
PC STA = 15'RNB'+66.48
Y = 540164.736
X = 817160.706
PT STA = 15'RNB'+86.29
Y = 540181.174
X = 817171.568
BK = N43°58'05.4"E
AH = N22°56'44.2"E

CURVE 12
PI STA = 15'RNB'+96.16
Y = 540190.264
X = 817175.416
DELTA = 27°43'28"
D = 143°14'22"
T = 9.87'
L = 19.36'
R = 40.00'
PC STA = 15'RNB'+86.29
Y = 540181.174
X = 817171.568
PT STA = 16'RNB'+05.65
Y = 540200.101
X = 817174.594
BK = N22°56'44.2"E
AH = N04°46'44.1"W

CURVE 13
PI STA = 16'RNB'+33.07
Y = 540227.428
X = 817172.309
DELTA = 5°58'12"
D = 10°53'42"
T = 27.42'
L = 54.80'
R = 525.89'
PC STA = 16'RNB'+05.65
Y = 540200.101
X = 817174.594
PT STA = 16'RNB'+60.44
Y = 540254.369
X = 817167.195
BK = N04°46'44.1"W
AH = N10°44'55.8"W

CURVE 14
PI STA = 18'RNB'+24.09
Y = 540415.146
X = 817136.674
DELTA = 5°16'49"
D = 3°02'40"
T = 86.78'
L = 173.44'
R = 1882.00'
PC STA = 17'RNB'+37.31
Y = 540329.885
X = 817152.859
PT STA = 19'RNB'+10.75
Y = 540501.534
X = 817128.403
BK = N10°44'55.8"W
AH = N05°28'06.6"W

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: RACINE STREET NB	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027201_AD.DWG
LAYOUT NAME - 027203A
PLOT DATE : 2/27/2020 12:56 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020

PRELIMINARY

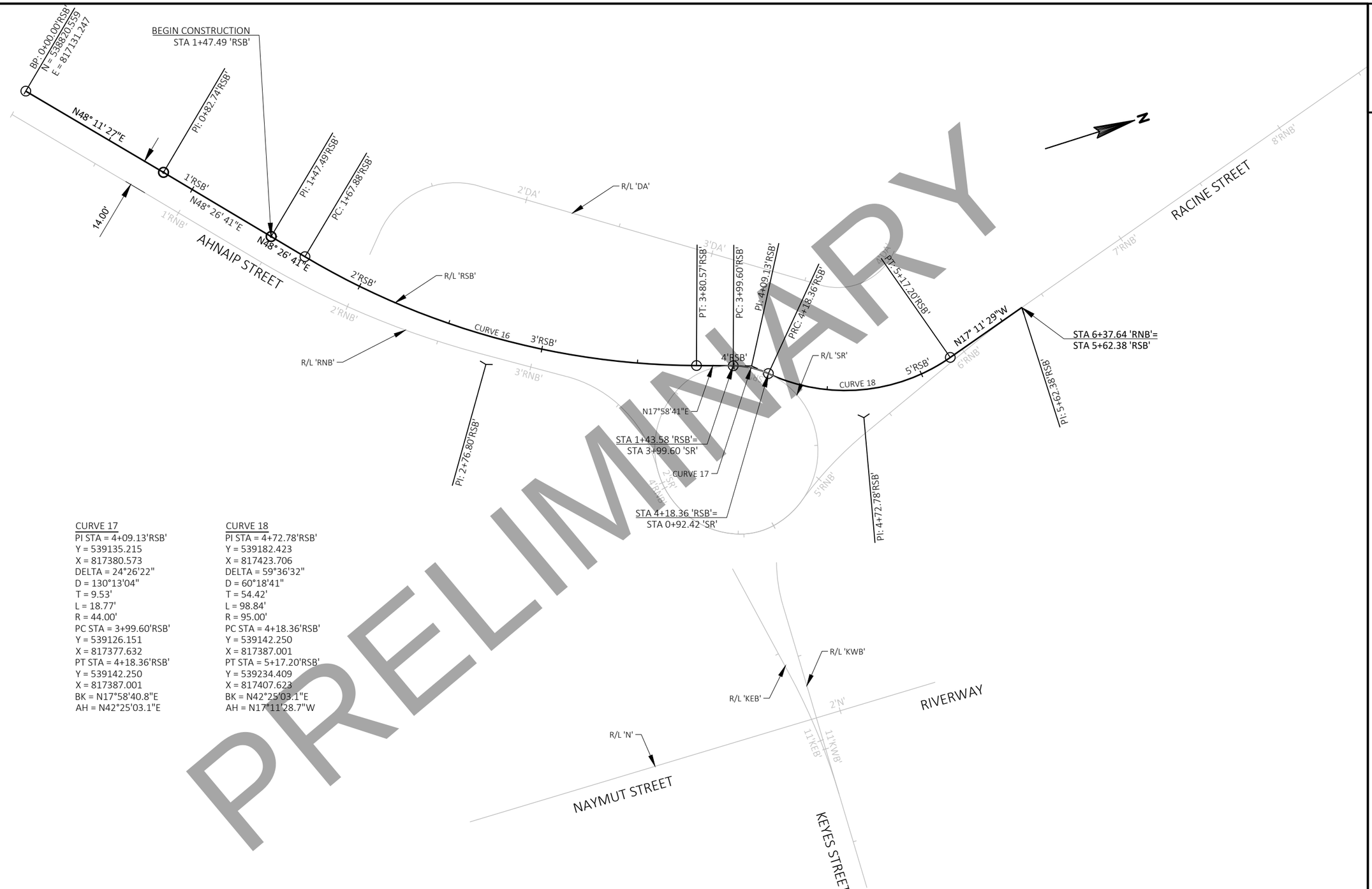
CURVE 15
PI STA = 20'RNB'+08.16
Y = 540598.500
X = 817119.120
DELTA = 5°55'33"
D = 3°02'40"
T = 97.41'
L = 194.65'
R = 1882.00'
PC STA = 19'RNB'+10.75
Y = 540501.534
X = 817128.403
PT STA = 21'RNB'+05.40
Y = 540695.907
X = 817119.898
BK = N05°28'06.6"W
AH = N00°27'26.3"E

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: RACINE STREET NB	SHEET	E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027201_AD.DWG
LAYOUT NAME - 027204A
PLOT DATE : 2/27/2020 12:56 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

PRELIMINARY



CURVE 16
PI STA = 2+76.80'RSB'
Y = 539004.448
X = 817338.140
DELTA = 30°28'00"
D = 14°19'26"
T = 108.93'
L = 212.70'
R = 400.00'
PC STA = 1+67.88'RSB'
Y = 538932.192
X = 817256.627
PT STA = 3+80.57'RSB'
Y = 539108.058
X = 817371.761
BK = N48°26'41.1"E
AH = N17°58'40.8"E

CURVE 17
PI STA = 4+09.13'RSB'
Y = 539135.215
X = 817380.573
DELTA = 24°26'22"
D = 130°13'04"
T = 9.53'
L = 18.77'
R = 44.00'
PC STA = 3+99.60'RSB'
Y = 539126.151
X = 817377.632
PT STA = 4+18.36'RSB'
Y = 539142.250
X = 817387.001
BK = N17°58'40.8"E
AH = N42°25'03.1"E

CURVE 18
PI STA = 4+72.78'RSB'
Y = 539182.423
X = 817423.706
DELTA = 59°36'32"
D = 60°18'41"
T = 54.42'
L = 98.84'
R = 95.00'
PC STA = 4+18.36'RSB'
Y = 539142.250
X = 817387.001
PT STA = 5+17.20'RSB'
Y = 539234.409
X = 817407.623
BK = N42°25'03.1"E
AH = N17°11'28.7"W

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: RACINE STREET SB	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027202_ADSB.DWG
LAYOUT NAME - 027201
PLOT DATE : 2/27/2020 12:56 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

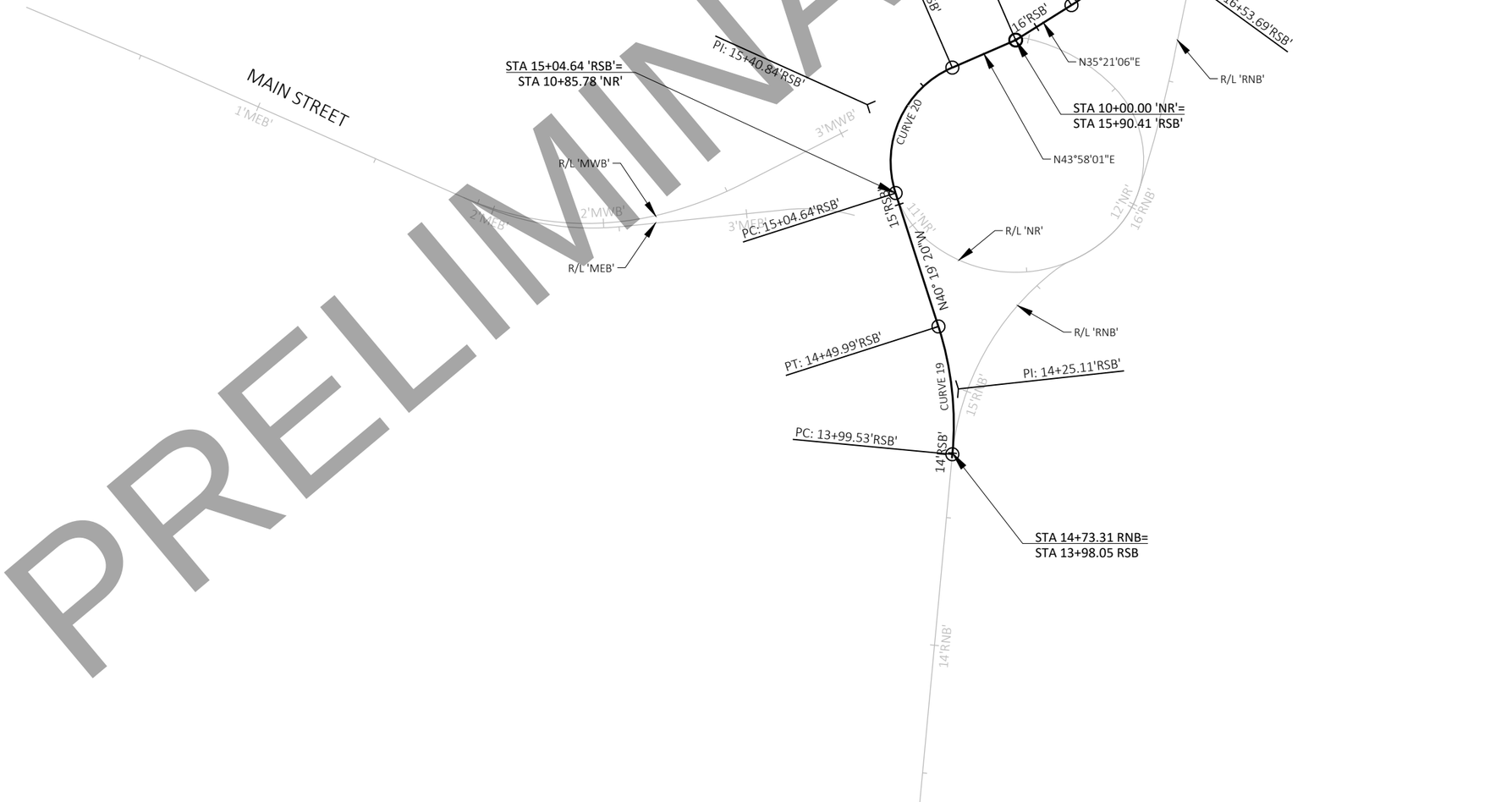
2

DRAFT April 20, 2020

CURVE 19
PI STA = 14+25.11'RSB'
Y = 540101.753
X = 817139.279
DELTA = 23°07'51"
D = 45°50'12"
T = 25.58'
L = 50.46'
R = 125.00'
PC STA = 13+99.53'RSB'
Y = 540077.316
X = 817146.839
PT STA = 14+49.99'RSB'
Y = 540121.256
X = 817122.726
BK = N17°11'28.7"W
AH = N40°19'19.5"W

CURVE 20
PI STA = 15+40.84'RSB'
Y = 540190.519
X = 817063.941
DELTA = 84°17'20"
D = 143°14'22"
T = 36.20'
L = 58.84'
R = 40.00'
PC STA = 15+04.64'RSB'
Y = 540162.920
X = 817087.365
PT STA = 15+63.48'RSB'
Y = 540216.573
X = 817089.072
BK = N40°19'19.5"W
AH = N43°58'00.5"E

CURVE 21
PI STA = 16+53.69'RSB'
Y = 540287.566
X = 817144.380
DELTA = 43°36'39"
D = 60°57'11"
T = 37.61'
L = 71.55'
R = 94.00'
PC STA = 16+16.08'RSB'
Y = 540256.892
X = 817122.620
PT STA = 16+87.63'RSB'
Y = 540324.783
X = 817138.977
BK = N35°21'05.9"E
AH = N08°15'33.2"W



PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: RACINE STREET SB	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027202_ADSB.DWG
LAYOUT NAME - 027203
PLOT DATE : 2/27/2020 12:56 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY

CURVE 22
PI STA = 18+33.07'RSB'
Y = 540468.715
X = 817118.084
DELTA = 8°42'59"
D = 10°25'03"
T = 41.92'
L = 83.67'
R = 550.00'
PC STA = 17+91.15'RSB'
Y = 540427.233
X = 817124.106
PT STA = 18+74.83'RSB'
Y = 540510.631
X = 817118.419
BK = N08°15'33.2"W
AH = N00°27'26.3"E

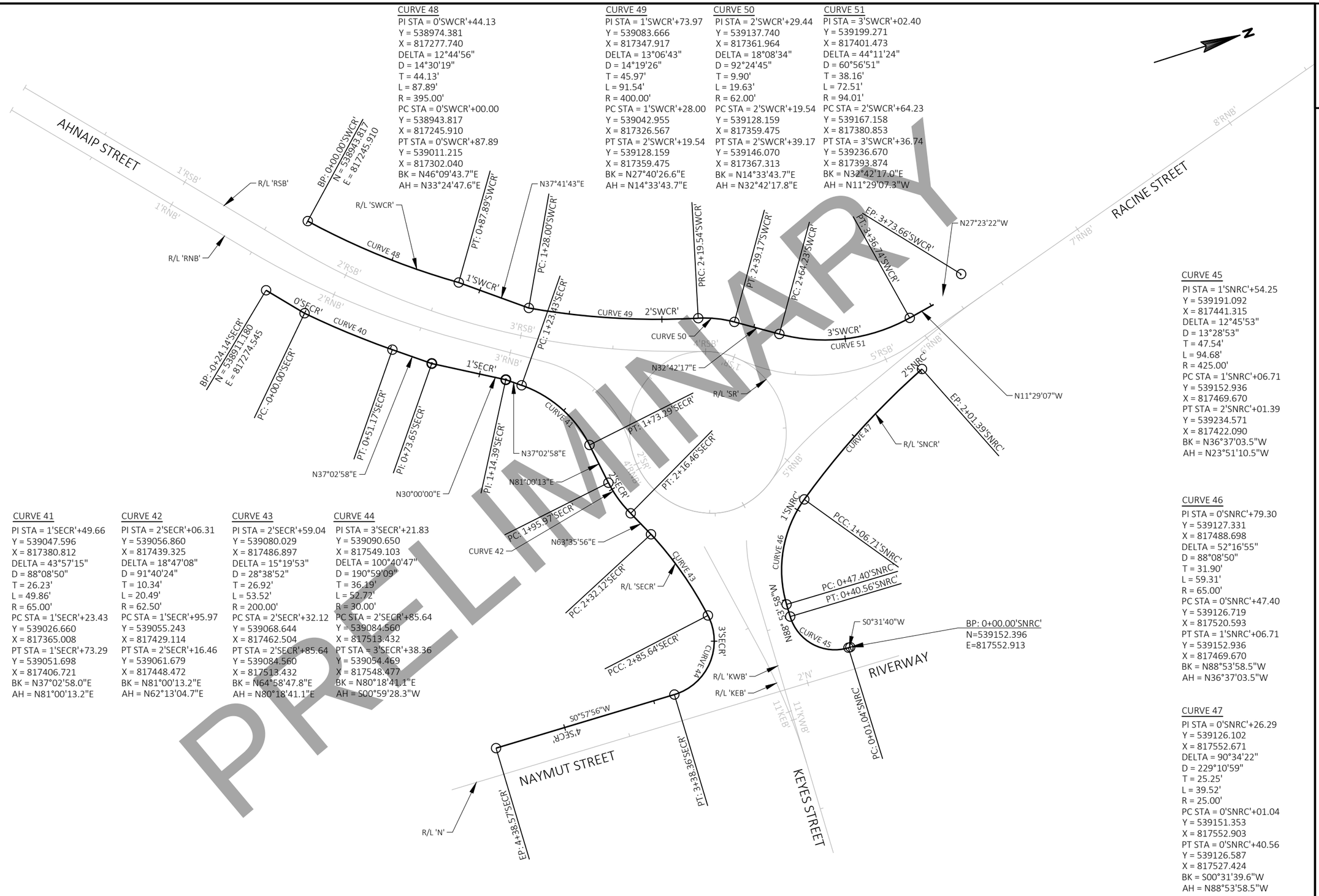
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: RACINE STREET SB	SHEET	E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027202_ADSB.DWG
LAYOUT NAME - 027204

PLOT DATE : 2/27/2020 12:56 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

PRELIMINARY



CURVE 48
PI STA = 0'SWCR'+44.13
Y = 538974.381
X = 817277.740
DELTA = 12°44'56"
D = 14°30'19"
T = 44.13'
L = 87.89'
R = 395.00'
PC STA = 0'SWCR'+00.00
Y = 538943.817
X = 817245.910
PT STA = 0'SWCR'+87.89
Y = 539011.215
X = 817302.040
BK = N46°09'43.7"E
AH = N33°24'47.6"E

CURVE 49
PI STA = 1'SWCR'+73.97
Y = 539083.666
X = 817347.917
DELTA = 13°06'43"
D = 14°19'26"
T = 45.97'
L = 91.54'
R = 400.00'
PC STA = 1'SWCR'+28.00
Y = 539042.955
X = 817326.567
PT STA = 2'SWCR'+19.54
Y = 539128.159
X = 817359.475
BK = N27°40'26.6"E
AH = N14°33'43.7"E

CURVE 50
PI STA = 2'SWCR'+29.44
Y = 539137.740
X = 817361.964
DELTA = 18°08'34"
D = 92°24'45"
T = 9.90'
L = 19.63'
R = 62.00'
PC STA = 2'SWCR'+19.54
Y = 539128.159
X = 817359.475
PT STA = 2'SWCR'+39.17
Y = 539146.070
X = 817367.313
BK = N14°33'43.7"E
AH = N32°42'17.8"E

CURVE 51
PI STA = 3'SWCR'+02.40
Y = 539199.271
X = 817401.473
DELTA = 44°11'24"
D = 60°56'51"
T = 38.16'
L = 72.51'
R = 94.01'
PC STA = 2'SWCR'+64.23
Y = 539167.158
X = 817380.853
PT STA = 3'SWCR'+36.74
Y = 539236.670
X = 817393.874
BK = N32°42'17.0"E
AH = N11°29'07.3"W

CURVE 45
PI STA = 1'SNRC'+54.25
Y = 539191.092
X = 817441.315
DELTA = 12°45'53"
D = 13°28'53"
T = 47.54'
L = 94.68'
R = 425.00'
PC STA = 1'SNRC'+06.71
Y = 539152.936
X = 817469.670
PT STA = 2'SNRC'+01.39
Y = 539234.571
X = 817422.090
BK = N36°37'03.5"W
AH = N23°51'10.5"W

CURVE 40
PI STA = 0'SECR'+25.61
Y = 538945.781
X = 817310.219
DELTA = 6°18'22"
D = 12°19'23"
T = 25.61'
L = 51.17'
R = 464.95'
PC STA = -0'SECR'+-00.00
Y = 538927.156
X = 817292.637
PT STA = 0'SECR'+51.17
Y = 538966.225
X = 817325.649
BK = N43°21'01.5"E
AH = N37°02'39.2"E

CURVE 41
PI STA = 1'SECR'+49.66
Y = 539047.596
X = 817380.812
DELTA = 43°57'15"
D = 88°08'50"
T = 26.23'
L = 49.86'
R = 65.00'
PC STA = 1'SECR'+23.43
Y = 539026.660
X = 817365.008
PT STA = 1'SECR'+73.29
Y = 539051.698
X = 817406.721
BK = N37°02'58.0"E
AH = N81°00'13.2"E

CURVE 42
PI STA = 2'SECR'+06.31
Y = 539056.860
X = 817439.325
DELTA = 18°47'08"
D = 91°40'24"
T = 10.34'
L = 20.49'
R = 62.50'
PC STA = 1'SECR'+95.97
Y = 539055.243
X = 817429.114
PT STA = 2'SECR'+16.46
Y = 539061.679
X = 817448.472
BK = N81°00'13.2"E
AH = N62°13'04.7"E

CURVE 43
PI STA = 2'SECR'+59.04
Y = 539080.029
X = 817486.897
DELTA = 15°19'53"
D = 28°38'52"
T = 26.92'
L = 53.52'
R = 200.00'
PC STA = 2'SECR'+32.12
Y = 539068.644
X = 817462.504
PT STA = 2'SECR'+85.64
Y = 539084.560
X = 817513.432
BK = N64°58'47.8"E
AH = N80°18'41.1"E

CURVE 44
PI STA = 3'SECR'+21.83
Y = 539090.650
X = 817549.103
DELTA = 100°40'47"
D = 190°59'09"
T = 36.19'
L = 52.72'
R = 30.00'
PC STA = 2'SECR'+85.64
Y = 539084.560
X = 817513.432
PT STA = 3'SECR'+38.36
Y = 539054.469
X = 817548.477
BK = N80°18'41.1"E
AH = S00°59'28.3"W

CURVE 46
PI STA = 0'SNRC'+79.30
Y = 539127.331
X = 817488.698
DELTA = 52°16'55"
D = 88°08'50"
T = 31.90'
L = 59.31'
R = 65.00'
PC STA = 0'SNRC'+47.40
Y = 539126.719
X = 817520.593
PT STA = 1'SNRC'+06.71
Y = 539152.936
X = 817469.670
BK = N88°53'58.5"W
AH = N36°37'03.5"W

CURVE 47
PI STA = 0'SNRC'+26.29
Y = 539126.102
X = 817552.671
DELTA = 90°34'22"
D = 229°10'59"
T = 25.25'
L = 39.52'
R = 25.00'
PC STA = 0'SNRC'+01.04
Y = 539151.353
X = 817552.903
PT STA = 0'SNRC'+40.56
Y = 539126.587
X = 817527.424
BK = S00°31'39.6"W
AH = N88°53'58.5"W

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: SOUTH CURB RETURNS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027204_ADOUT_RAB.DWG
LAYOUT NAME - 027201
PLOT DATE : 2/27/2020 12:57 PM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

PRELIMINARY

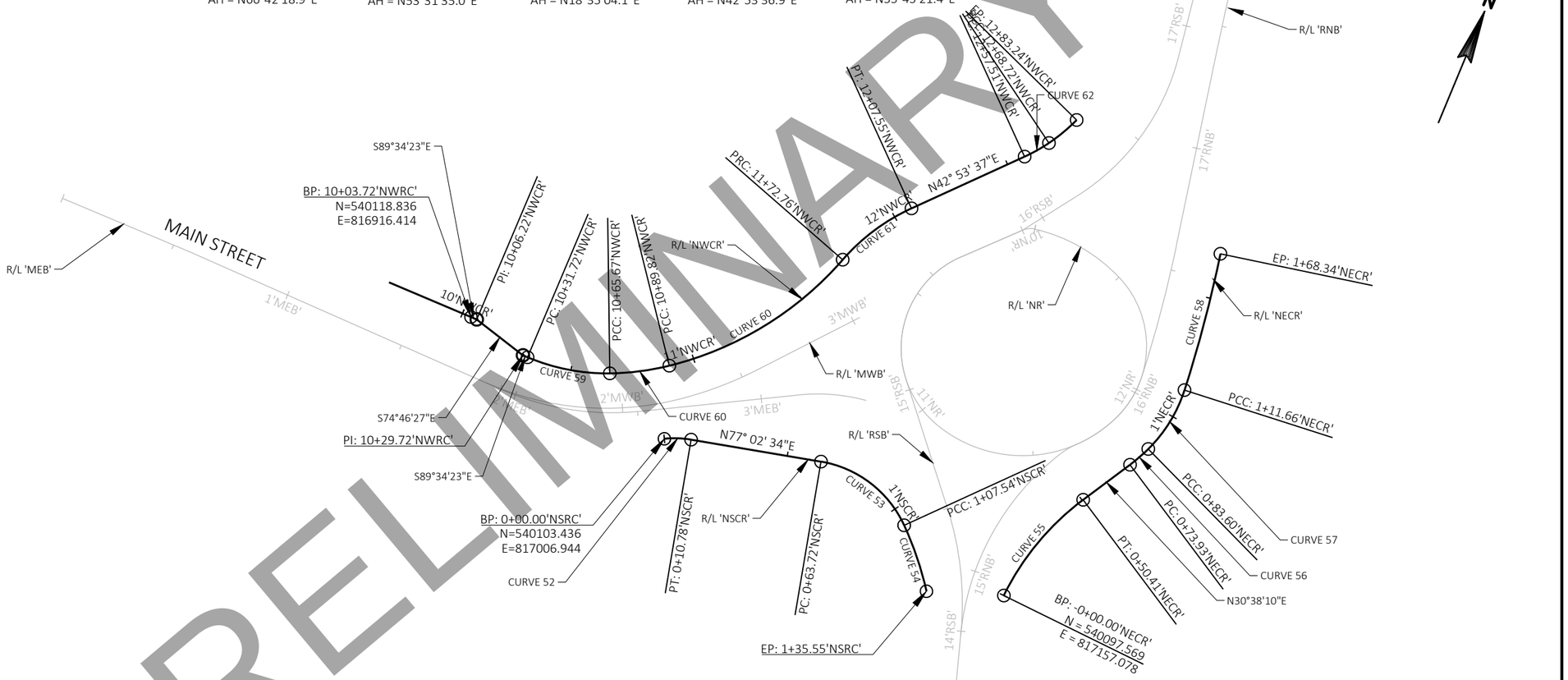
CURVE 59
PI STA = 10'NWCR'+48.94
Y = 540112.503
X = 816960.809
DELTA = 23°43'18"
D = 69°52'22"
T = 17.22'
L = 33.95'
R = 82.00'
PC STA = 10'NWCR'+31.72
Y = 540112.631
X = 816943.588
PT STA = 10'NWCR'+65.67
Y = 540119.313
X = 816976.627
BK = S89°34'23.4"E
AH = N66°42'18.9"E

CURVE 60
PI STA = 10'NWCR'+77.80
Y = 540124.110
X = 816987.768
DELTA = 13°10'44"
D = 54°34'03"
T = 12.13'
L = 24.15'
R = 105.00'
PC STA = 10'NWCR'+65.67
Y = 540119.313
X = 816976.627
PT STA = 10'NWCR'+89.82
Y = 540131.320
X = 816997.521
BK = N66°42'18.9"E
AH = N53°31'35.0"E

CURVE 61
PI STA = 11'NWCR'+32.63
Y = 540156.766
X = 817031.942
DELTA = 34°56'31"
D = 42°07'45"
T = 42.80'
L = 82.94'
R = 136.00'
PC STA = 10'NWCR'+89.82
Y = 540131.320
X = 816997.521
PT STA = 11'NWCR'+72.76
Y = 540197.339
X = 817045.584
BK = N53°31'35.0"E
AH = N18°35'04.1"E

CURVE 62
PI STA = 11'NWCR'+90.42
Y = 540214.079
X = 817051.212
DELTA = 24°18'33"
D = 69°52'22"
T = 17.66'
L = 34.79'
R = 82.00'
PC STA = 11'NWCR'+72.76
Y = 540197.339
X = 817045.584
PT STA = 12'NWCR'+07.55
Y = 540227.017
X = 817063.233
BK = N18°35'04.1"E
AH = N42°53'36.9"E

CURVE 63
PI STA = 12'NWCR'+63.13
Y = 540267.732
X = 817101.059
DELTA = 9°10'15"
D = 81°51'04"
T = 5.61'
L = 11.20'
R = 70.00'
PC STA = 12'NWCR'+57.51
Y = 540263.619
X = 817097.238
PT STA = 12'NWCR'+68.72
Y = 540272.402
X = 817104.176
BK = N42°53'36.9"E
AH = N33°43'21.4"E



CURVE 52
PI STA = 0'NSCR'+05.42
Y = 540106.016
X = 817011.715
DELTA = 15°26'42"
D = 143°14'22"
T = 5.42'
L = 10.78'
R = 40.00'
PC STA = -0'NSCR'+-00.00
Y = 540103.436
X = 817006.944
PT STA = 0'NSCR'+10.78
Y = 540107.232
X = 817017.002
BK = N61°35'52.2"E
AH = N77°02'34.3"E

CURVE 53
PI STA = 0'NSCR'+87.54
Y = 540124.444
X = 817091.808
DELTA = 55°47'30"
D = 127°19'26"
T = 23.82'
L = 43.82'
R = 45.00'
PC STA = 0'NSCR'+63.72
Y = 540119.102
X = 817068.592
PT STA = 1'NSCR'+07.54
Y = 540108.248
X = 817109.277
BK = N77°02'34.3"E
AH = S47°09'55.9"E

CURVE 54
PI STA = 1'NSCR'+21.60
Y = 540098.693
X = 817119.587
DELTA = 11°50'57"
D = 42°17'54"
T = 14.06'
L = 28.01'
R = 135.46'
PC STA = 1'NSCR'+07.54
Y = 540108.248
X = 817109.277
PT STA = 1'NSCR'+35.55
Y = 540087.224
X = 817127.715
BK = S47°10'35.1"E
AH = S35°19'37.7"E

CURVE 55
PI STA = 0'NECR'+25.68
Y = 540123.197
X = 817158.715
DELTA = 26°58'51"
D = 53°31'32"
T = 25.68'
L = 50.41'
R = 107.04'
PC STA = -0'NECR'+-00.00
Y = 540097.569
X = 817157.078
PT STA = 0'NECR'+50.41
Y = 540145.292
X = 817171.802
BK = N03°39'19.1"E
AH = N30°38'10.4"E

CURVE 56
PI STA = 0'NECR'+78.77
Y = 540169.700
X = 817186.257
DELTA = 7°41'26"
D = 79°34'39"
T = 4.84'
L = 9.66'
R = 72.00'
PC STA = 0'NECR'+73.93
Y = 540165.536
X = 817183.791
PT STA = 0'NECR'+83.60
Y = 540174.156
X = 817188.144
BK = N30°38'10.4"E
AH = N22°56'44.2"E

CURVE 57
PI STA = 0'NECR'+97.91
Y = 540187.337
X = 817193.724
DELTA = 27°43'28"
D = 98°47'09"
T = 14.31'
L = 28.07'
R = 58.00'
PC STA = 0'NECR'+83.60
Y = 540174.156
X = 817188.144
PT STA = 1'NECR'+11.66
Y = 540201.600
X = 817192.531
BK = N22°56'44.2"E
AH = N04°46'44.1"W

CURVE 58
PI STA = 1'NECR'+40.03
Y = 540229.862
X = 817190.168
DELTA = 5°58'12"
D = 10°32'04"
T = 28.36'
L = 56.67'
R = 543.89'
PC STA = 1'NECR'+11.66
Y = 540201.600
X = 817192.531
PT STA = 1'NECR'+68.34
Y = 540257.726
X = 817184.879
BK = N04°46'44.1"W
AH = N10°44'55.8"W

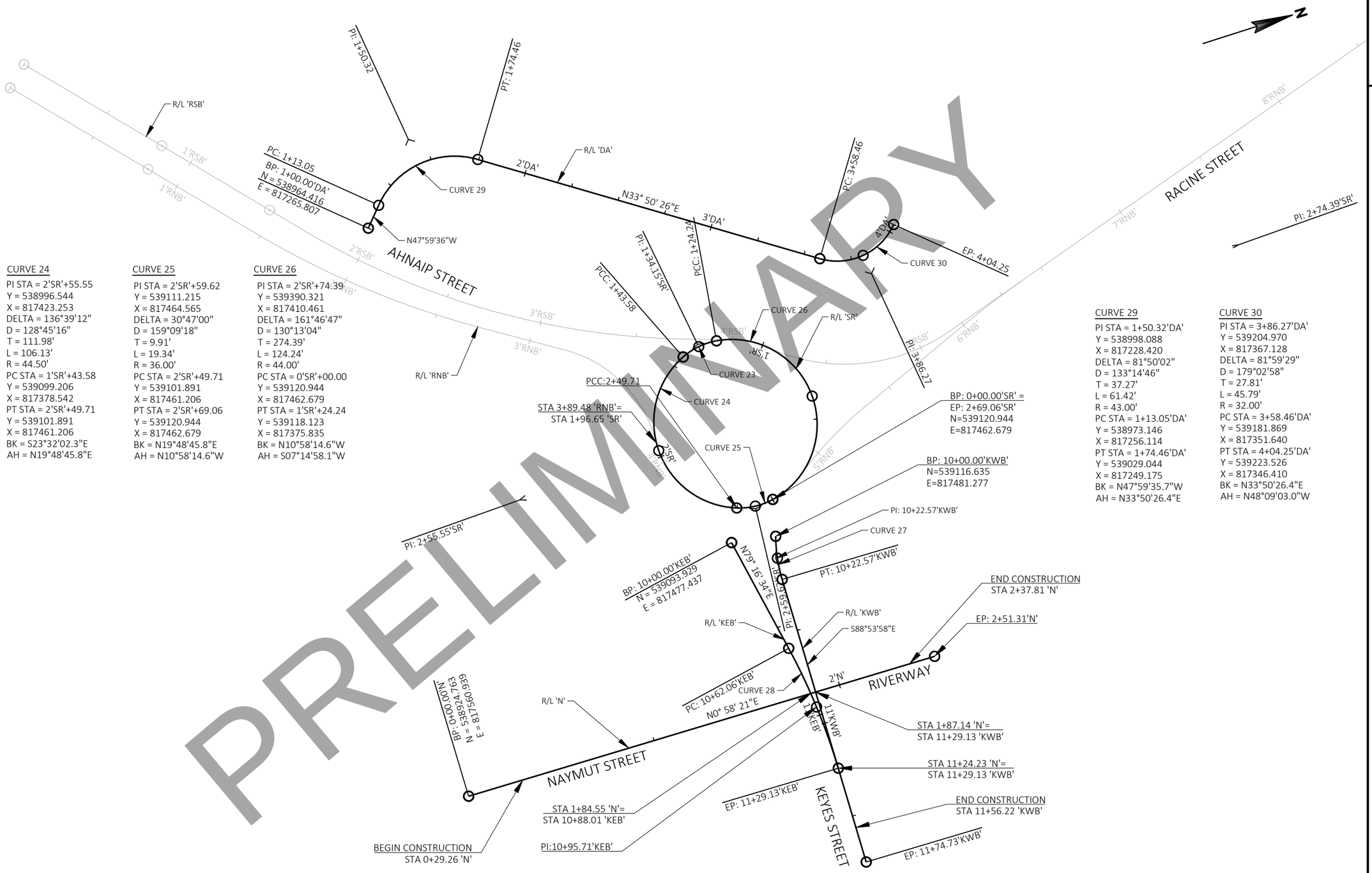
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: NORTH CURB RETURNS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027204_ADOUT_RAB.DWG
LAYOUT NAME - 027204
PLOT DATE : 2/27/2020 12:57 PM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########

2

DRAFT April 20, 2020

PRELIMINARY



CURVE 23
PI STA = 1'SR'+34.15
Y = 539108.292
X = 817374.585
DELTA = 30°47'00"
D = 159°09'18"
T = 9.91'
L = 19.34'
R = 36.00'
PC STA = 1'SR'+24.24
Y = 539118.123
X = 817375.835
PT STA = 1'SR'+43.58
Y = 539099.206
X = 817378.542
BK = S07°14'58.1"W
AH = S23°32'02.3"E

CURVE 24
PI STA = 2'SR'+55.55
Y = 538996.544
X = 817423.253
DELTA = 136°39'12"
D = 128°45'16"
T = 111.98'
L = 106.13'
R = 44.50'
PC STA = 1'SR'+43.58
Y = 539099.206
X = 817378.542
PT STA = 2'SR'+49.71
Y = 539101.891
X = 817461.206
BK = S23°32'02.3"E
AH = N19°48'45.8"E

CURVE 25
PI STA = 2'SR'+59.62
Y = 539111.215
X = 817464.565
DELTA = 30°47'00"
D = 159°09'18"
T = 9.91'
L = 19.34'
R = 36.00'
PC STA = 2'SR'+49.71
Y = 539101.891
X = 817461.206
PT STA = 2'SR'+69.06
Y = 539120.944
X = 817462.679
BK = N19°48'45.8"E
AH = N10°58'14.6"W

CURVE 26
PI STA = 2'SR'+74.39
Y = 539390.321
X = 817410.461
DELTA = 161°46'47"
D = 130°13'04"
T = 274.39'
L = 124.24'
R = 44.00'
PC STA = 0'SR'+00.00
Y = 539120.944
X = 817462.679
PT STA = 1'SR'+24.24
Y = 539118.123
X = 817375.835
BK = N10°58'14.6"W
AH = S07°14'58.1"W

CURVE 27
PI STA = 10'KWB'+11.36
Y = 539113.263
X = 817492.126
DELTA = 16°09'53"
D = 71°37'11"
T = 11.36'
L = 22.57'
R = 80.00'
PC STA = 10'KWB'+00.00
Y = 539116.635
X = 817481.277
PT STA = 10'KWB'+22.57
Y = 539113.045
X = 817503.484
BK = S72°44'05.8"E
AH = S88°53'58.5"E

CURVE 28
PI STA = 10'KEB'+95.71
Y = 539111.739
X = 817571.476
DELTA = 11°49'28"
D = 17°37'46"
T = 33.66'
L = 67.07'
R = 325.00'
PC STA = 10'KEB'+62.06
Y = 539105.476
X = 817538.409
PT STA = 11'KEB'+29.13
Y = 539111.092
X = 817605.125
BK = N79°16'33.8"E
AH = S88°53'58.5"E

CURVE 29
PI STA = 1+50.32'DA'
Y = 538998.088
X = 817228.420
DELTA = 81°50'02"
D = 133°14'46"
T = 37.27'
L = 61.42'
R = 43.00'
PC STA = 1+13.05'DA'
Y = 538973.146
X = 817256.114
PT STA = 1+74.46'DA'
Y = 539029.044
X = 817249.175
BK = N47°59'35.7"W
AH = N33°50'26.4"E

CURVE 30
PI STA = 3+86.27'DA'
Y = 539204.970
X = 817367.128
DELTA = 81°59'29"
D = 179°02'58"
T = 27.81'
L = 45.79'
R = 32.00'
PC STA = 3+58.46'DA'
Y = 539181.869
X = 817351.640
PT STA = 4+04.25'DA'
Y = 539223.526
X = 817346.410
BK = N33°50'26.4"E
AH = N48°09'03.0"W

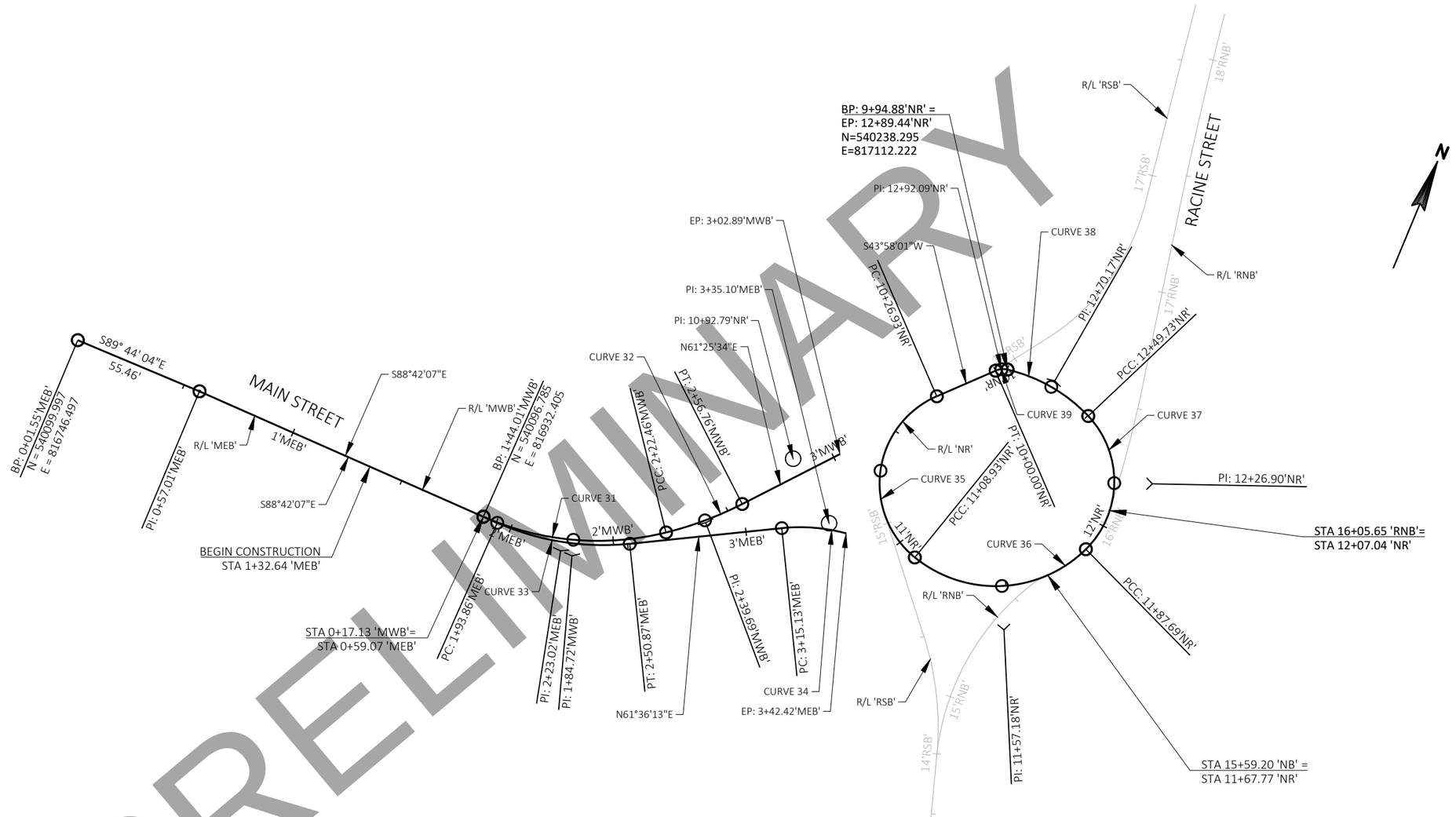
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: SOUTH ROUNDABOUT, KEYES STREET, AND NAYMUT STREET	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027203_ADSIDE.DWG
LAYOUT NAME - 027201
PLOT DATE : 2/27/2020 12:57 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020

PRELIMINARY



CURVE 31
PI STA = 1'MWB'+84.72
Y = 540095.862
X = 816973.107
DELTA = 37°46'18"
D = 48°08'52"
T = 40.71'
L = 78.45'
R = 119.00'
PC STA = 1'MWB'+44.01
Y = 540096.785
X = 816932.408
PT STA = 2'MWB'+22.46
Y = 540120.062
X = 817005.843
BK = S88°42'07.3"E
AH = N53°31'35.0"E

CURVE 32
PI STA = 2'MWB'+39.69
Y = 540130.301
X = 817019.693
DELTA = 13°06'01"
D = 38°11'50"
T = 17.22'
L = 34.30'
R = 150.00'
PC STA = 2'MWB'+22.46
Y = 540120.062
X = 817005.843
PT STA = 2'MWB'+56.76
Y = 540143.412
X = 817030.862
BK = N53°31'35.0"E
AH = N40°25'33.7"E

CURVE 33
PI STA = 2'MEB'+23.02
Y = 540095.980
X = 816967.919
DELTA = 29°41'40"
D = 52°05'13"
T = 29.16'
L = 57.01'
R = 110.00'
PC STA = 1'MEB'+93.86
Y = 540096.641
X = 816938.767
PT STA = 2'MEB'+50.87
Y = 540109.848
X = 816993.571
BK = S88°42'07.3"E
AH = N61°36'12.8"E

CURVE 34
PI STA = 3'MEB'+35.10
Y = 540149.910
X = 817067.675
DELTA = 30°12'19"
D = 77°25'36"
T = 19.97'
L = 39.01'
R = 74.00'
PC STA = 3'MEB'+15.13
Y = 540140.412
X = 817050.108
PT STA = 3'MEB'+54.15
Y = 540149.279
X = 817087.635
BK = N61°36'12.8"E
AH = S88°11'28.5"E

CURVE 35
PI STA = 10'NR'+92.79
Y = 540169.172
X = 817043.350
DELTA = 117°27'16"
D = 143°14'22"
T = 65.86'
L = 82.00'
R = 40.00'
PC STA = 10'NR'+26.93
Y = 540216.573
X = 817089.072
PT STA = 11'NR'+08.93
Y = 540150.453
X = 817106.493
BK = S43°58'00.5"W
AH = S73°29'15.8"E

CURVE 36
PI STA = 11'NR'+57.18
Y = 540136.738
X = 817152.756
DELTA = 83°34'00"
D = 106°06'12"
T = 48.25'
L = 78.76'
R = 54.00'
PC STA = 11'NR'+08.93
Y = 540150.453
X = 817106.493
PT STA = 11'NR'+87.69
Y = 540181.174
X = 817171.568
BK = S73°29'15.8"E
AH = N22°56'44.2"E

CURVE 37
PI STA = 12'NR'+26.90
Y = 540217.286
X = 817186.856
DELTA = 88°51'52"
D = 143°14'22"
T = 39.21'
L = 62.04'
R = 40.00'
PC STA = 11'NR'+87.69
Y = 540181.174
X = 817171.568
PT STA = 12'NR'+49.73
Y = 540233.287
X = 817151.054
BK = N22°56'44.2"E
AH = N65°55'07.5"W

CURVE 38
PI STA = 12'NR'+70.17
Y = 540241.628
X = 817132.391
DELTA = 33°27'51"
D = 84°15'31"
T = 20.44'
L = 39.72'
R = 68.00'
PC STA = 12'NR'+49.73
Y = 540233.287
X = 817151.054
PT STA = 12'NR'+89.44
Y = 540238.295
X = 817112.222
BK = N65°55'07.5"W
AH = S80°37'01.5"W

CURVE 39
PI STA = 12'NR'+92.09
Y = 540237.863
X = 817109.608
DELTA = 36°39'01"
D = 716°11'50"
T = 2.65'
L = 5.12'
R = 8.00'
PC STA = 9'NR'+94.88
Y = 540238.295
X = 817112.222
PT STA = 10'NR'+00.00
Y = 540235.956
X = 817107.768
BK = S80°37'01.5"W
AH = S43°58'00.5"W

PRELIMINARY

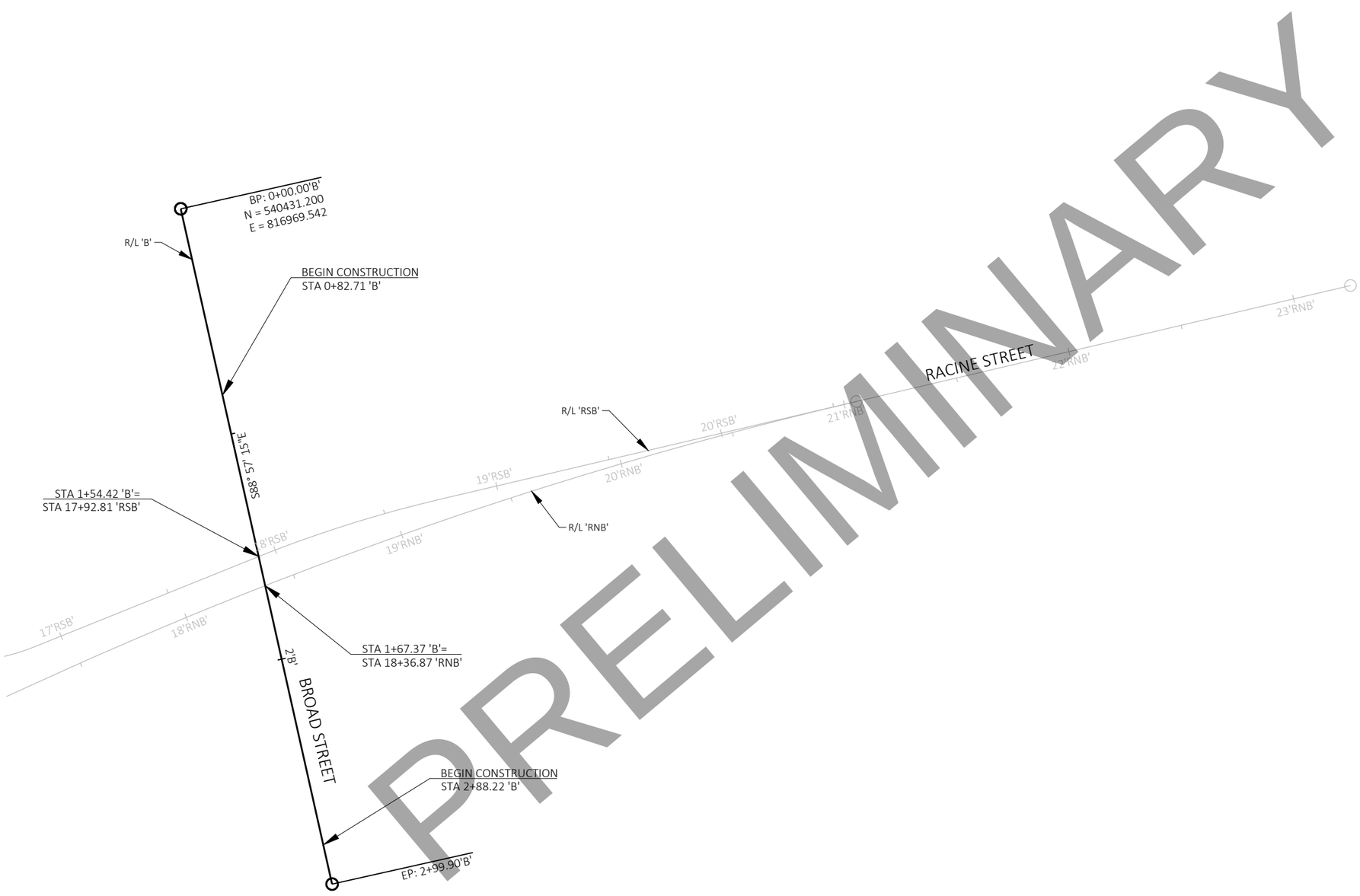
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: NORTH ROUNDABOUT AND MAIN STREET	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027203_ADSIDE.DWG
LAYOUT NAME - 027202
PLOT DATE : 2/27/2020 12:57 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020

PRELIMINARY



PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: BROAD STREET	SHEET E

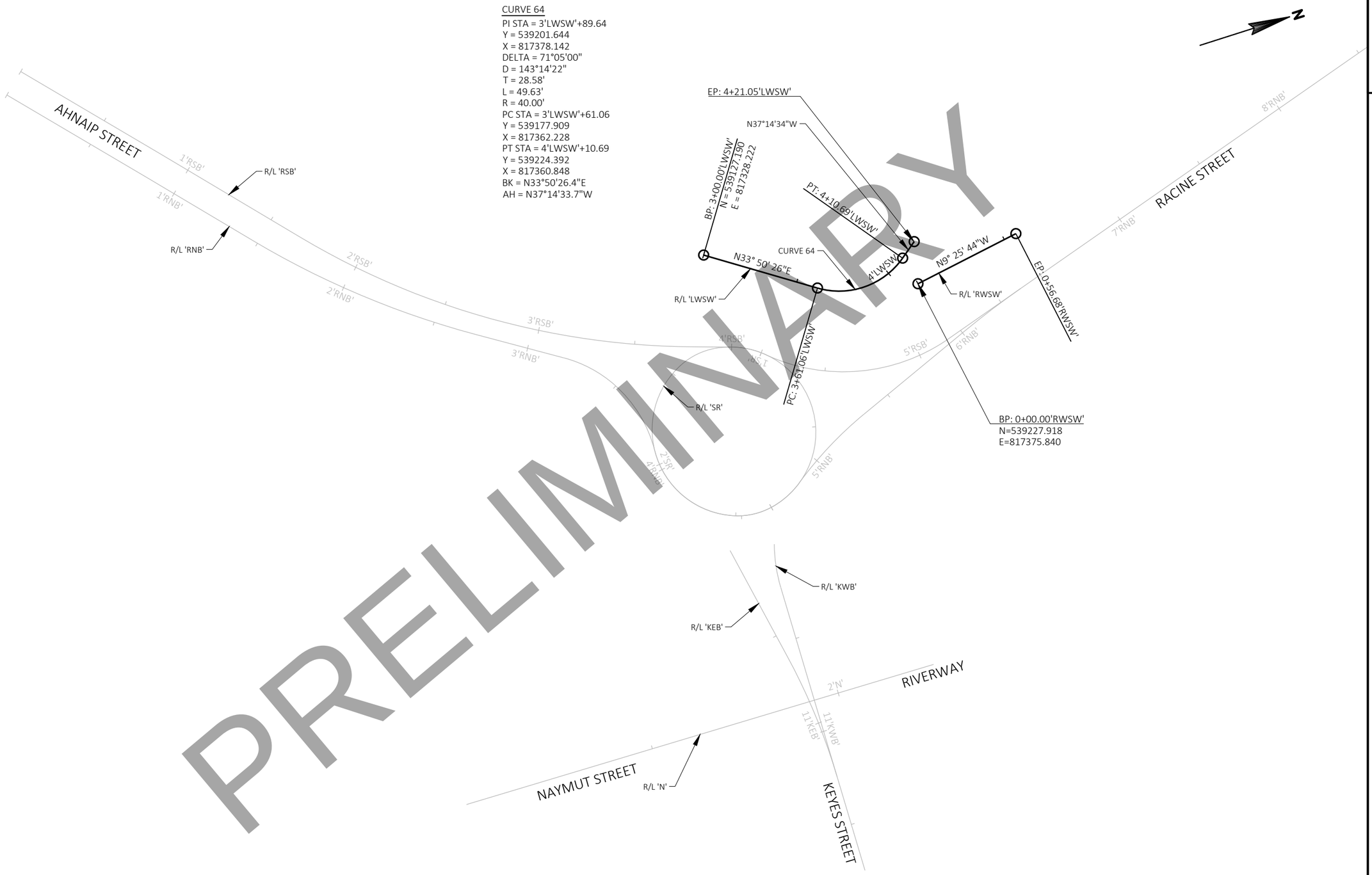
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027203_ADSIDE.DWG
LAYOUT NAME - 027203

PLOT DATE : 2/27/2020 12:57 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020

CURVE 64
PI STA = 3'LWSW'+89.64
Y = 539201.644
X = 817378.142
DELTA = 71°05'00"
D = 143°14'22"
T = 28.58'
L = 49.63'
R = 40.00'
PC STA = 3'LWSW'+61.06
Y = 539177.909
X = 817362.228
PT STA = 4'LWSW'+10.69
Y = 539224.392
X = 817360.848
BK = N33°50'26.4"E
AH = N37°14'33.7"W



PRELIMINARY

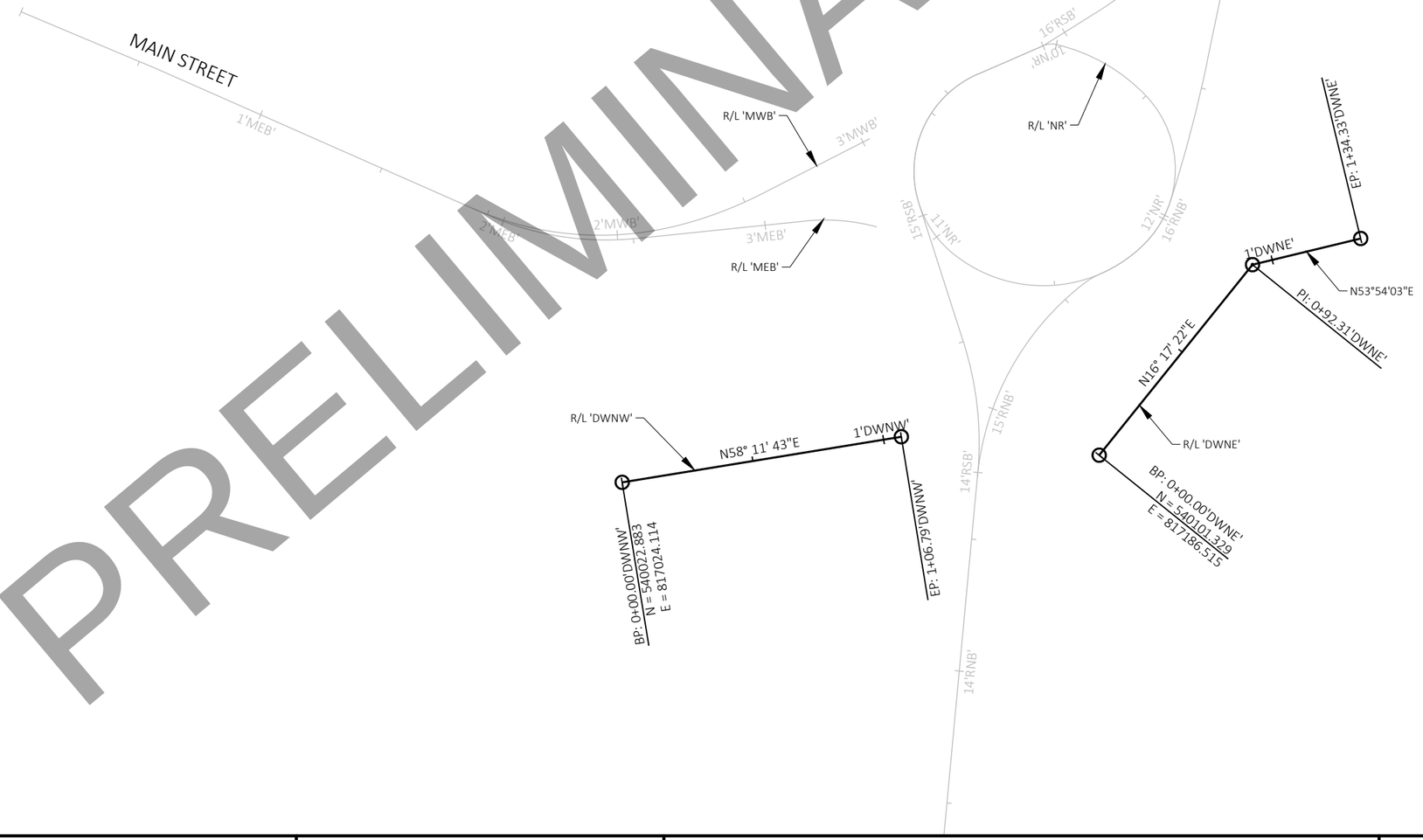
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: LANDSCAPE AND RETAINING WALLS	SHEET	E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027204_AD_WALLS.DWG
LAYOUT NAME - 027201
PLOT DATE : 2/27/2020 12:57 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020

PRELIMINARY



PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: DOCK WALLS	SHEET E

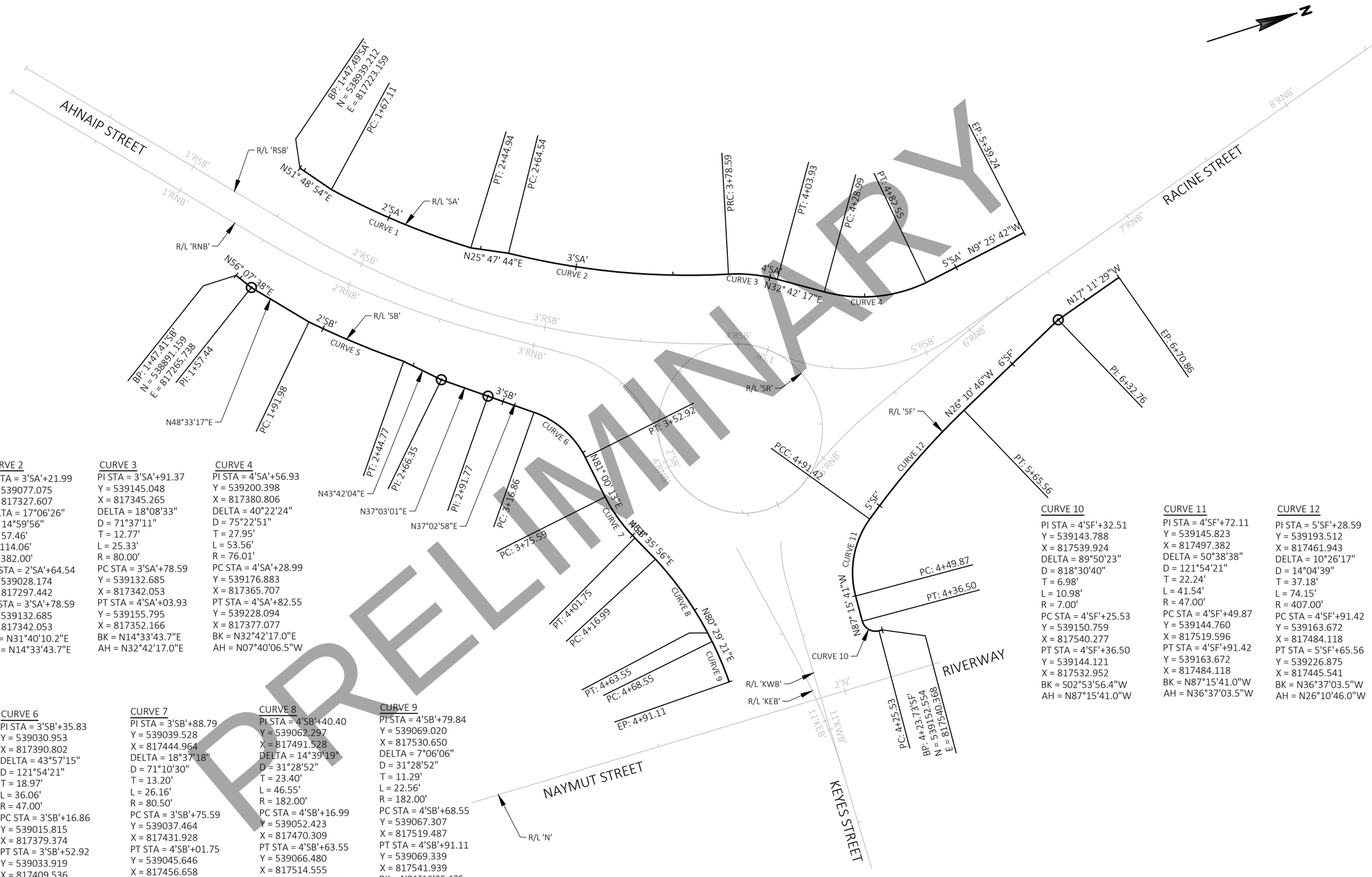
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027204_AD_WALLS.DWG
LAYOUT NAME - 027204

PLOT DATE : 2/27/2020 12:57 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2

DRAFT April 20, 2020



PRELIMINARY

CURVE 1
PI STA = 2'SA'+06.16
Y = 538978.375
X = 817266.755
DELTA = 11°36'41"
D = 14°55'05"
T = 39.05'
L = 77.83'
R = 384.07'
PC STA = 1'SA'+67.11
Y = 538951.339
X = 817238.577
PT STA = 2'SA'+44.94
Y = 539010.530
X = 817288.914
BK = N46°11'01.5"E
AH = N34°34'20.9"E

CURVE 2
PI STA = 3'SA'+21.99
Y = 539077.075
X = 817327.607
DELTA = 17°06'26"
D = 14°59'56"
T = 57.46'
L = 114.06'
R = 382.00'
PC STA = 2'SA'+64.54
Y = 539028.174
X = 817297.442
PT STA = 3'SA'+78.59
Y = 539132.685
X = 817342.053
BK = N31°40'10.2"E
AH = N14°33'43.7"E

CURVE 3
PI STA = 3'SA'+91.37
Y = 539145.048
X = 817345.265
DELTA = 18°08'33"
D = 71°37'11"
T = 12.77'
L = 25.33'
R = 80.00'
PC STA = 3'SA'+78.59
Y = 539132.685
X = 817342.053
PT STA = 4'SA'+03.93
Y = 539155.795
X = 817352.166
BK = N14°33'43.7"E
AH = N32°42'17.0"E

CURVE 4
PI STA = 4'SA'+56.93
Y = 539200.398
X = 817380.806
DELTA = 40°22'24"
D = 75°22'51"
T = 27.95'
L = 53.56'
R = 76.01'
PC STA = 4'SA'+28.99
Y = 539176.883
X = 817365.707
PT STA = 4'SA'+82.55
Y = 539228.094
X = 817377.077
BK = N32°42'17.0"E
AH = N07°40'06.5"W

CURVE 5
PI STA = 2'SB'+18.40
Y = 538938.811
X = 817318.110
DELTA = 6°20'51"
D = 12°01'27"
T = 26.42'
L = 52.79'
R = 476.50'
PC STA = 1'SB'+91.98
Y = 538919.612
X = 817299.957
PT STA = 2'SB'+44.77
Y = 538959.898
X = 817334.029
BK = N43°23'49.2"E
AH = N37°02'58.0"E

CURVE 6
PI STA = 3'SB'+35.83
Y = 539030.953
X = 817390.802
DELTA = 43°57'15"
D = 121°54'21"
T = 18.97'
L = 36.06'
R = 47.00'
PC STA = 3'SB'+16.86
Y = 539015.815
X = 817379.374
PT STA = 3'SB'+52.92
Y = 539033.919
X = 817409.536
BK = N37°02'58.0"E
AH = N81°00'13.2"E

CURVE 7
PI STA = 3'SB'+88.79
Y = 539039.528
X = 817444.964
DELTA = 18°37'18"
D = 71°10'30"
T = 13.20'
L = 26.16'
R = 80.50'
PC STA = 3'SB'+75.59
Y = 539037.464
X = 817431.928
PT STA = 4'SB'+01.75
Y = 539045.646
X = 817456.658
BK = N81°00'13.2"E
AH = N62°22'55.7"E

CURVE 8
PI STA = 4'SB'+40.40
Y = 539062.297
X = 817491.528
DELTA = 14°39'19"
D = 31°28'52"
T = 23.40'
L = 46.55'
R = 182.00'
PC STA = 4'SB'+16.99
Y = 539052.423
X = 817470.309
PT STA = 4'SB'+63.55
Y = 539066.480
X = 817514.555
BK = N65°02'47.9"E
AH = N79°42'07.0"E

CURVE 9
PI STA = 4'SB'+79.84
Y = 539069.020
X = 817530.650
DELTA = 7°06'06"
D = 31°28'52"
T = 11.29'
L = 22.56'
R = 182.00'
PC STA = 4'SB'+68.55
Y = 539067.307
X = 817519.487
PT STA = 4'SB'+91.11
Y = 539069.339
X = 817541.939
BK = N81°16'35.1"E
AH = N88°22'40.6"E

CURVE 10
PI STA = 4'SF'+32.51
Y = 539143.788
X = 817539.924
DELTA = 89°50'23"
D = 818°30'40"
T = 6.98'
L = 10.98'
R = 7.00'
PC STA = 4'SF'+25.53
Y = 539150.759
X = 817540.277
PT STA = 4'SF'+36.50
Y = 539144.121
X = 817532.952
BK = S02°53'56.4"W
AH = N87°15'41.0"W

CURVE 11
PI STA = 4'SF'+72.11
Y = 539145.823
X = 817497.382
DELTA = 50°38'38"
D = 121°54'21"
T = 22.24'
L = 41.54'
R = 47.00'
PC STA = 4'SF'+49.87
Y = 539144.760
X = 817519.596
PT STA = 4'SF'+91.42
Y = 539163.672
X = 817484.118
BK = N87°15'41.0"W
AH = N36°37'03.5"W

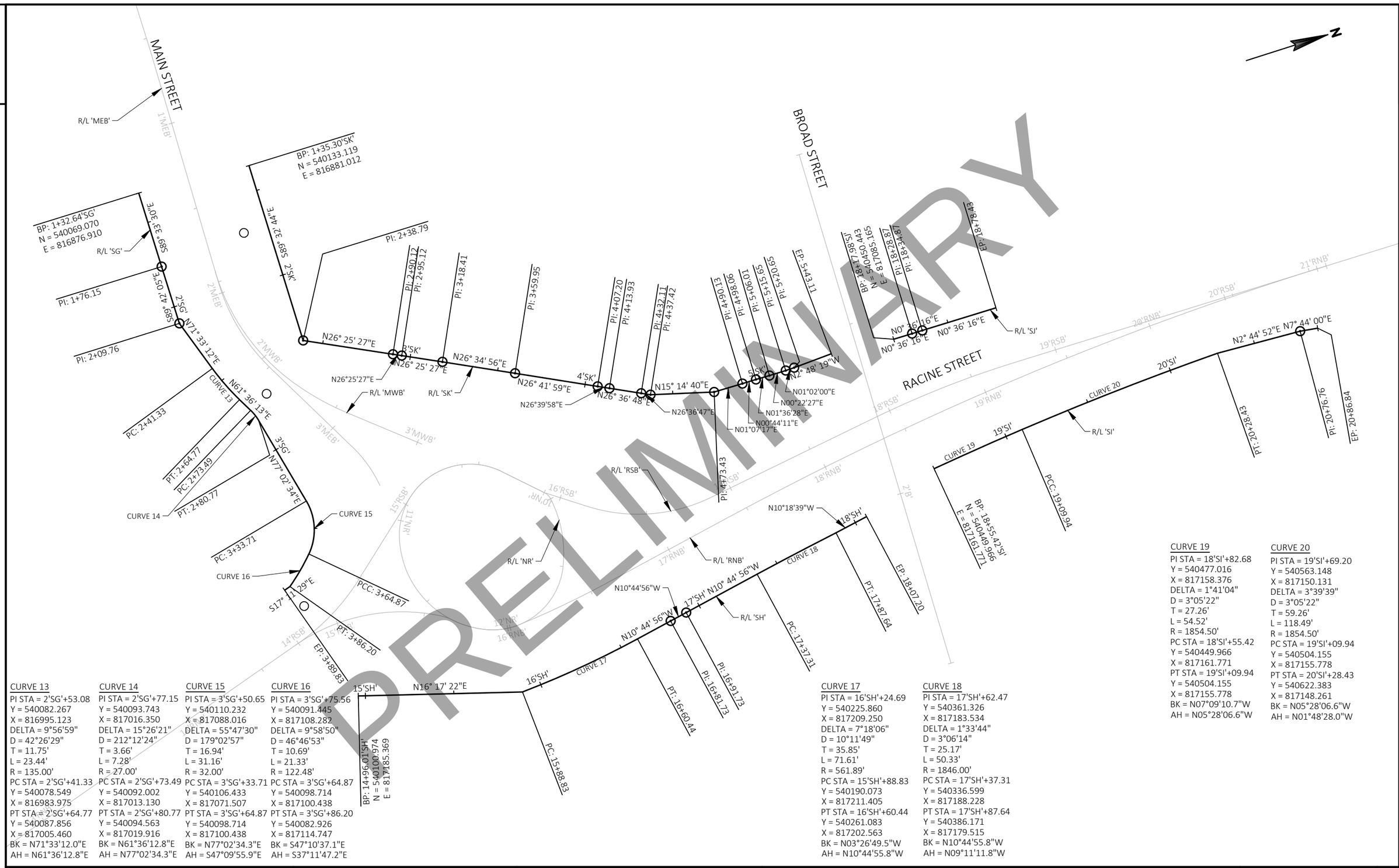
CURVE 12
PI STA = 5'SF'+28.59
Y = 539193.512
X = 817461.943
DELTA = 10°26'17"
D = 14°04'39"
T = 37.18'
L = 74.15'
R = 407.00'
PC STA = 4'SF'+91.42
Y = 539163.672
X = 817484.118
PT STA = 5'SF'+65.56
Y = 539226.875
X = 817445.541
BK = N36°37'03.5"W
AH = N26°10'46.0"W

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: SIDEWALKS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027205_AD_SIDEWALKS.DWG
LAYOUT NAME - 027201
PLOT DATE : 2/27/2020 12:58 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

PRELIMINARY



CURVE 13
PI STA = 2'SG'+53.08
Y = 540082.267
X = 816995.123
DELTA = 9°56'59"
D = 42°26'29"
T = 11.75'
L = 23.44'
R = 135.00'
PC STA = 2'SG'+41.33
Y = 540078.549
X = 816983.975
PT STA = 2'SG'+64.77
Y = 540087.856
X = 817005.460
BK = N71°33'12.0"E
AH = N61°36'12.8"E

CURVE 14
PI STA = 2'SG'+77.15
Y = 540093.743
X = 817016.350
DELTA = 15°26'21"
D = 212°12'24"
T = 3.66'
L = 7.28'
R = 27.00'
PC STA = 2'SG'+73.49
Y = 540092.002
X = 817013.130
PT STA = 2'SG'+80.77
Y = 540094.563
X = 817019.916
BK = N61°36'12.8"E
AH = N77°02'34.3"E

CURVE 15
PI STA = 3'SG'+50.65
Y = 540110.232
X = 817088.016
DELTA = 55°47'30"
D = 179°02'57"
T = 16.94'
L = 31.16'
R = 32.00'
PC STA = 3'SG'+33.71
Y = 540106.433
X = 817071.507
PT STA = 3'SG'+64.87
Y = 540098.714
X = 817100.438
BK = N77°02'34.3"E
AH = S47°09'55.9"E

CURVE 16
PI STA = 3'SG'+75.56
Y = 540091.445
X = 817108.282
DELTA = 9°58'50"
D = 46°46'53"
T = 10.69'
L = 21.33'
R = 122.48'
PC STA = 3'SG'+64.87
Y = 540098.714
X = 817100.438
PT STA = 3'SG'+86.20
Y = 540082.926
X = 817114.747
BK = S47°10'37.1"E
AH = S37°11'47.2"E

CURVE 17
PI STA = 16'SH'+24.69
Y = 540225.860
X = 817209.250
DELTA = 7°18'06"
D = 10°11'49"
T = 35.85'
L = 71.61'
R = 561.89'
PC STA = 15'SH'+88.83
Y = 540190.073
X = 817211.405
PT STA = 16'SH'+60.44
Y = 540261.083
X = 817202.563
BK = N03°26'49.5"W
AH = N10°44'55.8"W

CURVE 18
PI STA = 17'SH'+62.47
Y = 540361.326
X = 817183.534
DELTA = 1°33'44"
D = 3°06'14"
T = 25.17'
L = 50.33'
R = 1846.00'
PC STA = 17'SH'+37.31
Y = 540336.599
X = 817188.228
PT STA = 17'SH'+87.64
Y = 540386.171
X = 817179.515
BK = N10°44'55.8"W
AH = N09°11'11.8"W

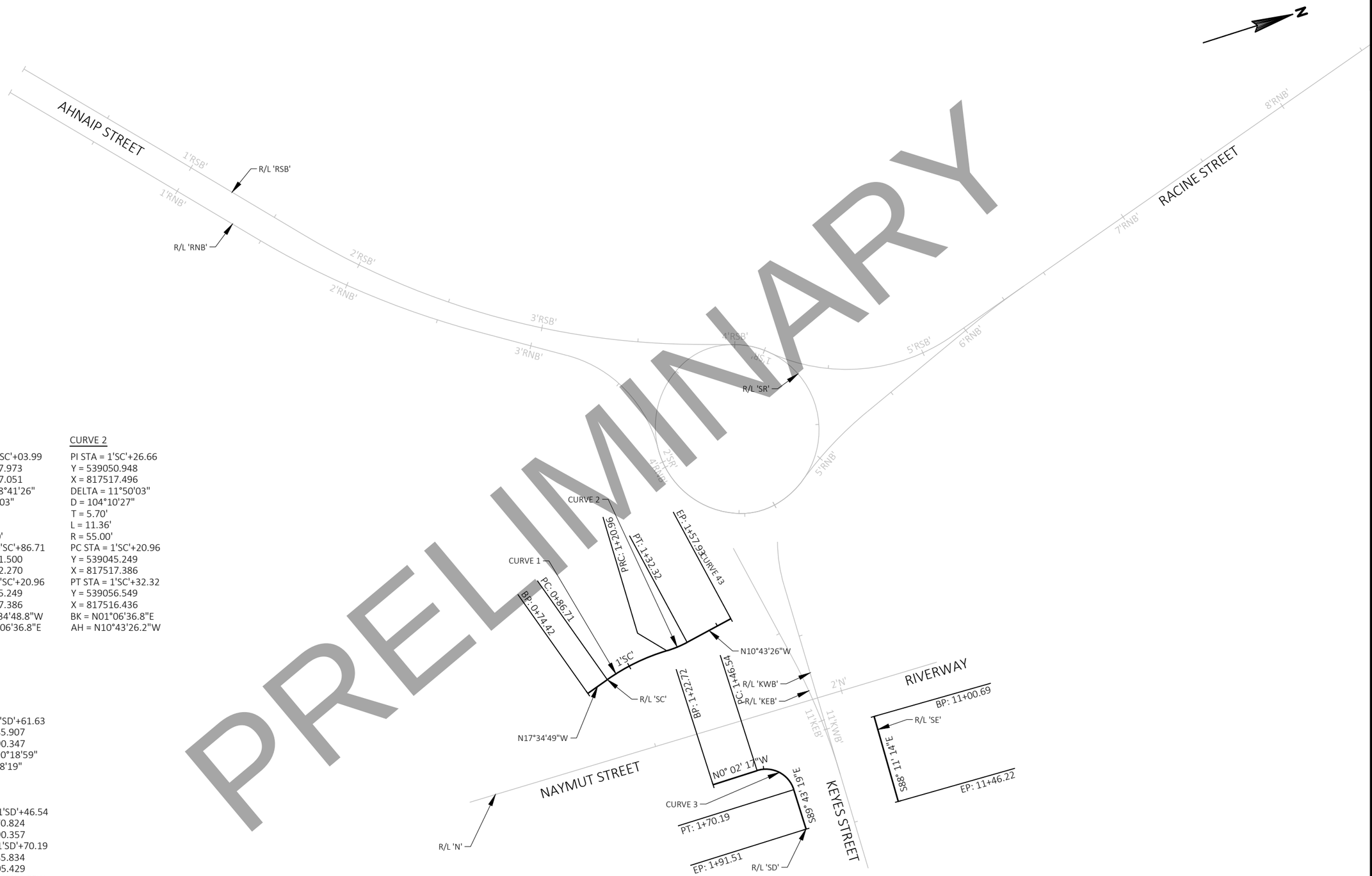
CURVE 19
PI STA = 18'SI'+82.68
Y = 540477.016
X = 817158.376
DELTA = 1°41'04"
D = 3°05'22"
T = 27.26'
L = 54.52'
R = 1854.50'
PC STA = 18'SI'+55.42
Y = 540449.966
X = 817161.771
PT STA = 19'SI'+09.94
Y = 540504.155
X = 817155.778
BK = N07°09'10.7"W
AH = N05°28'06.6"W

CURVE 20
PI STA = 19'SI'+69.20
Y = 540563.148
X = 817150.131
DELTA = 3°39'39"
D = 3°05'22"
T = 59.26'
L = 118.49'
R = 1854.50'
PC STA = 19'SI'+09.94
Y = 540504.155
X = 817155.778
PT STA = 20'SI'+28.43
Y = 540622.383
X = 817148.261
BK = N05°28'06.6"W
AH = N01°48'28.0"W

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: SIDEWALKS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027205_AD_SIDEWALKS.DWG
LAYOUT NAME - 027202
PLOT DATE : 2/27/2020 12:58 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020



PRELIMINARY

CURVE 1

PI STA = 1'SC'+03.99
Y = 539027.973
X = 817517.051
DELTA = 18°41'26"
D = 54°34'03"
T = 17.28'
L = 34.25'
R = 105.00'
PC STA = 0'SC'+86.71
Y = 539011.500
X = 817522.270
PT STA = 1'SC'+20.96
Y = 539045.249
X = 817517.386
BK = N17°34'48.8"W
AH = N01°06'36.8"E

CURVE 2

PI STA = 1'SC'+26.66
Y = 539050.948
X = 817517.496
DELTA = 11°50'03"
D = 104°10'27"
T = 5.70'
L = 11.36'
R = 55.00'
PC STA = 1'SC'+20.96
Y = 539045.249
X = 817517.386
PT STA = 1'SC'+32.32
Y = 539056.549
X = 817516.436
BK = N01°06'36.8"E
AH = N10°43'26.2"W

CURVE 3

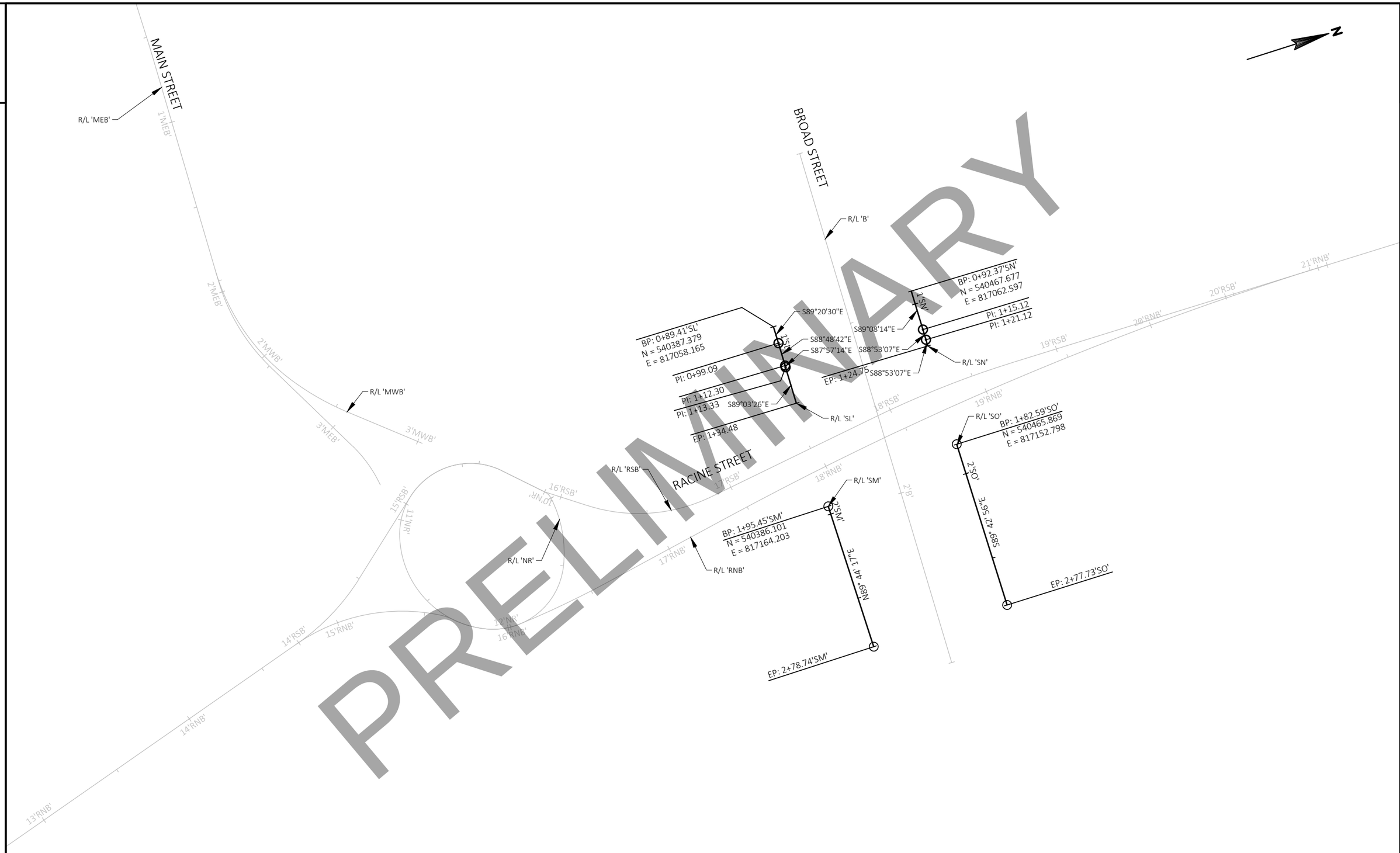
PI STA = 1'SD'+61.63
Y = 539085.907
X = 817590.347
DELTA = 90°18'59"
D = 381°58'19"
T = 15.08'
L = 23.64'
R = 15.00'
PC STA = 1'SD'+46.54
Y = 539070.824
X = 817590.357
PT STA = 1'SD'+70.19
Y = 539085.834
X = 817605.429
BK = N00°02'17.3"W
AH = S89°43'18.6"E

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: SIDEWALKS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027206_AD_SIDEWALKS.DWG
LAYOUT NAME - 027201
PLOT DATE : 2/27/2020 12:58 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

PRELIMINARY



PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	ALIGNMENT PLAN: SIDEWALKS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027206_AD_SIDEWALKS.DWG
LAYOUT NAME - 027202

PLOT DATE : 2/27/2020 12:58 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020

PRELIMINARY

PRELIMINARY

N

MAIN STREET

**

BORE B-11

BORING- TOWER 2

BORE B-8

RETAINING WALL
R-70-159

*BORE B-7D

*BORE B-7

*BORE B-7B

*BORE B-6B(B)

*BORE B-6

STRUCTURE
B-70-001

*BORE B-5

BORE B-12

BORING- TOWER 1

*BORE B-3

*BORE B-2

*BORE B-7A

*BORE B-6A(A)

*BORE B-7C

RETAINING WALL
R-70-161

*BORE B-1

STRUCTURE
B-70-324

RETAINING WALL
R-70-160

RACINE STREET

FOX RIVER

BROAD STREET

BORE B-10

NAYMUT STREET

RIVERWAY

BORE B-9

KEYES STREET

*SEE B-70-324 STRUCTURE PLANS "SUBSURFACE EXPLORATION" FOR ADDITIONAL BORING INFORMATION

**TOWER BORINGS BASED ON ASSUMED FIRE HYDRANT ELEVATION OF 100.00

NOTE: NOT TO SCALE.

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	BORING LOGS	SHEET PRE_117 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027301_XX.DWG
LAYOUT NAME - 00

PLOT DATE : 12/17/2019 3:38 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WisDOT PROJECT NAME: Racine Street Reconstruction		**BORING LOG**		**BORING No**	B-8
WisDOT PROJECT ID No: 4992-03-00				PAGE No	1 of 1
CONSULTANT: AECOM	CONSULTANT PROJECT No		DATE STARTED: 5/17/17	HORIZONTAL DATUM: NAD 83	VERTICAL DATUM: NAVD 88
DRILLING CONTRACTOR: GESTRA	DRILLING CONTRACTOR PROJECT No: 17113-10		DATE COMPLETED: 5/18/17	LATITUDE: 44.20124	
CREW CHIEF: M. Panfil	DRILLING RIG: CME 75 (HT)		WisDOT STRUCTURE ID No: B-70-324	LONGITUDE: -88.44618	
FIELD LOG BY: B. Moede	DRILLING METHOD / HOLE SIZE: 3¼" HSA w/ RWB		ROADWAY NAME: Racine Street	NORTHING: 540143	
LOG QC BY: E. Jeske	HAMMER TYPE: Auto	EFFICIENCY: 94%	STATION: 15NB+18	OFFSET: 31L	EASTING: 817114
COUNTY: 70-Winnebago	TOWNSHIP	RANGE	SECTION	1/4 SECTION / 1/4 SECTION	SURFACE ELEVATION: 752.7 ft

Sample No / Type	Sample Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation (ft)	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Graphic	Well Diagram	PID / FID	Unconfined Comp. Strength Q_u or ($Q_{u,r}$) (tsf)	Liquid Limit (%)	Plasticity Index (%)	Moisture Content (%)	Notes
1 SS	10	1 2 2	4			TOPSOIL 0.5 (752.2)									
						SILT, black, moist, (FILL)	A-7-5							16	Topsoil thickness not recorded
2 SS	7	2 3 2	5		750	1.4 (751.3) / LEAN CLAY WITH GRAVEL, red brown, moist to wet, (FILL)									
3 SS	10	11 8 7	15	5		Color change to dark brown at 4.5'	A-7-6								Large gravel pieces in sample SS-3
4 SS	10	1 2 1	3		745	Color change to red brown at 7.0'. Wood pieces in sample SS-4								32	
5 SS	11	0 0 1	1	10		Color change to gray, wet at 9.5'								47	
						Peat with wood pieces from 10.5' to 11.0' (sample SS-5B)									
6 SS	19	7 16 24	40		740	11.2 (741.5) SILTY SAND WITH GRAVEL, gray, wet, dense to very dense	A-4								Fines = 37%
7 SS	20	42 32 50/2"	R	15		16 (736.7)									
1 CORE	60				735	DOLOMITE, gray, fractured									NQ Core-1 from 16' to 22' Recovery = 83% RQD = 26%
				20		22 (730.7) End of Boring at 22.0 ft.									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NMR	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR	NE = Not Encountered; NMR = No Measurement Recorded	

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

\\GESTRASERVER-MKE\PROJECTS\2017\MILWAUKEE-10\17113-10EJ (RACINE STREET IN MENASHA)\BORING LOGS\BORING_LOGS.GPJ Racine Street Reconstruction 7/3/17

DRAFT April 20, 2020

PRELIMINARY

BORING LOG

WisDOT PROJECT NAME: Racine Street Reconstruction			BORING No: B-9
WisDOT PROJECT ID No: 4992-03-00			PAGE No: 1 of 1
CONSULTANT: AECOM	CONSULTANT PROJECT No:	DATE STARTED: 5/17/17	HORIZONTAL DATUM: NAD 83 / VERTICAL DATUM: NAVD 88
DRILLING CONTRACTOR: GESTRA	DRILLING CONTRACTOR PROJECT No: 17113-10	DATE COMPLETED: 5/17/17	LATITUDE: 44.19838
CREW CHIEF: A. Woerpel	DRILLING RIG: CME 75 (International)	WisDOT STRUCTURE ID No: Roadway	LONGITUDE: -88.44432
FIELD LOG BY: M. Rhodes	DRILLING METHOD / HOLE SIZE: 3¼" HSA	ROADWAY NAME: Racine Street	NORTHING: 539103
LOG QC BY: E. Jeske	HAMMER TYPE: Auto / EFFICIENCY: 93%	STATION: 11KEB+31 / OFFSET: 10R	EASTING: 817603
COUNTY: 70-Winnebago	TOWNSHIP / RANGE / SECTION / 1/4 SECTION / 1/4 SECTION		SURFACE ELEVATION: 750.2 ft

Sample No / Type	Sample Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation (ft)	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Graphic	Well Diagram	PID / FID	Unconfined Comp. Strength Q_p or (Q_u) (tsf)	Liquid Limit (%)	Plasticity Index (%)	Moisture Content (%)	Notes
1 SS	10	4 5 6	11			ASPHALT (4") 0.3 (749.9)									
						BASE COURSE (5") 0.8 (749.4)	A-7-6								
2 SS	18	12 36 37	73			LEAN CLAY WITH GRAVEL, red brown, moist, (Fill) 1.4 (748.8)								13	
						GRAVEL WITH SAND, gray, moist									
3 SS	3	50/3"	R	5	745		A-1-a								Driller notes rig chatter from 4' to 4.5' and at 6' Sample obtained from auger cuttings
4 SS	0	50/3"	R			7.3 (742.9) Color change to brown									
						End of Boring at 7.3 ft.									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE	▩	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NE	■	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR		NE = Not Encountered; NMR = No Measurement Recorded	

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

BORING LOG

WisDOT PROJECT NAME: Racine Street Reconstruction			BORING No: B-10
WisDOT PROJECT ID No: 4992-03-00			PAGE No: 1 of 1
CONSULTANT: AECOM	CONSULTANT PROJECT No:	DATE STARTED: 5/17/17	HORIZONTAL DATUM: NAD 83 / VERTICAL DATUM: NAVD 88
DRILLING CONTRACTOR: GESTRA	DRILLING CONTRACTOR PROJECT No: 17113-10	DATE COMPLETED: 5/17/17	LATITUDE: 44.19855
CREW CHIEF: A. Woerpel	DRILLING RIG: CME 75 (International)	WisDOT STRUCTURE ID No: Roadway	LONGITUDE: -88.44495
FIELD LOG BY: M. Rhodes	DRILLING METHOD / HOLE SIZE: 3¼" HSA	ROADWAY NAME: Racine Street	NORTHING: 539162
LOG QC BY: E. Jeske	HAMMER TYPE: Auto / EFFICIENCY: 93%	STATION: 5NB+14 / OFFSET: 1L	EASTING: 817439
COUNTY: 70-Winnebago	TOWNSHIP / RANGE / SECTION / 1/4 SECTION / 1/4 SECTION		SURFACE ELEVATION: 751.6 ft

Sample No / Type	Sample Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation (ft)	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Graphic	Well Diagram	PID / FID	Unconfined Comp. Strength Q_p or (Q_u) (tsf)	Liquid Limit (%)	Plasticity Index (%)	Moisture Content (%)	Notes
1 SS	18	7 8 7/5"	R			CONCRETE (7-1/2") 0.6 (751)									
				750		BASE COURSE (5") 1 (750.6)									
2 SS	12	7 10 13	23			CLAYEY SAND WITH GRAVEL, brown and gray, moist, (FILL) 3.8 (747.8)	A-1-b								Fines = 17%
3 SS	6	5 8 6	14	5		GRAVEL WITH SILT AND SAND, gray and brown, moist 6 (745.6)	A-1-a								Driller noted rig chatter from 3.5' to 4'
				745		SILTY SAND WITH GRAVEL, brown, very moist to wet, loose 8.5 (743.1)	A-2-4								
4 SS	6	2 2 2	4												
						GRAVEL WITH SAND, brown, wet, very dense 10.8 (740.8)	A-1-b								
5 SS	11	17 35 50/3"	R	10											
						End of Boring at 10.8 ft.									

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: 7ft.	▩	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	■	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR		NE = Not Encountered; NMR = No Measurement Recorded	

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

PRELIMINARY

DRAFT April 20, 2020

\\GESTRASERVER-MKE\PROJECTS\2017\MILWAUKEE-10\17113-10EJ (RACINE STREET IN MENASHA)\BORING LOGS\BORING LOGS.GPJ Racine Street Reconstruction 7/3/17

DRAFT April 20, 2020

PRELIMINARY

BORING LOG

WisDOT PROJECT NAME: Racine Street Reconstruction
WisDOT PROJECT ID No: 4992-03-00
CONSULTANT: AECOM
CONSULTANT PROJECT No:
DRILLING CONTRACTOR: GESTRA
DRILLING CONTRACTOR PROJECT No: 17113-10
CREW CHIEF: A. Woerpel
DRILLING RIG: CME 75 (International)
FIELD LOG BY: M. Rhodes
DRILLING METHOD / HOLE SIZE: 3¼" HSA
LOG QC BY: E. Jeske
HAMMER TYPE: Auto
EFFICIENCY: 93%
COUNTY: 70-Winnebago
TOWNSHIP / RANGE / SECTION / 1/4 SECTION / 1/4 SECTION:
DATE STARTED: 5/17/17
DATE COMPLETED: 5/17/17
WisDOT STRUCTURE ID No: Roadway
ROADWAY NAME: Racine Street
STATION: 2MEB+04
OFFSET: 12R

BORING No B-11
PAGE No: 1 of 1
HORIZONTAL DATUM: NAD 83
VERTICAL DATUM: NAVD 88
LATITUDE: 44.20107
LONGITUDE: -88.44681
NORTHING: 540082
EASTING: 816949
SURFACE ELEVATION: 754.1 ft

Sample No / Type	Sample Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation (ft)	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Graphic	Well Diagram	PID / FID	Unconfined Comp. Strength Q_p or (Q_u) (tsf)	Liquid Limit (%)	Plasticity Index (%)	Moisture Content (%)	Notes
						CONCRETE (10") 0.8 (753.3)									
1 SS	12	4 5 6	11			BASE COURSE (6") 1.3 (752.8)	A-3								
						SAND WITH GRAVEL, brown, moist, (FILL) 1.9 (752.2)									
2 SS	12	5 6 11	17		750	LEAN CLAY, brown to dark brown, moist, (FILL)	A-6							16	
3 SS	10	2 3 3	6	5		Wood pieces in sample SS-3								24	
						6.2 (747.9)									
4 SS	18	3 4 7	11		745	LEAN CLAY, red brown, moist, very stiff to hard	A-7-6				2.50			14	
5 SS	18	6 9 14	23	10		11 (743.1)					4.50			12	

End of Boring at 11.0 ft.

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR	NE = Not Encountered; NMR = No Measurement Recorded	

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

\\GESTRASERVER-MKE\PROJECTS\2017\MILWAUKEE-10\17113-10EJ (RACINE STREET IN MENASHA)\BORING LOGS\BORING_LOGS.GPJ Racine Street Reconstruction 7/3/17

BORING LOG

WisDOT PROJECT NAME: Racine Street Reconstruction
WisDOT PROJECT ID No: 4992-03-00
CONSULTANT: AECOM
CONSULTANT PROJECT No:
DRILLING CONTRACTOR: GESTRA
DRILLING CONTRACTOR PROJECT No: 17113-10
CREW CHIEF: A. Woerpel
DRILLING RIG: CME 75 (International)
FIELD LOG BY: M. Rhodes
DRILLING METHOD / HOLE SIZE: 3¼" HSA
LOG QC BY: E. Jeske
HAMMER TYPE: Auto
EFFICIENCY: 93%
COUNTY: 70-Winnebago
TOWNSHIP / RANGE / SECTION / 1/4 SECTION / 1/4 SECTION:
DATE STARTED: 5/17/17
DATE COMPLETED: 5/17/17
WisDOT STRUCTURE ID No: Roadway
ROADWAY NAME: Racine Street
STATION: 18NB+95
OFFSET: 11R

BORING No B-12
PAGE No: 1 of 1
HORIZONTAL DATUM: NAD 83
VERTICAL DATUM: NAVD 88
LATITUDE: 44.20218
LONGITUDE: -88.44609
NORTHING: 540486
EASTING: 817138
SURFACE ELEVATION: 756.2 ft

Sample No / Type	Sample Recovery (in)	Blow Counts	N - Value	Depth (ft)	Elevation (ft)	Soil / Rock Description and Geological Origin for Each Major Unit / Comments	USCS / AASHTO	Graphic	Well Diagram	PID / FID	Unconfined Comp. Strength Q_p or (Q_u) (tsf)	Liquid Limit (%)	Plasticity Index (%)	Moisture Content (%)	Notes
						CONCRETE (9") 0.8 (755.4)									
1 SS	10	13 13 6	19		755	BASE COURSE (7") 1.3 (754.9)	A-3								
						SAND WITH GRAVEL, brown, moist, (FILL) 1.8 (754.4)									
2 SS	10	9 6 5	11			LEAN CLAY, red brown, moist, very stiff to hard					2.50	70	51	28	
3 SS	15	3 4 5	9	5	750		A-7-6				2.00			18	
4 SS	18	8 16 17	33								4.50			10	Driller noted poor receovery. Disturbed sample unable to obtain Qp.
5 SS		15 19 21	40	10		11 (745.2)								13	Recovery not recorded on field log

End of Boring at 11.0 ft.

WATER & CAVE-IN OBSERVATION DATA

▽	WATER ENCOUNTERED DURING DRILLING: NE	CAVE DEPTH AT COMPLETION: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AT COMPLETION: NMR	CAVE DEPTH AFTER 0 HOURS: NMR	WET ☐ DRY ☐
▼	WATER LEVEL AFTER 0 HOURS: NMR	NE = Not Encountered; NMR = No Measurement Recorded	

NOTE: Stratification lines between soil types represent the approximate boundary; gradual transition between in-situ soil layers should be expected.

\\GESTRASERVER-MKE\PROJECTS\2017\MILWAUKEE-10\17113-10EJ (RACINE STREET IN MENASHA)\BORING LOGS\BORING_LOGS.GPJ Racine Street Reconstruction 7/3/17

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	BORING LOGS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027301_XX.DWG
LAYOUT NAME - 03
PLOT DATE : 12/11/2019 9:45 AM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

LOG OF TEST BORING

JOB NO. 8500-93-0037 VERTICAL SCALE 1" = 4' BORING NO. 1
PROJECT MENASHA UTILITIES-PROPOSED CENTER TRANSMISSION TOWER, RACINE STREET BRIDGE

DEPTH IN FEET	DESCRIPTION OF MATERIAL (SURFACE ELEVATION 92.5')	GEOLOGIC ORIGIN	N	WL	SAMPLE NO.	SAMPLE TYPE	LAB TESTS W	D	LL/P.L.	Qu
0"	Organic CLAY, dark brown, moist (OL)	TOPSOIL								
	FILL, a mixture of foundry SAND, cinders, and wood chips, black, wet	FILL								
	Fox River Water Surface=89.4' (11-9-92, 1000 hrs±)		6	▽		SB				
			3			SB				
7'	SILTY SAND w/GRAVEL, greenish-gray, gray, water-bearing, dense, BOULDERS and COBBLES from 12' to 18'	GLACIAL TILL	16			SB				
	*Note: Testing/sampling from 0-13' performed 4/2/92, #8500-92-201		44			SB				
			100/0.0'			SB				
18'	Begin coring at 18'									
	DOLOMITIC LIMESTONE, with thin beds of gray SHALE and tan FAT CLAY, moderately to highly weathered and fractured, gray	SINNIPEE FORMATION, ORDOVICIAN AGE, PALEOZOIC	REC 84%		1	Nq			RQD 0%	
			REC 80%		1	Nq			RQD 54%	9.7 Ksi
			80%		3	Nq			RQD 38%	
			92%		4	Nq			RQD 32%	
30'	END OF BORING									

WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	BAILED DEPTHS	WATER LEVEL
					to	
					to	
					to	
					to	

START 11/3/92 COMPLETE 11/3/92
METHOD HSA 0-18' @
Nq 18-30'
Sampling 18-30'
CREW CHIEF Gary Wellner

SE-2 (77-B)-4 twin city testing

LOG OF TEST BORING

JOB NO. 8500-93-0037 VERTICAL SCALE 1" = 4' BORING NO. 2
PROJECT MENASHA UTILITIES-PROPOSED NORTH TRANSMISSION TOWER, RACINE STREET BRIDGE

DEPTH IN FEET	DESCRIPTION OF MATERIAL (SURFACE ELEVATION 95.9')	GEOLOGIC ORIGIN	N	WL	SAMPLE NO.	SAMPLE TYPE	LAB TESTS W	D	LL/P.L.	Qu
	Organic SILTY CLAY, black, moist (OL)	TOPSOIL								
1'	FILL, mostly LEAN CLAY w/a little organics, dark brown, moist, rather stiff (CL)	FILL	14		1	SB				
5½'	FILL, mostly SILTY SAND, fine grained brown, moist, medium dense (SM)	River Elevation (See Boring #1)	14	▽	2	SB				
7'	FILL, mostly SAND, CLAY, GRAVEL, and COBBLES. Auger refusal on wood and cobbles, offset 5' north		40		3	SB				
	SILTY SAND w/cobbles and boulders, gray, water-bearing, very dense (SM)	GLACIAL TILL	50/.0		4	SB				
17'	Begin Coring at 17'									
	DOLOMITIC LIMESTONE, with thin beds of gray SHALE and tan FAT CLAY, moderately to highly weathered and fractured, gray	SINNIPEE FORMATION, ORDOVICIAN AGE, PALEOZOIC ERA	REC 76%		5	Nq			RQD 11%	5.8 Ksi
			REC 74%		6	Nq			RQD 0%	
			90%		7	Nq			0%	
			REC 100%		8	Nq			RQD 32%	9.1 Ksi
28'	END OB BORING									

WATER LEVEL MEASUREMENTS

DATE	TIME	SAMPLED DEPTH	CASING DEPTH	CAVE-IN DEPTH	BAILED DEPTHS	WATER LEVEL
					to	
					to	
					to	
					to	

START 11/4/92 COMPLETE 11/4/92
METHOD HSA 0-15½'
Sampling 0-17', Coring 17-27'
CREW CHIEF Gary Wellner

SE-2 (77-B)-4 twin city testing

PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	BORING LOGS	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027301_XX.DWG LAYOUT NAME - 04 PLOT DATE : 12/11/2019 9:45 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ########## WISDOT/CADDS SHEET 42

DRAFT April 20, 2020

LEGEND

- SOIL BORING
- SEDIMENT SAMPLE
- PREVIOUS SOIL BORING
- DESIGN LINEWORK
- AREA OF RESIDUAL SOIL CONTAMINATION

BORING/WELL ID (SAMPLE DEPTH FT. BGS)
CONTAMINANT OF CONCERN: RESULTS [UNITS]

RESULTS IN **BOLD** = NR 720 DIRECT CONTACT OR NR 140 ENFORCEMENT STANDARD EXCEEDANCE

RESULTS IN *ITALICS* = NR 720 GROUNDWATER PATHWAY RCL OR NR 140 PREVENTIVE ACTION LIMIT EXCEEDANCE

J = ESTIMATED CONCENTRATION ABOVE THE ADJUSTED METHOD DETECTION LIMIT AND BELOW THE ADJUSTED REPORTING LIMIT

NOTES

1. BASE MAP IMAGERY FROM NEARMAP, 3/26/2018.

N

0 80 160 Feet

1 " = 80 '
1:960

PROJECT: **WISDOT ID#: 4992-03-00**
FORMER BANTA PUBLISHING/
RACINE STREET BRIDGE (B-70-324)
MENASHA, WISCONSIN

TITLE: **AREA OF RESIDUAL SOIL CONTAMINATION**

DRAWN BY:	S. MAJOR	PROJ NO.:	313527
CHECKED BY:	T O'CONNELL		
APPROVED BY:	D. HAAK		**FIGURE 4-2**
DATE:	OCTOBER 2019		

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

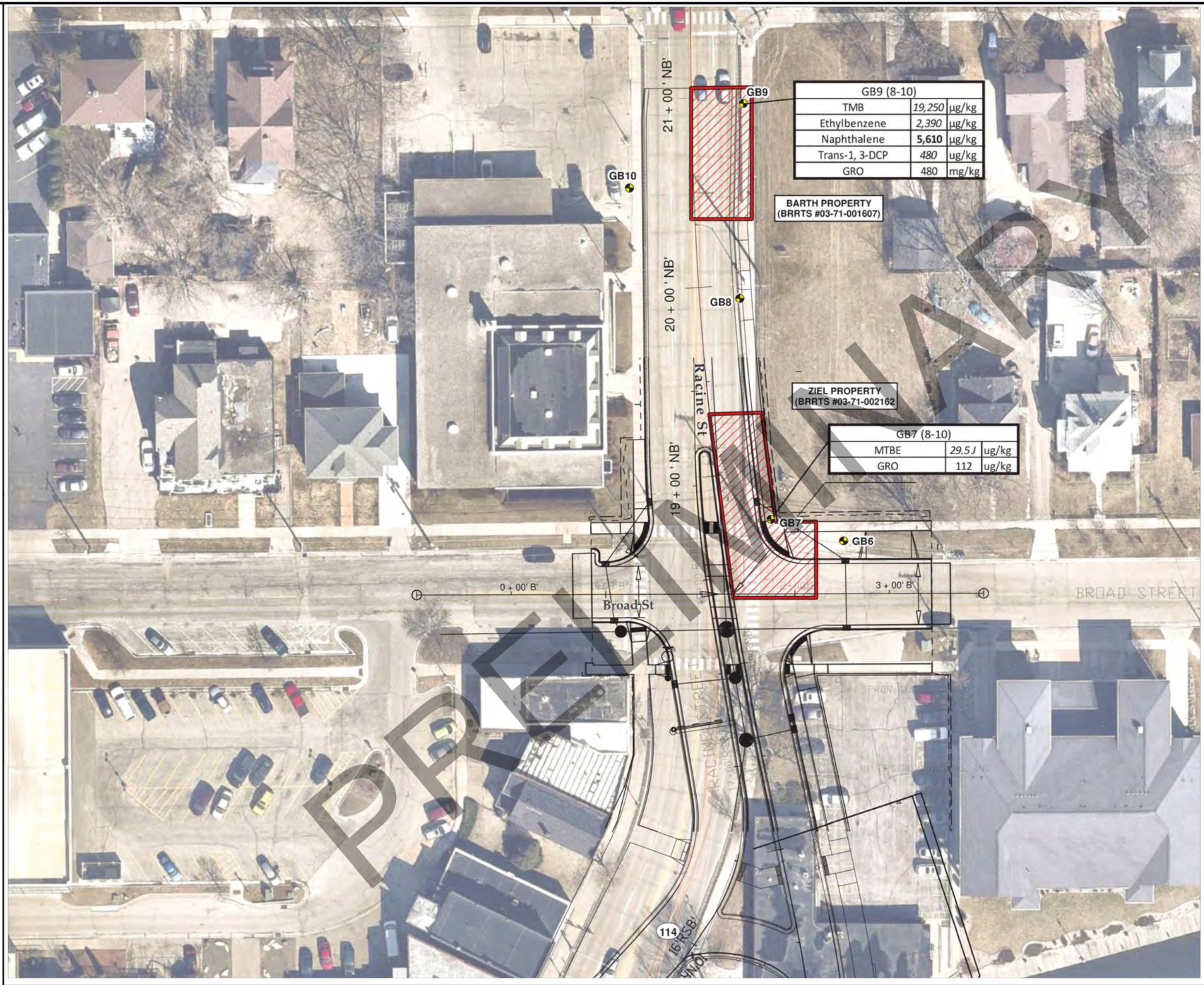
FILE NO.: 313527-006.mxd

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	AREAS OF CONTAMINATION	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027301_XX.DWG
LAYOUT NAME - 05
PLOT DATE : 12/11/2019 9:45 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

2

DRAFT April 20, 2020



GB9 (8-10)		
TMB	*19,250*	µg/kg
Ethylbenzene	*2,390*	µg/kg
Naphthalene	**5,610**	µg/kg
Trans-1, 3-DCP	*480*	ug/kg
GRO	480	mg/kg

GB7 (8-10)		
MTBE	*29.5 J*	ug/kg
GRO	112	ug/kg

LEGEND

- SOIL BORING
- DESIGN LINEWORK
- AREA OF RESIDUAL SOIL CONTAMINATION

BORING/WELL ID (SAMPLE DEPTH FT. BGS)
CONTAMINANT OF CONCERN: RESULTS [UNITS]

RESULTS IN **BOLD** = NR 720 DIRECT CONTACT OR NR 140 ENFORCEMENT STANDARD EXCEEDANCE

RESULTS IN *ITALICS* = NR 720 GROUNDWATER PATHWAY RCL OR NR 140 PREVENTIVE ACTION LIMIT EXCEEDANCE

J = ESTIMATED CONCENTRATION ABOVE THE ADJUSTED METHOD DETECTION LIMIT AND BELOW THE ADJUSTED REPORTING LIMIT

NOTES

1. BASE MAP IMAGERY FROM NEARMAP, 3/26/2018.

0 50 100 Feet

1 " = 50 '
1:600

PROJECT: **WISDOT ID#: 4992-03-00**
FORMER BANTA PUBLISHING/
RACINE STREET BRIDGE (B-70-324)
MENASHA, WISCONSIN

TITLE:

AREAS OF RESIDUAL SOIL CONTAMINATION

DRAWN BY:	S. MAJOR	PROJ NO.:	313527
CHECKED BY:	T. O'CONNELL		
APPROVED BY:	D. HAAK		**FIGURE 4-1**
DATE:	OCTOBER 2019		

TRC
708 Heartland Trail, Suite 3000
Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

FILE NO.: 313527-005.mxd

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	AREAS OF CONTAMINATION	SHEET	E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\027301_XX.DWG
LAYOUT NAME - 06
PLOT DATE : 12/11/2019 9:45 AM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
PRE_123
WISDOT/CADDS SHEET 42

CLEARING AND GRUBBING

LOCATION	STA-STA	OFFSET	201.0105 CLEARING STA	201.0205 GRUBBING STA	201.0120 CLEARING ID	201.0220 GRUBBING ID
SOUTH	6RNB+00 - 7RNB+00	LT	1	1	-	-
	2RNB+00	LT	-	-	2	2
	3RNB+75	LT	-	-	3	3
	0N+75	LT	-	-	4	4
PENINSULA	8RNB+00 - 11RNB+00	LT/RT	3	3	-	-
NORTH	15RNB+00 - 16RNB+00		1	1	-	-
TOTALS			5	5	9	9

REMOVALS

LOCATION	STA	STA	SIDE	204.0100 REMOVING PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY	204.0165 REMOVING GUARDRAIL LF	204.0170 REMOVING FENCE LF	204.0185 REMOVING MASONRY CY	204.9090.S.01 REMOVING RAILING LF	204.9090.S.02 REMOVING LANDSCAPING BRICK LF	204.9105.S.01 REMOVING MODULAR BLOCK WALL LS
SOUTH	WITHIN LIMITS		-	3,513	582	1,005	-	-	-	-	-	-
	4RNB+70	5RNB+43	RT	-	-	-	79	-	-	-	-	-
	5RNB+98	6RNB+34	LT	-	-	-	-	-	-	37	-	-
	5RNB+86	6RNB+57	RT	-	-	-	-	-	-	69	-	-
	6RNB+07	6RNB+34	LT	-	-	-	-	45	-	-	-	-
NORTH	WITHIN LIMITS		-	4,653	228	1,240	-	-	-	-	-	-
	14RSB+63	-	LT	-	-	-	-	-	-	-	-	1
	14RSB+60	15RSB+14	LT	-	-	-	-	-	-	-	156	-
	14RSB+68	14RSB+79	LT/RT	-	-	-	-	124	-	-	-	-
	14RSB+55	-	LT/RT	-	-	-	-	-	5	-	-	-
TOTALS				8,166	810	2,245	79	169	5	106	156	1

STORM SEWER REMOVALS

LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER (8-INCH) LF	204.0245.02 REMOVING STORM SEWER (12-INCH) LF	204.0245.03 REMOVING STORM SEWER (15-INCH) LF	204.0245.04 REMOVING STORM SEWER (18-INCH) LF	204.0245.05 REMOVING STORM SEWER (24-INCH) LF	204.0245.06 REMOVING STORM SEWER (30-INCH) LF	204.0245.07 REMOVING STORM SEWER (42-INCH) LF	204.0250 ABANDONING MANHOLES EACH	204.0291.S ABANDONING SEWER CY
SOUTH	8	14	562	360	325	159	-	-	204	-	1
NORTH	7	8	-	337	299	12	146	446	-	1	16
TOTALS	15	22	562	697	624	171	146	446	204	1	17

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

EARTHWORK SUMMARY

Division	Location	205.0100 Excavation Common (1)		Salvaged/ Unusable Pavement Material	Available Material (3)	Expanded EBS Backfill	Unexpanded Fill	Expanded Fill (4)	208.0100 Borrow	Structural Backfill	Mass Ordinate +/- (5)	Comment:
		Cut (2)	EBS Excavation 5%			Factor 1.15		Factor 1.33	CY	CY		
Stage 2	Bridge - Dredging	2,228	0	0	0	0	0	0	0		2,228	
Stage 3	South - Roadway	1,417	71	1,116	371	81	616	819	448		668	
	South - Structural Backfill	324	0	0	324	0	552		-324	552	324	
	South - Soil Contamination	311	16	0	0	18	90	120	120		206	Areas GB5, GB11 & GB14
	Peninsula - Soil Contamination	350	18	0	0	20	0	0	0		368	Area GB1
	Peninsula - Riprap & Asphalt Excavation	117	6	77	40	7	0	0	-40		123	
	North - Roadway	3,789	189	1,402	2,576	218	2,010	2,674	97		1,304	
	North - Structural Backfill	223	11	0	235	13	4,760		-235	4,760	235	
	North - Soil Contamination	385	19	0	0	22	1	1	1		403	Areas GB7 & GB9
	North - EBS for 11'NR'+00 to 12+'NR'00	0	257	0	0	296	0	0	0		257	
Total		9,730			3,546				68		6,117	

1) Excavation Common is the sum of the Cut and EBS Excavation columns.
2) Cut includes Salvaged/Unusable Pavement material
3) Available Material = Cut - Salvaged/Unusuable Pavement Material
4) Expanded Fill = Unexpanded Fill * Fill Factor
5) Mass Ordinate + or - Quantity Calculated. Plus Quantity indicates an excess of material. Minus indicates a shortage of material.

PRELIMINARY

3

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

3

3

PAVING ITEMS

LOCATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	305.0120 * BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	405.0100 COLORING CONCRETE WISDOT RED CY	405.0200 ** COLORING CONCRETE CUSTOM CY	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLAB SY	416.0160 CONCRETE DRIVEWAY 6-INCH SY	416.0260 CONCRETE DRIVEWAY HES 6-INCH SY	416.0512 CONCRETE TRUCK APRON 12-INCH SY	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	602.0410 CONCRETE SIDEWALK 5-INCH SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	624.0100 WATER MGAL
SOUTH	82	1,890	2,665	88	-	2,927	89	38	20	264	62	142	11,208	281	68
NORTH	75	2,457	4,040	100	62	4,433	68	93	-	296	6	10	17,959	281	97
TOTALS	157	4,347	6,705	188	62	7,360	157	131	20	560	68	152	29,167	562	166

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

** CATEGORY 0060

NOTE: CONCRETE DRIVEWAY HES LOCATED AT DAM ACCESS

PRELIMINARY

CONCRETE PAVEMENT JOINT LAYOUT

LOCATION	415.5110.S CONCRETE PAVEMENT JOINT LAYOUT LS
PROJECT	1
TOTAL	1

DRILLED BARS

LOCATION	416.0620 DRILLED DOWEL BARS EACH
SOUTH	29
NORTH	54
TOTALS	83

RAILING PIPE

STA		STA	513.2001 RAILING PIPE LF
2'MWB'+65	-	2'MWB'+90	25
TOTAL			25

STORM SEWER ROCK EXCAVATION

LOCATION	STR	TO	STR	608.0005 STORM SEWER ROCK EXCAVATION CY
SOUTH	7.0	-	17.0	56
TOTALS				56

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

FILE NAME: \\172.25.160.16\Projects\Transportation\Racine St Bridge\Phase 2\900_CAD\49920300\Design\Quantities\MQ ORIGINATOR: JESSICA LANCELLLE ORIG. DATE:5/4/18 PLOTTED DATE: 4/17/2020 8:35 AM

STORM SEWER PIPES

LOCATION	FROM	-	TO	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF	608.0430 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	608.0436 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 36-INCH LF	JOINT TIES* EACH	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE FT/FT
SOUTH	17.1	-	17	36	-	-	-	-	-	-	-	-	-	-	750.29	749.94	0.0097
	5.1	-	5	18	-	-	-	-	-	-	-	-	-	-	745.08	745.00	0.0050
	5.2	-	5	-	18	-	-	-	-	-	-	-	-	-	744.84	744.75	0.0050
	5.3	-	5.2	55	-	-	-	-	-	-	-	-	-	-	745.36	745.09	0.0049
	5	-	6	-	-	-	72	-	-	-	-	-	-	-	744.00	743.64	0.0050
	6	-	7	-	-	-	-	-	57	-	-	-	-	-	741.55	741.27	0.0049
	7	-	8	-	-	-	-	-	87	-	-	-	-	-	741.27	740.85	0.0048
	17	-	EX-1	-	-	-	-	-	14	-	-	-	-	-	740.63	740.56	0.0050
	8	-	17	-	-	-	-	-	44	-	-	-	-	-	740.85	740.63	0.0050
	2	-	3	-	-	-	32	-	-	-	-	-	-	-	746.14	745.90	0.0075
	3.4	-	3.5	-	54	-	-	-	-	-	-	-	-	-	747.48	746.94	0.0100
	1.2	-	1	23	-	-	-	-	-	-	-	-	-	-	748.56	748.44	0.0052
	1.1	-	1	25	-	-	-	-	-	-	-	-	-	-	748.56	748.44	0.0048
	1	-	2	-	-	-	119	-	-	-	-	-	-	-	747.14	746.24	0.0076
	3	-	8	-	-	-	130	-	-	-	-	-	-	-	745.80	744.83	0.0075
	3.1	-	3.2	-	-	-	-	-	-	-	31	-	-	-	747.39	747.23	0.0052
	3.3	-	3.2	-	-	-	-	-	-	8	-	-	-	-	747.80	747.72	0.0100
	3.1	-	3.5	-	39	-	-	-	-	-	-	-	-	-	747.13	746.94	0.0049
	3.5	-	3	-	25	-	-	-	-	-	-	-	-	-	746.84	746.59	0.0100
	SOUTH SUBTOTAL			157	136	0	353	0	202	8	31	0	0	0			
NORTH	16.2	-	16	-	-	-	-	-	-	-	26	-	-	-	750.61	750.53	0.0031
	9.5	-	9.2	70	-	-	-	-	-	-	-	-	-	-	748.90	747.68	0.0174
	11.4	-	11.3	-	50	-	-	-	-	-	-	-	-	-	750.35	750.20	0.0030
	16.1	-	16	-	-	-	-	-	-	30	-	-	-	-	750.93	750.78	0.0050
	15.3	-	15.2	-	-	-	-	-	-	39	-	-	-	-	751.33	751.13	0.0051
	15.2	-	15.1	-	-	-	-	-	-	-	7	-	-	-	750.88	750.85	0.0043
	13.3	-	13	-	19	-	-	-	-	-	-	-	-	-	749.77	749.67	0.0053
	16.2	-	16.3	-	-	-	-	-	-	-	32	-	-	-	750.81	750.71	0.0031
	16.4	-	16.5	-	-	-	-	-	-	35	-	-	-	-	751.45	751.28	0.0049
	15	-	13	-	-	-	-	63	-	-	-	-	-	-	748.61	748.42	0.0030
	13	-	11	-	-	-	-	103	-	-	-	-	-	-	748.32	748.01	0.0030
	18.1	-	18	32	-	-	-	-	-	-	-	-	-	-	751.34	751.03	0.0097
	11	-	19	-	-	-	-	56	-	-	-	-	-	-	747.91	747.74	0.0030
	10	-	9	-	-	-	-	71	-	-	-	-	-	-	747.31	746.61	0.0099
	19	-	10	-	-	-	-	76	-	-	-	-	-	-	747.64	747.41	0.0030
	9.4	-	9.3	6	-	-	-	-	-	-	-	-	-	-	748.52	748.49	0.0050
	18.2	-	18	15	-	-	-	-	-	-	-	-	-	-	751.34	751.19	0.0100
	9.1	-	9.2	-	8	-	-	-	-	-	-	-	-	-	747.43	747.35	0.0100
	9.1	-	9	-	-	32	-	-	-	-	-	-	-	-	747.10	746.95	0.0047
	13.3	-	13.4	8	-	-	-	-	-	-	-	-	-	-	750.09	750.05	0.0050
	13.3	-	13	-	39	-	-	-	-	-	-	-	-	-	749.80	749.69	0.0028
	18	-	16	-	-	-	-	108	-	-	-	-	-	-	749.43	749.11	0.0030
	16	-	15	-	-	-	-	63	-	-	-	-	-	-	749.01	748.82	0.0030
	11.1	-	11	-	-	-	-	-	-	33	-	-	-	-	752.58	752.41	0.0052
	11.3	-	11.2	-	20	-	-	-	-	-	-	-	-	-	750.10	750.00	0.0050
	11.2	-	11	-	23	-	-	-	-	-	-	-	-	-	749.90	749.67	0.0100
	11.5	-	11.4	46	-	-	-	-	-	-	-	-	-	-	750.83	750.60	0.0050
	9.3	-	9.1	-	31	-	-	-	-	-	-	-	-	-	747.51	747.35	0.0052
	10.1	-	10	26	-	-	-	-	-	-	-	-	-	-	751.31	751.04	0.0104
	OF-1	-	9	-	-	-	-	-	-	-	-	-	46	-	746.39	745.93	0.0100
	13.1	-	13.2	8	-	-	-	-	-	-	-	-	-	-	750.06	750.02	0.0050
	15.1	-	15	-	-	-	-	-	-	-	-	-	-	6	749.74	749.60	0.0029
	16.3	-	16.4	-	-	-	-	-	-	-	39	48	-	-	751.03	750.91	0.0031
	NORTH SUBTOTAL			211	190	32	0	540	0	137	104	48	46	6			
	TOTALS			368	326	32	353	540	202	145	135	48	46	6			

* NON-BID ITEM: FOR INFORMATION ONLY

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PROJECT NUMBER: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	MISCELLANEOUS QUANTITIES	SHEET NO: PRE_127

STORM SEWER STRUCTURES

LOCATION	STRUCTURE	STATION	OFFSET*	611.0420 RECONSTRUCTING MANHOLES EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0606 INLET COVERS TYPE B EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0652 INLET COVERS TYPE T EACH	611.1004 CATCH BASINS 4-FT DIAMETER EACH	611.1006 CATCH BASINS 6-FT DIAMETER EACH	611.1230 CATCH BASINS 2x3-FT EACH	SPV.0060.10 CATCHBASINS 5-FT DIAMETER, SPECIAL EACH	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.3220 INLETS 2X2-FT EACH	SPV.0060.02 INLETS 2x2.5-FT, SPECIAL EACH	611.3230 INLETS 2X3-FT EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH	RIM ELEVATION	INVERT** ELEVATION	DEPTH*** FT
SOUTH	1	1+92.22	5.6' LT	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	754.38	747.14	6.25
	1.1	1+94.46	30.7' LT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	753.88	746.56	6.32
	1.2	1+95.04	17.3' RT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	753.87	746.56	6.31
	2	3+11.96	28.1' LT	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	1	753.15	746.14	6.02
	3	3+34.86	35.6' LT	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	1	753.00	745.80	6.20
	3.1	3+61.25	22.1' RT	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	1	752.68	747.13	4.55
	3.2	3+85.03	2.1' LT	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1	752.77	745.39	6.30
	3.3	3+93.06	1.7' LT	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1	752.80	745.80	5.92
	3.4	2+96.01	16.5' RT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	753.21	745.48	6.73
	3.5	3+40.47	12' LT	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	753.85	746.84	5.96
	5	4+42.15	113.5' RT	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	750.81	744.00	5.82
	5.1	4+38.31	103.7' RT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	750.56	743.08	6.47
	5.2	4+44.02	129.6' RT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	750.60	742.84	6.76
	5.3	4+55.77	140.4' RT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	750.29	743.36	5.93
	6	4+60.67	81.9' RT	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	751.82	741.55	9.44
	7	4+71.58	31.6' RT	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	1	754.05	738.27	14.77
	8	5+41.80	9.9' LT	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	756.16	740.85	14.49
	17	5+85.21	19.6' LT	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	1	755.78	740.63	14.33
	17.1	5+72.09	13.6' RT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	755.58	748.29	6.29
	EX-1	5+98.01	24.9' LT	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	757.19	740.56	15.81
		SOUTH SUBTOTAL		1	6	0	9	3	2	3	1	7	0	3	0	1	2	0	2	0	20			
NORTH	9	2+49.11	44.5' RT	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	755.51	746.39	8.21
	9.1	2+44.30	13.5' RT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	754.09	745.10	7.98
	9.2	2+37.19	13.5' RT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	754.09	745.43	7.66
	9.3	2+44.72	17.4' LT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	753.85	745.51	7.34
	9.4	2+51.71	17.5' LT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	753.85	746.52	6.34
	9.5	1+73.43	20.5' RT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	754.21	746.90	6.30
	10	3+10.11	10.1' RT	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	756.41	747.31	8.19
	10.1	3+34.14	29.5' RT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	757.21	749.31	6.90
	11	16+63.13	57.8' LT	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	756.24	747.91	7.42
	11.1	16+96.26	54.9' LT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	755.71	750.58	4.12
	11.2	16+49.34	38.7' LT	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1	756.33	747.90	7.35
	11.3	16+40.54	20.4' LT	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1	756.48	748.10	7.29
	11.4	16+70.97	19.5' RT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	756.09	748.35	6.74
	11.5	16+49.36	59.2' RT	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	754.01	748.83	4.18
	13	17+58.13	19.7' LT	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	755.81	748.32	6.58
	13.1	17+66.59	38.9' LT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	755.40	748.06	6.35
	13.2	17+58.75	39.2' LT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	755.39	747.77	6.63
	13.3	17+56.91	19.5' RT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	755.45	747.80	6.64
	13.4	17+64.99	19.5' RT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	755.44	748.09	6.35
	15	18+20.00	14' LT	-	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	756.17	748.61	6.66
	15.1	18+27.09	61.7' LT	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	756.41	749.74	5.72
	15.2	18+33.01	64.3' LT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	755.81	748.88	5.92
	15.3	18+70.02	71.5' LT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	756.01	749.33	5.69
	16	18+82.59	6.1' LT	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	757.00	749.01	7.09
	16.1	18+90.67	35' LT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	756.10	748.93	6.16
	16.2	18+82.59	19.5' RT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	756.04	748.61	6.43
	16.3	18+50.63	22.9' RT	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	755.74	750.81	3.87
	16.4	18+45.17	61.3' RT	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	1	754.95	749.03	4.92
	16.5	18+09.12	56.3' RT	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	1	754.92	751.45	2.64
	18	19+90.27	4.8' RT	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	756.95	749.43	6.61
	18.1	19+92.17	27' LT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	756.64	749.34	6.30
	18.2	19+90.28	19.5' RT	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	756.67	749.34	6.33
	19	15+57.76	85.3' LT	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	756.82	747.64	8.10
		NORTH SUBTOTAL		0	9	1	6	14	3	0	0	19	1	1	6	1	1	1	2	1	32	-	-	-
TOTALS				1	15	1	15	17	5	3	1	26	1	4	6	2	3	1	4	1	52			

REMARKS

* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

** FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE

*** DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6 -INCH ADJUSTMENT RING HEIGHT

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PRELIMINARY

CONCRETE CURB & GUTTER

LOCATION	601.0405 18-INCH TYPE A LF	601.0409 30-INCH TYPE A LF	601.0452 INTEGRAL 30-INCH TYPE D LF	601.0580 4-INCH SLOPED 36-INCH TYPE R LF	601.0600 CONCRETE CURB PEDESTRIAN LF	SPV.0090.07 30-INCH HES TYPE A LF
SOUTH	175	1,362	138	257	55	56
NORTH	200	2,347	-	282	200	-
TOTALS	375	3,709	138	539	255	56

DETECTABLE WARNING FIELDS

LOCATION	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA SF
SOUTH	280	54
NORTH	240	106
TOTALS	520	160

LANDSCAPE WALL

LOCATION	210.1500 * BACKFILL STRUCTURE TYPE A TON	305.0120 * BASE AGGREGATE DENSE 1 1/4-INCH TON	603.1432 CONCRETE BARRIER TYPE S32C LF	612.0406 * PIPE UNDERDRAIN WRAPPED 6-INCH LF
SOUTH	64	9	68	90
TOTALS	64	9	68	90

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

UTILITY ADJUSTMENTS

LOCATION	OFFSET	**SPV.0060.11 ADJUSTING SANITARY MANHOLE COVERS EACH
4RNB+17	3' RT	1
10KEB+19	18' RT	1
10KEB+85	0'LT	1
10KWB+82	18' LT	1
1MEB+65	2' LT	1
18RNB+56	15' RT	1
17RSB+89	4' LT	1
TOTAL		7

**CATEGORY 0070

FENCE SAFETY

LOCATION	616.0700.S FENCE SAFETY LF
NORTH (UND)	250
SOUTH (UND)	250
TOTAL	500

MAINTENANCE AND REPAIR OF HAUL ROADS

LOCATION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS 4992-03-71 EACH
PROJECT	1
TOTAL	1

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

EROSION CONTROL

		SPV.0090.11 TURBIDITY BARRIER SPECIAL	628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE	628.7010 INLET PROTECTION TYPE B	628.7005 INLET PROTECTION TYPE A	628.7015 INLET PROTECTION TYPE C	628.7020 INLET PROTECTION TYPE D
	LOCATION	LF	LF	LF	EACH	EACH	EACH	EACH
TEMPORARY	SOUTH	160	-	-	-	15	23	6
	PENINSULA	150	350	350	-	-	-	-
	BRIDGE	-	-	-	8	-	-	-
	NORTH	490	210	210	-	24	18	15
	UNDISTRIBUTED	200	140	140	2	10	10	5
	TOTAL	1,000	700	700	10	49	51	26

MOBILIZATIONS EROSION CONTROL

	628.1905 MOBILIZATIONS EROSION CONTROL	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL
LOCATION	EACH	EACH
STAGE 1	5	2
STAGE 2	3	2
STAGE 3	3	2
TOTAL	11	6

TRACKING PAD

	628.7560 TRACKING PAD
LOCATION	EACH
CONTRACTOR ACCESS	1
TOTAL	1

GEOTEXTILE

	305.0110 BASE AGGREGATE DENSE 3/4-INCH	645.0130 GEOTEXTILE TYPE R
LOCATION	TON	SY
PENINSULA	339	1,569
TOTAL	339	1,569

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

RESTORATION

LOCATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO.40 LB	630.0500 SEED WATER MGAL	631.1000 SOD LAWN SY	631.0300 SOD WATER MGAL
SOUTH	2,662	0	1.7	0	0	2,670	60
PENINSULA	541	541	0.4	10	13	0	0
NORTH	2,386	899	1.5	14	17	1,546	35
SUBTOTAL	5,589	1,440	3.6	24	30	4,216	95
UNDISTRIBUTED	1,398	360	0.9	6	8	1,054	24
TOTAL	6,987	1,800	4.5	30	38	5,270	119

LANDSCAPING ITEMS

LOCATION	*** TREES BUR OAK B&B, 2" CAL. EACH	*** TREES MAPLE (SIENNA GLEN) B&B, 2" CAL. EACH	*** TREES HONEY LOCUST (SKYLINE) B&B, 2" CAL. EACH	*** SHRUBS DOGWOOD (REDOSIER) CG, 5 GAL. EACH	*** LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES EACH	*** PERENNIALS DAYLILY (STELLA D'ORO) CG, 1 GAL. EACH	*** PERENNIALS KARL FOERSTER REED GRASS CG, 3 GAL. EACH	*** PERENNIALS PRAIRIE DROPSEED CG, 3 GAL. EACH	SPV.0035.04 ** PLANTING MIXTURE CY	SPV.0180.01 ** SHREDDED HARDWOOD BARK MULCH SY	SPV.0090.10 ** LANDSCAPE EDGING LF
SOUTH	-	-	-	-	-	-	-	-	-	-	-
NORTH	3	4	3	62	1	519	238	95	300	800	140
TOTALS	3	4	3	62	1	519	238	95	300	800	140

**CATEGORY 0060

*** FOR INFORMATION ONLY. TO BE PROCURED AND PLANTED BY CITY OF MENASHA FORCES

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PERMANENT SIGNING

SIGN #	STATION	CODE	MESSAGE	W	H	# POSTS	637.2230 SIGNS TYPE II REFLECTIVE F SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH 16-FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT EACH	SIGNAL OR LIGHT MOUNTED?
			SOUTH										
1-1		W2-6	ROUNDABOUT AHEAD	30	30	1	6.25	-	-	1	-	-	
1-2		W13-1	15 MPH	18	18	-	2.25	-	-	-	-	-	
1-3		R3-17	BIKE LANE	30	24	1	-	5.00	1	-	-	-	
1-4		R3-17BP	ENDS	30	12	-	-	2.50	-	-	-	-	
1-5		R4-7	KEEP RIGHT	24	30	1	-	5.00	-	-	1	-	
1-6		W11-15	BICYCLE/PEDESTRIAN	30	30	-	6.25	-	-	-	-	-	LIGHT MOUNTED
1-7		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	LIGHT MOUNTED
1-8		R1-2	YIELD	36	31	1	-	7.75	-	-	-	1	
1-9		R6-2R	ONE WAY	24	30	-	-	5.00	-	-	-	-	
1-10		R1-2	YIELD	36	31	1	-	7.75	-	1	-	-	
1-11		R1-54	TO TRAFFIC FROM LEFT	24	15	-	-	2.50	-	-	-	-	
1-12		R6-1R	ONE WAY	36	12	2	-	3.00	2	-	-	-	
1-13		R6-4B	CHEVRON FOR ROUNDABOUT	60	24	-	-	10.00	-	-	-	-	
1-14		D1-1	KEYES ST.	66	15	2	-	6.88	2	-	-	-	
1-15		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	1	-	-	-	
1-16		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
1-17		R1-1	STOP	30	30	1	-	6.25	1	-	-	-	
1-18		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	1	-	-	-	
1-19		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
1-20		W2-6	ROUNDABOUT AHEAD	30	30	-	6.25	-	-	-	-	-	LIGHT MOUNTED
1-21		W13-1	15 MPH	18	18	-	2.25	-	-	-	-	-	
1-22		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	1	-	-	-	
1-23		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
1-24		R4-7	KEEP RIGHT	24	30	1	-	5.00	-	-	1	-	
1-25		R1-1	STOP	30	30	1	-	6.25	1	-	-	-	
1-26		W11-15	BICYCLE/PEDESTRIAN	30	30	-	6.25	-	-	-	-	-	LIGHT MOUNTED
1-27		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
1-28		R1-2	YIELD	36	31	1	-	7.75	-	-	-	1	
1-29		R6-2R	ONE WAY	24	30	-	-	5.00	-	-	-	-	
1-30		R1-2	YIELD	36	31	1	-	7.75	-	1	-	-	
1-31		R1-54	TO TRAFFIC FROM LEFT	24	15	-	-	2.50	-	-	-	-	
1-32		R6-1R	ONE WAY	36	12	2	-	3.00	1	-	-	-	
1-33		R6-4B	CHEVRON FOR ROUNDABOUT	60	24	-	-	10.00	-	-	-	-	
1-34		D1-1	RACINE ST.	66	15	2	-	6.88	2	-	-	-	
1-35		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	1	-	-	-	
1-36		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
1-37		W3-6	DRAW BRIDGE	36	36	-	9.00		-	-	-	-	SIGNAL MOUNTED
1-38		R3-17	BIKE LANE	30	24	-	-	5.00	-	-	-	-	LIGHT MOUNTED
1-39		W2-6	ROUNDABOUT AHEAD	30	30	-	6.25	-	-	-	-	-	LIGHT MOUNTED
1-40		W13-1	15 MPH	18	18	-	2.25	-	-	-	-	-	LIGHT MOUNTED
			SUBTOTAL				84.00	120.75	14	3	2	2	

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PERMANENT SIGNING (CONTINUED)

							637.2230	637.2210	634.0614	634.0616	634.0814	634.0816	
							SIGNS TYPE II REFLECTIVE F	SIGNS TYPE II REFLECTIVE H	POSTS WOOD 4X6-INCH 14-FT	POSTS WOOD 4X6-INCH 16-FT	POSTS TUBULAR STEEL 2X2-INCH X 14-FT	POSTS TUBULAR STEEL 2X2-INCH X 16-FT	
SIGN #	STATION	CODE	MESSAGE	W	H	# POSTS	SF	SF	EACH	EACH	EACH	EACH	SIGNAL OR LIGHT MOUNTED?
1-41		R3-17	BIKE LANE	30	24	1	-	5.00	-	-	1	-	
1-42		R3-17BP	ENDS	30	12	-	-	2.50	-	-	-	-	
1-43		W11-15	BICYCLE/PEDESTRIAN	30	30	-	6.25	-	-	-	-	-	LIGHT MOUNTED
1-44		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	LIGHT MOUNTED
1-45		R4-7	KEEP RIGHT	24	30	1	-	5.00	1	-	-	-	
1-46		R1-2	YIELD	36	31	1	-	7.75	-	1	-	-	
1-47		R6-2R	ONE WAY	24	30	-	-	5.00	-	-	-	-	
1-48		R1-2	YIELD	36	31	1	-	7.75	-	1	-	-	
1-49		R1-54	TO TRAFFIC FROM LEFT	24	15	-	-	2.50	-	-	-	-	
1-50		R6-1R	ONE WAY	36	12	2	-	3.00	2	-	-	-	
1-51		R6-4B	CHEVRON FOR ROUNDABOUT	60	24	-	-	10.00	-	-	-	-	
1-52		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	1	-	-	-	
1-53		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
1-54		D1-1	ANHAIP ST.	72	15	2	-	7.50	2	-	-	-	
1-55		R3-17	BIKE LANE	30	24	1	-	5.00	1	-	-	-	
1-56		S1-1	SCHOOL ZONE	36	36	1	9.00	-	-	1	-	-	
1-57		S16-9P	AHEAD	24	12	-	2.00	-	-	-	-	-	
1-58		R2-6P	FINES HIGHER	24	18	-	-	3.00	-	-	-	-	
1-59		R3-8E	LEFT ONLY/STRAIGHT ONLY	36	30	1	-	7.50	1	-	-	-	
1-60		W4-4B	ONCOMING TRAFFIC DOES NOT STOP	30	12	-	2.50	-	-	-	-	-	MOUNTED ON POST WITH 1-24
								BRIDGE					
2-1		R2-1	SPEED LIMIT 25	24	30	-	-	5.00	-	-	-	-	LIGHT MOUNTED
2-2		SPECIAL	DRAWBRIDGE SIGNAL	54	24	-	-	9.00	-	-	-	-	SIGNAL MOUNTED
2-3		R10-6	STOP HERE ON RED (W/ ARROW)	24	36	-	-	6.00	-	-	-	-	SIGNAL MOUNTED
2-4		W2-6	ROUNDABOUT AHEAD	30	30	-	6.25	-	-	-	-	-	LIGHT MOUNTED
2-5		W13-1	15 MPH	18	18	-	2.25	-	-	-	-	-	LIGHT MOUNTED
2-6		R2-1	SPEED LIMIT 25	24	30	-	-	5.00	-	-	-	-	LIGHT MOUNTED
2-7		-	MENASHA PARKS & RECREATION	-	93	2	-	-	-	2	-	-	
								NORTH					
3-1		R1-2	YIELD	36	31	1	-	7.75	-	-	-	1	
3-2		R6-2R	ONE WAY	24	30	-	-	5.00	-	-	-	-	
3-3		R1-2	YIELD	36	31	1	-	7.75	-	1	-	-	
3-4		R1-54	TO TRAFFIC FROM LEFT	24	15	-	-	2.50	-	-	-	-	
3-5		R6-1R	ONE WAY	36	12	2	-	3.00	2	-	-	-	
3-6		R6-4B	CHEVRON FOR ROUNDABOUT	60	24	-	-	10.00	-	-	-	-	
3-7		D1-1	RACINE ST.	66	15	2	-	6.88	2	-	-	-	
3-8		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	1	-	-	-	
3-9		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
			SUBTOTAL				46.75	139.38	13	6	1	1	

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PERMANENT SIGNING (CONTINUED)

								637.2230	637.2210	634.0614	634.0616	634.0814	634.0816	
								SIGNS TYPE II REFLECTIVE F	SIGNS TYPE II REFLECTIVE H	POSTS WOOD 4X6-INCH 14-FT	POSTS WOOD 4X6-INCH 16-FT	POSTS TUBULAR STEEL 2X2-INCH X 14-FT	POSTS TUBULAR STEEL 2X2-INCH X 16-FT	
SIGN #	STATION	CODE	MESSAGE	W	H	# POSTS	SF	SF	EACH	EACH	EACH	EACH	SIGNAL OR LIGHT MOUNTED?
3-10		R7-1D	NO PARKING ANY TIME	18	24	-	-	3.00	-	-	-	-	LIGHT MOUNTED
3-11		R5-1A	WRONG WAY	36	24	-	-	6.00	-	-	-	-	LIGHT MOUNTED
3-12		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	1	-	-	-	
3-13		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
3-14		R5-1	DO NOT ENTER	30	30	-	-	6.25	-	-	-	-	MOUNTED ON POST WITH SIGNS 3-12 AND 3-13
3-15		R3-2	NO LEFT TURN	24	24	1	-	4.00	-	-	1	-	
3-16		W6-3	TWO-WAY TRAFFIC	36	36	1	9.00	-	-	1	-	-	
3-17		R3-2	NO LEFT TURN	24	24	1	-	4.00	-	-	1	-	
3-18		R3-3	NO LEFT TURN	24	24	-	-	4.00	-	-	-	-	MOUNTED ON POST WITH SIGN 3-17
3-19		R1-1	STOP	30	30	1	-	6.25	-	-	-	1	
3-20		R6-1R	ONE WAY	36	12	-	-	3.00	-	-	-	-	
-		D3-1	BROAD ST.	-	12	-	-	-	-	-	-	-	BY OTHERS
-		D3-1	RACINE ST.	-	12	-	-	-	-	-	-	-	BY OTHERS
3-21		R3-2	NO LEFT TURN	24	24	1	-	4.00	-	-	1	-	
3-22		R4-7	KEEP RIGHT	24	30	1	-	5.00	-	-	1	-	
3-23		R7-1D	NO PARKING ANY TIME	18	24	-	-	3.00	-	-	-	-	LIGHT MOUNTED
3-24		R2-1	SPEED LIMIT 25	24	30	-	-	5.00	-	-	-	-	LIGHT MOUNTED
3-25		R4-7	KEEP RIGHT	24	30	1	-	5.00	-	-	1	-	
3-26		D1-1	RACINE ST.	66	15	2	-	6.88	2	-	-	-	
3-27		SPECIAL	DRAWBRIDGE SIGNAL	54	24	-	-	9.00	-	-	-	-	SIGNAL MOUNTED
3-28		R10-6	STOP HERE ON RED (W/ ARROW)	24	36	-	-	6.00	-	-	-	-	SIGNAL MOUNTED
3-29		R1-2	YIELD	36	31	-	-	7.75	-	-	-	-	LIGHT MOUNTED
3-30		R1-54	TO TRAFFIC FROM LEFT	24	15	-	-	2.50	-	-	-	-	LIGHT MOUNTED
3-31		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	1	-	-	-	
3-32		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
3-33		R3-8F	LEFT ONLT/RIGHT ONLY	36	30	-	-	7.50	-	-	-	-	LIGHT MOUNTED
3-34		W3-6	DRAW BRIDGE	36	36	-	9.00	-	-	-	-	-	SIGNAL MOUNTED
3-35		W2-6	ROUNDABOUT AHEAD	30	30	-	6.25	-	-	-	-	-	LIGHT MOUNTED
3-36		W13-1	15 MPH	18	18	-	2.25	-	-	-	-	-	LIGHT MOUNTED
3-37		D4-51	PARKING W/ ARROW	24	24	1	-	4.00	-	-	-	-	
3-38		R4-7	KEEP RIGHT	24	30	1	-	5.00	-	-	1	-	
3-39		R1-2	YIELD	36	31	1	-	7.75	-	-	-	1	
3-40		R6-2R	ONE WAY	24	30	-	-	5.00	-	-	-	-	
3-41		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	1	-	-	-	
3-42		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
3-43		D1-1	MAIN ST.	66	15	2	-	6.88	2	-	-	-	
3-44		R6-1R	ONE WAY	36	12	2	-	3.00	2	-	-	-	
3-45		R6-4B	CHEVRON FOR ROUNDABOUT	60	24	-	-	10.00	-	-	-	-	
3-46		R6-1R	ONE WAY	36	12	2	-	3.00	2	-	-	-	
3-47		R6-4B	CHEVRON FOR ROUNDABOUT	60	24	-	-	10.00	-	-	-	-	
			SUBTOTAL				51.25	152.75	11	1	7	2	

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PERMANENT SIGNING (CONTINUED)

SIGN #	STATION	CODE	MESSAGE	W	H	# POSTS	637.2230 SIGNS TYPE II REFLECTIVE F SF	637.2210 SIGNS TYPE II REFLECTIVE H SF	634.0614 POSTS WOOD 4X6-INCH 14-FT EACH	634.0616 POSTS WOOD 4X6-INCH 16-FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT EACH	SIGNAL OR LIGHT MOUNTED?
3-48		R1-2	YIELD	36	31	-	-	7.75	-	-	-	-	LIGHT MOUNTED
3-49		R1-54	TO TRAFFIC FROM LEFT	24	15	-	-	2.50	-	-	-	-	LIGHT MOUNTED
3-50		R1-2	YIELD	36	31	1	-	7.75	-	-	-	1	
3-51		R6-2R	ONE WAY	24	30	-	-	5.00	-	-	-	-	
3-52		W3-6	DRAW BRIDGE	36	36	-	9.00	-	-	-	-	-	SIGNAL MOUNTED
3-53		R8-10	TOP HERE WHEN FLASHING (ARROW	24	36	-	-	6.00	-	-	-	-	SIGNAL MOUNTED
3-54		SPECIAL	LEFT LANE ONLY	24	12	-	-	2.00	-	-	-	-	SIGNAL MOUNTED
3-55		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	-	-	-	-	
3-56		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
3-57		R3-5A	LANE CONTROL	42	48	-	-	1.26	-	-	-	-	STRUCTURE MOUNTED
3-58		R3-5R	RT LANE CONTROL SYMBOL	42	48	-	-	1.26	-	-	-	-	STRUCTURE MOUNTED
3-59		SPECIAL	MAIN ST.	44	14	-	-	4.28	-	-	-	-	STRUCTURE MOUNTED
3-60		R1-1	STOP	30	30	1	-	6.25	-	-	-	1	
3-61		R6-1R	ONE WAY	36	12	-	-	3.00	-	-	-	-	
-		-	BROAD ST	-	12	-	-	-	-	-	-	-	
-		-	RACINE ST	-	12	-	-	-	-	-	-	-	
3-62		W11-15	BICYCLE/PEDESTRIAN	30	30	1	6.25	-	-	-	1	-	
3-63		W16-7L	YELLOW DIAGONAL ARROW	24	12	-	2.00	-	-	-	-	-	
3-64		R5-1	DO NOT ENTER	30	30	-	-	6.25	-	-	-	-	MOUNTED ON POST WITH SIGNS 3-62 AND 3-63
3-65		R5-1A	WRONG WAY	36	24	-	-	6.00	-	-	-	-	MOUNTED ON POST WITH SIGNS 3-66 AND 3-67
3-66		W2-6	ROUNDABOUT AHEAD	30	30	1	6.25	-	-	-	-	1	
3-67		W13-1	15 MPH	18	18	-	2.25	-	-	-	-	-	
3-68		R3-4	NO U-TURNS	24	24	-	-	4.00	-	-	-	-	ON BACK OF 3-22
			SUBTOTAL				34.00	63.30	0	0	1	3	
	TOTAL						216.00	476.17	38	10	11	8	

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

REMOVING SIGNS

LOCATION	SIGN CODE	SIGN MESSAGE	638.2102 MOVING SIGNS TYPE II EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.3150 REMOVING OVERHEAD SIGN SUPPORTS CANTILEVER (STRUCTURE) EACH	NOTES
SOUTH	W11-2	CROSSWALK	-	-	1	-	-	ON SIGNAL POLE
	W16-7L	TILT DOWN LEFT ARROW	-	-	1	-	-	ON SIGNAL POLE
	W11-2	CROSSWALK	-	-	1	-	-	ON SIGNAL POLE
	W16-7L	TILT DOWN LEFT ARROW	-	-	1	-	-	ON SIGNAL POLE
	R3-5L MODIFIED	LEFT TURN ONLY (PLANT ENTRANCE)	-	1	-	-	1	ON CANTILEVER STRUCTURE
	R3-5L MODIFIED	LEFT TURN ONLY (THRU TRAFFIC)	-	1	-	-	-	ON CANTILEVER STRUCTURE
	R4-11	BICYCLES MAY USE FULL LANE	-	-	1	-	-	ON CANTILEVER STRUCTURE
	-	RESTRICTED LANE ENDS	-	-	1	-	-	ON CANTILEVER STRUCTURE
	W8-5	SLIPPERY WHEN WET	-	-	1	-	-	ON CANTILEVER STRUCTURE
	W13-1	10 MPH	-	-	1	-	-	ON CANTILEVER STRUCTURE
	S1-1	SCHOOL CROSSING	-	-	1	1	-	
	S16-9P	AHEAD	-	-	1	-	-	ON SAME POST AS S1-1
	R7-6R	NO PARKING	-	-	1	-	-	ON SAME POST AS S1-1
	R3-8R	LANE DESIGNATIONS	-	-	1	-	-	ON UTILITY POLE
	R4-4	BEGIN RIGHT TURN LANE, YEILD TO BIKES	-	-	1	-	-	ON UTILITY POLE
	W11-2	CROSSWALK	-	-	1	1	-	
	S16-9P	AHEAD	-	-	1	-	-	ON SAME POST AS W11-2
	R7-6L	NO PARKING	-	-	1	-	-	ON SAME POST AS W11-2
	W12-1D	DOUBLE DOWN ARROWS	-	-	1	1	-	
	-	NO PARKING SYMBOL	-	-	1	-	-	ON UTILITY POLE
	R1-1	STOP	-	-	1	1	-	
	-	NAYMUT ST	1	-	-	-	-	ON SAME POST AS R1-1
	R1-1	STOP	-	-	2	2	-	FOR WB KEYES APPROACH
	R1-1	STOP	-	-	1	1	-	
	-	RIVER WAY	1	-	-	-	-	ON SAME POST AS R1-1
	R1-1	STOP	-	-	1	1	-	
	-	KEYES ST	1	-	-	-	-	ON SAME POST AS R1-1
	R1-1	STOP	-	-	1	1	-	
	R4-7	MEDIAN RIGHT	-	-	1	-	-	ON SAME POST AS R1-1
	W1-8	CHEVRON	-	-	2	2	-	ON GUARDRAIL
	R1-1	STOP	-	-	1	1	-	
	W4-4AR	TRAFFIC FROM RIGHT DOES NOT STOP	-	-	1	-	-	ON SAME POST AS R1-1
	-	AHNAIP ST	1	-	-	-	-	ON SAME POST AS R1-1
	-	RACINE ST	1	-	-	-	-	ON SAME POST AS R1-1
	R4-7	MEDIAN RIGHT	-	-	1	-	-	ON SAME POST AS R1-1
	R1-1	STOP	-	-	1	1	-	
	R1-10P	EXCEPT RIGHT TURN	-	-	1	-	-	ON SAME POST AS R1-1
	R12-1	WEIGHT LIMIT 30 TONS	-	-	1	1	-	
	R5-1	DO NOT ENTER	-	-	1	1	-	
	-	NO TRUCKS SYMBOL	-	-	1	1	-	
	R3-8	LANE DESIGNATIONS	-	-	1	1	-	
	-	THE FOX CITIES PAPER TRAIL	1	-	-	-	-	ON SAME POST AS R3-8
SUBTOTALS			6	2	36	17	1	

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

REMOVING SIGNS

LOCATION	SIGN CODE	SIGN MESSAGE	638.2102 MOVING SIGNS TYPE II EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	638.3150 REMOVING OVERHEAD SIGN SUPPORTS CANTILEVER (STRUCTURE) EACH	NOTES
BRIDGE	W3-6	DRAW BRIDGE	-	-	1	-	-	ON LIGHT POLE
	-	MENASHA PARKS & RECREATION	1	-	3	-	-	FROM PIER TO POST
	-	NO TRESSPASSING OR LOITERING ON THIS PROPERTY	-	-	3	-	-	ON SIDE OF BRIDGE
	-	MENASHA DESTINATIONS	1	-	-	-	-	ON LIGHT POLE
	R10-6	STOP HERE ON RED	-	-	2	-	-	ON SIGNAL POLE
	-	RESTRICTED, NO BOATS HERE TO DAM	1	-	-	-	-	ON BRIDGE PIER
	W8-63	STEEL GRID DECK	-	-	1	-	-	ON LIGHT POLE
	-	SLIPPERY WHEN WET	-	-	1	-	-	ON LIGHT POLE
	-	NOTICE OF OPENING	2	-	-	-	-	ON BRIDGE RAILING
	-	BRIDGE MONITORS CHANNEL 16	2	-	-	-	-	ON BRIDGE RAILING
	-	SLOW ONCOMING BICYCLE TRAFFIC	-	-	1	-	-	ON LOCK TENDERS HOUSE RAILING
	W8-63	STEEL GRID DECK	-	-	1	-	-	ON LIGHT POLE
	-	SLIPPERY WHEN WET	-	-	1	-	-	ON LIGHT POLE
SUBTOTALS			7	0	14	0	0	
NORTH	R1-1F	STOP (FOLDING)	-	-	1	-	-	ON SIGNAL POLE
	-	THE FOX CITIES PAPER TRAIL	1	-	-	-	-	ON SIGNAL POLE
	-	MAIN ST	1	-	-	-	-	ON SIGNAL POLE
	-	RACINE ST	1	-	-	-	-	ON SIGNAL POLE
	R12-1	WEIGHT LIMIT 30 TONS	-	-	1	1	-	
	-	SLOW ONCOMING BICYCLE TRAFFIC	-	-	1	1	-	
	-	BICYCLES MAY USE SIDEWEALK	-	-	1	-	-	ON SAME POST AS SLOW ONCOMING BICYCLE TRAFFIC
	W11-2	CROSSWALK	-	-	1	1	-	
	-	TILT DOWN RIGHT ARROW	-	-	1	-	-	ON SAME POST AS W11-2
	R1-1F	STOP (FOLDING)	-	-	1	-	-	ON SIGNAL POLE
	R1-1F	STOP (FOLDING)	-	-	1	-	-	ON SIGNAL POLE
	-	THE FOX CITIES PAPER TRAIL	1	-	-	-	-	ON SIGNAL POLE
	-	NO PARKING	-	-	1	-	-	ON LIGHT POLE
	-	NO PARKING	-	-	1	-	-	ON LIGHT POLE
	R3-5L	LEFT TURN ONLY	-	1	-	-	1	ON CANTILEVER STRUCTURE
	-	BICYCLES MAY USE FULL LANE	-	-	1	-	-	ON CANTILEVER STRUCTURE
	R3-5R	RIGHT TURN ONLY	-	-	1	-	-	ON CANTILEVER STRUCTURE
	-	MENASHA DESTINATIONS	1	-	-	-	-	ON CANTILEVER STRUCTURE
	R1-1	STOP	-	-	1	1	-	
	-	BROAD ST	1	-	-	-	-	ON SAME POST AS R1-1
	-	RACINE ST	1	-	-	-	-	ON SAME POST AS R1-1
	R3-9C	START	-	-	1	-	-	ON UTILITY POLE
	R6-2R	ONE WAY (RIGHT)	-	-	1	-	-	ON UTILITY POLE
	R3-9C	START	-	-	1	-	-	ON UTILITY POLE
	R6-2L	ONE WAY (LEFT)	-	-	1	-	-	ON UTILITY POLE
	-	POLICE FIRE DEPARTMENT	1	-	-	-	-	ON LIGHT POLE
	-	NO PARKING	-	-	1	-	-	ON LIGHT POLE
SUBTOTALS			8	1	18	4	1	
RAILROAD	W10-1	RAILROAD ADVANCED WARNING	1	-	-	1	-	3RD AND TAYCO SB APPROACH
	-	NO TRAIN HORN	1	-	-	-	-	3RD AND TAYCO SB APPROACH
	W10-1	RAILROAD ADVANCED WARNING	1	-	-	-	-	TAYCO AND 3RD NB APPROACH
	W10-1	RAILROAD ADVANCED WARNING	1	-	-	-	-	TAYCO AND WATER SB APPROACH
SUBTOTALS			4	0	0	1	0	
TOTALS			25	3	68	22	2	

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

SIGN SUPPORT

641.8100

OVERHEAD SIGN SUPPORT S-70-383

LOCATION	LS
17+25 'RSB'	1
TOTAL	1

FIELD OFFICE

642.5201

FIELD OFFICE TYPE C

LOCATION	EACH
PROJECT	2
TOTAL	2

COVERING SIGNS

643.0910

TRAFFIC CONTROL COVERING SIGNS TYPE 2

LOCATION	EACH	CYCLES	SIGN
BICYCLE DETOUR	1	1	PAPER TRAIL LEFT ARROW
VEHICLE DETOUR	1	1	HOSPITAL LEFT ARROW
STAGE 2	1	1	LT TURN ARROW - OVERHEAD SIGN
TOTAL	3		

TRAFFIC CONTROL

LOCATION	643.5000 TRAFFIC CONTROL EACH	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0410 TRAFFIC CONTROL BARRICADES TYPE II EACH	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS DAY	644.1601 TEMPORARY CURB RAMP EACH	644.1601 TEMPORARY CURB RAMP DAY	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF	644.1420 TEMPORARY PEDESTRIAN SURFACE PLYWOOD SF	DURATION DAYS
PROJECT	1	30	3,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100
STAGE 1	-	-	-	-	-	-	-	-	-	-	-	2	690	2	14	-	-	-	-	-	345
PEDESTRIAN ACCOMM.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	345
STAGE 2	-	10	2,790	-	-	13	3,627	12	3,348	5	1,395	23	6,417	2	14	-	-	-	-	-	279
PEDESTRIAN ACCOMM.	-	-	-	6	1,674	-	-	-	-	-	-	20	5,580	-	-	-	-	175	-	-	279
STAGE 3	-	24	168	17	1,360	24	1,920	49	3,920	24	168	41	3,280	8	56	10	800	400	1,600	80	
PEDESTRIAN ACCOMM.	-	-	-	20	1,600	-	-	-	-	-	-	20	1,600	-	-	-	-	-		80	
VEHICLE DETOUR	-	-	-	-	-	-	-	-	-	-	-	73	26,207	-	-	-	-	-	-	-	359
PEDESTRIAN DETOUR	-	-	-	38	13,642	-	-	-	-	-	-	38	13,642	-	-	-	-	-	-	-	359
BICYCLE DETOUR	-	-	-	-	-	-	-	-	-	-	-	16	5,744	-	-	-	-	-	-	-	359
TOTAL	1		5,958		18,276		5,547		7,268		1,563		63,160		84		800	575	1,600		

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

LINE MARKING

LOCATION	646.1020 MARKING LINE EPOXY 4-INCH YELLOW SOLID LF	WHITE SOLID LF	WHITE 3' LINE-9' GAP LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE SOLID LF	WHITE 1' LINE-3' GAP LF	WHITE 3' LINE-9' GAP LF	646.6120 MARKING STOP LINE EPOXY 18-INCH LF	646.6320 MARKING DOTTED EXTENSION EPOXY 18-INCH WHITE 2' LINE-2' GAP LF	646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	12-INCH WHITE LF	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.5220 MARKING SYMBOL EPOXY EACH	646.8120 MARKING CURB EPOXY LF	646.8320 MARKING PARKING STALL EPOXY LF
SOUTH	1,540	238	52	129	-	-	27	50	70	-	384	4	-	4	25	-
BRIDGE	1,652	1,637	-	-	-	-	16	-	-	-	-	1	3	1	-	-
NORTH	2,038	78	12	464	12	80	29	59	72	33	497	8	7	2	23	40
TOTALS	5,230	1,953	64	593	12	80	72	109	142	33	881	13	10	7	48	40
PROJECT TOTAL		7,247			685		72	109	175		881	13	10	7	48	40

MARKING REMOVAL

STAGE	646.9200 MARKING REMOVAL LINE WIDE LF	
2	48	STOP LINES AT MAIN STREET
TOTAL	48	

TEMPORARY MARKING

STAGE	LOCATION	649.0105 TEMPORARY MARKING LINE PAINT 4-INCH LF	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF
2	MAIN STREET	250	-
3	OAK STREET	-	100
TOTAL		250	100

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

PRELIMINARY

3

3

CONSTRUCTION STAKING

	650.4500	650.5500	650.6500	650.6500	650.6500	650.6500	650.7000	650.9000	SPV.0105.38	650.9910
LOCATION	SUBGRADE LF	CURB GUTTER AND CURB & GUTTER LF	STRUCTURE LAYOUT B-70-324 LS	STRUCTURE LAYOUT R-70-159 LS	STRUCTURE LAYOUT R-70-160 LS	STRUCTURE LAYOUT R-70-161 LS	CONCRETE PAVEMENT LF	CURB RAMPS EACH	WATER MAIN LS	SUPPLEMENTAL CONTROL 4992-03-71 LS
SOUTH	720	2,043	-	-	-	-	756	18	-	-
STRUCTURE	-	-	1	1	1	1	-	-	-	-
NORTH	1,002	2,981	-	-	-	-	984	18	-	-
PROJECT	-	-	-	-	-	-	-	-	1	1
TOTAL	1,722	5,024	1	1	1	1	1,740	36	1	1

LOOP DETECTORS

LOOP NO.	HOME RUN PB	STA	SIZE FT		FT	NO. OF TURNS	PAVEMENT TYPE	652.0800 CONDUIT LOOP DETECTOR LF	655.0800 LOOP DETECTOR WIRE LF
1	EX PB1	20RNB+46, 4' RT	6	X	6	3	CONCRETE	48	156
2	EX PB1	20RNB+46, 14' RT	6	X	6	3	CONCRETE	38	126
TOTAL								86	282

SAWING PAVEMENT

LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
SOUTH	265	96
PENINSULA	-	172
NORTH	66	174
TOTAL	331	442

STREET SWEEPING

SPV.0075.01

LOCATION	STREET SWEEPING HRS
PROJECT	70
TOTALS	70

OPERATOR HOUSE SERVICES

LOCATION	**SPV.0090.05 SANITARY SEWER PIPE PVC 4-INCH LF	**SPV.0090.06 C-901 PE PIPE 1-INCH LF
NORTH	150	180
TOTALS	150	180

** CATEGORY 0070

TRENCH DRAINS

LOCATION	SPV.0090.08 TRENCH DRAINS 4-INCH LF	SPV.0090.09 DRAIN PIPE PVC 4-INCH LF
NORTH	97	51
TOTALS	97	51

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

3

SAWING CURB HEAD

LOCATION	SPV.0090.12 SAWING CURB HEAD LF
CONTRACTOR ACCESS	30
TOTAL	30

MANAGEMENT OF PETROLEUM CONTAMINATION

LOCATION	SPV.0120.01 MANAGEMENT OF PETROLEUM CONTAMINATED GROUNDWATER MGAL	SPV.0105.30 MANAGEMENT OF PETROLEUM CONTAMINATED WATER LS
PROJECT	1,041	1
TOTAL	1,041	1

3

EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL

LOCATION	SPV.0035.03 EXCAVATION AND DEWATERING OF DREDGING MATERIAL CY	SPV.0195.02* EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL (DIRECT LANDFILL) TON	SPV.0195.03 EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL (BIOREMEDIATION) TON	SPV.0195.04 HAULING AND DISPOSAL OF DREDGING MATERIAL TON
PROJECT	2,250	296	1,567	3,938
TOTAL	2,250	296	1,567	3,938

*DENOTES QUANTITY FOUND ELSEWHERE

INSULATION BOARD

LOCATION	SPV.0165.03 INSULATION BOARD 2-INCH SF
PROJECT	450
TOTAL	450

PRELIMINARY

ALL ITEMS ARE CATEGORY 0010 UNLESS OTHERWISE SPECIFIED.

REMOVALS

SECTION	BASE NO.	204.0195 REMOVING CONCRETE BASES EACH
SOUTH		
	EXSB1	1
	EXSB2	1
SOUTH SECTION SUBTOTAL		2
NORTH		
	EXLP4	1
	EXLP5	1
	EXLP6	1
	EXLP7	1
	EXLP8	1
	EXLP9	1
	EXLP10	1
	EXLP11	1
	EXLP12	1
	EXLP13	1
	EXSB5	1
	EXSB6	1
	EXSB7	1
	EXSB8	1
	EXSB9	1
	EXTG1	1
	EXTG2	1
NORTH SECTION SUBTOTAL		17
PROJECT TOTAL		19

REMOVING PULL BOXES

SECTION	PULL BOX NO.	653.0905 REMOVING PULL BOXES EACH
NORTH		
	EXPB1	1
	EXPB2	1
	EXPB3	1
	EXPB4	1
NORTH SECTION SUBTOTAL		4
PROJECT TOTAL		4

ELECTRICAL SERVICE METER BREAKER PEDESTAL

SECTION	CONTROL CABINET NO.	** LOCATION	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.	656.0200.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
SOUTH				
	MB1	RACINE STREET & AHNAIP STREET	1	---
		SOUTH SECTION SUBTOTAL	1	0
NORTH				
	MB2	RACINE STREET & MAIN STREET	---	1
		NORTH SECTION SUBTOTAL	0	1
		PROJECT TOTAL	1	1

LIGHTING CONTROL CABINET

SECTION	CONTROL CABINET NO.	** LOCATION	654.0230 CONCRETE CONTROL CABINET BASE TYPE L30 EACH	659.2130 LIGHTING CONTROL CABINETS 120/240 30-INCH EACH	SPV.0060.08 LIGHTING CONTROL CABINET SPECIAL EACH
SOUTH					
	LC1	3+85'NB', 46' RT	1	1	---
		SOUTH SECTION SUBTOTAL	1	1	0
NORTH					
	LC2	17+30'NB', 56' RT	1	---	1
		NORTH SECTION SUBTOTAL	1	0	1
		PROJECT TOTAL	2	1	1

SALVAGE TRAFFIC SIGNAL AND LIGHTING EQUIPMENT

SECTION	** LOCATION	SPV.0105.35 SALVAGE TRAFFIC SIGNAL AND LIGHTING EQUIPMENT L.S.
PROJECT		
	RACINE ST	1
	PROJECT TOTAL	1

PULL BOXES

SECTION	PULL BOX NO.	** LOCATION	653.0164 PULL BOXES NON-CONDUCTIVE 24"x42" EACH
SOUTH			
	PB1	3+95'NB', 41' RT	1
	PB2	4+09'NB', 19' LT	1
	PB3	4+40'NB', 44' RT	1
	PB4	4+71'NB', 39' RT	1
	PB5	6+34'NB', 28' RT	1
	PB6	3+56'NB', 43' RT	1
	PB7	3+39'SB', 21' LT	1
	PB8	5+33'SB', 16' LT	1
SOUTH SECTION SUBTOTAL			8
NORTH			
	PB9	17+20'NB', 49' RT	1
	PB10	16+50'NB', 24' RT	1
	PB11	15+70'NB', 24' RT	1
	PB12	16+20'NB', 24' LT	1
	PB13	16+71'NB', 19' LT	1
	PB14	16+17'SB', 31' LT	1
	PB15	15+57'SB', 33' LT	1
	PB16	15+22'SB', 66' LT	1
	PB17	15+11'SB', 56' LT	1
	PB18	14+87'SB', 61' LT	1
	PB19	17+34 'NB', 45' RT	1
NORTH SECTION SUBTOTAL			11
PROJECT TOTAL			19

LEGEND

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 0050.
ITEMS LOCATED ON BRIDGE ARE INCLUDED IN SOUTH SECTION QUANTITIES.

RACINE STREET LIGHTING

PAGE 1 OF 4

PRELIMINARY

LIGHTING EQUIPMENT

SECTION	LIGHT POLE BASE NO.	** LOCATION	654.0105 CONCRETE BASE TYPE 5 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0610 LUMINAIRES ARMS SINGLE MEMBER 4 1/2 CLAMP 6-FT EACH	SPV.0060.03 LUMINAIRES UTILITY LED EACH	SPV.0060.04 CONCRETE BASES TYPE 7 MODIFIED EACH	SPV.0060.05 DECORATIVE LIGHT POLE ASSEMBLY 12 FT EACH	SPV.0060.06 DECORATIVE LIGHT POLE ASSEMBLY 16 FT EACH	SPV.0060.07 DECORATIVE LIGHT POLE ASSEMBLY 30 FT EACH	FOR INFORMATION ONLY LIGHTING EQUIPMENT PAINTING
SOUTH												
	L-0001	01+87 'NB', 28' RT	1	1	1	1	1	---	---	---	---	1
	L-0002	03+09 'NB', 22' RT	1	1	1	1	1	---	---	---	---	1
	L-0003	04+06'NB', 25' RT	1	1	1	1	1	---	---	---	---	1
	L-0004	04+66 'NB', 63' RT	1	1	1	1	1	---	---	---	---	1
	L-0005	04+97 'NB', 27' RT	1	1	1	1	1	---	---	---	---	1
	L-0006	03+59 'NB', 78' LT	1	1	1	1	1	---	---	---	---	1
	L-0007	05+80 'NB', 26' LT	1	1	1	1	1	---	---	---	---	1
	L-0008	06+50 'NB', 28' RT	1	1	1	1	1	---	---	---	---	1
	L-0009	08+11 'NB', 26' LT	---	1	1	1	1	---	---	---	---	1
	L-0010	09+99 'NB' 26' RT	---	1	1	1	1	---	---	---	---	1
	L-0011	11+26 'NB', 26' LT	---	1	1	1	1	---	---	---	---	1
	L-0012	12+79 'NB', 26' RT	---	1	1	1	1	---	---	---	---	1
	SOUTH SECTION SUBTOTAL		8	12	12	12	12	0	0	0	0	12
NORTH												
	L-0013	14+85 'NB' 33' LT	1	1	1	1	1	---	---	---	---	1
	L-0014	14+66 'SB', 32' LT	---	---	---	---	---	1	---	1	---	---
	L-0015	15+13 'SB', 30' LT	---	---	---	---	---	1	---	1	---	---
	L-0016	15+05 'SB', 103' LT	---	---	---	---	---	1	---	1	---	---
	L-0017	15+13 'SB' 205' LT	---	---	---	---	---	1	1	---	---	---
	L-0018	15+18 'SB' 146' LT	---	---	---	---	---	1	1	---	---	---
	L-0019	15+48 'SB' 35' LT	---	---	---	---	---	1	---	---	1	---
	L-0020	15+97 'SB' 32' LT	---	---	---	---	---	1	---	1	---	---
	L-0021	16+97 'SB' 33' LT	---	---	---	---	---	1	---	1	---	---
	L-0022	17+70 'SB' 35' LT	---	---	---	---	---	1	---	1	---	---
	L-0023	18+66 'SB' 26' LT	---	---	---	---	---	1	---	1	---	---
	L-0024	19+66 'SB' 25' LT	---	---	---	---	---	1	---	1	---	---
	L-0025	16+77 'NB' 16' LT	---	---	---	---	---	1	---	1	---	---
	L-0026	16+30 'NB' 24' RT	---	---	---	---	---	1	---	---	1	---
	L-0027	15+74 'NB' 41' RT	---	---	---	---	---	1	1	---	---	---
	L-0028	17+59 'NB' 24' RT	---	---	---	---	---	1	---	1	---	---
	L-0029	18+57 'NB' 36' RT	---	---	---	---	---	1	---	1	---	---
	L-0030	19+55 'NB' 21' RT	---	---	---	---	---	1	---	1	---	---
	L-0031	20+59 'NB' 23' RT	---	---	---	---	---	1	---	1	---	---
	NORTH SECTION SUBTOTAL		1	1	1	1	1	18	3	13	2	1
	PROJECT TOTAL		9	13	13	13	13	18	3	13	2	13

LIGHTING EQUIPMENT PAINTING

SECTION	** LOCATION	*** SPV.0105.36 LIGHTING EQUIPMENT PAINTING L.S.
PROJECT		
	RACINE ST	1
	PROJECT TOTAL	1

LEGEND

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

*** SEE LIGHTING EQUIPMENT MQ TABLE FOR LIGHT POLE LOCATIONS THAT WILL BE INLCUDED IN LIGHTING EQUIPMENT PAINTING BID ITEM

ALL ITEMS ON THIS SHEET ARE CATEGORY 0050.
ITEMS LOCATED ON BRIDGE ARE INCLUDED IN SOUTH SECTION QUANTITIES.

RACINE STREET LIGHTING

PRELIMINARY

LIGHTING CONDUIT & ELECTRICAL WIRE

SECTION	LOC.	TO LOC.	LINEAR DISTANCE	NUMBER OF CONDUITS	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	IN CONDUIT RUN WIRE SLACK LF	IN CONDUIT RUN NUMBER OF WIRES (INCLUDING GROUND WIRE)	IN LIGHT POLE LENGTH OF WIRE IN POLE	IN LIGHT POLE NUMBER OF WIRES (INCLUDING GROUND WIRE)	IN LIGHT POLE LENGTH OF FESTOON WIRE IN POLE	IN LIGHT POLE NUMBER OF FESTOON RECEPTACLE WIRES (INCLUDING GROUND WIRE)	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.
SOUTH														
	LC1	PB1	13	3		39	25	6						228
	PB1	PB2	62	2		124	34	2					192	
	PB1	L-0003	25	1	25		22	6	40	3			120	282
	L-0003	PB3	62	1	62		22	6						504
	PB3	PB4	62	2		124	22	6						504
	PB4	L-0004	25	1	25		22	3	40	3			120	141
	PB4	L-0005	38	1	38		22	3	40	3			120	180
	L-0005	PB5	130	1	130		22	3						456
	PB5	L-0008	16	1	16		22	6	40	3			120	228
	PB5	L-0010	397	1		13	22	3	40	3			120	1257
	L-0010	L-0012	302				10	3	40	3			120	936
	LC1	PB6	10	3		30	25	10						350
	PB6	L-0002	33	1	33		22	5	40	3			120	275
	L-0002	L-0001	127	1	127		10	3	40	3			120	411
	PB6	PB7	82	2		164	34	5						580
	PB7	L-0006	65	1	65		22	5	40	3			120	435
	L-0006	L-0007	80	1	80		10	3	40	3			120	270
	L-0007	PB8	32	1	32		22	3						162
	PB8	L-0009	220	1		32	22	3	40	3			120	726
	L-0009	L-0011	338				10	3	40	3			120	1044
		SOUTH SECTION SUBTOTAL			633	526							1632	8969
NORTH														
	LC2	PB9	12	3		36	25	28						1036
	PB9	PB10	74	2		148	34	28						3024
	PB10	PB12	56	2		112	34	2					180	
	PB10	L-0026	22	1	22		22	8	20	6	15	3	165	352
	PB10	PB11	100	1	100		34	5						670
	PB11	L-0027	17	1	17		22	5	20	6	15	3	165	195

CONTINUED ON NEXT PAGE

PRELIMINARY

LEGEND

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 0050.
ITEMS LOCATED ON BRIDGE ARE INCLUDED IN SOUTH SECTION QUANTITIES.

RACINE STREET LIGHTING

FILE NAME: \\172.25.160.16\Projects\Transportation\Racine St Bridge\Phase 2\900_CAD\49920300\Design\Quantities\MQ ORIGINATOR: JESSICA LANCELLLE ORIG. DATE:5/4/18 PLOTTED DATE: 2/27/2020 4:40 PM

LIGHTING CONDUIT & ELECTRICAL WIRE

SECTION	LOC.	TO	LOC.	LINEAR DISTANCE	NUMBER OF CONDUITS	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	IN CONDUIT RUN WIRE SLACK LF	IN CONDUIT RUN NUMBER OF WIRES (INCLUDING GROUND WIRE)	IN LIGHT POLE LENGTH OF WIRE IN POLE	IN LIGHT POLE NUMBER OF WIRES (INCLUDING GROUND WIRE)	IN LIGHT POLE LENGTH OF FESTOON WIRE IN POLE	IN LIGHT POLE NUMBER OF FESTOON RECEPTACLE WIRES (INCLUDING GROUND WIRE)	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.
NORTH	PB10		PB13	48	2		96	34	21						1722
	PB13		L-0025	7	1	7		22	10	20	6	15	3	165	290
	PB13		PB14	51	2		102	34	21						1785
	PB14		L-0020	19	1	19		22	10	20	6	15	3		410
	PB14		PB15	60	2		120	34	14						1316
	PB15		L-0019	16	1	16		22	9	20	6	15	3	165	342
	PB15		PB16	83	2		166	34	13						1521
	PB16		L-0018	85	1	85		22	5	20	6	15	3		535
	PB16		PB17	28	2		56	34	8						496
	PB17		L-0015	26	1	26		22	10	20	6	15	3	165	480
	PB17		PB18	34	2		68	34	10						680
	PB18		L-0014	37	1	37		22	11	20	6	15	3	165	649
	L-0014		L-0013	42	1	42		10	3	40	3			120	156
	PB18		L-0016	46	1	46		22	7	20	6	15	3	165	476
	L-0016		L-0017	111	1	111		10	5	20	6	15	3	165	605
	PB14		L-0021	55	1	55		22	7	20	6	15	3	165	539
	L-0021		L-0022	73	1	73		10	7	20	6	15	3	165	581
	L-0022		L-0023	100	1		100	10	7	20	6	15	3	165	770
	L-0023		L-0024	101	1	101		10	5	20	6	15	3	165	555
	LC2		PB19	11	3		33	25	7						252
	PB19		L-0028	33	1	33		22	7	20	6	15	3	165	385
	L-0028		L-0029	97	1		97	10	7	20	6	15	3	165	749
	L-0029		L-0030	100	1	100		10	7	20	6	15	3	165	770
	L-0030		L-0031	102	1	102		10	5	20	6	15	3	165	560
			NORTH SECTION SUBTOTAL			992	1134							2940	21901
			PROJECT TOTAL			1625	1660							4572	30870

PRELIMINARY

LEGEND

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 0050.
ITEMS LOCATED ON BRIDGE ARE INCLUDED IN SOUTH SECTION QUANTITIES.

RACINE STREET LIGHTING

PAGE 4 OF 4

DRAFT April 20, 2020

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET

4992-03-21

RACINE STREET BRIDGE, CITY OF MENASHA

FOX RIVER BRIDGE & APPROACHES

LOCAL STREET
WINNEBAGO COUNTY

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
BUILDING TO BE RAZED
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT

SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
ELECTRIC POLE
TELEPHONE POLE
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)
ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
BRIDGE

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1" UNLESS NOTED)
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN

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

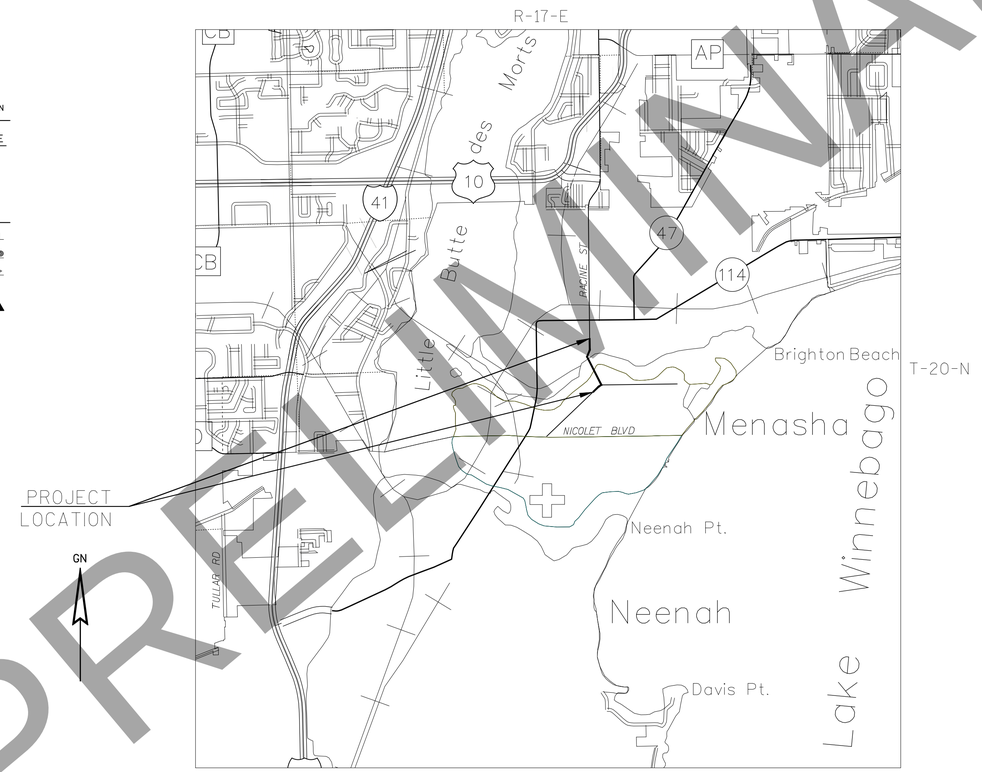
PARCEL NUMBER 25
UTILITY NUMBER 40

CONVENTIONAL ABBREVIATIONS

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

CURVE DATA

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



LAYOUT
SCALE 0 0.5 MI

CONVENTIONAL UTILITY SYMBOLS

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

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 4992-03-21

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WINNEBAGO COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" X 24" IRON PIPE), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF MENASHA.

TLE AREAS ARE TO THE FACE OF THE BUILDING FOR SLOPING, NOT WITHIN THE BUILDING.

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

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS:

EXISTING HIGHWAY RIGHT OF WAY FOR RACINE STREET ESTABLISHED FROM PREVIOUS PROJECT U 09-1(16), THE PLAT OF MENASHA (TWO ADDITIONS), CSM 2549, AND DOC. #240079.

EXISTING HIGHWAY RIGHT OF WAY FOR AHNAIP STREET ESTABLISHED FROM PREVIOUS PROJECT U 09-1(16), ASSESSOR'S MAP OF 1924, PLAT OF SURVEY F-268, DOC. #992675, AND ALTA SURVEY OF 460 AHNAIP STREET DATED 3/7/2018.

EXISTING HIGHWAY RIGHT OF WAY FOR NASSAU STREET ESTABLISHED FROM ASSESSOR'S MAP OF 1924 AND PLAT OF SURVEY F-268.

EXISTING HIGHWAY RIGHT OF WAY FOR OAK STREET ESTABLISHED FROM PLAT OF SURVEY F-268.

EXISTING HIGHWAY RIGHT OF WAY FOR NAYMUT STREET ESTABLISHED FROM PREVIOUS PROJECT U 09-1(16), THE PLAT OF THE TOWN OF THE ISLAND, AND ASSESSOR'S MAP OF 1924.

EXISTING HIGHWAY RIGHT OF WAY FOR KEYES STREET ESTABLISHED FROM ASSESSOR'S MAP OF 1924 AND GROVE PARK SUBDIVISION.

EXISTING HIGHWAY RIGHT OF WAY FOR RIVERWAY ESTABLISHED FROM GROVE PARK SUBDIVISION.

EXISTING HIGHWAY RIGHT OF WAY FOR MAIN STREET (PREVIOUSLY NAMED CHUTE STREET) ESTABLISHED FROM ORIGINAL PLAT OF MENASHA (TWO ADDITIONS), ASSESSOR'S MAP OF 1924, AND PLAT OF SURVEY F-250.

EXISTING HIGHWAY RIGHT OF WAY FOR BROAD STREET ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS), ASSESSOR'S MAP OF 1924, AND PREVIOUS PROJECT 4992-00-55.

EXISTING HIGHWAY RIGHT OF WAY FOR FIRST STREET ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS) AND ASSESSOR'S MAP OF 1924.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4992-03-21 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

PRELIMINARY

FILE NAME : X:\PROJECTS\WINNEBAGO\4992-03-00 RACINE ST BRIDGE\170038 RACINE ST. BRIDGE - PHASE II DESIGN\C3D\SHEETS\PLAN\040101 - RP.DWG
APPRAISAL PLAT DATE :
PLOT DATE : 7/12/2021 7:40 AM
PLOT BY : CHAD KWIATKOWSKI
PLOT NAME : _____

LAYOUT NAME - 040101-RP - TPP TITLE 34X22

4992-03-21 4.01

TRANSPORTATION PROJECT PLAT NO: 4992-03-21 -4.01

THAT PART OF LOTS 10, 11, 12, 13, 14, 15, 16, 17, & 18, AND PART OF A TRACT OF LAND MARKED "CANAL" LOCATED IN THE SUBDIVISION OF THE RESERVATION OF BLOCK A, PER ASSESSOR'S MAP OF 1924, IN SECTION 22, TOWNSHIP 20 NORTH, RANGE 17 EAST, THE THIRD WARD, CITY OF MENASHA, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER RACINE STREET BRIDGE FOX RIVER BRIDGE & APPROACHES (LOCAL STREET) WINNEBAGO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WINNEBAGO COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR AHNAIP STREET ESTABLISHED FROM ASSESSOR'S MAP OF 1924, PLAT OF SURVEY F-268, AND ALTA SURVEY OF 460 AHNAIP STREET DATED 3/7/2018.
EXISTING HIGHWAY RIGHT-OF-WAY FOR NASSAU STREET ESTABLISHED FROM ASSESSOR'S MAP OF 1924 AND PLAT OF SURVEY F-268.
EXISTING HIGHWAY RIGHT-OF-WAY FOR OAK STREET ESTABLISHED FROM PLAT OF SURVEY F-268.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF MENASHA.

FOR ADDITIONAL INFORMATION REFER TO TITLE SHEET, RECORDED AS SHEET 2 OF 2.

SCHEDULE OF LANDS & INTERESTS REQUIRED								
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W SQ. FT. REQUIRED			T.L.E. SQ. FT.	P.L.E. SQ. FT.	H.E. SQ. FT.
			NEW	EXISTING	TOTAL			
1	THE REDEVELOPMENT AUTHORITY OF THE CITY OF MENASHA	TLE	---	---	---	72,750	---	---
2	NEENAH & MENASHA WATER POWER COMPANY	TLE	---	---	---	11,579	---	---

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

GN

0 50 100
SCALE, FEET

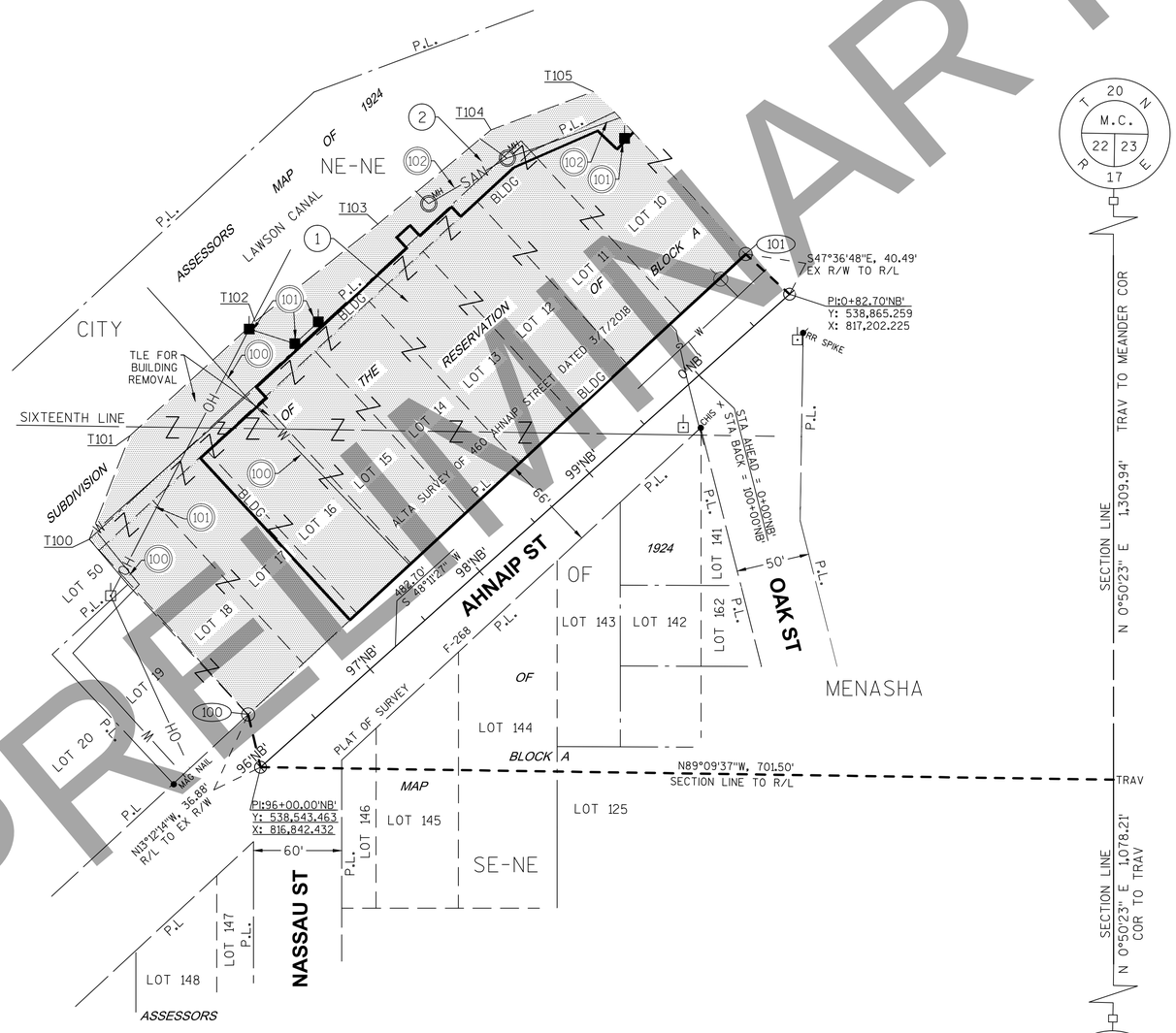
DOC# 1778370
NATALIE STROHMEYER
REGISTER OF DEEDS
WINNEBAGO COUNTY, WI
RECORDED ON:
10/30/2018 01:40 PM
RECORDING FEE:
PAGES: 2
File 1 of TPPS p 294

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4992-03-21 -4.01
SHEET 1 OF 2
AMENDMENT NO:___

R/W STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
100	96+17.66'NB'	32.38'
101	0+78.61'NB'	40.29'

R/W COURSE TABLE		
POINT-POINT	BEARING	DISTANCE
100-101	N47° 12' 31"E	461.02'

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
T100	96+16.65'NB'	193.19'
T101	96+83.98'NB'	227.98'
T102	97+99.31'NB'	228.37'
T103	99+05.78'NB'	222.15'
T104	0+05.87'NB'	218.64'
T105	0+75.14'NB'	191.67'



PRELIMINARY

T 20 N
M.C.
22 23
R 17 E

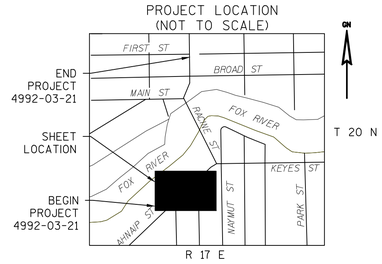
FOUND BERNTSEN MONUMENT
NORTH MEANDER CORNER ON EAST LINE OF SECTION 22
Y=539,842.977
X=817,563.057

SECTION LINE N 0°50'23" E 1,309.94' TRAV TO MEANDER COR

SECTION LINE N 0°50'23" E 1,078.21' MEANDER COR TO TRAV

FOUND BERNTSEN MONUMENT
Y=537,455.087
X=817,528.0590

PROJECT LOCATION
(NOT TO SCALE)



UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
100	MENASHA UTILITIES-WATER	RELEASE OF RIGHTS
101	MENASHA UTILITIES-ELECTRIC	RELEASE OF RIGHTS
102	CITY OF MENASHA-SEWER	RELEASE OF RIGHTS

(100) MENASHA UTILITIES-WATER
DOC.245548-PARCEL 1
DOC.245549-PARCEL 1
DOC.1312677-PARCEL 1
DOC.178795-PARCEL 1
DOC.1227576-PARCEL 2

(101) MENASHA UTILITIES-ELECTRIC
DOC.881653-PARCEL 1 (LOTS 17 & 18)
NO RECORDED EASEMENT-PARCEL 1 (LOT 10)
NO RECORDED EASEMENT-PARCEL 2

(102) CITY OF MENASHA-SEWER
NO RECORDED EASEMENT-PARCEL 1
NO RECORDED EASEMENT-PARCEL 2

JT ENGINEERING, INC Consultant Services
1077 CENTENNIAL CENTRE BLVD.
HOBART, WI 54155
920-468-4771

I, CAROLYN J. SAMPSON, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 4992-03-21-4.01 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: Carolyn J. Sampson DATE: 10-25-2018
PRINT NAME: CAROLYN J. SAMPSON
REGISTRATION NUMBER: S-3045

WISCONSIN CAROLYN J. SAMPSON S-3045 GREEN BAY WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
NE REGION - GREEN BAY
SIGNATURE: Curt Van Erem DATE: 10-29-2018
PRINT NAME: CURT VAN EREM

DRAFT April 20, 2020

4

4

TRANSPORTATION PROJECT PLAT NO: 4992-03-21 -4.02 AMENDMENT NO: 2

AMENDS PARCEL 2 OF TRANSPORTATION PROJECT PLAT 4992-03-21 -4.02, RECORDED AS DOCUMENT NO. 1782858 AND AMENDS PARCEL 1 OF TRANSPORTATION PROJECT PLAT 4992-03-21 -4.02 AMENDMENT 1, RECORDED AS DOCUMENT NO. 1786024.

THAT PART OF LOTS 5, 6, 7, 8, & 9, PART OF VACATED CURTIS REED PLAZA, PART OF CANAL POINT, AND PART OF A TRACT OF LAND MARKED "CANAL" LOCATED IN THE SUBDIVISION OF THE RESERVATION OF BLOCK A, PER ASSESSOR'S MAP OF 1924; AND LOTS 135, 136, 137, 138, AND 139 LOCATED IN BLOCK A OF THE PLAT OF THE TOWN OF THE ISLAND, PER ASSESSOR'S MAP OF 1924, ALL IN GOVERNMENT LOT 1, SECTION 22, TOWNSHIP 20 NORTH, RANGE 17 EAST; AND THAT PART OF LOT 1 OF THE SUBDIVISION OF LOT 5 OF THE SUBDIVISION OF FRACTIONAL LOT 3, PER ASSESSOR'S MAP OF 1924 AND PART OF LOT 11 LOCATED IN BLOCK 2 OF GROVE PARK SUBDIVISION OF LOT 4 OF GOVERNMENT LOT 3, SECTION 23, TOWNSHIP 20 NORTH, RANGE 17 EAST, ALL IN THE CITY OF MENASHA, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER RACINE STREET BRIDGE FOX RIVER BRIDGE & APPROACHES (LOCAL STREET) WINNEBAGO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WINNEBAGO COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR RACINE STREET ESTABLISHED FROM PREVIOUS PROJECT U 09-1(16).
EXISTING HIGHWAY RIGHT-OF-WAY FOR AHNAIP STREET ESTABLISHED FROM PREVIOUS PROJECT U 09-1(16), ASSESSOR'S MAP OF 1924, PLAT OF SURVEY F-268, DOC. #992675, AND ALTA/NSPS LAND TITLE SURVEY DATED 3/7/2018.
EXISTING HIGHWAY RIGHT-OF-WAY FOR OAK STREET ESTABLISHED FROM PLAT OF SURVEY F-268.
EXISTING HIGHWAY RIGHT-OF-WAY FOR NAYMUT STREET ESTABLISHED FROM PREVIOUS PROJECT U 09-1(16), THE PLAT OF THE TOWN OF THE ISLAND, AND ASSESSOR'S MAP OF 1924.
EXISTING HIGHWAY RIGHT-OF-WAY FOR KEYES STREET ESTABLISHED FROM ASSESSOR'S MAP OF 1924 AND GROVE PARK SUBDIVISION.
EXISTING HIGHWAY RIGHT-OF-WAY FOR RIVERWAY ESTABLISHED FROM GROVE PARK SUBDIVISION.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF MENASHA.

PURPOSE FOR TLE'S IS FOR GRADING, UNLESS NOTED, BUILDINGS WILL NOT BE AFFECTED.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN CABINET 1 OF TRANSPORTATION PLATS, PAGE 294, AS DOCUMENT NO. 1778370 FOR ADDITIONAL INFORMATION.

THE ACQUISITION AREAS THAT ABUT THE FOX RIVER ARE TO THE WATERS EDGE.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	T.L.E. SQ. FT.	P.L.E. SQ. FT.	H.E. SQ. FT.
1	THE REDEVELOPMENT AUTHORITY OF THE CITY OF MENASHA	FEE, TLE & PLE	25,854	---	25,854	67,552	7,015	---
2	NEENAH & MENASHA WATER POWER COMPANY	TLE & PLE	---	---	---	5,205	23	---
3	KOUA THAO & JOUA YANG	TLE	---	---	---	222	---	---
4	GUY K. BODDE & LISA A. HENNIG	TLE	---	---	---	66	---	---
6	WADE J. & KIMBERLY A. BITTNER	FEE & TLE	10	---	10	92	---	---
7	JEREMY R. & EMILY S. GORDEE	FEE & TLE	55	---	55	131	---	---

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
100	MENASHA UTILITIES-WATER	RELEASE OF RIGHTS
101	MENASHA UTILITIES-ELECTRIC	RELEASE OF RIGHTS
102	CITY OF MENASHA-SEWER	RELEASE OF RIGHTS
103	AT&T WISCONSIN-COMMUNICATION	RELEASE OF RIGHTS

(100) MENASHA UTILITIES-WATER
NO RECORDED EASEMENT-PARCEL 1
(WEST SIDE OF AHNAIP ST & RACINE ST)
DOC.1019393-PARCEL 1
(EAST SIDE OF AHNAIP ST)

(101) MENASHA UTILITIES-ELECTRIC
DOC.388154-PARCEL 1
DOC.881654-PARCEL 1
DOC.1019393-PARCEL 1

(102) CITY OF MENASHA-SEWER
V.359/P.361-PARCEL 1

(103) AT&T WISCONSIN-COMMUNICATION
NO RECORDED EASEMENT-PARCEL 1

R/W STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
200	0+78.61'NB'	40.29'
201	1+46.93'NB'	41.75'
202	1+46.93'NB'	42.42'
203	1+78.89'NB'	43.26'
204	3+51.22'NB'	78.94'
205	5+41.08'NB'	83.55'
206	5+55.61'NB'	63.13'
207	5+98.33'NB'	33.90'
208	5+99.58'NB'	33.58'
209	7+90.39'NB'	30.00'
210	9+74.20'NB'	30.00'
211	10+73.08'NB'	30.00'
212	8+95.59'NB'	30.00'

R/W COURSE TABLE

POINT-POINT	BEARING	DISTANCE
200-201	N47° 12' 31"E	68.51'
201-202	N41° 33' 19"W	0.68'
202-203	N44° 49' 18"E	28.98'
203-204	SEE CURVE TABLE	---
204-205	SEE CURVE TABLE	---
205-206	N32° 42' 17"E	25.06'
206-207	SEE CURVE TABLE	---
207-208	N07° 40' 06"W	1.29'
208-209	N16° 39' 09"W	193.50'
209-210	N17° 11' 29"W	183.81'
210-211	N14° 03' 21"E	115.66'
211-212	S17° 11' 29"E	177.49'
212-213	S17° 34' 35"E	160.60'
213-214	S25° 47' 47"E	64.71'
214-215	S51° 21' 37"E	22.36'
215-216	S25° 12' 29"E	100.21'
216-217	S89° 11' 00"E	57.51'
217-242	S36° 07' 14"E	21.41'
242-218	S36° 07' 14"E	63.08'
218-219	S00° 09' 31"W	10.57'
219-220	S89° 47' 00"E	36.82'
220-221	S00° 13' 00"W	1.50'
221-222	S89° 47' 00"E	2.00'
222-223	S02° 06' 08"W	50.03'
223-224	N89° 47' 00"W	22.32'
224-225	S68° 50' 49"W	7.67'
225-226	S00° 10' 08"W	3.89'
226-243	S27° 49' 55"W	102.23'
243-227	S27° 49' 55"W	39.92'
227-228	N00° 10' 08"E	25.03'
228-229	N20° 46' 49"W	18.18'
229-230	N31° 16' 16"W	29.60'
230-231	N32° 34' 25"W	46.30'
231-232	N46° 31' 04"W	10.88'
232-233	S62° 14' 44"W	6.31'
233-234	S47° 12' 31"W	50.47'
234-235	S59° 36' 58"W	50.49'
235-236	S47° 12' 30"W	71.71'
236-237	S48° 39' 58"W	19.27'
237-238	S42° 47' 29"E	4.89'
238-239	S47° 12' 31"W	77.97'
239-240	N42° 47' 29"W	5.00'
240-241	S47° 12' 31"W	75.41'

PLE COURSE TABLE

POINT-POINT	BEARING	DISTANCE
203-P200	SEE CURVE TABLE	---
P200-P201	SEE CURVE TABLE	---
P201-P202	N33° 50' 26"E	184.96'
P202-P203	SEE CURVE TABLE	---
P203-P204	N41° 09' 26"E	22.00'
P204-P205	S48° 50' 34"E	18.33'
P205-P206	SEE CURVE TABLE	---
P206-P207	S33° 50' 26"W	187.15'
P207-P208	SEE CURVE TABLE	---
P208-P200	SEE CURVE TABLE	---

TLE COURSE TABLE

POINT NO.	STATION	OFFSET
T200	0+75.14'NB'	191.67'
T201	1+79.65'NB'	163.41'
T202	2+82.54'NB'	140.07'
T203	5+69.60'NB'	123.29'
T204	5+94.87'NB'	86.25'
T205	8+21.29'NB'	209.74'
T206	8+53.36'NB'	227.23'
T226	9+89.20'NB'	30.00'
T227	10+88.08'NB'	30.00'
T207	11+19.19'NB'	50.00'
T208	9+07.67'NB'	50.00'
T224	8+65.59'NB'	30.00'
T225	7+60.39'NB'	30.00'
T209	6+73.67'NB'	74.86'
T210	4+64.33'NB'	140.92'
T211	4+63.63'NB'	167.80'
T212	4+53.59'NB'	166.86'
T213	4+52.92'NB'	144.83'
T214	4+18.02'NB'	151.05'
T215	4+19.61'NB'	141.14'
T216	4+24.85'NB'	103.98'
T217	4+28.96'NB'	52.69'
T218	4+14.48'NB'	42.41'
T219	3+12.59'NB'	57.40'
T220	2+37.67'NB'	38.53'
T221	2+20.24'NB'	34.89'
T222	1+46.59'NB'	30.28'
T223	1+46.46'NB'	24.28'

CURVE TABLE

CURVE	PT-PT	CHORD BEARING	RADIUS	CHORD LENGTH	ARC LENGTH
R1	203-204	N 29°41'31" E	381.00'	198.89'	201.22'
R2	204-205	N 23°38'00" E	81.00'	25.54'	25.65'
R3	206-207	N 12°31'05" E	75.00'	51.77'	52.85'
P1	203-P200	N 44°18'57" E	381.00'	6.73'	6.73'
P2	P200-P201	N 06°30'03" W	55.00'	71.21'	77.45'
P3	P202-P203	N 07°36'39" W	20.20'	26.75'	29.23'
P4	P205-P206	S 04°48'32" W	44.00'	42.71'	44.59'
P5	P207-P208	S 06°03'15" E	31.00'	39.77'	43.17'
P6	P208-P200	S 42°00'16" W	381.00'	24.01'	24.01'

PLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
P200	1+86.33'NB'	43.22'
P201	2+44.45'NB'	94.82'
P202	5+75.11'NB'	79.72'
P203	6+01.04'NB'	73.14'
P204	6+10.04'NB'	53.61'
P205	5+94.68'NB'	45.21'
P206	5+56.52'NB'	64.39'
P207	2+45.58'NB'	70.84'
P208	2+12.89'NB'	43.14'

ADDITIONAL RECORDED EASEMENTS

DOC. NO.	TYPE	PARCEL (S)
568863	DAM ACCESS AGREEMENT	1
568634	DAM ACCESS AGREEMENT	1

CURVE DATA-C1
RACINE ST R/L
P.I. =2+10.25'NB'
Y=538,949.866
X=817,297.670
Δ. =15°51'39" LT
D. =12°42'15"
R. =451.00'
L. =124.85'
T. =62.83'
P.C. =1+47.43'NB'
Y=538,908.191
X=817,250.657
P.T. =2+72.27'NB'
Y=539,002.802
X=817,331.504

CURVE DATA-C2
RACINE ST R/L
P.I. =3+34.54'NB'
Y=539,055.270
X=817,365.038
Δ. =26°19'35" RT
D. =88°08'50"
R. =65.00'
L. =29.87'
T. =15.20'
P.C. =3+19.34'NB'
Y=539,042.462
X=817,356.851
P.C.C. =3+49.21'NB'
Y=539,063.120
X=817,378.056
DA=N58°54'37"E

CURVE DATA-C3
RACINE ST R/L
P.I. =3+69.98'NB'
Y=539,073.848
X=817,395.847
Δ. =34°38'40" RT
D. =86°01'00"
R. =66.61'
L. =40.28'
T. =20.78'
P.C.C. =3+49.21'NB'
Y=539,063.120
X=817,378.056
P.R.C. =3+89.48'NB'
Y=539,072.560
X=817,416.581
DB=N58°54'37"W
DA=S86°26'43"E

CURVE DATA-C4
RACINE ST R/L
P.I. =4+22.86'NB'
Y=539,070.490
X=817,449.893
Δ. =73°44'31" LT
D. =128°45'16"
R. =44.50'
L. =57.27'
T. =33.38'
P.R.C. =3+89.48'NB'
Y=539,072.560
X=817,416.581
P.C.C. =4+46.75'NB'
Y=539,101.891
X=817,461.206
DB=N86°26'43"W
DA=N19°48'46"E

CURVE DATA-C5
RACINE ST R/L
P.I. =4+56.67'NB'
Y=539,111.215
X=817,464.565
Δ. =30°47'00" LT
D. =159°09'17"
R. =36.00'
L. =19.34'
T. =9.91'
P.C.C. =4+46.75'NB'
Y=539,101.891
X=817,461.206
P.C.C. =4+66.10'NB'
Y=539,120.944
X=817,462.679
DB=S19°48'46"W
DA=N10°58'15"W

CURVE DATA-C6
RACINE ST R/L
P.I. =4+75.92'NB'
Y=539,130.591
X=817,460.809
Δ. =25°10'40" LT
D. =130°13'03"
R. =44.00'
L. =19.33'
T. =9.83'
P.C.C. =4+66.10'NB'
Y=539,120.944
X=817,462.679
P.R.C. =4+85.43'NB'
Y=539,138.525
X=817,455.013
DB=S10°58'15"E
DA=N36°08'55"W

CURVE DATA-C7
RACINE ST R/L
P.I. =5+09.92'NB'
Y=539,158.302
X=817,440.566
Δ. =14°17'04" RT
D. =29°18'53"
R. =195.45'
L. =48.73'
T. =24.49'
P.R.C. =4+85.43'NB'
Y=539,138.525
X=817,455.013
P.T. =5+34.16'NB'
Y=539,181.031
X=817,431.446
DB=S36°08'55"E

CURVE DATA-C8
RACINE ST R/L
P.I. =6+19.87'NB'
Y=539,260.577
X=817,399.526
Δ. =04°40'22" RT
D. =13°08'28"
R. =436.00'
L. =35.56'
T. =17.79'
P.C. =6+02.08'NB'
Y=539,244.068
X=817,406.151
P.T. =6+37.64'NB'
Y=539,277.571
X=817,394.269

FOUND BERNTSEN MONUMENT
Y=537,455.087
X=817,528.059

FOUND BERNTSEN MONUMENT NORTH MEANDER CORNER ON EAST LINE OF SECTION 22
Y=539,842.977
X=817,563.057

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4992-03-21 -4.02
AMENDMENT NO: 2

SCALE, FEET 0 50 100

DRAFT April 20, 2020

PRELIMINARY

JT ENGINEERING, INC Consultant Services 1077 CENTENNIAL CENTRE BLVD. HOBART, WI 54155 920-468-4771

I, CAROLYN J. SAMPSON, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 4992-03-21-4.02 AMENDMENT NO: 2 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: Carolyn J. Sampson DATE: 4-15-2019
PRINT NAME: CAROLYN J. SAMPSON
REGISTRATION NUMBER: S-3045
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
NE REGION - GREEN BAY
SIGNATURE: _____ DATE:
PRINT NAME: CURT VAN EREM

WISCONSIN CAROLYN J. SAMPSON S-3045 GREEN BAY WI LAND SURVEYOR

PROJECT LOCATION (NOT TO SCALE)

END PROJECT 4992-03-21
SHEET LOCATION
BEGIN PROJECT 4992-03-21
T 20 N
R 17 E

TRANSPORTATION PROJECT PLAT NO: 4992-03-21 -4.02

THAT PART OF LOTS 5, 6, 7, 8, & 9, PART OF VACATED CURTIS REED PLAZA, PART OF CANAL POINT, AND PART OF A TRACT OF LAND MARKED "CANAL" LOCATED IN THE SUBDIVISION OF THE RESERVATION OF BLOCK A, PER ASSESSOR'S MAP OF 1924; AND LOTS 135, 136, 137, 138, AND 139 LOCATED IN BLOCK A OF THE PLAT OF THE TOWN OF THE ISLAND, PER ASSESSOR'S MAP OF 1924, ALL IN GOVERNMENT LOT 1, SECTION 22, TOWNSHIP 20 NORTH, RANGE 17 EAST; AND THAT PART OF LOT 1 OF THE SUBDIVISION OF LOT 5 OF THE SUBDIVISION OF FRACTIONAL LOT 3, PER ASSESSOR'S MAP OF 1924 AND PART OF LOT 11 LOCATED IN BLOCK 2 OF GROVE PARK SUBDIVISION OF LOT 4 OF GOVERNMENT LOT 3, SECTION 23, TOWNSHIP 20 NORTH, RANGE 17 EAST, ALL IN THE CITY OF MENASHA, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER RACINE STREET BRIDGE FOX RIVER BRIDGE & APPROACHES (LOCAL STREET) WINNEBAGO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WINNEBAGO COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR RACINE STREET ESTABLISHED FROM PREVIOUS PROJECT U 09-1(16).
EXISTING HIGHWAY RIGHT-OF-WAY FOR AHNAIP STREET ESTABLISHED FROM PREVIOUS PROJECT U 09-1(16), ASSESSOR'S MAP OF 1924, PLAT OF SURVEY F-268, DOC. #992675, AND ALTA/NSPS LAND TITLE SURVEY DATED 3/7/2018.
EXISTING HIGHWAY RIGHT-OF-WAY FOR OAK STREET ESTABLISHED FROM PLAT OF SURVEY F-268.
EXISTING HIGHWAY RIGHT-OF-WAY FOR NAYMUT STREET ESTABLISHED FROM PREVIOUS PROJECT U 09-1(16), THE PLAT OF THE TOWN OF THE ISLAND, AND ASSESSOR'S MAP OF 1924.
EXISTING HIGHWAY RIGHT-OF-WAY FOR KEYES STREET ESTABLISHED FROM ASSESSOR'S MAP OF 1924 AND GROVE PARK SUBDIVISION.
EXISTING HIGHWAY RIGHT-OF-WAY FOR RIVERWAY ESTABLISHED FROM GROVE PARK SUBDIVISION.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF MENASHA.

PURPOSE FOR TLE'S IS FOR GRADING, UNLESS NOTED, BUILDINGS WILL NOT BE AFFECTED.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN CABINET 1 OF TRANSPORTATION PLATS, PAGE 294, AS DOCUMENT NO. 1778370 FOR ADDITIONAL INFORMATION.

THE ACQUISITION AREAS THAT ABUT THE FOX RIVER ARE TO THE WATERS EDGE.

SCHEDULE OF LANDS & INTERESTS REQUIRED								
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W SQ. FT. REQUIRED			T.L.E. SQ. FT.	P.L.E. SQ. FT.	H.E. SQ. FT.
			NEW	EXISTING	TOTAL			
1	THE REDEVELOPMENT AUTHORITY OF THE CITY OF MENASHA	FEE, TLE, & PLE	25,854	---	25,854	68,086	17,214	---
2	NEENAH & MENASHA WATER POWER COMPANY	TLE	---	---	---	5,022	---	---
3	KOUA THAO & JOUA YANG	TLE	---	---	---	222	---	---
4	GUY K. BODDE & LISA A. HENNIG	TLE	---	---	---	66	---	---
6	WADE J. & KIMBERLY A. BITTNER	FEE & TLE	10	---	10	92	---	---
7	JEREMY R. & EMILY S. GORDEE	FEE & TLE	55	---	55	131	---	---

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

UTILITY SCHEDULE & INTERESTS REQUIRED		
UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
100	MENASHA UTILITIES-WATER	RELEASE OF RIGHTS
101	MENASHA UTILITIES-ELECTRIC	RELEASE OF RIGHTS
102	CITY OF MENASHA-SEWER	RELEASE OF RIGHTS
103	AT&T WISCONSIN-COMMUNICATION	RELEASE OF RIGHTS

(100) MENASHA UTILITIES-WATER
NO RECORDED EASEMENT-PARCEL 1
(WEST SIDE OF AHNAIP ST & RACINE ST)
DOC.1019393-PARCEL 1
(EAST SIDE OF AHNAIP ST)

(101) MENASHA UTILITIES-ELECTRIC
DOC.388154-PARCEL 1
DOC.881654-PARCEL 1
DOC.1019393-PARCEL 1

(102) CITY OF MENASHA-SEWER
V.359/P.361-PARCEL 1

(103) AT&T WISCONSIN-COMMUNICATION
NO RECORDED EASEMENT-PARCEL 1

R/W STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
200	0+78.61'NB'	40.29'
201	1+46.93'NB'	41.75'
202	1+46.93'NB'	42.42'
203	1+78.89'NB'	43.26'
204	3+51.22'NB'	78.94'
205	5+41.08'NB'	83.55'
206	5+55.61'NB'	63.13'
207	5+98.33'NB'	33.00'
208	5+99.58'NB'	33.58'
209	7+75.39'NB'	30.00'
210	9+74.20'NB'	30.00'
211	10+73.08'NB'	30.00'
212	8+80.59'NB'	30.00'

R/W STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
213	7+35.00'NB'	31.08'
214	6+71.02'NB'	40.76'
215	6+52.52'NB'	53.32'
216	5+48.04'NB'	61.65'
217	5+14.15'NB'	114.29'
218	4+66.60'NB'	130.90'
219	4+64.27'NB'	129.06'
220	4+63.32'NB'	165.57'
221	4+63.05'NB'	165.40'
222	4+63.02'NB'	167.39'
223	4+54.12'NB'	166.43'
224	4+53.51'NB'	144.34'
225	4+52.71'NB'	137.76'
226	4+51.92'NB'	138.49'
227	4+19.05'NB'	154.13'
228	4+22.60'NB'	134.12'
229	4+24.18'NB'	116.96'
230	4+25.88'NB'	87.90'
231	4+30.28'NB'	42.83'
232	4+30.55'NB'	31.96'
233	4+27.04'NB'	29.87'
234	4+00.02'NB'	43.90'
235	3+05.73'NB'	49.41'
236	2+38.73'NB'	32.64'
237	2+21.01'NB'	29.06'
238	2+20.37'NB'	33.90'
239	1+47.56'NB'	29.26'
240	1+47.46'NB'	24.26'
241	0+71.96'NB'	25.84'

R/W COURSE TABLE		
POINT-POINT	BEARING	DISTANCE
200-201	N47° 12' 31"E	68.51'
201-202	N41° 33' 19"W	0.68'
202-203	N44° 49' 18"E	28.98'
203-204	SEE CURVE TABLE	---
204-205	SEE CURVE TABLE	---
205-206	N32° 42' 17"E	25.06'
206-207	SEE CURVE TABLE	---
207-208	N07° 40' 06"W	1.29'
208-209	N16° 36' 25"W	178.50'
209-210	N17° 11' 29"W	198.81'
210-211	N14° 03' 21"E	115.66'
211-212	S17° 11' 29"E	192.49'
212-213	S17° 36' 58"E	145.60'
213-214	S25° 47' 47"E	64.71'
214-215	S51° 21' 37"E	22.36'
215-216	S25° 12' 29"E	100.21'
216-217	S89° 11' 00"E	57.51'
217-242	S36° 07' 14"E	21.41'
242-218	S36° 07' 14"E	63.08'
218-219	S00° 09' 31"W	10.57'
219-220	S89° 47' 00"E	36.82'
220-221	S00° 13' 00"W	1.50'
221-222	S89° 47' 00"E	2.00'
222-223	S02° 06' 08"W	50.03'
223-224	N89° 47' 00"W	22.32'
224-225	S68° 50' 49"W	7.67'
225-226	S00° 10' 08"W	3.89'
226-243	S27° 49' 55"W	102.23'
243-227	S27° 49' 55"W	39.92'
227-228	N00° 10' 08"E	25.03'
228-229	N20° 46' 49"W	18.18'
229-230	N31° 16' 16"W	29.60'
230-231	N32° 34' 25"W	46.30'
231-232	N46° 31' 04"W	10.88'
232-233	S62° 14' 44"W	6.31'
233-234	S47° 12' 31"W	50.47'
234-235	S59° 36' 58"W	50.49'
235-236	S47° 12' 30"W	71.71'
236-237	S48° 39' 58"W	19.27'
237-238	S42° 47' 29"E	4.89'
238-239	S47° 12' 31"W	77.97'
239-240	N42° 47' 29"W	5.00'
240-241	S47° 12' 31"W	75.41'

PLE COURSE TABLE		
POINT-POINT	BEARING	DISTANCE
209-P201	N17° 11' 29"W	125.01'
P201-210	N17° 11' 29"W	73.80'
210-P200	S31° 28' 11"W	119.27'
P200-P201	N69° 37' 43"E	89.69'
212-P202	N17° 11' 29"W	99.85'
P202-P203	N16° 30' 08"E	289.07'
P203-P204	S46° 49' 50"W	59.83'
P204-P205	S26° 13' 10"W	63.78'
P205-211	S22° 36' 03"W	90.04'
211-P202	S17° 11' 29"E	92.64'

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
T200	0+75.14'NB'	191.67'
T201	1+79.65'NB'	163.41'
T202	2+82.54'NB'	140.07'
T203	5+80.39'NB'	96.43'
T204	5+86.68'NB'	82.67'
T205	8+21.29'NB'	209.74'
T206	8+53.36'NB'	227.23'
T207	10+10.44'NB'	50.00'
T208	9+07.67'NB'	50.00'
T224	8+65.59'NB'	30.00'
T225	7+60.39'NB'	30.00'
T209	6+73.67'NB'	74.86'
T210	4+64.33'NB'	140.92'
T211	4+63.63'NB'	167.80'
T212	4+53.59'NB'	166.86'
T213	4+52.92'NB'	144.83'
T214	4+18.02'NB'	151.05'
T215	4+19.61'NB'	141.14'
T216	4+24.85'NB'	103.98'
T217	4+28.96'NB'	52.69'
T218	4+14.48'NB'	42.41'
T219	3+12.59'NB'	57.40'
T220	2+37.67'NB'	38.53'
T221	2+20.24'NB'	34.89'
T222	1+46.59'NB'	30.28'
T223	1+46.46'NB'	24.28'

PLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
P200	8+95.42'NB'	119.55'
P201	9+00.39'NB'	30.00'
P202	9+80.44'NB'	30.00'
P203	12+20.95'NB'	190.36'
P204	11+94.75'NB'	136.58'
P205	11+48.41'NB'	92.75'

CURVE TABLE					
CURVE	PT-PT	CHORD BEARING	RADIUS	CHORD LENGTH	ARC LENGTH
R1	203-204	N 29°41'31" E	381.00'	198.89'	201.22'
R2	204-205	N 23°38'00" E	81.00'	25.54'	25.65'
R3	206-207	N 12°31'05" E	75.00'	51.77'	52.85'

CURVE DATA-C1	
RACINE ST	R/L
P.I.	=2+10.25'NB'
	Y=538,949.866
	X=817,297.670
Δ	=15°51'39" LT
D.	=12°42'15"
R.	=451.00'
L.	=124.85'
T.	=62.83'
P.C.	=1+47.43'NB'
	Y=538,908.191
	X=817,250.657
P.T.	=2+72.27'NB'
	Y=539,002.802
	X=817,331.504

CURVE DATA-C2	
RACINE ST	R/L
P.I.	=3+34.54'NB'
	Y=539,055.270
	X=817,365.038
Δ	=26°19'35" RT
D.	=88°08'50"
R.	=65.00'
L.	=29.87'
T.	=15.20'
P.C.	=3+19.34'NB'
	Y=539,042.462
	X=817,356.851
P.C.C.	=3+49.21'NB'
	Y=539,063.120
	X=817,378.056
DA	=N58°54'37"E

CURVE DATA-C3	
RACINE ST	R/L
P.I.	=3+69.98'NB'
	Y=539,073.848
	X=817,395.847
Δ	=34°38'40" RT
D.	=86°01'00"
R.	=66.61'
L.	=40.28'
T.	=20.78'
P.C.C.	=3+49.21'NB'
	Y=539,063.120
	X=817,378.056
P.R.C	=3+89.48'NB'
	Y=539,072.560
	X=817,416.581
DB	=N58°54'37"W
DA	=S86°26'43"E

CURVE DATA-C4	
RACINE ST	R/L
P.I.	=4+22.86'NB'
	Y=539,070.490
	X=817,449.893
Δ	=73°44'31" LT
D.	=128°45'16"
R.	=44.50'
L.	=57.27'
T.	=33.38'
P.R.C.	=3+89.48'NB'
	Y=539,072.560
	X=817,416.581
P.C.C.	=4+46.75'NB'
	Y=539,101.891
	X=817,461.206
DB	=N86°26'43"W
DA	=N19°48'46"E

CURVE DATA-C5	
RACINE ST	R/L
P.I.	=4+56.67'NB'
	Y=539,111.215
	X=817,464.565
Δ	=30°47'00" LT
D.	=159°09'17"
R.	=36.00'
L.	=19.34'
T.	=9.91'
P.C.C.	=4+46.75'NB'
	Y=539,101.891
	X=817,461.206
P.C.C.	=4+66.10'NB'
	Y=539,120.944
	X=817,462.679
DB	=S19°48'46"W
DA	=N10°58'15"W

CURVE DATA-C6	
RACINE ST	R/L
P.I.	=4+75.92'NB'
	Y=539,130.591
	X=817,460.809
Δ	=25°10'40" LT
D.	=130°13'03"
R.	=44.00'
L.	=19.33'
T.	=9.83'
P.C.C.	=4+66.10'NB'
	Y=539,120.944
	X=817,462.679
P.R.C.	=4+85.43'NB'
	Y=539,138.525
	X=817,455.013
DB	=S10°58'15"E
DA	=N36°08'55"W

CURVE DATA-C7	
RACINE ST	R/L
P.I.	=5+09.92'NB'
	Y=539,158.302
	X=817,440.566
Δ	=14°17'04" RT
D.	=29°18'53"
R.	=195.45'
L.	=48.73'
T.	=24.49'
P.R.C.	=4+85.43'NB'
	Y=539,138.525
	X=817,455.013
P.T.	=5+34.16'NB'
	Y=539,181.031
	X=817,431.446
DB	=S36°08'55"E

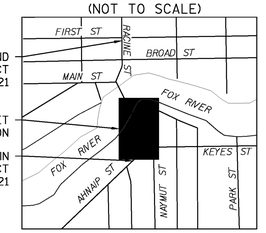
CURVE DATA-C8	
RACINE ST	R/L
P.I.	=6+19.87'NB'
	Y=539,260.577
	X=817,399.526
Δ	=04°40'22" RT
D.	=13°08'28"
R.	=436.00'
L.	=35.56'
T.	=17.79'
P.C.	=6+02.08'NB'
	Y=539,244.068
	X=817,406.151
P.T.	=6+37.64'NB'
	Y=539,277.571
	X=817,394.269

ADDITIONAL RECORDED EASEMENTS		
DOC. NO.	TYPE	PARCEL (S)
568863	DAM ACCESS AGREEMENT	1
568634	DAM ACCESS AGREEMENT	1

FOUND BERNTSEN MONUMENT
Y=537,455.087
X=817,528.059

FOUND BERNTSEN MONUMENT
NORTH MEANDER CORNER ON EAST LINE OF SECTION 22
Y=539,842.977
X=817,563.057

PROJECT LOCATION (NOT TO SCALE)



DOC# 1782858
NATALIE STROHMEYER
REGISTER OF DEEDS
WINNEBAGO COUNTY, WI
RECORDED ON:
01/21/2019 08:52 AM
RECORDING FEE: 25.00
PAGES: 1
The above recording information verifies that this document has been electronically recorded and returned to the submitter

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4992-03-21 -4.02
AMENDMENT NO:___

JT ENGINEERING, INC Consulting Services
1077 CENTENNIAL CENTRE BLVD.
HOBART, WI 54155
920-468-4771

I, CAROLYN J. SAMPSON, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 4992-03-21-4.02 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN CAROLYN J. SAMPSON S-3045 GREEN BAY WI LAND SURVEYOR

SIGNATURE: Carolyn J. Sampson DATE: 1-16-2019
PRINT NAME: CAROLYN J. SAMPSON
REGISTRATION NUMBER: S-3045

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
NE REGION - GREEN BAY
SIGNATURE: Curt Van Erem DATE: 1-16-2019
PRINT NAME: CURT VAN EREM

PRELIMINARY

TRANSPORTATION PROJECT PLAT NO: 4992-03-21 -4.03 AMENDMENT NO: 1

AMENDS PARCELS 19 AND 21, REMOVES QUARTER-QUARTER SECTION LABELS, ADDS LABELS FOR GOVERNMENT LOTS 5 AND 10, AND UTILITY NUMBER 102 SHOWS MANHOLE AS COMPENSABLE ON TRANSPORTATION PROJECT PLAT 4992-03-21 -4.03 RECORDED IN CABINET 1, PAGE 295 OF TRANSPORTATION PROJECT PLATS, DOCUMENT NO. 1779496

THAT PART OF LOTS 1 AND 2 OF CSM 987, LOT 24 OF BLOCK 17, LOTS 12, 13 AND 14 OF BLOCK 18, LOT 22 OF BLOCK 43, LOTS 2, 3, 4, 5, 6, & 7 IN THE SUBDIVISION OF LOTS 1, 2, 23, AND 24 OF BLOCK 43, THE PLAT OF MENASHA (TWO ADDITIONS); AND THAT PART OF LOT 1 OF CSM 2549 AND LOTS 1 AND 2 OF BLOCK 19, AND THAT PORTION OF RACINE STREET VACATED BY DOCUMENT NO. 240079, IN THE PLAT OF MENASHA (TWO ADDITIONS), ALL BEING IN SECTION 15, TOWNSHIP 20 NORTH, RANGE 17 EAST; AND THAT PORTION OF WATER STREET VACATED BY DOCUMENT NO. 754560, SECTION 22, TOWNSHIP 20 NORTH, RANGE 17 EAST, ALL BEING IN THE CITY OF MENASHA, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER RACINE STREET BRIDGE FOX RIVER BRIDGE & APPROACHES (LOCAL STREET) WINNEBAGO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WINNEBAGO COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR RACINE STREET ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS), CSM 2549, AND DOC. #240079.
EXISTING HIGHWAY RIGHT-OF-WAY FOR MAIN STREET (PREVIOUSLY NAMED CHUTE STREET) ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS), ASSESSOR'S MAP OF 1924, AND PLAT OF SURVEY F-250.
EXISTING HIGHWAY RIGHT-OF-WAY FOR BROAD STREET ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS), ASSESSOR'S MAP OF 1924, AND PREVIOUS PROJECT 4992-00-55.
EXISTING HIGHWAY RIGHT-OF-WAY FOR FIRST STREET ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS) AND ASSESSOR'S MAP OF 1924.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF MENASHA.

PURPOSE FOR TLE'S IS TO REMOVE & REPLACE SIDEWALK, UNLESS NOTED, BUILDINGS WILL NOT BE AFFECTED.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN CABINET 1 OF TRANSPORTATION PLATS, PAGE 294, AS DOCUMENT NO. 1778370 FOR ADDITIONAL INFORMATION.

DRAFT April 20, 2020

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SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	T.L.E. SQ. FT.	P.L.E. SQ. FT.	H.E. SQ. FT.
8	DORIS A. SZYMANSKI REVOCABLE LIVING TRUST	TLE	---	---	---	590	---	---
9	STEVEN C. SZYMANSKI	TLE	---	---	---	60	---	---
11	JEFFRY A. ROSTAS	TLE	---	---	---	94	---	---
12	NICHOLAS J. CORRENTE	TLE	---	---	---	47	---	---
13	206 CLUB, INC., A WISCONSIN CORPORATION	TLE	---	---	---	90	---	---
14	EJB PROPERTIES, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE	---	---	---	140	---	---
16	UNITED STATES OF AMERICA	TLE	---	---	---	316	---	---
17	BERGSTROM PROPERTIES, INC.	TLE	---	---	---	162	---	---
18	CITY OF MENASHA	FEE	4,722	---	4,722	---	---	---
19	RIVERSIDE BUILDING, INC., A WISCONSIN CORPORATION	FEE & TLE	17,173	---	17,173	7,325	---	---
21	SUMMIT COMBINED PROPERTIES, LLC	FEE & TLE	438	---	438	706	---	---

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
100	MENASHA UTILITIES-WATER	RELEASE OF RIGHTS
101	MENASHA UTILITIES-ELECTRIC	RELEASE OF RIGHTS
102	CITY OF MENASHA-SEWER	RELEASE OF RIGHTS
104	TDS METROCOM LLC	RELEASE OF RIGHTS
105	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS
106	LEVEL 3 COMMUNICATIONS-FIBER OPTIC	RELEASE OF RIGHTS

(100) MENASHA UTILITIES-WATER
NO RECORDED EASEMENT-PARCEL 17

(101) MENASHA UTILITIES-ELECTRIC
DOC.831566-PARCEL 19

(102) CITY OF MENASHA-SEWER
DOC.755590-PARCEL 17
NO RECORDED EASEMENT-PARCEL 19

(104) TDS METROCOM LLC
NO RECORDED EASEMENT-PARCEL 18 & 19

(105) CHARTER COMMUNICATIONS
NO RECORDED EASEMENT-PARCEL 17

(106) LEVEL 3 COMMUNICATIONS-FIBER OPTIC
NO RECORDED EASEMENT-PARCEL 21

R/W STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
300	15+44.39'NB'	0.00'
301	14+98.17'NB'	58.10'
302	15+02.22'NB'	62.35'
303	15+00.66'NB'	66.08'
304	15+04.22'NB'	80.09'
305	14+91.21'NB'	200.35'
306	14+92.59'NB'	232.58'
307	15+11.38'NB'	226.79'
308	15+12.78'NB'	162.78'
309	17+57.10'NB'	65.93'
310	18+05.56'NB'	57.37'
311	18+09.80'NB'	85.49'
312	18+85.31'NB'	69.87'
313	18+82.68'NB'	46.36'
314	21+06.40'NB'	32.99'
315	21+06.40'NB'	33.01'
316	19+73.13'NB'	28.50'
317	19+10.75'NB'	28.50'
318	18+72.41'NB'	28.50'
319	18+61.87'NB'	108.96'
320	17+76.42'NB'	106.55'
321	17+73.40'NB'	106.02'
326	17+86.67'NB'	36.36'
327	16+56.46'NB'	37.02'
328	16+48.94'NB'	80.92'
329	16+24.89'NB'	76.51'

R/W COURSE TABLE

POINT-POINT	BEARING	DISTANCE
300-301	S53° 04' 26"W	81.49'
301-302	N36° 13' 31"W	7.65'
302-303	S54° 09' 56"W	4.50'
303-304	N67° 56' 44"W	15.26'
304-322	S71° 55' 21"W	102.35'
322-305	S71° 55' 21"W	21.46'
305-306	N89° 35' 25"W	32.51'
306-324	N03° 57' 56"E	6.65'
324-307	N03° 57' 56"E	53.46'
307-308	S89° 35' 25"E	64.13'
308-309	N26° 14' 49"E	234.72'
309-310	N00° 17' 21"E	50.77'
310-311	N89° 41' 49"W	28.46'
311-312	N03° 50' 34"E	80.15'
312-313	S89° 41' 49"E	23.66'
313-314	N00° 25' 39"E	228.67'
315-316	S00° 25' 39"W	131.16'
316-317	S04° 31' 08"E	61.43'
317-318	SEE CURVE TABLE	---
318-319	S89° 36' 15"E	81.10'
319-320	S06° 32' 22"E	80.59'
320-321	S00° 53' 06"W	2.90'
321-326	N89° 03' 26"W	70.81'
326-327	S10° 44' 56"E	129.53'
327-328	S89° 09' 25"E	44.69'
328-329	S00° 53' 06"W	28.03'
329-300	S49° 59' 04"W	128.80'
323-324	S89° 46' 18"E	1,985.31'
325-322	N89° 46' 18"W	98.74'
324-322	S89° 46' 18"E	52.45'

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
T300	14+89.51'NB'	201.07'
T301	14+91.04'NB'	233.24'
T302	15+13.28'NB'	227.23'
T303	15+15.14'NB'	162.58'
T304	17+49.34'NB'	74.38'
T305	17+64.41'NB'	66.58'
T306	18+03.94'NB'	59.66'
T307	18+07.91'NB'	85.80'
T308	18+87.22'NB'	69.64'
T309	18+85.34'NB'	52.58'
T310	19+25.44'NB'	48.21'
T311	19+24.84'NB'	41.74'
T312	21+06.40'NB'	34.01'
T313	20+02.20'NB'	31.28'
T314	19+10.75'NB'	30.50'
T315	18+76.25'NB'	30.50'
T316	18+66.08'NB'	109.47'

CURVE TABLE

CURVE	PT-PT	CHORD BEARING	RADIUS	CHORD LENGTH	ARC LENGTH
C1A	PC-300 N	02°12'04" E	105.00'	69.73'	71.08'
R1	317-318 S	06°03'08" E	1,853.50'	37.76'	37.76'

CURVE DATA-C1
RACINE ST R/L
P.I. =15+18.82'NB'
Y=540,119.384
X=817,133.824
Δ =46°51'58" RT
D. =54°34'03"
R. =105.00'
L. =85.89'
T. =45.51'
P.C. =14+73.31'NB'
Y=540,075.907
X=817,147.275
P.C.C. =15+59.20'NB'
Y=540,158.925
X=817,156.355
DA=N29°40'30"E

CURVE DATA-C2
RACINE ST R/L
P.I. =15+62.86'NB'
Y=540,162.103
X=817,158.166
Δ =14°17'36" RT
D. =196°21'10"
R. =29.18'
L. =7.28'
T. =3.66'
P.C.C. =15+59.20'NB'
Y=540,158.925
X=817,156.355
P.R.C. =15+66.48'NB'
Y=540,164.736
X=817,160.706
DB=S29°40'30"W
DA=N43°58'05"E

CURVE DATA-C3
RACINE ST R/L
P.I. =15+76.50'NB'
Y=540,171.947
X=817,167.662
Δ =21°01'21" LT
D. =106°06'11"
R. =54.00'
L. =19.81'
T. =10.02'
P.R.C. =15+66.48'NB'
Y=540,164.736
X=817,160.706
P.C.C. =15+86.29'NB'
Y=540,181.174
X=817,171.568
DB=S43°58'05"W
DA=N22°56'44"E

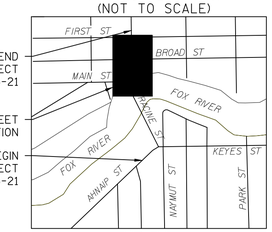
CURVE DATA-C4
RACINE ST R/L
P.I. =15+96.16'NB'
Y=540,190.264
X=817,175.416
Δ =27°43'28" LT
D. =143°14'22"
R. =40.00'
L. =19.35'
T. =9.87'
P.C.C. =15+86.29'NB'
Y=540,181.174
X=817,171.568
P.C.C. =16+05.65'NB'
Y=540,200.101
X=817,174.594
DB=S22°56'44"W
DA=N04°46'44"W

CURVE DATA-C5
RACINE ST R/L
P.I. =16+33.07'NB'
Y=540,227.428
X=817,172.309
Δ =05°58'12" LT
D. =10°53'42"
R. =525.89'
L. =54.79'
T. =27.42'
P.C.C. =16+05.65'NB'
Y=540,200.101
X=817,174.594
P.T. =16+60.44'NB'
Y=540,254.369
X=817,167.195
DB=S04°46'44"E
DA=N10°44'56"W

CURVE DATA-C6
RACINE ST R/L
P.I. =18+24.09'NB'
Y=540,415.146
X=817,136.674
Δ =05°16'49" RT
D. =03°02'40"
R. =1,882.00'
L. =173.44'
T. =86.78'
P.C. =17+37.31'NB'
Y=540,329.885
X=817,152.859
P.C.C. =19+10.75'NB'
Y=540,501.534
X=817,128.403
DA=N05°28'07"W

CURVE DATA-C7
RACINE ST R/L
P.I. =20+08.16'NB'
Y=540,598.500
X=817,119.120
Δ =05°55'33" RT
D. =03°02'40"
R. =1,882.00'
L. =194.65'
T. =97.41'
P.C.C. =19+10.75'NB'
Y=540,501.534
X=817,128.403
P.T. =21+05.40'NB'
Y=540,695.907
X=817,119.898
DB=S05°28'07"E

PROJECT LOCATION
(NOT TO SCALE)



ADDITIONAL RECORDED EASEMENTS

DOC. NO.	TYPE	PARCEL (S)
212310	BUILDING AGREEMENT	8
180088	PARTY WALL AGREEMENT	9 & 11
754560	WATER ST VACATION	17
240079	RACINE ST VACATION	19
248243	NEW SHORELINE ORDINANCE	19
1098271	LIS PENDENS	19
1273661	PEDESTRIAN EASEMENT	19
226351	DRIVEWAY EASEMENT	21
273840	EASEMENT	21
504268	EASEMENT	21
870323	TELEPHONE CABINET EASEMENT	21

DOC# 1780514
NATALIE STROHMEYER
REGISTER OF DEEDS
WINNEBAGO COUNTY, WI
RECORDED ON:
12/05/2018 12:03 PM
RECORDING FEE:
PAGES: 1
File 1 of TPPs Pg.296

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4992-03-21 -4.03
AMENDMENT NO: 1

N
0 50 100
SCALE, FEET

JT ENGINEERING, INC Consultant Services
1077 CENTENNIAL CENTRE BLVD.
HOBART, WI 54155
920-468-4771

I, CAROLYN J. SAMPSON, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 4992-03-21-4.03 AMENDMENT NO: 1 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: Carolyn J. Sampson DATE: 12-04-2018
PRINT NAME: CAROLYN J. SAMPSON
REGISTRATION NUMBER: S-3045

WISCONSIN CAROLYN J. SAMPSON S-3045 GREEN BAY WI LAND SURVEYOR

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
NE REGION - GREEN BAY
SIGNATURE: Curt Van Erem DATE: 12-04-2018
PRINT NAME: CURT VAN EREM

PREVIEW

DRAFT April 20, 2020

TRANSPORTATION PROJECT PLAT NO: 4992-03-21 -4.03

THAT PART OF LOTS 1 AND 2 OF CSM 987, LOT 24 OF BLOCK 17, LOTS 12, 13 AND 14 OF BLOCK 18, LOT 22 OF BLOCK 43, LOTS 2, 3, 4, 5, 6, & 7 IN THE SUBDIVISION OF LOTS 1, 2, 23, AND 24 OF BLOCK 43, THE PLAT OF MENASHA (TWO ADDITIONS); AND THAT PART OF LOT 1 OF CSM 2549 AND LOTS 1 AND 2 OF BLOCK 19, AND THAT PORTION OF RACINE STREET VACATED BY DOCUMENT NO. 240079, IN THE PLAT OF MENASHA (TWO ADDITIONS), ALL BEING IN SECTION 15, TOWNSHIP 20 NORTH, RANGE 17 EAST; AND THAT PORTION OF WATER STREET VACATED BY DOCUMENT NO. 754560, SECTION 22, TOWNSHIP 20 NORTH, RANGE 17 EAST, ALL BEING IN THE CITY OF MENASHA, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER RACINE STREET BRIDGE FOX RIVER BRIDGE & APPROACHES (LOCAL STREET) WINNEBAGO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), WINNEBAGO COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR RACINE STREET ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS), CSM 2549, AND DOC. #240079.
EXISTING HIGHWAY RIGHT-OF-WAY FOR MAIN STREET (PREVIOUSLY NAMED CHUTE STREET) ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS), ASSESSOR'S MAP OF 1924, AND PLAT OF SURVEY F-250.
EXISTING HIGHWAY RIGHT-OF-WAY FOR BROAD STREET ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS), ASSESSOR'S MAP OF 1924, AND PREVIOUS PROJECT 4992-00-55.
EXISTING HIGHWAY RIGHT-OF-WAY FOR FIRST STREET ESTABLISHED FROM THE PLAT OF MENASHA (TWO ADDITIONS) AND ASSESSOR'S MAP OF 1924.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF MENASHA.

PURPOSE FOR TLE'S IS TO REMOVE & REPLACE SIDEWALK, UNLESS NOTED. BUILDINGS WILL NOT BE AFFECTED.

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN CABINET 1 OF TRANSPORTATION PLATS, PAGE 294, AS DOCUMENT NO. 1778370 FOR ADDITIONAL INFORMATION.

4

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	FEE R/W SQ. FT. REQUIRED NEW	EXISTING	TOTAL	T.L.E. SQ. FT.	P.L.E. SQ. FT.	H.E. SQ. FT.
8	DORIS A. SZYMANSKI REVOCABLE LIVING TRUST	TLE	---	---	---	590	---	---
9	STEVEN C. SZYMANSKI	TLE	---	---	---	60	---	---
11	JEFFRY A. ROSTAS	TLE	---	---	---	94	---	---
12	NICHOLAS J. CORRENTE	TLE	---	---	---	47	---	---
13	206 CLUB, INC., A WISCONSIN CORPORATION	TLE	---	---	---	90	---	---
14	EJB PROPERTIES, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE	---	---	---	140	---	---
16	UNITED STATES OF AMERICA	TLE	---	---	---	316	---	---
17	BERGSTROM PROPERTIES, INC.	TLE	---	---	---	162	---	---
18	CITY OF MENASHA	FEE	4,722	---	4,722	---	---	---
19	RIVERSIDE BUILDING, INC., A WISCONSIN CORPORATION	FEE & TLE	15,170	---	15,170	1,951	---	---
21	SUMMIT COMBINED PROPERTIES, LLC	FEE & TLE	438	---	438	706	---	---

NOTE: OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION

UTILITY SCHEDULE & INTERESTS REQUIRED

UTILITY NUMBER	OWNER (S)	INTEREST REQUIRED
100	MENASHA UTILITIES-WATER	RELEASE OF RIGHTS
101	MENASHA UTILITIES-ELECTRIC	RELEASE OF RIGHTS
102	CITY OF MENASHA-SEWER	RELEASE OF RIGHTS
104	TDS METROCOM LLC	RELEASE OF RIGHTS
105	CHARTER COMMUNICATIONS	RELEASE OF RIGHTS
106	LEVEL 3 COMMUNICATIONS-FIBER OPTIC	RELEASE OF RIGHTS

(100) MENASHA UTILITIES-WATER
NO RECORDED EASEMENT-PARCEL 17

(101) MENASHA UTILITIES-ELECTRIC
DOC.831566-PARCEL 19

(102) CITY OF MENASHA-SEWER
DOC.755590-PARCEL 17
NO RECORDED EASEMENT-PARCEL 19

(104) TDS METROCOM LLC
NO RECORDED EASEMENT-PARCEL 18 & 19

(105) CHARTER COMMUNICATIONS
NO RECORDED EASEMENT-PARCEL 17

(106) LEVEL 3 COMMUNICATIONS-FIBER OPTIC
NO RECORDED EASEMENT-PARCEL 21

R/W STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
300	15+44.39'NB'	0.00'
301	14+98.17'NB'	58.10'
302	15+02.22'NB'	62.35'
303	15+00.66'NB'	66.08'
304	15+04.22'NB'	80.09'
305	14+91.21'NB'	200.35'
306	14+92.59'NB'	232.58'
307	15+11.38'NB'	226.79'
308	15+12.78'NB'	162.78'
309	17+57.10'NB'	65.93'
310	18+05.56'NB'	57.37'
311	18+09.80'NB'	85.49'
312	18+85.31'NB'	69.87'
313	18+82.68'NB'	46.36'
314	21+06.40'NB'	32.99'
315	21+06.40'NB'	33.01'
316	19+73.13'NB'	28.50'
317	19+10.75'NB'	28.50'
318	18+72.41'NB'	28.50'
319	18+61.87'NB'	108.96'
320	17+85.42'NB'	56.77'
321	15+92.66'NB'	26.28'

R/W COURSE TABLE

POINT-POINT	BEARING	DISTANCE
300-301	S53° 04' 26"W	81.49'
301-302	N36° 13' 31"W	7.65'
302-303	S54° 09' 56"W	4.50'
303-304	N67° 56' 44"W	15.26'
304-322	S71° 55' 21"W	102.35'
322-305	S71° 55' 21"W	21.46'
305-306	N89° 35' 25"W	32.51'
306-324	N03° 57' 56"E	6.65'
324-307	N03° 57' 56"E	53.46'
307-308	S89° 35' 25"E	64.13'
308-309	N26° 14' 49"E	234.72'
309-310	N00° 17' 21"E	50.77'
310-311	N89° 41' 49"W	28.46'
311-312	N03° 50' 34"E	80.15'
312-313	S89° 41' 49"E	23.66'
313-314	N00° 25' 39"E	228.67'
315-316	S00° 25' 39"W	131.16'
316-317	S04° 31' 08"E	61.43'
317-318	S06° 03' 08"E	37.76'
318-319	S89° 36' 15"E	81.10'
319-320	S27° 24' 33"W	89.80'
320-321	S00° 23' 45"W	205.50'
321-300	S54° 16' 24"W	60.54'
323-324	S89° 46' 18"E	1,985.31'
325-322	N89° 46' 18"W	98.74'
324-322	S89° 46' 18"E	52.45'

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
T300	14+89.51'NB'	201.07'
T301	14+91.04'NB'	233.24'
T302	15+13.28'NB'	227.23'
T303	15+15.14'NB'	162.58'
T304	17+49.34'NB'	74.38'
T305	17+64.41'NB'	66.58'
T306	18+03.94'NB'	59.66'
T307	18+07.91'NB'	85.80'
T308	18+87.22'NB'	69.64'
T309	18+85.34'NB'	52.58'
T310	19+25.44'NB'	48.21'
T311	19+24.84'NB'	41.74'
T312	21+06.40'NB'	34.01'
T313	20+02.20'NB'	31.28'
T314	19+10.75'NB'	30.50'
T315	18+76.25'NB'	30.50'
T316	18+66.08'NB'	109.47'
T317	16+60.12'NB'	32.96'
T318	16+52.18'NB'	75.89'
T319	16+13.35'NB'	68.93'
T320	16+17.98'NB'	26.06'

CURVE TABLE

CURVE	PT-PT	CHORD BEARING	RADIUS	CHORD LENGTH	ARC LENGTH
C1A	PC-300	N 02°12'04" E	105.00'	69.73'	71.08'

CURVE DATA-C1
RACINE ST R/L
P.I. =15+18.82'NB'
Y=540,119.384
X=817,133.824
Δ =46°51'58" RT
D. =54°34'03"
R. =105.00'
L. =85.89'
T. =45.51'
P.C. =14+73.31'NB'
Y=540,075.907
X=817,147.275
P.C.C. =15+59.20'NB'
Y=540,158.925
X=817,156.355
DA=N29°40'30"E

CURVE DATA-C2
RACINE ST R/L
P.I. =15+62.86'NB'
Y=540,162.103
X=817,158.166
Δ =14°17'36" RT
D. =196°21'10"
R. =29.18'
L. =7.28'
T. =3.66'
P.C.C. =15+59.20'NB'
Y=540,158.925
X=817,156.355
P.R.C. =15+66.48'NB'
Y=540,164.736
X=817,160.706
DB=S29°40'30"W
DA=N43°58'05"E

CURVE DATA-C3
RACINE ST R/L
P.I. =15+76.50'NB'
Y=540,171.947
X=817,167.662
Δ =21°01'21" LT
D. =106°06'11"
R. =54.00'
L. =19.81'
T. =10.02'
P.R.C. =15+66.48'NB'
Y=540,164.736
X=817,160.706
P.C.C. =15+86.29'NB'
Y=540,181.174
X=817,171.568
DB=S43°58'05"W
DA=N22°56'44"E

CURVE DATA-C4
RACINE ST R/L
P.I. =15+96.16'NB'
Y=540,190.264
X=817,175.416
Δ =27°43'28" LT
D. =143°14'22"
R. =40.00'
L. =19.35'
T. =9.87'
P.C.C. =15+86.29'NB'
Y=540,181.174
X=817,171.568
P.C.C. =16+05.65'NB'
Y=540,200.101
X=817,174.594
DB=S22°56'44"W
DA=N04°46'44"W

CURVE DATA-C5
RACINE ST R/L
P.I. =16+33.07'NB'
Y=540,227.428
X=817,172.309
Δ =05°58'12" LT
D. =10°53'42"
R. =525.89'
L. =54.79'
T. =27.42'
P.C.C. =16+05.65'NB'
Y=540,200.101
X=817,174.594
P.T. =16+60.44'NB'
Y=540,254.369
X=817,167.195
DB=S04°46'44"E
DA=N10°44'56"W

CURVE DATA-C6
RACINE ST R/L
P.I. =18+24.09'NB'
Y=540,415.146
X=817,136.674
Δ =05°16'49" RT
D. =03°02'40"
R. =1,882.00'
L. =173.44'
T. =86.78'
P.C. =17+37.31'NB'
Y=540,329.885
X=817,152.859
P.C.C. =19+10.75'NB'
Y=540,501.534
X=817,128.403
DA=N05°28'07"W

CURVE DATA-C7
RACINE ST R/L
P.I. =20+08.16'NB'
Y=540,598.500
X=817,119.120
Δ =05°55'33" RT
D. =03°02'40"
R. =1,882.00'
L. =194.65'
T. =97.41'
P.C.C. =19+10.75'NB'
Y=540,501.534
X=817,128.403
P.T. =21+05.40'NB'
Y=540,695.907
X=817,119.898
DB=S05°28'07"E

ADDITIONAL RECORDED EASEMENTS

DOC. NO.	TYPE	PARCEL (S)
212310	BUILDING AGREEMENT	8
180088	PARTY WALL AGREEMENT	9 & 11
754560	WATER ST VACATION	17
240079	RACINE ST VACATION	19
248243	NEW SHORELINE ORDINANCE	19
1098271	LIS PENDENS	19
1273661	PEDESTRIAN EASEMENT	19
226351	DRIVEWAY EASEMENT	21
273840	EASEMENT	21
504268	EASEMENT	21
870323	TELEPHONE CABINET EASEMENT	21

SCALE, FEET
0 50 100

PROJECT LOCATION
(NOT TO SCALE)
END PROJECT 4992-03-21
SHEET LOCATION
BEGIN PROJECT 4992-03-21
FIRST ST, BROAD ST, MAIN ST, FOX RIVER, RACINE ST, KEYES ST, PARK ST, NAHMIT ST, ANNAP ST
T 20 N
R 17 E

DOC# 1779496
NATALIE STROHMEYER
REGISTER OF DEEDS
WINNEBAGO COUNTY, WI
RECORDED ON:
11/16/2018 01:58 PM
RECORDING FEE:
PAGES: 1
File 1 of TPP's P. 295

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4992-03-21 -4.03
AMENDMENT NO:---

4

PRELIMINARY

FOUND BERNTSEN MONUMENT 323
Y=540,082.256
X=814,927.459
S 89°46'18" E 2,136.50' SECTION LINE COR TO MEANDER COR
FOUND BERNTSEN MONUMENT EAST MEANDER CORNER ON SOUTH LINE OF SECTION 15
Y=540,073.775
X=817,063.938
S89°46'18"E, 84.11' MEANDER COR TO R/L
EXISTING 60' LIMITED HIGHWAY EASEMENT
PRESENT STRUCTURE
PROPOSED STRUCTURE R/L 13'NB' N 17°11'29" W R/L 14'NB'
STA. 14+70.69'NB'
N17°11'29"W, 2.62'
PROPOSED STRUCTURE B-70-324
TLE FOR BUILDING REMOVAL
PEDESTRIAN EASEMENT DOC.1273661
FOX RIVER
CITY OF MENASHA
LOT 3
LOT 2
BLOCK 44
BLDG
LOT 1
PLAT OF SURVEY F-250
(VACATED WATER ST) DOC.754560
MAIN ST
LOT 21
BLOCK 43
LOT 22
LOT 4
LOT 3
LOT 7
LOT 1
CSM 2549 V.1/PG.2549 DOC.#804377
SUBDIVISION OF LOTS 1,2,23,24 OF BLOCK 43
CSM 987 V.1/PG.987 DOC.#572531
FD. IP 0.97' N 0.02' E MAG NAIL
3/4" RBR
5/8" RBR
(VACATED PORTION OF RACINE ST) DOC.#240079
N 10°44'56" W R/L
BROAD ST
RACINE ST
FIRST ST
LOT 23
LOT 24
BLOCK 17
BLOCK 31
BLOCK 18
BLOCK 19
BLOCK 30
LOT 11
LOT 12
LOT 13
LOT 14
MENASHA
(TWO ADDITIONS)
PLAT
OF
SE-SE
GOVERNMENT LOT 5
CSM 5699 V.1/PG.5699 DOC.#1349622
S89°32'34"E, 32.99' EX R/W TO R/L
STA. 21+06.40'
S89°32'34"E, 33.01' R/L TO EX R/W
N 0°27'26" E R/L
PI:23+25.31'NB' Y: 540,915.817 X: 817,121.653
TEL CABINET EASEMENT DOC.870323
DRIVEWAY EASEMENT DOC.226351
EASEMENT DOC.273840 DOC.504268
TLE
BLDG
CHIS X
SAN
TV
P.L.
P.C.
P.C.C.
P.R.C.
C1
C1A
C3
C4
C5
C6
C7

FILE NAME : D:\RACINE ST TPP\SHEETSPLAN\040102- RP-NEW.DWG
APPRAISAL PLAT DATE :11-14-2018
PLOT DATE : 11/12/2018 2:02 PM
PLOT BY : CHAD KWIATKOWSKI
PLOT NAME :
PLOT SCALE : **********

PRE_151

4992-03-21 -4.03

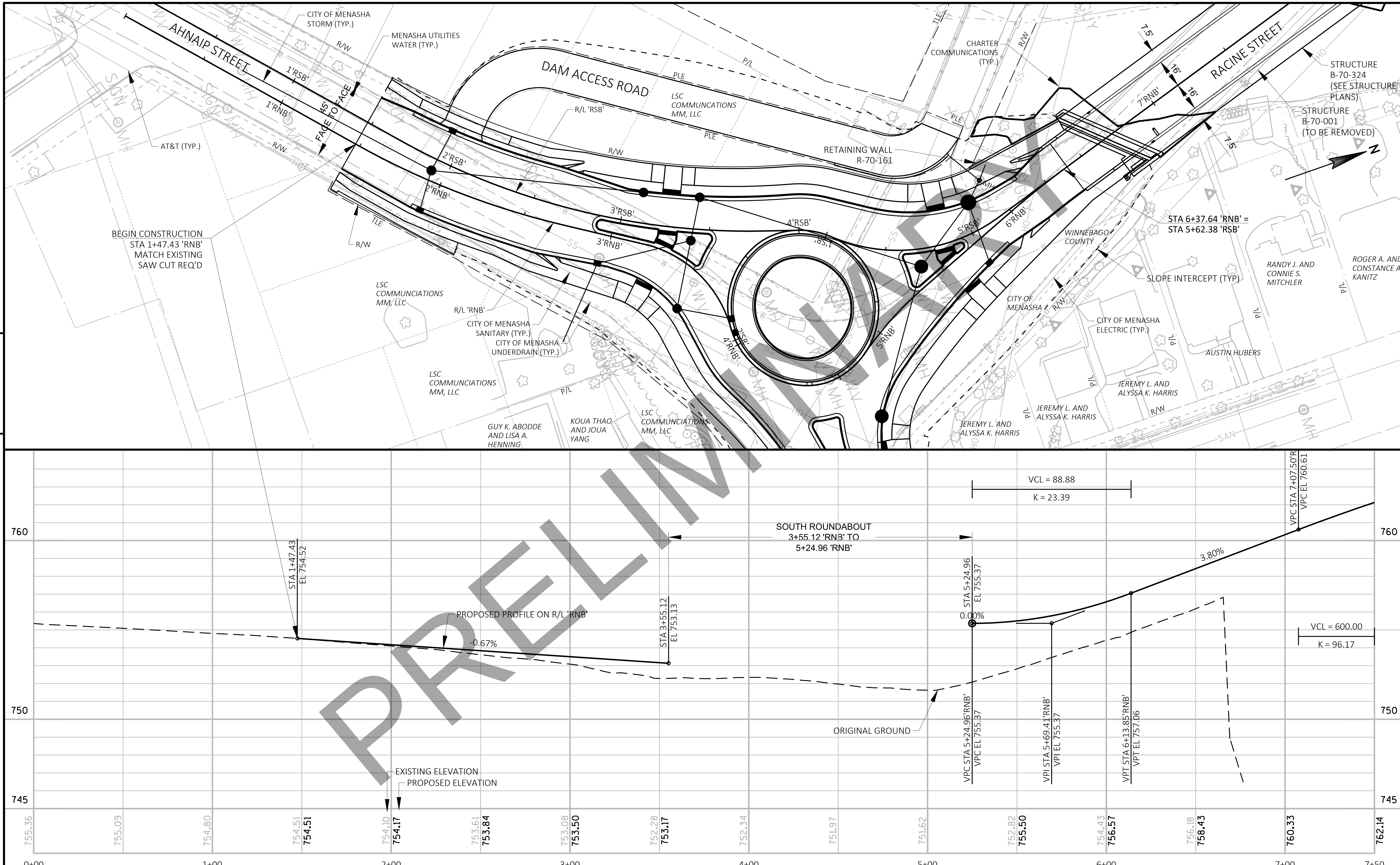
JJ ENGINEERING, INC Consultant Services
1077 CENTENNIAL CENTRE BLVD.
HOBART, WI 54155
920-468-4771

I, CAROLYN J. SAMPSON, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 4992-03-21-4.03 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN CAROLYN J. SAMPSON S-3045 GREEN BAY WI LAND SURVEYOR

SIGNATURE: Carolyn J Sampson DATE: 11-12-2018
PRINT NAME: CAROLYN J. SAMPSON
REGISTRATION NUMBER: S-3045

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
NE REGION - GREEN BAY
SIGNATURE: Curt Van Erem DATE: 11-14-2018
PRINT NAME: CURT VAN EREM



DRAFT April 20, 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: RACINE STREET NORTHBOUND	SHEET	E

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LAYOUT NAME - 050101
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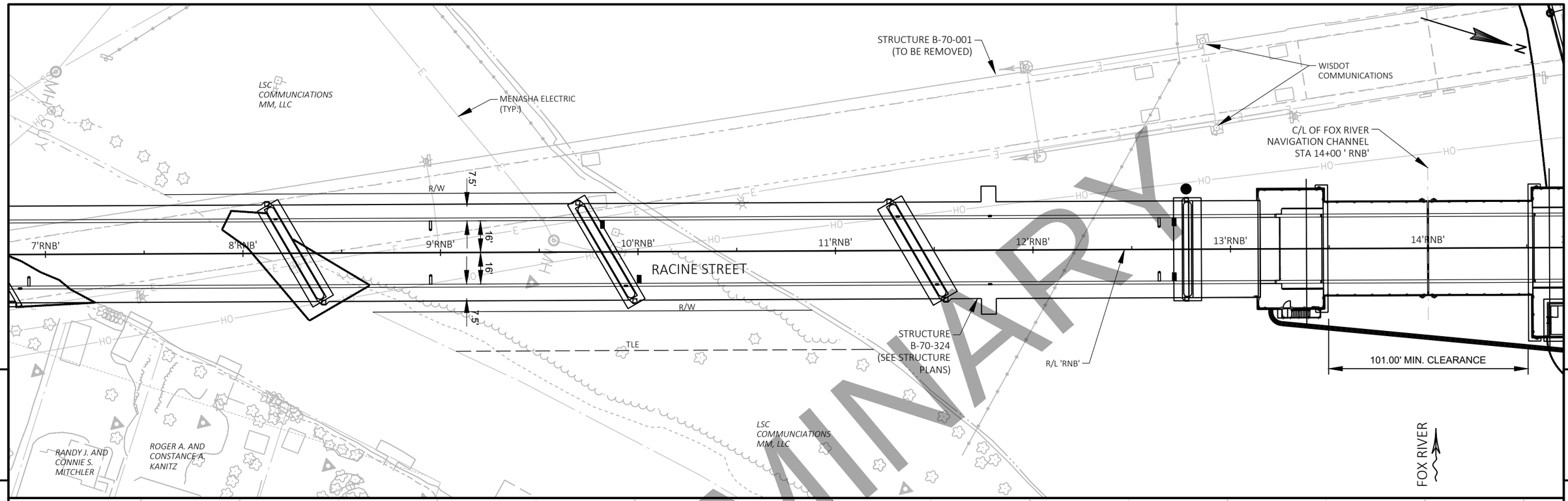
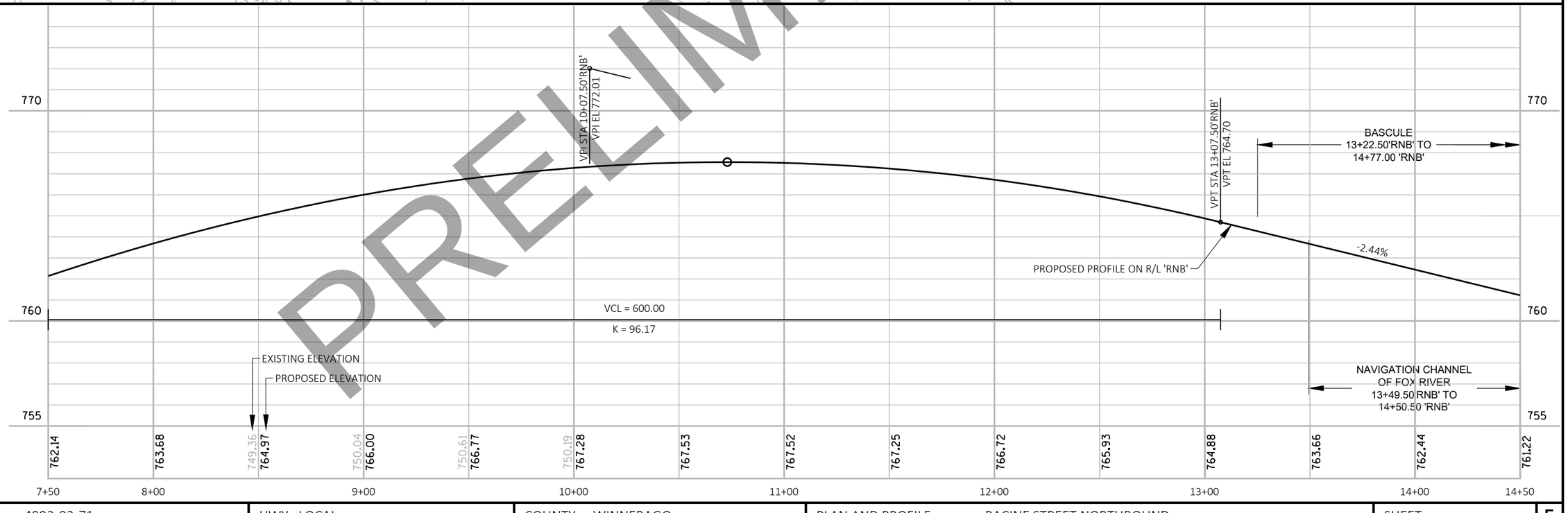
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44





DRAFT April 20 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: RACINE STREET NORTHBOUND	SHEET E

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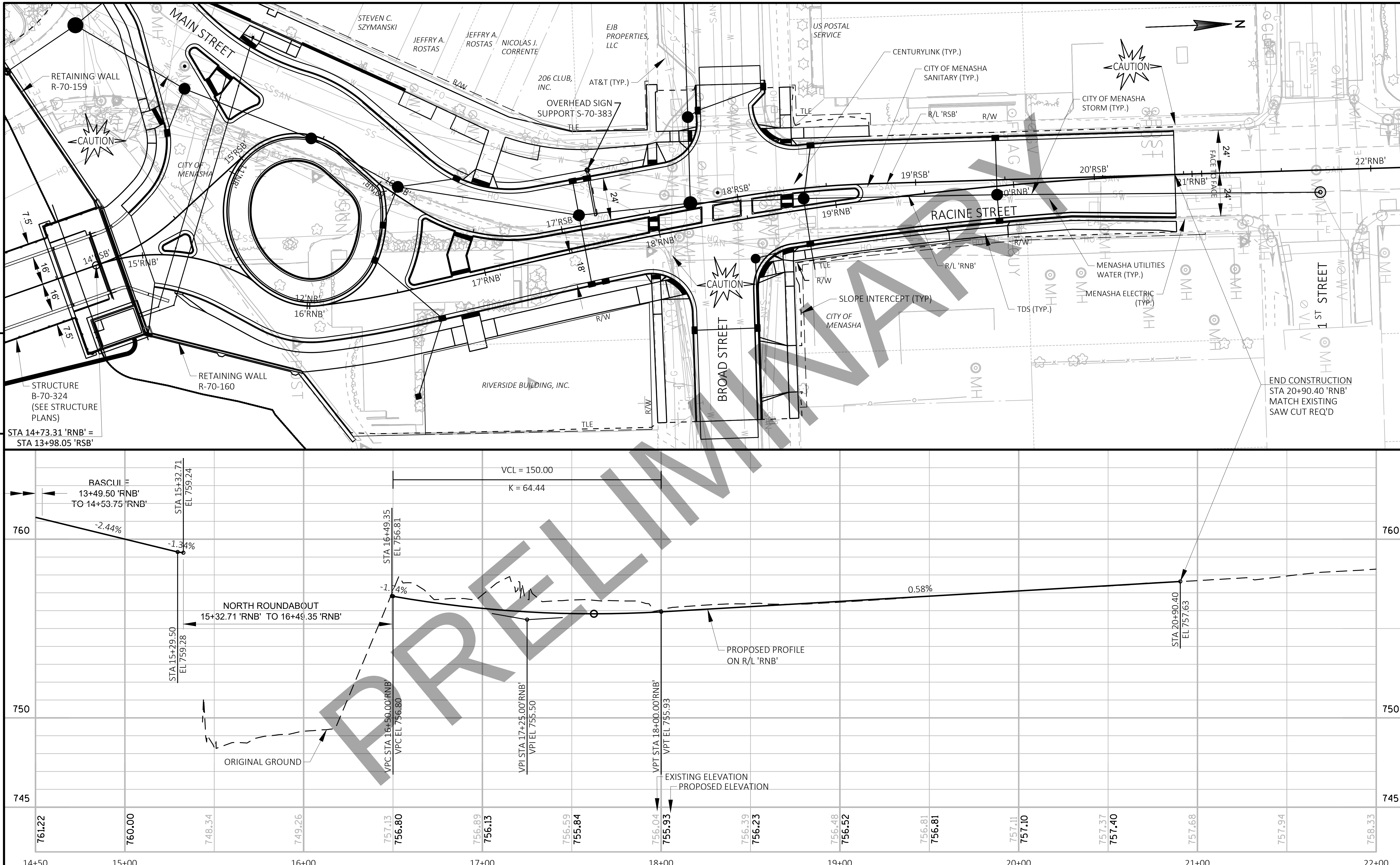
WISDOT/CADDS SHEET 44



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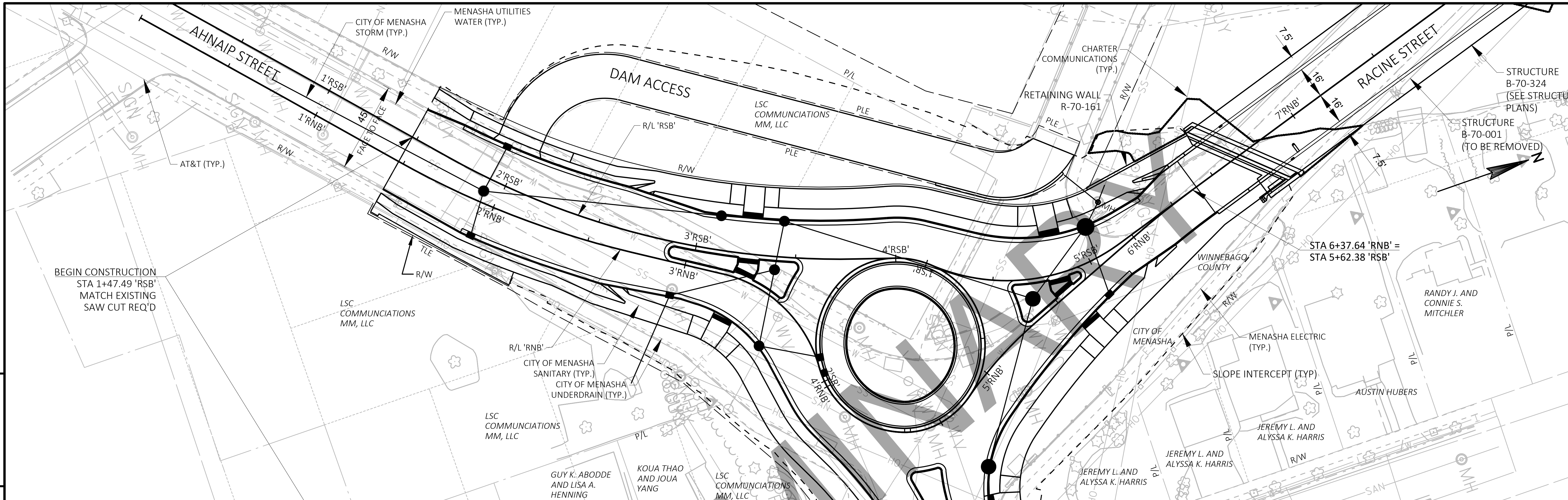
WISDOT/CADDS SHEET 44

DRAFT April 20, 2020

5



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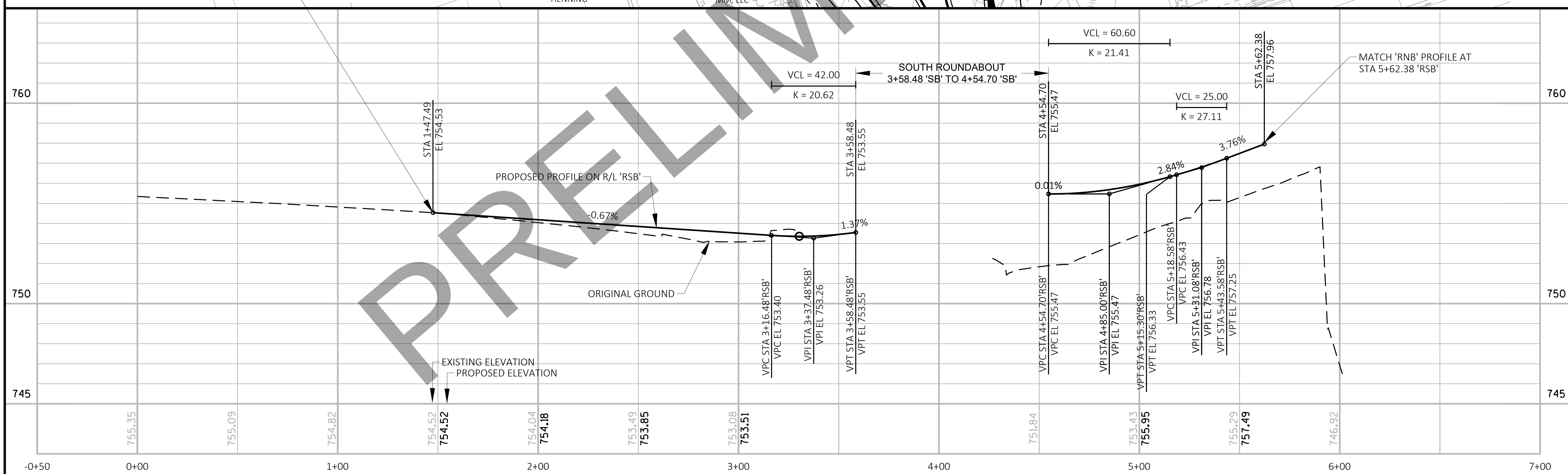

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: RACINE STREET SOUTHBOUND	SHEET PRE_155	E

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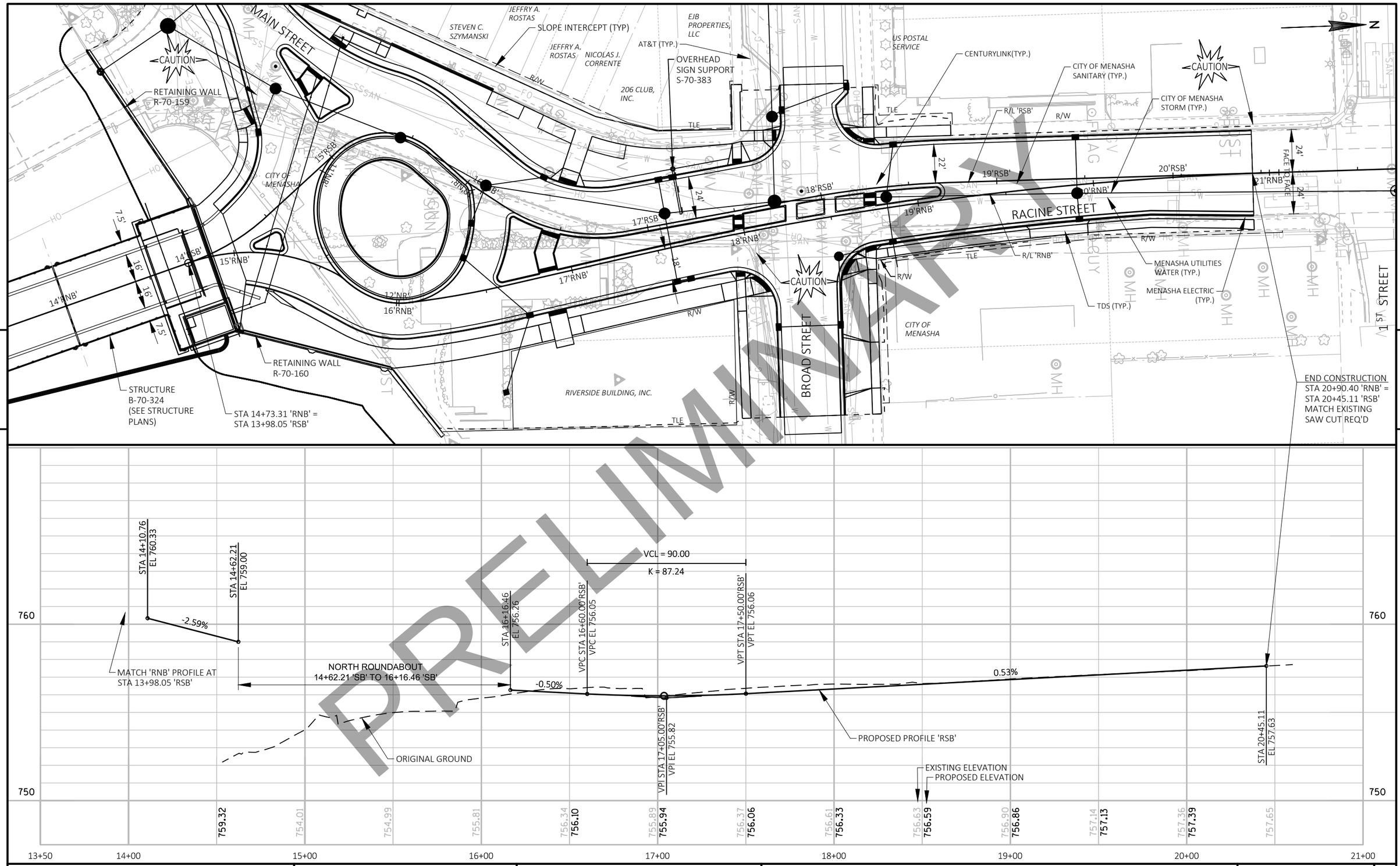
DRAFT April 20, 2020



PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: RACINE STREET SOUTHBOUND	SHEET E

PRE_156

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\050101_PP_RSB.DWG
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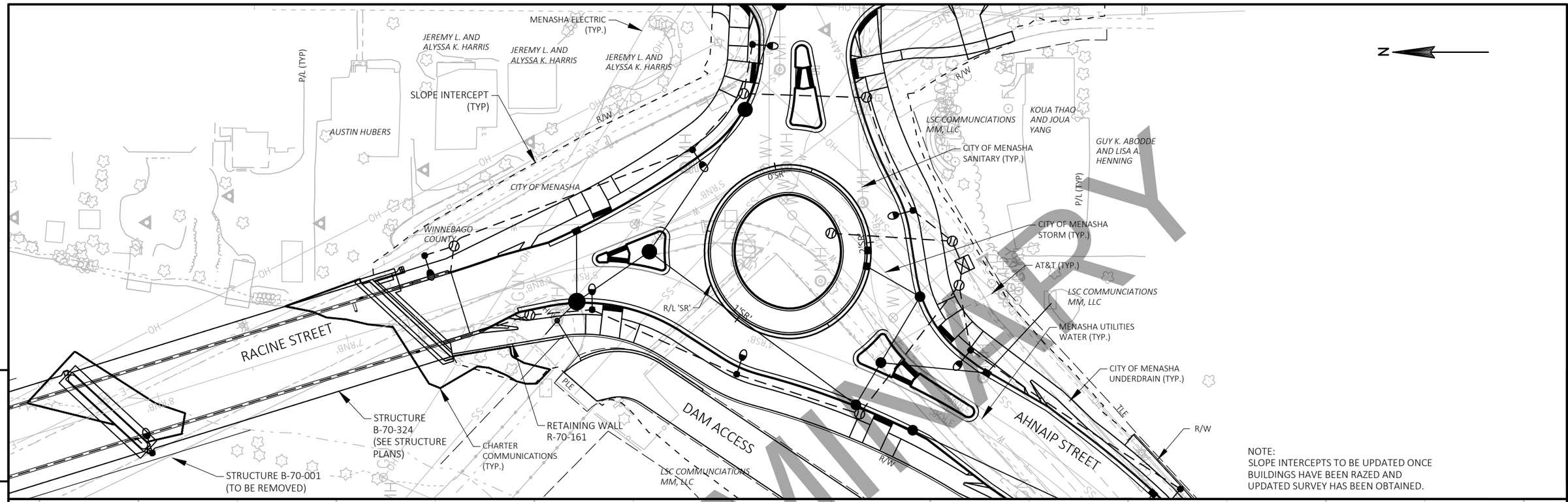
WISDOT/CADDS SHEET 44



PRELIMINARY
DRAFT April 20 2020

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: RACINE STREET SOUTHERN ROUNDABOUT	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\050101_PP_RAB.DWG
LAYOUT NAME - 050101
PLOT DATE : 4/17/2020 11:26 AM
PLOT BY : LANCELLE, JESSICA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

DRAFT April 20 2020

5

5

RETAINING WALL R-70-160

RIVERSIDE BUILDING, INC.

CITY OF MENASHA

R/W

TLE

CAUTION

R/L 'NR'

RACINE STREET

CITY OF MENASHA STORM (TYP.)

STRUCTURE B-70-324 (SEE STRUCTURE PLANS)

RETAINING WALL R-70-159

CITY OF MENASHA

TDS & TWC

CITY OF MENASHA STREET LIGHTING (TYP.)

MENASHA UTILITIES WATER (TYP.)

CITY OF MENASHA SANITARY (TYP.)

AT&T (TYP.)

US POSTAL SERVICE

BROAD STREET

206 CLUB, INC.

EJB PROPERTIES, LLC

JEFFRY A. ROSTAS

CENTURYLINK (TYP.)

STEVEN C. SZYMANSKI

NICOLAS J. CORRENTE

JEFFRY A. ROSTAS

DORIS A. SZYMANSKI REVOCABLE LIVING TRUST

STRUCTURE B-70-001 (TO BE REMOVED)

SLOPE INTERCEPT (TYP)

PRELIMINARY

VCL = 30.00
K = 12.19

STA 9+94.88
EL 756.40

STA 10+85.00
EL 757.88

VPC STA 11+06.00'NR'
VPC EL 758.51

VPI STA 11+41.00'NR'
VPI EL 759.54

VPT STA 11+76.00'NR'
VPT EL 758.50

VCL = 50.00
K = 15.26

STA 12+89.44
EL 756.40

0.30%
2.76%
2.96%
-2.98%
0.30%

ORIGINAL GROUND

PROPOSED PROFILE ON R/L 'NR'

VCL = 70.00
K = 11.80

VPC STA 10+20.50'NR'
VPC EL 756.48

VPI STA 10+35.50'NR'
VPI EL 756.52

VPT STA 10+50.50'NR'
VPT EL 756.93

VPC STA 12+25.39'NR'
VPC EL 757.03

VPI STA 12+50.39'NR'
VPI EL 756.28

VPT STA 12+75.39'NR'
VPT EL 756.36

EXISTING ELEVATION
PROPOSED ELEVATION

755.68	754.86	753.50	752.23	749.25	758.03
756.42	**756.92**	**758.33**	**758.99**	**757.78**	**756.49**

760
750
745

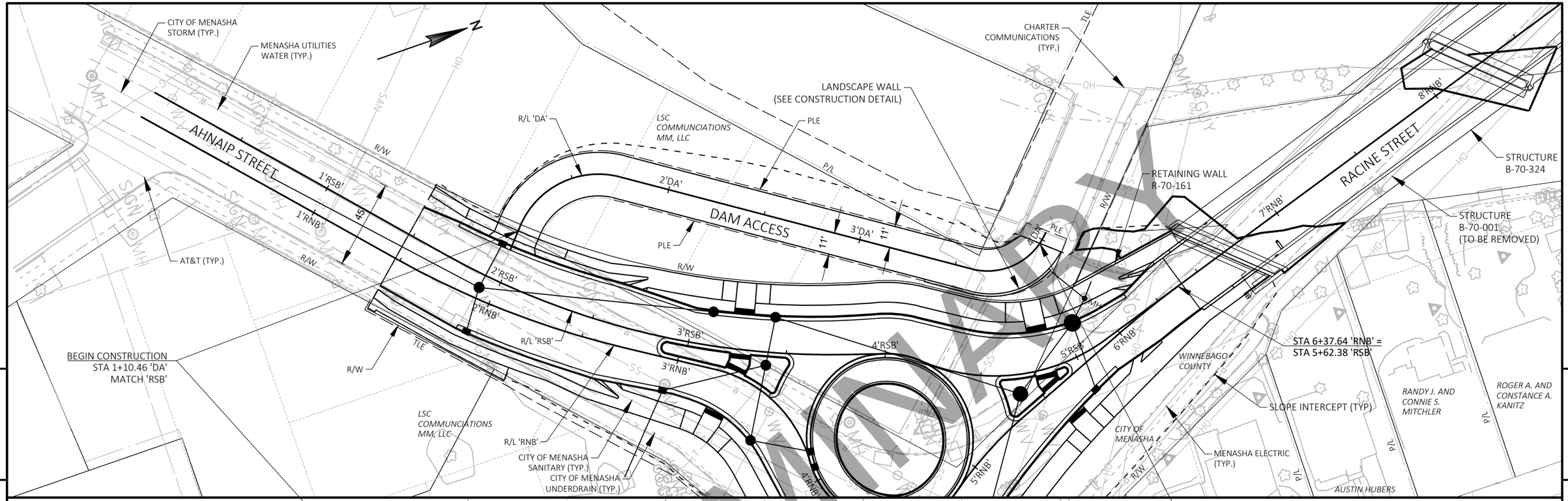
9+00 10+00 11+00 12+00 13+00 14+00 15+00

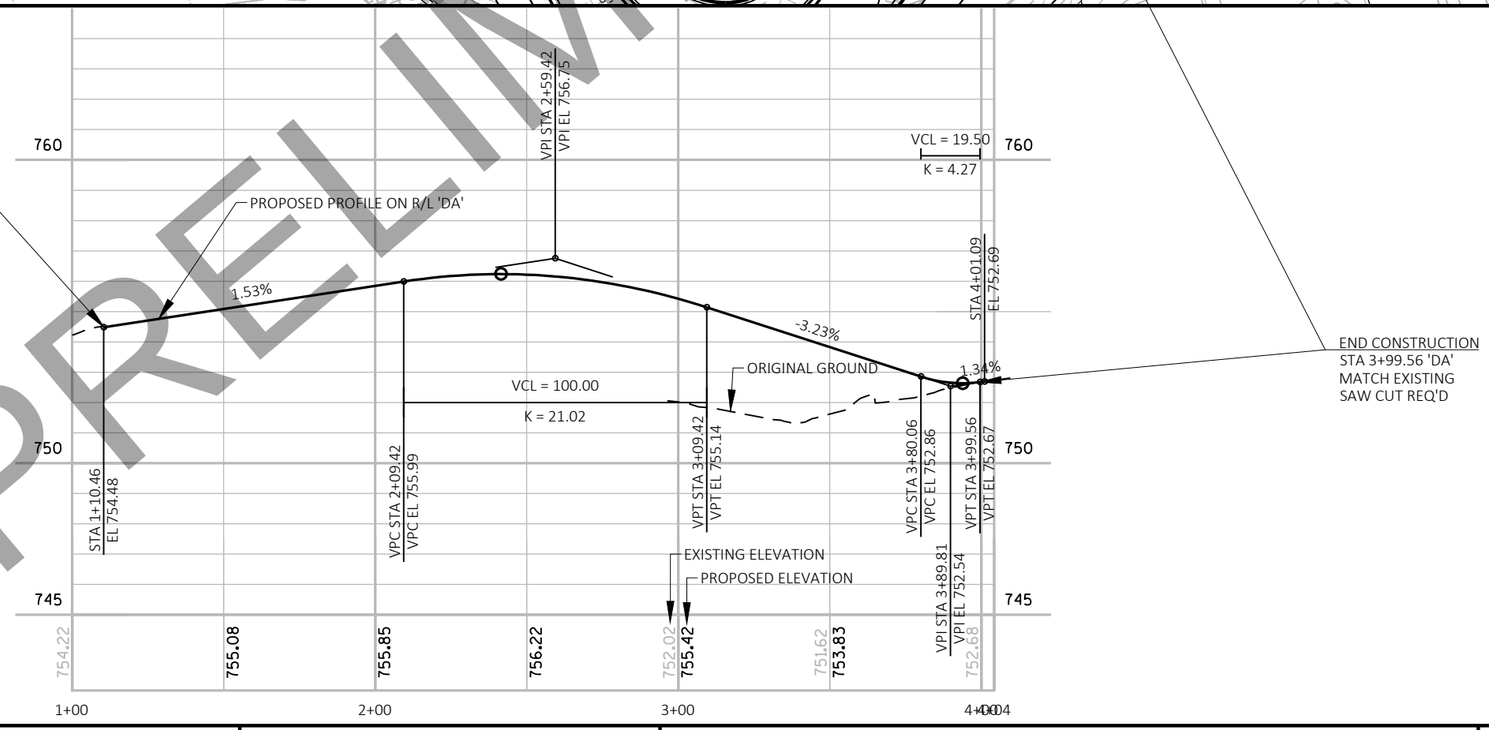
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: RACINE STREET NORTHERN ROUNDABOUT	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\050101_PP_RAB.DWG
LAYOUT NAME - 050102
PLOT DATE : 4/17/2020 11:27 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 44

DRAFT April 20, 2020

PRELIMINARY





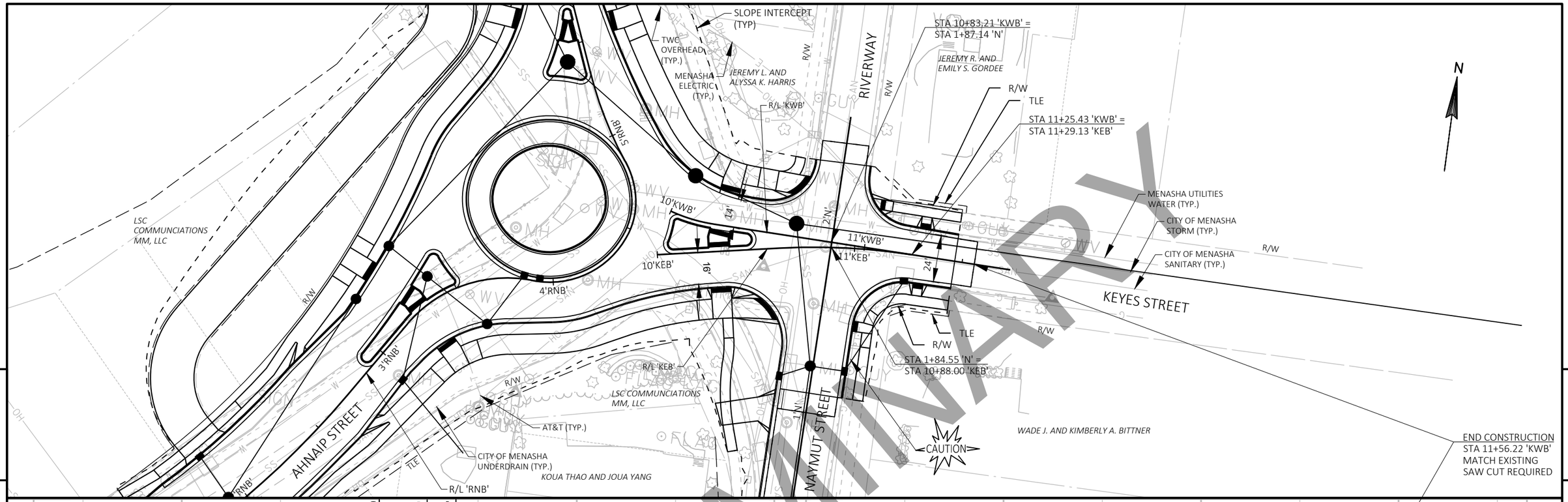
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: DAM ACCESS	SHEET E

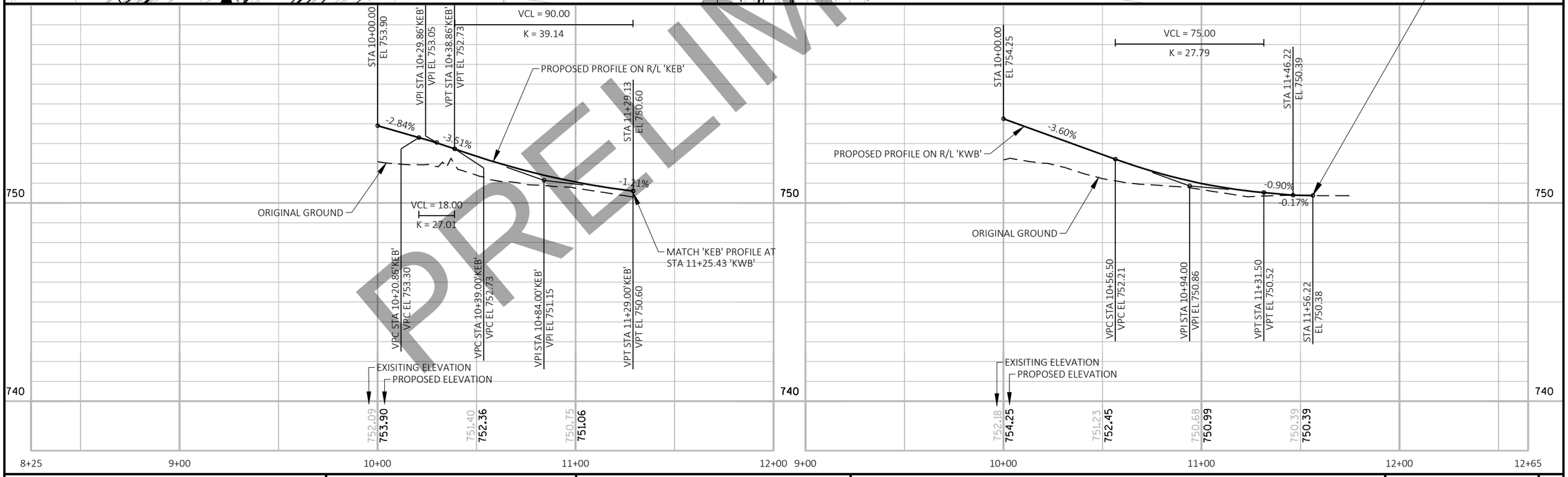
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\050101_PP_DAMACCESS.DWG
LAYOUT NAME - 050101

PLOT DATE : 4/20/2020 7:37 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

PRELIMINARY





PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: KEYES STREET	SHEET PRE_160 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\050101_PP_KEYES.DWG
LAYOUT NAME - 050101

PLOT DATE : 4/17/2020 10:16 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

DRAFT April 20, 2020

PRELIMINARY

CITY OF MENASHA UNDERDRAIN (TYP.)

GUY K. ABODDE AND LISA A. HENNING

LSC COMMUNICATIONS MM, LLC

KOUA THAO AND JOUA YANG

R/L 'KEB'

AT&T (TYP.)

CITY OF MENASHA SANITARY (TYP.)

CITY OF MENASHA STORM (TYP.)

TWC OVERHEAD (TYP.)

JEREMY L. AND ALYSSA K. HARRIS

JEREMY L. AND ALYSSA K. HARRIS

JEREMY L. AND ALYSSA K. HARRIS

R/L 'KWB'

MENASHA ELECTRIC (TYP.)

STA 1+87.14 'N' = STA 10+83.21 'KWB'

P/L

N

R/W

NAYMUT STREET

1'N'

2'N'

30'

24'

R/L 'N'

R/W

RIVERWAY

R/W

MENASHA UTILITIES WATER (TYP.)

R/W

MATCH EXISTING STA 0+29 - STA 1+10, BEGIN PROPOSED PROFILE STA 1+10

BEGIN CONSTRUCTION
STA 0+29.26 'N'
MATCH EXISTING
SAW CUT REQUIRED

CAUTION

STA 1+84.55 'N' = STA 10+88.01 'KEB'

11'KEB'

11'KWB'

SLOPE INTERCEPT (TYP)

TLE

R/W

JEREMY R. AND EMILY S. GORDEE

END CONSTRUCTION
STA 2+37.81 'N'
MATCH EXISTING
SAW CUT REQUIRED

TLE

R/W

KEYES STREET

WADE J. AND KIMBERLY A. BITTNER

STA 1'N'+00.00
EL 750.97

STA 1'N'+23.33
EL 750.82

VPI STA 1'N'+47.89
VPI EL 750.69

STA 1'N'+72.45
EL 751.10

STA 1'N'+99.14
EL 751.14

STA 2'N'+37.81
EL 750.98

-0.50%

-0.79%

1.69%

-2.00%

-0.42%

ORIGINAL GROUND

KEYES STREET

STA 1'N'+10.00
EL 750.89

VPC STA 1'N'+23.33
VPC EL 750.82

VPT STA 1'N'+72.45
VPT EL 751.10

PROPOSED PROFILE ON R/L 'N'

VCL = 49.12

K = 21.83

EXISTING ELEVATION

PROPOSED ELEVATION

750

740

751.32

750.97
750.97

750.76
750.84

750.87
751.14

750.95

-2+00 -1+00 0+00 1+00 2+00 3+00 4+00 5+00 5+50

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: NAYMUT STREET & RIVERWAY	SHEET E

PRE_161

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\050101_PP_NAYMUT.DWG
LAYOUT NAME - 050102

PLOT DATE : 4/17/2020 11:05 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

DRAFT April 20, 2020

5

5

CITY OF MENASHA STORM (TYP.)

DORIS A. SZYMANSKI REVOCABLE LIVING TRUST

DORIS A. SZYMANSKI REVOCABLE LIVING TRUST

R/W

CAUTION

3'MWB'

12'NB'

16'RNB'

TLE R/W

CENTURYLINK (TYP.)

AT&T (TYP.)

CITY OF MENASHA SANITARY (TYP.)

MENASHA UTILITIES WATER (TYP.)

CITY OF MENASHA STREET LIGHTING (TYP.)

R/L 'MWB'

3'MEB'

15'RSB'

11'NB'

RETAINING WALL R-70-160

R/W

MAIN STREET

1'MEB'

2'MEB'

2'MWB'

15'RNB'

R/L

TDS & TWC

RETAINING WALL R-70-159

R/L 'MEB'

14'SB

FOX RIVER

R/W

STA 1+44.01 'MWB' = STA 1+87.50 'MEB'

BEGIN CONSTRUCTION STA 1+35.29 'MEB' MATCH EXISTING SAW CUT REQ'D

BERGSTROM PROPERTIES, INC.

SLOPE INTERCEPT (TYP)

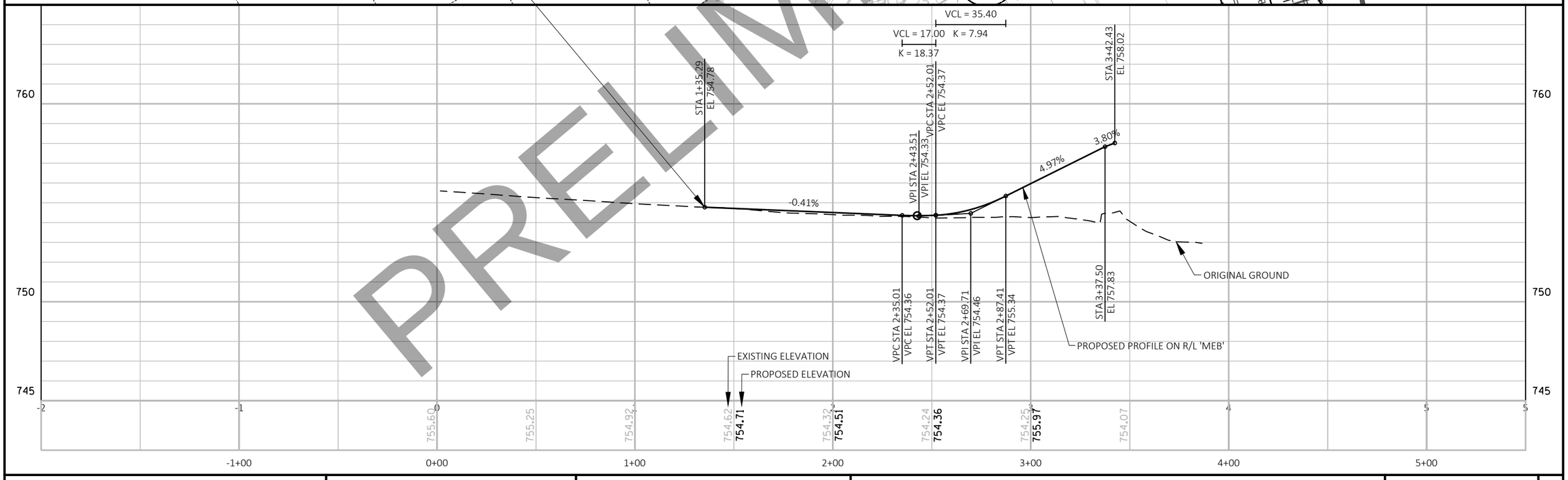
MENASHA ELECTRIC (TYP.)

STRUCTURE B-70-001 (TO BE REMOVED)

RACINE STREET

STRUCTURE B-70-324

N



PRELIMINARY

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: MAIN STREET EB	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\050101_PP_MAIN.DWG
LAYOUT NAME - 050101

PLOT DATE : 4/17/2020 10:39 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

5

5

CITY OF MENASHA STORM (TYP.)

DORIS A. SZYMANSKI REVOCABLE LIVING TRUST

DORIS A. SZYMANSKI REVOCABLE LIVING TRUST

R/W

CAUTION

CENTRURYLINK (TYP.)

AT&T (TYP.)

CITY OF MENASHA SANITARY (TYP.)

MENASHA UTILITIES WATER (TYP.)

CITY OF MENASHA STREET LIGHTING (TYP.)

R/L 'MWB'

R/W

MAIN STREET

1'MEB'

2'MEB'

2'MWB'

3'MWB'

4'MEB'

15'RNB'

11'NB'

15'RSB'

16'RNB'

12'NB'

TLE R/W

RETAINING WALL R-70-160

N

FOX RIVER

TDS & TWC

PROPOSED RETAINING WALL R-70-159

R/L 'MEB'

R/W

BEGIN CONSTRUCTION STA 1+35.29 'MEB' MATCH EXISTING SAW CUT REQ'D

BERGSTROM PROPERTIES, INC.

STA 1+44.01 'MWB' = STA 1+87.50 'MEB'

SLOPE INTERCEPT (TYP)

MENASHA ELECTRIC (TYP.)

STRUCTURE B-70-001 (TO BE REMOVED)

RACINE STREET

STRUCTURE B-70-324

PRELIMINARY

760

750

745

VCL = 6.29

K = 5.18

VCL = 30.00

K = 7.39

STA 1+44.01 EL 754.56

VPI STA 2+03.00'MWB' VPI EL 754.36

PROPOSED PROFILE ON R/L 'MWB'

VPC STA 2+72.50'MWB' VPC EL 756.49

VPI STA 2+87.50'MWB' VPI EL 757.23

VPT STA 3+02.50'MWB' VPT EL 757.31

0.54%

4.93%

-0.34%

0.88%

MATCH 'MEB' PROFILE AT STA 1+44.01 'MWB'

ORIGINAL GROUND

VPC STA 1+99.86'MWB' VPC EL 754.37

VPT STA 2+06.14'MWB' VPT EL 754.39

VPC STA 2+20.00'MWB' VPC EL 754.51

VPI STA 2+35.00'MWB' VPI EL 754.64

VPT STA 2+50.00'MWB' VPT EL 755.38

STA 3+02.89 EL 757.31

VCL = 30.00

K = 6.83

EXISTING ELEVATION

PROPOSED ELEVATION

754.44 **754.54**

754.24 **754.37**

754.27 **755.38**

754.80 **757.29**

-1+00 0+00 1+00 2+00 3+00 4+00 5+00

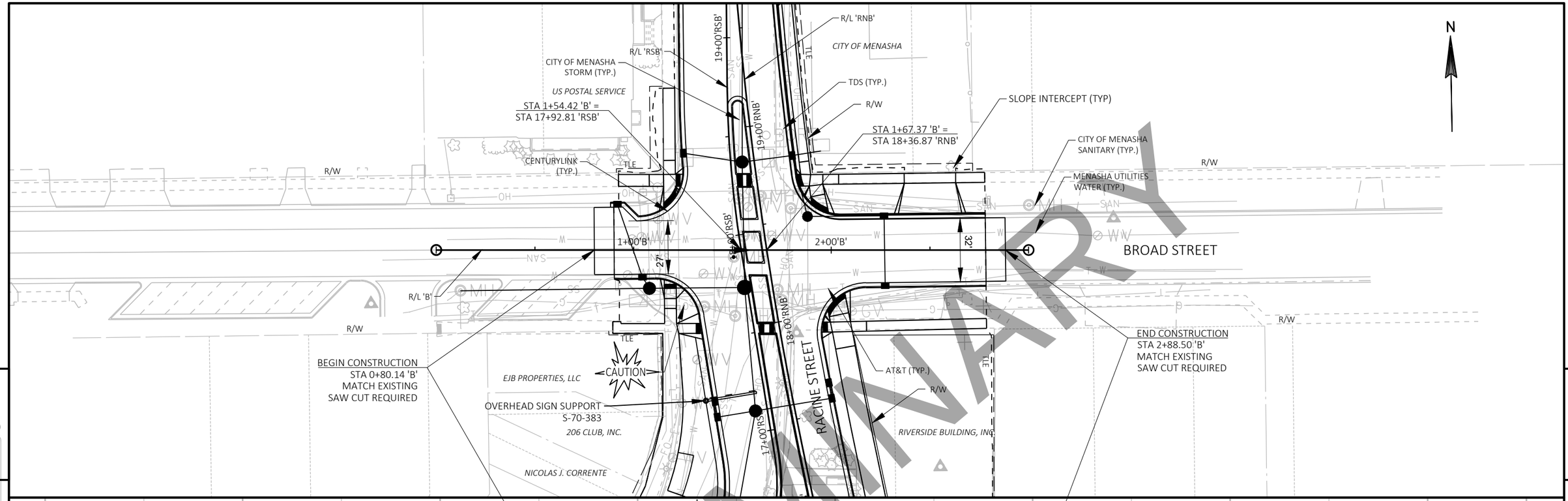
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: MAIN STREET WB	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\050101_PP_MAIN.DWG
LAYOUT NAME - 050102

PLOT DATE : 4/17/2020 10:39 AM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

DRAFT April 20, 2020

PRELIMINARY



PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	PLAN AND PROFILE: BROAD STREET	SHEET E

PRE_164

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\JESSICA.LANCELLE@AECOM.COM\D0117278\050101_PP_BROAD.DWG
LAYOUT NAME - 050101

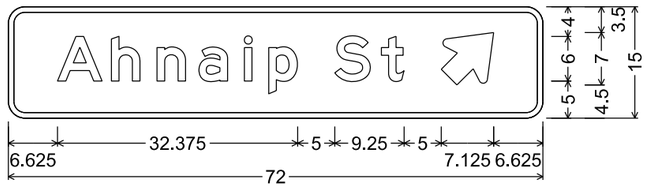
PLOT DATE : 4/16/2020 7:20 PM PLOT BY : LANCELLE, JESSICA PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 44

DRAFT April 20, 2020

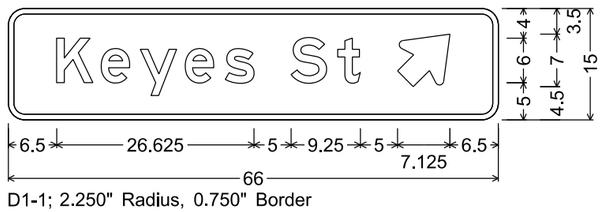
NOTES

1. All Signs Type II - Type H Reflective
2. Color:
   Background - Green except as noted
   Message - White except as noted
3. Message Series - E except as noted

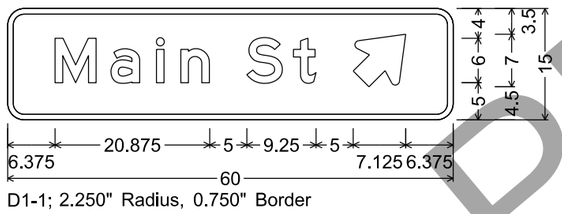


D1-1; 2.250" Radius, 0.750" Border

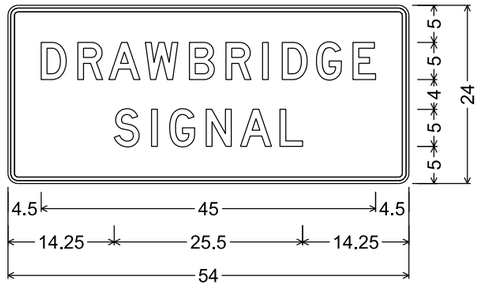
D1-1; 2.250" Radius, 0.750" Border



D1-1; 2.250" Radius, 0.750" Border

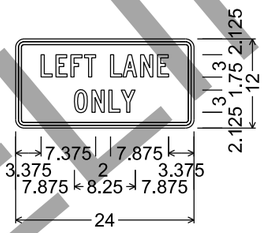


D1-1; 2.250" Radius, 0.750" Border



1.375" Radius, 0.500" Border, 0.375" Indent, Black on, White;
"DRAWBRIDGE", D; "SIGNAL", D

1.375" Radius, 0.500" Border, 0.375" Indent, Black on, White;
"MAIN", D; "ST", D



1.125" Radius, 0.375" Border, 0.375" Indent, Black on, White;
"LEFT", C; "LANE", C "ONLY", C;

PRELIMINARY

STATE PROJECT NUMBER
4992-03-71

RACINE STREET BRIDGE OVER FOX RIVER
CITY OF MENASHA
B-70-324

WINNEBAGO COUNTY

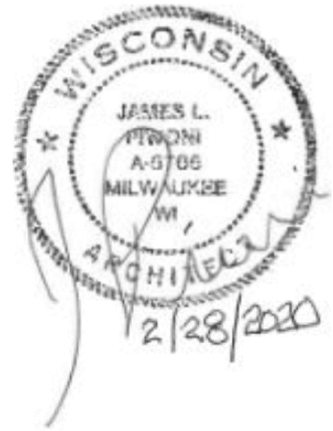
PRELIMINARY

DRAWINGS R01 THROUGH R43 PREPARED BY: WISDOT BUREAU OF STRUCTURES

DRAWINGS G01 THROUGH G15 & S01 THROUGH S56 PREPARED BY: AECOM

DRAWINGS P01 THROUGH P93 PREPARED BY: AECOM

DRAWINGS A01 THROUGH A24 PREPARED BY: ADI



DRAWINGS H01 THROUGH H10 PREPARED BY: IBC

DRAWINGS M01 THROUGH M19 PREPARED BY: AECOM

DRAWINGS E01 THROUGH E64 PREPARED BY: JACOBS

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
AARON BONK (608) 261-0261
CONSULTANT:
MICHAEL DELEMONT (414) 944-6200
MICHAEL ARNOLD (414) 944-6142

NO.	DATE	REVISION	BY

AECOM
1555 North Rivercenter Drive, Suite 214
Milwaukee, WI 53212
(414) 944-6080

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-70-324

RACINE STREET OVER FOX RIVER

COUNTY	TOWN/CITY/~~VILLAGE~~
WINNEBAGO	MENASHA

DESIGN SPEC. AASHTO LRFD DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
CEB	MJA/MAD	CEB/DNJ	MAD

TITLE SHEET

DRAWING G01 OF G15

PRE_166

8

8

DRAFT April 20, 2020
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$ PLOT TIME: $$...plottingtime...$$
PLOT DATE: $$...plottingdate...$$
BATCH PRINT SHEET CSD OF NSD

STATE PROJECT NUMBER

4992-03-71

GENERAL

G01 TITLE SHEET
G02 INDEX OF DRAWINGS
G03 GENERAL PLAN AND ELEVATION
G04 GENERAL NOTES 1 & DESIGN DATA
G05 GENERAL NOTES 2
G06 ESTIMATED QUANTITIES 1
G07 ESTIMATED QUANTITIES 2
G08 CROSS-SECTION, PROFILE & ALIGNMENT
G09 GENERAL PLAN AND ELEVATION BASCULE SPAN
G10 EXISTING STRUCTURE REMOVAL DETAILS - 1
G11 EXISTING STRUCTURE REMOVAL DETAILS - 2
G12 SUBSURFACE EXPLORATION 1
G13 SUBSURFACE EXPLORATION 2
G14 SUBSURFACE EXPLORATION 3
G15 SUBSURFACE EXPLORATION 4

APPROACH

R01 SOUTH ABUTMENT
R02 SOUTH ABUTMENT DETAILS 1
R03 SOUTH ABUTMENT DETAILS 2
R04 PIER 1
R05 PIER 1 DETAILS
R06 PIER 2
R07 PIER 2 DETAILS
R08 PIER 3
R09 PIER 3 DETAILS
R10 PIER 4
R11 PIER 4 DETAILS
R12 BEARING DETAILS
R13 72W" PRESTRESSED GIRDER DETAILS 1
R14 72W" PRESTRESSED GIRDER DETAILS 2
R15 72W" PRESTRESSED GIRDER BLOCKOUT DETAILS
R16 STEEL DIAPHRAGM
R17 SUPERSTRUCTURE CROSS SECTIONS AT SPANS 1-4
R18 SUPERSTRUCTURE DETAILS
R19 SOUTH ABUT. STRIP SEAL EXPANSION JOINT DETAILS
R20 SOUTH ABUTMENT COVER PLATE DETAILS
R21 PIER 4 STRIP SEAL EXPANSION JOINT DETAILS
R22 PIER 4 COVER PLATE DETAILS
R23 SUPERSTRUCTURE PLAN AT SPANS 1-3
R24 SUPERSTRUCTURE PLAN AT SPANS 3-4
R25 SUPERSTRUCTURE BAR DETAILS AT SPANS 1-4
R26 SUPERSTRUCTURE PLAN AT SPAN 5
R27 SUPERSTRUCTURE CROSS SECTIONS AT SPAN 5
R28 LONGITUDINAL SECTIONS AT SPAN 5
R29 SUPERSTRUCTURE DATA & BAR DETAILS AT SPAN 5
R30 DECK POURING SEQUENCE AND ELEVATIONS
R31 FLOOR DRAIN TYPE 'WF'
R32 RAIL POST & "WINDOW" SPACING AT SPANS 1-3
R33 RAIL POST & "WINDOW" SPACING AT SPANS 3-5
R34 WEST SINGLE SLOPE PARAPET 32SS & FOOTING DETAILS
R35 EAST SINGLE SLOPE PARAPET 32SS & FOOTING DETAILS
R36 PARAPET "WINDOW" DETAILS ON DECK & BAR DETAILS
R37 SINGLE SLOPE PARAPET 32SS ON SLAB DETAILS
R38 LIGHT PEDESTAL DETAILS 1
R39 LIGHT PEDESTAL DETAILS 2
R40 CONDUIT PLAN
R41 JUNCTION BOX DETAILS
R42 ELECTRICAL DETAILS AT JOINTS
R43 RIP RAP DETAILS

BASCULE SUPERSTRUCTURE

S01 BASCULE FRAMING PLAN AND SECTIONS
S02 BASCULE SPAN STRESS SHEET
S03 CLEARANCE DIAGRAM AT BASCULE GIRDER
S04 CLEARANCE DIAGRAM AT CENTERLINE OF BRIDGE
S05 CLEARANCE DIAGRAM AT TRAFFIC BARRIER
S06 RACK FRAME
S07 UPLIFT SUPPORT DETAILS
S08 TRACK GIRDER & REAR LOCK GRILLAGE
S09 TREAD FORGING & DETAILS
S10 TRACK FORGING & DETAILS
S11 NORTH LEAF BASCULE GIRDER ELEVATION - 1
S12 NORTH LEAF BASCULE GIRDER ELEVATION - 2
S13 SOUTH LEAF BASCULE GIRDER ELEVATION - 1
S14 SOUTH LEAF BASCULE GIRDER ELEVATION - 2
S15 BASCULE GIRDER DETAILS
S16 BASCULE ACCESS DOOR
S17 BASCULE GIRDER AT CENTERLOCK
S18 CENTER LOCK CASTINGS
S19 CONCRETE DECK OVER MACHINERY ROOM
S20 DECK DETAILS OVER MACHINERY ROOM
S21 STEEL GRID DECK - OVERFILLED PLAN
S22 STEEL GRID DECK - OVERFILLED DETAILS
S23 STEEL TRAFFIC BARRIER
S24 ROADWAY REAR BREAK
S25 ROADWAY REAR BREAK DETAILS
S26 CENTER BREAK DETAILS
S27 BASCULE SPAN LONGITUDINAL STRINGERS
S28 BASCULE SIDEWALK PLAN & ELEVATIONS
S29 SIDEWALK BREAK SECTIONS & DETAILS
S30 LATERAL BRACING PLAN
S31 FLOOR BEAM TRUSS 1
S32 MACHINERY ROOM ENCLOSURE
S33 BASCULE SPAN FLOOR BEAMS 2 & 3
S34 FLOOR BEAM 4
S35 COUNTERWEIGHT TRUSS A
S36 COUNTERWEIGHT TRUSS B & GIRDER C
S37 TOP COUNTERWEIGHT TRUSS
S38 BOTTOM COUNTERWEIGHT TRUSS
S39 NORTH LEAF CTWT. CROSS FRAMES & END PLATES
S40 SOUTH LEAF CTWT. CROSS FRAMES & END PLATES
S41 DECK OVER MACH. ROOM AND CTWT. BILL OF BARS - 1
S42 DECK OVER MACH. ROOM AND CTWT. BILL OF BARS - 2
S43 MACHINERY ROOM FLOOR FRAMING PLAN
S44 MACHINERY ROOM SECTIONS & DETAILS
S45 NORTH LEAF CTWT. CONC. FRONT ELEVATION
S46 SOUTH LEAF CTWT. CONC. FRONT ELEVATION
S47 COUNTERWEIGHT SECTION & BALANCING DIAG.
S48 COUNTERWEIGHT SECTIONS & DETAILS - 1
S49 COUNTERWEIGHT SECTIONS & DETAILS - 2
S50 NORTH LEAF COUNTERWEIGHT SECTIONS
S51 SOUTH LEAF COUNTERWEIGHT SECTIONS
S52 PEDESTRIAN RAILING PLAN - BASCULE SPAN (NORTH)
S53 PEDESTRIAN RAILING PLAN - BASCULE SPAN (SOUTH)
S54 PEDESTRIAN RAILING VIEWS - BASCULE SPAN 1
S55 PEDESTRIAN RAILING VIEWS - BASCULE SPAN 2
S56 PEDESTRIAN RAILING DETAILS

BASCULE PIER

P01 NORTH BASCULE ABUTMENT PLAN AT PIT LEVEL
P02 NORTH BASCULE ABUTMENT PLAN AT TRACK LEVEL
P03 NORTH BASCULE ABUTMENT PLAN AT MACHINERY LEVEL
P04 NORTH BASCULE ABUTMENT PLAN AT SIDEWALK LEVEL
P05 N. BASCULE ABUT. SECTION AT FIRST POSITION OF ROLL
P06 N. BASCULE ABUT. GENERAL APPROACH ELEVATION
P07 N. BASCULE ABUT. GENERAL CHANNEL ELEVATION
P08 N. BASCULE ABUT. GENERAL EAST & WEST ELEVATIONS
P09 N. BASCULE ABUT. GENERAL INTERIOR APPROACH WALL ELEVATION
P10 N. BASCULE ABUT. GENERAL INTERIOR CHANNEL WALL ELEVATION
P11 N. BASCULE ABUT. GENERAL EAST & WEST INTERIOR ELEVATIONS
P12 N. BASCULE ABUT. GENERAL SECTION AT ROADWAY & BARRIER
P13 N. BASCULE ABUT. GENERAL SECTIONS AT RACK FRAME & BASCULE GIRDER
P14 N. BASCULE ABUT. DRAINAGE PLAN AT PIT FLOOR
P15 N. BASCULE ABUT. DRAINAGE PLAN AT TRACK LEVEL
P16 OPERATOR HOUSE GENERAL FLOOR PLAN - 1
P17 OPERATOR HOUSE GENERAL FLOOR PLAN - 2
P18 OPERATOR HOUSE GENERAL NORTH AND EAST ELEVATIONS
P19 OPERATOR HOUSE GENERAL SOUTH AND WEST ELEVATIONS
P20 OPERATOR HOUSE GENERAL SECTIONS
P21 SOUTH BASCULE PIER PLAN AT PIT LEVEL
P22 SOUTH BASCULE PIER PLAN AT TRACK LEVEL
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PRELIMINARY

DRAFT April 20, 2020

BATCH PRINT SHEET CSD OF NSD
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PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

INDEX OF DRAWINGS

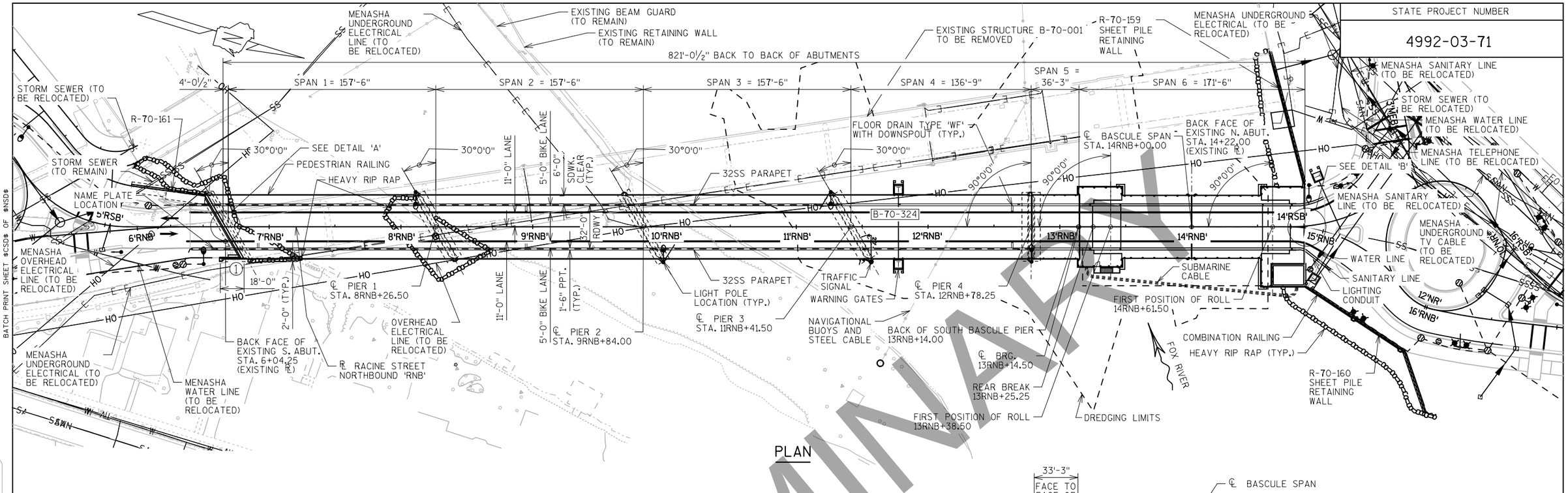
DRAWING PRE_167

8

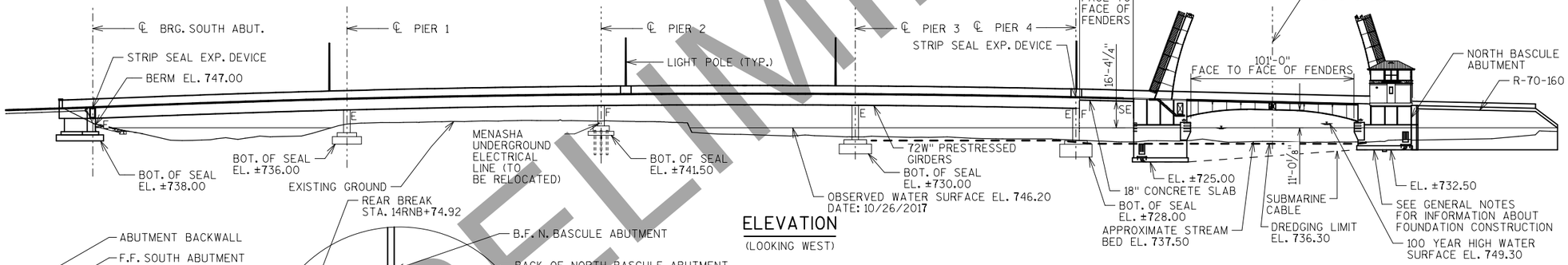
8

STATE PROJECT NUMBER

4992-03-71

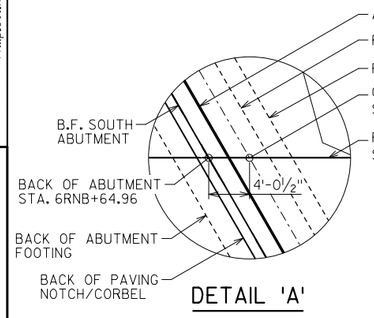


PLAN

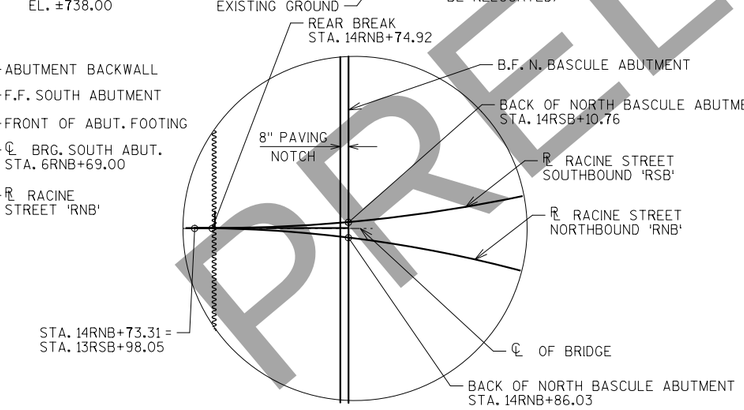


ELEVATION

(LOOKING WEST)



DETAIL 'A'



DETAIL 'B'

NOTES

DIMENSIONS SHOWN ARE ALONG ℄.

SPAN LENGTHS SHOWN ARE MEASURED ALONG ℄.

ALL UNITS ARE IN FEET UNLESS OTHERWISE NOTED.

① INDICATES WING WALL NUMBER.

LEGEND

F = FIXED
E = EXPANSION
SE = SEMI-EXPANSION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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GENERAL PLAN AND ELEVATION

DRAWING PRE_168

DRAFT April 20, 2020

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BATCH PRINT SHEET CSD OF NSD
DRAFT April 20, 2020
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
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STATE PROJECT NUMBER

4992-03-71

GENERAL NOTES:

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS ARE IN SURVEY FEET.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), WINNEBAGO COUNTY - NAD 1983 (1991).

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

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR CONSIDERED ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153, TYPE I, II, OR III OR M213.

THE STREAM BED AND BANK IN FRONT OF THE SOUTH ABUTMENT AND PIER 1 SHALL BE COVERED WITH RIPRAP AS SHOWN ON THE "GENERAL PLAN AND ELEVATION" SHEET AND "RIP RAP DETAILS" SHEET.

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

COORDINATE TIMING OF PIER 4 CONSTRUCTION WITH THE U.S. ARMY CORPS OF ENGINEERS TO FACILITATE INSTALLATION OF NEW NAVIGATION CABLE ATTACHED TO PIER 4.

DESIGN CRITERIA

DESIGN IS IN ACCORDANCE WITH AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS, AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) MOVABLE HIGHWAY BRIDGE DESIGN SPECIFICATIONS AND THE WISDOT BRIDGE MANUAL.

ALL DETAILS, MATERIALS, AND FABRICATION SHALL CONFORM TO THE STATE OF WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. USE THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

LIVE LOAD PLUS DYNAMIC LOAD DEFLECTION LIMIT = SPAN / 800 (HL93).

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA = 6,030 SQ. MI.
Q100 = 9,700 CFS
VELOCITY 100 = 2.8 FT/SEC
WATERWAY AREA = 3464 SQ. FT.
HIGH WATER 100 ELEVATION = 749.30
SCOUR CRITICAL CODE = 5
REGULATORY HIGH WATER = 749.3
OVERTOPPING N/A

2 YEAR FREQUENCY
Q2 = 7,100 CFS
VELOCITY 2 = 2.0 FT/SEC
HIGH WATER 2 ELEVATION = 749.19

TRAFFIC DATA:

RACINE STREET:
A.D.T. = 11,300 (2012)
A.D.T. = 12,900 (2030)
R.D.S. = 30 M.P.H.

FOUNDATION DATA

SOUTH ABUTMENT, PIERS 1, 3, 4, SOUTH BASCULE PIER AND NORTH BASCULE ABUTMENT TO BE SUPPORTED BY SPREAD FOOTINGS ON BEDROCK OR HARD MATERIAL AS SPECIFIED WITH A REQUIRED FACTORED BEARING RESISTANCE LISTED IN THE TABLE BELOW. KEY FOOTINGS INTO BEDROCK OR HARD MATERIAL AS SPECIFIED. NOTIFY THE REGION SOILS ENGINEER TO DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE FOOTINGS.

PIER 2 TO BE SUPPORTED ON PILING STEEL HP 12X53 PREBORED INTO BEDROCK. ESTIMATED 15 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. (PREBORING REQUIRED. ESTIMATED 11.5 FEET OF PREBORING PER PILE, MEASURED FROM BOTTOM OF SEAL ELEVATION TO BEDROCK. TEMPORARY CASING IS LIKELY NEEDED DUE TO THE PRESENCE OF WATER.)

LOCATION	REQ'D FACTORED BEARING RESISTANCE (PSF)
S. ABUT.	15,000
PIER 1	12,000
PIER 3	11,000
PIER 4	9,000
S. BASCULE PIER	35,000
N. BASCULE ABUTMENT	35,000

REQUIRED FACTORED BEARING RESISTANCE

DESIGN DATA

LIVE LOAD
DESIGN RATING: HL-93
APPROACH SPANS
INVENTORY RATING: 1.06
OPERATING RATING: 1.68

BASCULE SPAN
INVENTORY RATING: 1.42
OPERATING RATING: 1.84

MAXIMUM STANDARD PERMIT VEHICLE LOAD = 250 KIPS

MATERIAL PROPERTIES:

CONCRETE MASONRY	
SUPERSTRUCTURE	f'c = 4,000 PSI
CONCRETE COUNTERWEIGHT	f'c = 4,000 PSI
BASCULE PIER AND ABUTMENT AT TRACK	f'c = 6,000 PSI
ALL OTHER	f'c = 3,500 PSI
BAR STEEL REINFORCEMENT, HIGH STRENGTH, GRADE 60	fy = 60,000 PSI
STRUCTURAL STEEL, AASHTO M270, GRADE 50	fy = 50,000 PSI
STEEL TREAD AND TRACK FORGINGS A668 CLASS J	fy = 65,000 PSI fu = 90,000 PSI
STEEL STAIRS, PLATFORM & PLATFORM FRAMING AASHTO M270, GRADE 36	fy = 36,000 PSI
72W-INCH PRESTRESSED GIRDERS, CONCRETE MASONRY	f'c = 8,000 PSI f'ci = 7,000 PSI

PRESTRESSING STRANDS 0.6" DIAM., LOW RELAXATION ULTIMATE TENSILE STRENGTH OF 270 ksi

OTHER DESIGN LOADS

THE STRUCTURE IS DESIGNED FOR THE DECK THICKNESS SHOWN. AN ADDITIONAL LOAD OF 20 PSF FOR A FUTURE WEARING SURFACE IS CONSIDERED IN THE DESIGN.

TEMPERATURE CHANGE FOR DETERMINING THERMAL FORCES ON SUBSTRUCTURES = 55°F.

PARAPETS WERE ASSUMED TO WEIGH 464 PLF FOR 32SS SECTIONS.

ALL OTHER LOADS IN ACCORDANCE WITH AASHTO.

STRUCTURAL STEEL

STRUCTURAL STEEL IS AASHTO M 270, GRADE 50, UNLESS NOTED OTHERWISE.

SHOP CONNECTIONS TO BE WELDED OR H.S. BOLTED AS SHOWN ON THE PLANS. H.S. BOLTS SHALL BE 7/8"ϕ ASTM F3125 GRADE A325, TYPE 1, SLIP CRITICAL TYPE CONNECTIONS, UNLESS NOTED OTHERWISE ON THE PLANS.

FIELD CONNECTIONS TO BE BOLTED WITH 7/8"ϕ ASTM F3125 GRADE A325, TYPE 1 SLIP CRITICAL TYPE CONNECTIONS, UNLESS NOTED OTHERWISE ON THE PLANS.

SHOP DRAWINGS TO INDICATE WHICH CONNECTIONS ARE TO BE MADE IN THE SHOP AND WHICH CONNECTIONS ARE TO BE MADE IN THE FIELD. PERMANENT SHOP BOLTED CONNECTIONS SHALL BE FULLY TIGHTENED BY THE FABRICATOR.

GALVANIZE ALL BOLTS AND NUTS, INCLUDING BOLTS AND ANCHOR BOLTS THAT ARE TO BE PAINTED, UNLESS NOTED OTHERWISE ON THE PLANS, REFER TO SPECIAL PROVISIONS AND STANDARD SPECIFICATIONS FOR REQUIREMENTS.

GALVANIZE PARTS TO BE SHOP ASSEMBLED WITH H.S. BOLTS PRIOR TO SHOP ASSEMBLY.

WELDING THAT IS NOT SHOWN ON THE PLANS WILL NOT BE PERMITTED EXCEPT BY WRITTEN PERMISSION FROM THE ENGINEER AND AN APPROVED WELD PROCEDURE.

WHEREVER SHIMS ARE SPECIFIED ON THE PLANS, THE NOMINAL, OR THEORETICAL, THICKNESS "T" IS INDICATED. FURNISH SHIM PACK THICKNESS EQUAL TO 2 TIMES THE NOMINAL THICKNESS OF THE FOLLOWING MATERIAL THICKNESS: T, T/2, T/4, T/8, T/16, ETC., UNLESS NOTED OTHERWISE ON THE PLANS. USE 1/16-INCH INCREMENTS FOR STRUCTURAL STEEL CONNECTIONS FOR PARTS NOT HAVING MACHINED SURFACES.

ALL FIELD INSTALLED 7/8X4-INCH STUDS WILL BE PAID FOR UNDER THE BID ITEM "WELDED STUD SHEAR CONNECTORS 7/8X4-INCH". ALL OTHER STUDS WILL BE INCLUDED IN THE COST OF "STRUCTURAL STEEL BRIDGE".

REINFORCING STEEL

REINFORCING SHALL BE HIGH STRENGTH, GRADE 60 WITH Fy=60 ksi. PROVIDE STAINLESS STEEL REINFORCEMENT CONFORMING TO ASTM A615, GRADE 60 REQUIREMENTS.

UNLESS OTHERWISE NOTED, REINFORCING BARS ARE ENGLISH AND THE FIRST OR THE FIRST TWO DIGITS OF THE BAR MARK SIGNIFY THE BAR SIZE.

THE FIRST DIGIT OF A SEVEN DIGIT BAR MARK INDICATES THE STRUCTURE, THE SECOND DIGIT INDICATES THE POUR WITHIN THE SPECIFIC STRUCTURE, THE THIRD AND FOURTH DIGITS INDICATE THE BAR SIZE, THE FIFTH AND SIXTH DIGITS INDICATE THE BAR NUMBER AND THE SEVENTH DIGIT INDICATES THE BEND TYPE (SEE KEY).

THE TOTAL LENGTH OF THE REINFORCEMENT BARS SHOWN ON THE REINFORCEMENT BAR DETAIL DRAWINGS INCLUDES BEND CORRECTION FOR BENT BARS AND THE DIMENSIONS SHOWN ARE OUT TO OUT.

REINFORCING STEEL SHALL BE UNCOATED IN FOOTINGS (EXCEPT PIER SHAFT DOWELS) AND EPOXY COATED IN ALL OTHER LOCATIONS (INCLUDING PIER SHAFT DOWELS AND PIER WALLS).

ONLY REINFORCEMENT REQUIRED BY DESIGN IS SHOWN EXPLICITLY ON THE DRAWINGS. ADDITIONAL REINFORCEMENT MAY BE USED TO SIMPLIFY ASSEMBLY AND ERECTION OF THE REINFORCING STEEL AND MAY BE REQUIRED TO ENSURE STABILITY AND POSITIONING OF THE COMPLETED REINFORCEMENT CAGE. REINFORCEMENT IN ADDITION TO THAT SHOWN WILL NOT BE INCLUDED FOR PAYMENT, BUT SHALL MEET ALL ABOVE REQUIREMENTS.

LAP SPLICE LENGTHS SHALL BE CLASS C UNLESS NOTED OTHERWISE.

BEND OR MOVE REINFORCING BARS IN FIELD TO CLEAR HANDHOLES, AND CONDUITS AS REQUIRED.

THE MINIMUM CLEAR COVER FOR BAR STEEL REINFORCEMENT IN THE BASCULE SPAN SHALL BE AS FOLLOWS UNLESS NOTED OR SHOWN OTHERWISE ON THE PLANS:

SIDEWALK SLABS:	TOP:	2½"
	BOTTOM:	1½"
ROADWAY SLABS:	TOP:	2½"
	BOTTOM:	1½"
BASCULE PIER & ABUTMENT FOOTINGS:	BOTTOM:	3"
BASCULE PIER & ABUTMENT WALLS:	OUTSIDE:	2"
	INSIDE"	1½"
OPERATOR'S HOUSE: WALLS-	OUTSIDE	2"
	INSIDE:	1½"
SLABS-	TOP:	1½"
	BOTTOM:	1½"
ALL OTHER LOCATIONS:		2"

PROVIDE FOR TESTING PURPOSES, AN ADDITIONAL 8 FEET FOR EACH BAR SIZE OF EPOXY COATED BARS. THE COST IS INCIDENTAL TO "BAR STEEL REINFORCEMENT HS COATED BRIDGES",

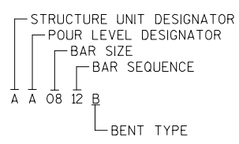
THE FOLLOWING DESIGNATIONS INDICATE AT WHICH FACE BAR STEEL REINFORCEMENT IS LOCATED:

N.F.	DENOTES NEAR FACE
F.F.	DENOTES FAR FACE
E.F.	DENOTES EACH FACE
T & B	DENOTES TOP AND BOTTOM FACES.

STRUCTURE UNIT	LETTER DESIGNATION
S. ABUT.	A
PIER 1	P
PIER 2	T
PIER 3	H
PIER 4	R
SPANS 1-4 SUP.	S
SPAN 5 SUP.	F
APP. W. BARRIER	W
APP. E. BARRIER	E
PEDESTAL	K
N. BASCULE ABUT.	A*
S. BASCULE PIER	P*
BASCULE SPAN LEAF	L*
E. BARRIER	M
W. BARRIER	N

STRUCTURE UNIT DESIGNATOR FOR REINFORCEMENT BAR

* INDICATES STRUCTURE UNIT FOLLOWS 7 LETTER/DIGIT REINFORCEMENT BAR DESIGNATION



REINFORCEMENT BAR DESIGNATION KEY

(FOR STRUCTURE UNITS INDICATED WITH *)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB/DNJ | PLANS CK'D. MAD

GENERAL NOTES 1 & DESIGN DATA

DRAWING G15

PRE_169

PRELIMINARY

8

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BATCH PRINT SHEET CSD OF NSD
DRAFT April 20, 2020
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

STATE PROJECT NUMBER

4992-03-71

CONCRETE

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

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH.

CHAMFER ALL EXPOSED OUTSIDE CORNERS ¾" UNLESS NOTED OTHERWISE.

PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED TO THE TOP OF THE DECK AND SIDEWALK SURFACES, EDGE OF DECK SURFACES, AND OUTER 1'-0" OF BOTTOM OF DECK SURFACES.

PIGMENTED SURFACE SEALER IS TO BE APPLIED TO ALL SURFACES OF THE 32SS PARAPETS.

CONCRETE FOR ABUTMENT AND EXPANSION PIER DIAPHRAGMS SHALL BE PLACED WITH THE DECK CONCRETE. DECK CONCRETE TO BE PLACED WITHIN 2 WEEKS OF DIAPHRAGM CONCRETE AT FIXED PIER LOCATIONS.

APPLY BRIDGE SEAT PROTECTION, AS PER SECTION 502.3.12 OF THE STANDARD SPECIFICATIONS, TO THE TOP SURFACES OF ALL ABUTMENTS AND PIERS BELOW EXPANSION DEVICES.

CONCRETE FOR THE SIDEWALK POUR ON SPAN 5 SHALL UTILIZE COARSE AGGREGATE CONSISTING ENTIRELY OF SIZE NO. 1 AS DEFINED IN THE STANDARD SPECIFICATIONS SECTION 501.2.5.4.5.

SET THE ANCHOR BOLTS BUILT INTO THE MASONRY ACCURATELY TO A TEMPLATE. ADJUST THE REINFORCING STEEL AS REQUIRED TO PERMIT PLACING OF THE ANCHOR BOLTS.

CONTINUOUS POURING OF CONCRETE WILL BE REQUIRED BETWEEN THE CONSTRUCTION JOINTS DESIGNATED ON THE PLANS. NO UNAUTHORIZED CONSTRUCTION JOINTS WILL BE PERMITTED. THE CONTRACTOR MAY NOT ELIMINATE CONSTRUCTION JOINTS WITHOUT PRIOR WRITTEN AUTHORIZATION BY THE ENGINEER.

THE SIZES AND LOCATIONS OF ALL OPENINGS AND/OR SLEEVES FOR ELECTRICAL, WATER, DRAINAGE, GAS AND OTHER SUCH ITEMS SHALL SUIT THE UNITS AND MATERIALS BEING FURNISHED FOR THE PROJECT. PROVIDE GALVANIZED STEEL PIPE SLEEVES.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN THAT ALL MATERIALS TO BE EMBEDDED ARE ON HAND AND THAT ALL OPENING DATA IS AVAILABLE BEFORE A PARTICULAR CONCRETE POUR IS MADE.

PROVIDE STRIKE-OFF STRIPS AND SET TO TRUE HORIZONTAL LINES OR TO THE GRADE SHOWN ON THE PLANS FOR ALL CONSTRUCTION JOINTS IN EXPOSED VERTICAL FACES.

USE 3/4" BEVELS AT ALL RIGHT-ANGLE CORNERS, UNLESS SHOWN OTHERWISE ON THE PLANS.

COST OF FORMING INSET LINES IN CONCRETE OF PIERS, ABUTMENTS, AND WINGWALLS WILL BE CONSIDERED AS INCLUDED IN UNIT COST BID FOR BID ITEM "CONCRETE MASONRY BRIDGES".

EXCAVATION, BACKFILL AND DEWATERING

CONSTRUCTION OF THE SUBSTRUCTURE FOUNDATIONS BELOW WATER WILL REQUIRE A DEWATERING SYSTEM THAT WILL ALLOW THEM TO BE BUILT DIRECTLY ON TOP OF BEDROCK. CONSTRUCTION OF A CONCRETE SEAL MAY NOT BE FEASIBLE AT SOME LOCATIONS DUE TO THE EXTENT OF ROCK EXCAVATION THAT WOULD BE REQUIRED. FIRM SEATING OF STEEL COFFERDAM SHEETING MAY NOT BE FEASIBLE AT SOME LOCATIONS DUE TO LIMITED WATERWAY BOTTOM MATERIAL OVERLYING BEDROCK. THE DESIGN OF THE DEWATERING SYSTEM IS THE CONTRACTOR'S RESPONSIBILITY. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS, INCLUDING SHEETING IF USED, IS INCLUDED IN THE PAY ITEM "SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM (UNIT)".

EXCAVATION FOR ALL MATERIAL WITHIN THE DEWATERING SYSTEM FOR THE SOUTH ABUTMENT AND PIER 2 IS PAID FOR UNDER THE BID ITEM "EXCAVATION FOR STRUCTURES".

EXCAVATION FOR ALL MATERIAL WITHIN THE DEWATERING SYSTEM FOR PIER 1 IS PAID FOR UNDER THE BID ITEMS "EXCAVATION, HAULING, AND DISPOSAL OF RIVER MATERIAL AT SUBSTRUCTURES" AND "EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL (DIRECT LANDFILL)".

EXCAVATION FOR ALL MATERIAL WITHIN THE DEWATERING SYSTEM FOR PIERS 3 AND 4 IS PAID FOR UNDER THE BID ITEM "EXCAVATION, HAULING, AND DISPOSAL OF RIVER MATERIAL AT SUBSTRUCTURES".

EXCAVATION FOR ALL MATERIAL BETWEEN THE DREDGED ELEVATION DOWN TO THE TOP OF DOLOMITE ROCK WITHIN THE DEWATERING SYSTEM FOR THE BASCULE PIER AND BASCULE ABUTMENT IS PAID FOR UNDER THE BID ITEM "EXCAVATION, HAULING, AND DISPOSAL OF RIVER MATERIAL AT SUBSTRUCTURES". REMOVAL OF ROCK MATERIAL FROM THE TOP OF DOLOMITE ROCK DOWN TO THE PLAN BOTTOM OF FOOTING ELEVATION IS PAID FOR UNDER THE BID ITEM "EXCAVATION ROCK". HORIZONTAL PAY LIMITS FOR EXCAVATION OF ALL MATERIAL WITHIN THE BASCULE SUBSTRUCTURE DEWATERING SYSTEM IS 3' OUTSIDE THE PLAN FOOTING OUTLINE, EXCEPT WHERE THE FOOTING IS KEYED INTO SOUND ROCK, WHERE THE PAY LIMIT IS THE FOOTING OUTLINE. EXCAVATION OUTSIDE OF THESE LIMITS IS INCIDENTAL TO THE ASSOCIATED BID ITEMS AND WILL NOT BE PAID EXTRA.

BLASTING METHODS WILL NOT BE ALLOWED FOR REMOVAL OF MATERIAL, INCLUDING BEDROCK, UNDER NEW SUBSTRUCTURE FOUNDATIONS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-70-324" SHALL BE THE EXISTING GROUNDLINE OR STREAM BED.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

AT SUBSTRUCTURE LOCATIONS WITHIN THE WATERWAY, THE SPACE BETWEEN THE TEMPORARY DEWATERING SYSTEM AND THE FINISHED SUBSTRUCTURE, MUST BE BACKFILLED UP TO THE FINAL DREDGED ELEVATION. FOR THESE LOCATIONS ONLY, THE ORIGINAL MATERIAL EXCAVATED MAY BE USED AS BACKFILL. PAYMENT IS INCLUDED WITH THE TEMPORARY DEWATERING SYSTEM BID ITEM FOR THE RESPECTIVE SUBSTRUCTURE.

BASCULE SUPERSTRUCTURE

THE FRACTURE CONTROL PLAN IS APPLICABLE TO ALL FRACTURE CRITICAL MATERIAL DESIGNATED "FCM".

FOR FABRICATION AND ASSEMBLY OF ROLLING SEGMENTS OF BASCULE GIRDERS, SEE SPECIAL PROVISIONS.

SEE SPECIAL PROVISIONS FOR CONNECTIONS OF TREAD FORGING TO GIRDER FLANGES

SUPPORT AND SECURE BASCULE GIRDERS ADEQUATELY DURING SHIPMENT.

SEE CLEARANCE DIAGRAMS FOR RELATION OF MOVING PARTS TO FIXED PARTS.

NATURAL CAMBER OF ROLLED SECTIONS SHALL BE UP.

FLOOR BEAMS AND COUNTERWEIGHT TRUSSES A, B AND C ARE TO BE VERTICAL.

IN THE DIRECTION OF FLANGE WIDTH, THE TOP FLANGES OF COUNTERWEIGHT TRUSSES A AND B ARE TO BE PARALLEL TO THE PROFILE GRADE LINE. THIS MAY BE ACCOMPLISHED BY BENDING THE FLANGE ANGLES ABOUT THEIR FILLETS.

CONNECT ROADWAY LATERAL BRACING FROM FLOOR BEAM 1 TO FLOOR BEAM 4 TO EACH ROADWAY STRINGER. ALL HOLES FOR LATERAL BRACING BETWEEN FLOOR BEAM 3 AND FLOOR BEAM 4 ARE FIELD DRILLED, INCLUDING CONNECTION AT GUSSET PLATES.

BOLT HOLES FOR PRIMARY CONNECTIONS ARE SUBDRILLED AND REAMED TO SIZE IN ASSEMBLY OR DRILLED FULL SIZE FROM THE SOLID WHILE IN ASSEMBLY. FIELD CONNECTIONS WHICH MATE TO OTHER PARTS OF THE STRUCTURE ARE DRILLED FROM THE SOLID USING A STEEL TEMPLATE.

FINISH DESIGNATIONS SHOWN ON THE PLANS REFER TO ANSI STANDARD B46.1.

THE FOLLOWING PORTIONS OF THE BASCULE GIRDER CARRY TENSION STRESSES:

TOP AND BOTTOM FLANGES - ENTIRE LENGTH
WEB - ENTIRE LENGTH

INSPECT WELDS MARKED 100% U.T. WITH ULTRASONIC METHOD.

INSPECT WELDS MARKED 100% M.T. WITH MAGNETIC PARTICLE METHOD.

ALL OTHER WELDS ARE SUBJECT TO INSPECTION IN ACCORDANCE WITH ARTICLE 506.3.19.2 OF THE STANDARD SPECIFICATIONS. ALL ULTRASONIC INSPECTIONS SHALL BE WITNESSED BY A REPRESENTATIVE OF WISCONSIN DEPARTMENT OF TRANSPORTATION.

CLIP ALL STIFFENERS INTERIOR CORNERS A MINIMUM OF 1-1/4" X 1-1/2" TO AVOID INTERSECTING WELDS, UNLESS NOTED OTHERWISE ON THE PLANS.

"COUNTERWEIGHT CONCRETE" SHALL BE GRADE A CONCRETE IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

GALVANIZE AND PAINT ALL STEEL IN CENTER BREAK WELDMENT, REAR BREAK WELDMENT, STEEL TRAFFIC BARRIERS, STRINGERS ALONG LINES a & g, FASCIA SIDEWALK STRINGER, INTERMEDIATE SIDEWALK BRACKET BETWEEN EXTERIOR STRINGER AND BASCULE GIRDER, ENDS OF FLOOR BEAMS AND LATERAL BRACING WITHIN 5'-0" OF THE BASCULE GIRDER, AND ALL ASSOCIATED PLATES, CONNECTION ANGLES AND CONNECTION PLATES. SUBMIT PROCEDURE TO THE ENGINEER FOR PROPER SURFACE PREPARATION OF GALVANIZED SURFACES PRIOR TO PAINTING.

BASCULE SUBSTRUCTURE

POURS AT THE TRACK PLATE AND THE SIDEWALK POURS OVER THE RACK SUPPORTS ARE TO BE MADE AFTER THE GRILLAGES, TRACK PLATES, AND RACK SUPPORTS HAVE BEEN ERECTED, ALIGNED AND FINAL BOLTED. PROVIDE TEMPORARY LATERAL SUPPORT FOR THE RACK FRAMING UNTIL SIDEWALK POUR IS MADE.

CONCRETE POURS AT REAR LOCKS ARE TO BE MADE AFTER THE BASE FOR THE REAR LOCKS AND GRILLAGES HAVE BEEN ERECTED AND ADJUSTED TO FINAL POSITION.

USE POLYVINYLCHLORIDE (PVC) WATERSTOPS MEETING THE REQUIREMENTS OF SECTION 502.2.5 OF THE STANDARD SPECIFICATIONS. PLACE WATERSTOPS IN ALL VERTICAL AND HORIZONTAL CONSTRUCTION JOINTS BETWEEN ELEVATION 732.50 AND 750.00 FOR THE NORTH BASCULE ABUTMENT, AND 725.00 AND 746.50 FOR THE SOUTH BASCULE PIER. USE 6" X ⅜" FLAT DUMBBELL TYPE WATERSTOPS OR AN APPROVED EQUAL. USE CONTINUOUS WATERSTOP AND INTERCONNECTED AT INTERSECTIONS. USE FACTORY MADE SPLICES AND INTERSECTIONS. LOCATE THE WATERSTOPS SO AS NOT TO INTERFERE WITH EMBEDDED STEEL AND REINFORCEMENT.

THE FOLLOWING ITEMS ARE INCIDENTAL TO THE COST OF "CONCRETE MASONRY BRIDGES":

TIMBER BUMPING BLOCKS
WATERSTOPS
JOINT SEALER & JOINT FILLER
PIPE SLEEVES
TIMBER SUPPORTS FOR SUBMARINE CABLES
NON-SLIP NOSINGS AT STAIRS WITHIN PIER/ABUT.
BRIDGE SEAT PROTECTION

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SOCKETS FOR PIPE HANDRAIL POSTS ARE SET CORRECTLY PRIOR TO POURING CONCRETE.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

DRAWING G15

GENERAL NOTES 2 PRE_170

8

8

STATE PROJECT NUMBER
4992-03-71

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEM	UNIT	SOUTH APPROACH	SOUTH ABUTMENT	PIER 1	PIER 2	PIER 3	PIER 4	APPROACH SPAN SUPER.	SOUTH BASCULE PIER	NORTH BASCULE ABUTMENT	BASCULE SPAN SUPER.	NORTH APPROACH	TOTALS
	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 6+04	LS	—	—	—	—	—	—	—	—	—	—	—	1
	205.0200	EXCAVATION ROCK	CY	—	—	—	—	—	—	—	221	82	—	—	303
	206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
	206.1050.S	UNDERWATER FOUNDATION INSPECTION SOUTH ABUTMENT	EACH	—	1	—	—	—	—	—	—	—	—	—	1
	206.1050.S	UNDERWATER FOUNDATION INSPECTION PIER 1	EACH	—	—	1	—	—	—	—	—	—	—	—	1
	206.1050.S	UNDERWATER FOUNDATION INSPECTION PIER 3	EACH	—	—	—	—	1	—	—	—	—	—	—	1
	206.1050.S	UNDERWATER FOUNDATION INSPECTION PIER 4	EACH	—	—	—	—	—	1	—	—	—	—	—	1
	210.1500	BACKFILL STRUCTURE TYPE A	TON	—	660	—	—	—	—	—	—	—	—	1,834	2,494
	310.0110	BASE AGGREGATE OPEN GRADED	TON	—	—	—	—	—	—	—	—	—	—	1,677	1,677
	501.1000.S	ICE HOT WEATHER CONCRETING	LB	113	1,373	1,328	1,350	1,815	1,703	10,230	9,188	9,090	135	72	36,284
	502.0100	CONCRETE MASONRY BRIDGES	CY	15	183	177	180	242	227	1,364	1,225	1,212	18	10	4,838
	502.1100	CONCRETE MASONRY SEAL	CY	—	450	190	99	326	342	—	—	—	—	—	1,407
	502.3101	EXPANSION DEVICE B-70-324	LF	—	—	—	—	—	—	69	—	—	—	—	69
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	—	25	—	—	—	—	3,650	20	—	770	—	4,465
	502.3210	PIGMENTED SURFACE SEALER	SY	35	—	—	—	—	—	925		—	86	20	1,031
	502.4104	ADHESIVE ANCHORS 1/2-INCH	EACH	—	—	—	—	—	—	—	—	40	—	—	40
	502.9000.S	UNDERWATER SUBSTRUCTURE INSPECTION B-70-324	EACH	—	1	1	—	1	1	—	—	—	—	—	4
	503.0172	PRESTRESSED GIRDER TYPE I72W-INCH	LF	—	—	—	—	—	—	4,270	—	—	—	—	4,270
	505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	—	4,250	3,040	4,140	4,230	3,890	—	130,270	153,115	—	—	302,935
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,910	9,800	17,440	16,960	23,580	22,460	305,220	144,790	166,280	44,948	1,270	752,748
	505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	—	—	—	—	—	—	100		—	—	—	100
	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	—	—	—	—	—	—	14	—	—	—	—	14
	506.2610	BEARING PADS ELASTOMERIC LAMINATED	EACH	—	—	—	—	—	—	42	—	—	—	—	42
	506.3005	WELDED STUD SHEAR CONNECTORS 7/8X4-INCH	EACH	—	—	—	—	—	—	—	132	132	1,482	—	1,746
	506.4000	STEEL DIAPHRAGMS B-70-324	EACH	—	—	—	—	—	—	48	—	—	—	—	48
	514.0450	FLOOR DRAINS TYPE WF	EACH	—	—	—	—	—	—	6	—	—	—	—	6
	514.2608	DOWNSPOUT 8-INCH	LF	—	—	—	—	—	—	40	—	—	—	—	40
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	—	13	—	—	—	—	—	50	118	—	—	181
	517.0600	PAINTING EPOXY SYSTEM B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
	550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	—	—	—	368	—	—	—	—	—	—	—	368
	550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	—	—	—	480	—	—	—	—	—	—	—	480
	606.0100	RIPRAP LIGHT	CY	—	—	—	—	—	—	—	190	190	—	—	380
	606.0300	RIPRAP HEAVY	CY	—	145	130	—	—	—	—	—	—	—	—	275
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	—	85	—	—	—	—	—	—	—	—	—	85
	645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	—	—	—	—	—	—	—	—	310	—	—	310
	645.0120	GEOTEXTILE TYPE HR	SY	—	250	210	—	—	—	—	—	—	—	—	460
*	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	—	—	—	—	—	—	240	4	—	—	—	244
*	652.0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF	—	—	—	—	—	—	110	—	—	—	—	110
*	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	120	—	—	—	—	—	2,455	—	—	—	—	2,455
	653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	—	—	—	—	—	—	10	1	—	—	—	11
	657.6005	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	—	—	—	—	—	—	5	—	—	—	—	5

* ALL CONDUIT ON THE BASCULE SPAN, BASCULE PIER AND BASCULE ABUTMENT TO BE INCLUDED IN THE BID ITEM "ELECTRICAL WORK B-70-324".

PRELIMINARY

NOTE:

QUANTITIES IN COLUMNS TITLED "SOUTH ABUTMENT", "PIER 1", "PIER 2", "PIER 3", "PIER 4" AND "APPROACH SPAN SUPER." PREPARED BY WISDOT BUREAU OF STRUCTURES.

QUANTITIES IN COLUMNS TITLED "SOUTH BASCULE PIER", "NORTH BASCULE ABUTMENT" AND "BASCULE SPAN SUPER." PREPARED BY AECOM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

ESTIMATED QUANTITIES 1

DRAWING PRE_171

DRAFT April 20, 2020
BATCH PRINT SHEET CSD OF NSD
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$....designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

8

STATE PROJECT NUMBER
4992-03-71

TOTAL ESTIMATED QUANTITIES CONTINUED

BID ITEM NUMBER	BID ITEM	UNIT	SOUTH APPROACH	SOUTH ABUTMENT	PIER 1	PIER 2	PIER 3	PIER 4	APPROACH SPAN SUPER.	SOUTH BASCULE PIER	NORTH BASCULE ABUTMENT	BASCULE SPAN SUPER.	NORTH APPROACH	TOTALS
SPV.0035.01	COUNTERWEIGHT CONCRETE	CY	—	—	—	—	—	—	—	—	—	346	—	346
SPV.0035.02	CONCRETE MASONRY BRIDGES LIGHTWEIGHT	CY	—	—	—	—	—	—	—	—	—	93	—	93
SPV.0060.01	CLEARANCE GAUGE	EACH	—	—	—	—	—	—	—	1	1	—	—	2
SPV.0060.09	DECORATIVE PEDESTAL MASONRY	EACH	—	1	—	—	—	—	8	—	—	—	—	9
SPV.0085.01	STRUCTURAL STEEL BRIDGE	LB	—	—	—	—	—	—	—	89,515	86,935	724,174	—	900,624
SPV.0085.02	STEEL TREADS, TRACKS, & CENTERLOCKS	LB	—	—	—	—	—	—	—	—	—	42,574	—	42,574
SPV.0085.03	STRUCTURAL STEEL OPERATOR HOUSE	LB	—	—	—	—	—	—	—	—	2,753	—	—	2,753
SPV.0090.01	RAILING ALUMINUM SPECIAL B-70-324	LF	—	—	—	—	—	—	1,335	92	63	212	—	1,702
SPV.0105.01	WATERPROOFING BASCULE PIER AND BASCULE ABUTMENT	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.02	CLOSURES AND SEALS	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.03	HVAC WORK	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.04	OPERATOR HOUSE MISCELLANEOUS	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.05	FENDER RUB RAILS	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.06	MECHANICAL WORK BASCULE SPAN	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.07	REAR LOCKS BASCULE SPAN	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.08	BRIDGE ELECTRICAL WORK B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.09	SPAN DRIVES AND MOTORS B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.10	CONTROL CONSOLE B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.11	PLC CABINET B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.12	PROGRAMMING B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.13	LIGHTNING AND SURGE SUPPRESSION B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.14	TRAFFIC GATES AND SIGNALS B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.15	MOTOR CONTROL CENTER B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.16	LIMITS AND SENSORS B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.17	TRAINING, MANUALS AND SPARE PARTS B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.18	AUXILIARY ELECTRICAL EQUIPMENT B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.19	SUBMARINE CABLE B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.20	TAYCO STREET REMOTE OPERATIONS B-70-324	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.21	STEEL STAIRS, PLATFORMS AND RAILING	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.22	TOOL BOX WITH TOOLS	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.23	SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM SOUTH ABUTMENT	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.24	SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM PIER 1	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.25	SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM PIER 2	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.26	SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM PIER 3	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.27	SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM PIER 4	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.28	SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM SOUTH BASCULE PIER	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.29	SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM NORTH BASCULE ABUTMENT	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.31	PLUMBING WORK	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0105.37	OPERATOR HOUSE MASONRY	LS	—	—	—	—	—	—	—	—	—	—	—	1
SPV.0165.01	COUNTERWEIGHT CONCRETE SEALER	SF	—	—	—	—	—	—	—	—	—	4,983	—	4,983
SPV.0165.02	STEEL GRID FLOOR CONCRETE FILLED	SF	—	—	—	—	—	—	—	—	—	3,339	—	3,339
SPV.0165.04	FIBERGLASS SIDEWALK FLOOR PLATES	SF	—	—	—	—	—	—	—	—	—	1,346	—	1,346
SPV.0195.01	EXCAVATION, HAULING, AND DISPOSAL OF RIVER MATERIAL AT SUBSTRUCTURES	TON	—	—	155	—	660	630	—	1,507	979	—	—	3,931
SPV.0195.02	EXCAVATION, HAULING, AND DISPOSAL OF CONTAMINATED SOIL (DIRECT LANDFILL)	TON	—	—	615	—	—	—	—	—	—	—	—	615
	NON-BID ITEMS													
	BRIDGE SEAT PROTECTION	LS	—	—	—	—	—	—	—	—	—	—	—	1
	FILLER	SIZE	—	—	—	—	—	—	—	—	—	—	—	1/2" & 3/4"
	EXPANDED POLYSTYRENE	SIZE	—	—	—	—	—	—	—	—	—	—	—	2"

PRELIMINARY

NOTE:

QUANTITIES IN COLUMNS TITLED "SOUTH ABUTMENT", "PIER 1", "PIER 2", "PIER 3", "PIER 4" AND "APPROACH SPAN SUPER." PREPARED BY WISDOT BUREAU OF STRUCTURES.

QUANTITIES IN COLUMNS TITLED "SOUTH BASCULE PIER", "NORTH BASCULE ABUTMENT" AND "BASCULE SPAN SUPER." PREPARED BY AECOM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

ESTIMATED QUANTITIES 2

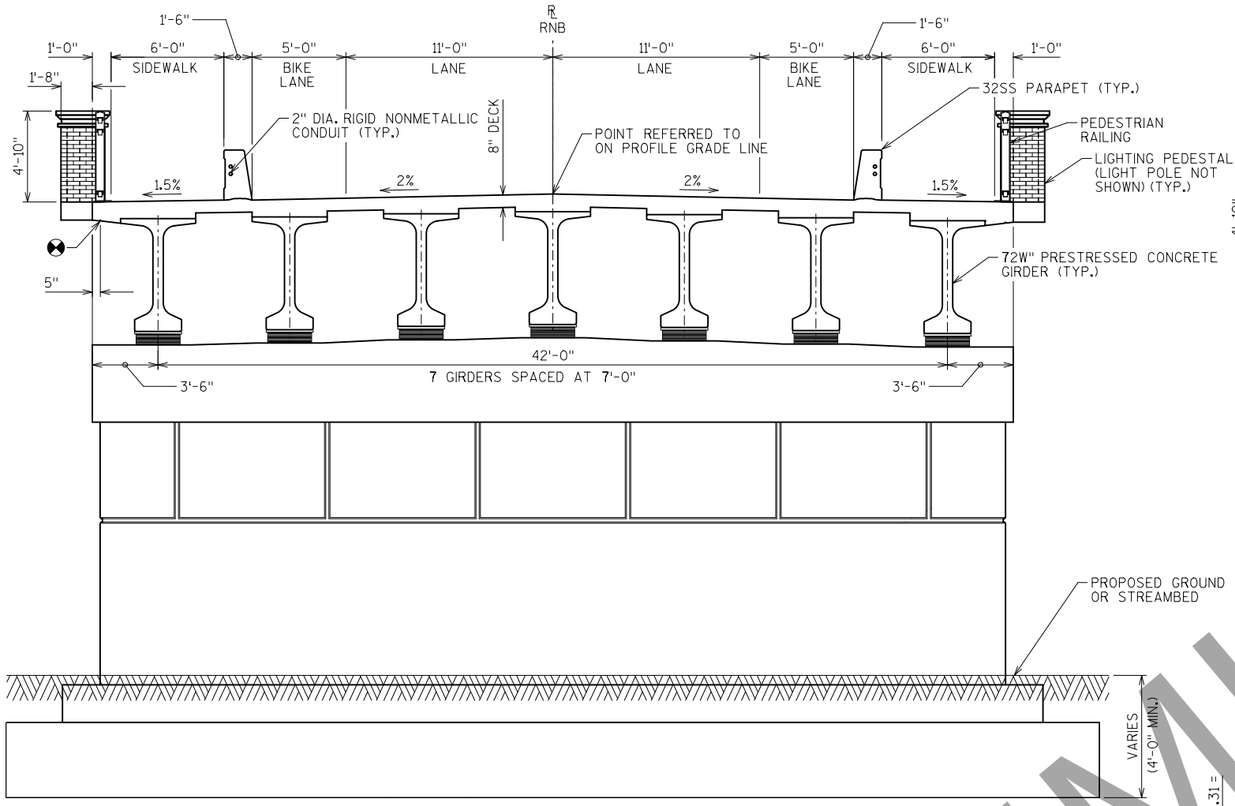
DRAWING
PRE_172

DRAFT April 20, 2020
BATCH PRINT SHEET CSD OF NSD
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plotdgdate...$$ PLOT TIME: $$...plotdgtime...$$

8

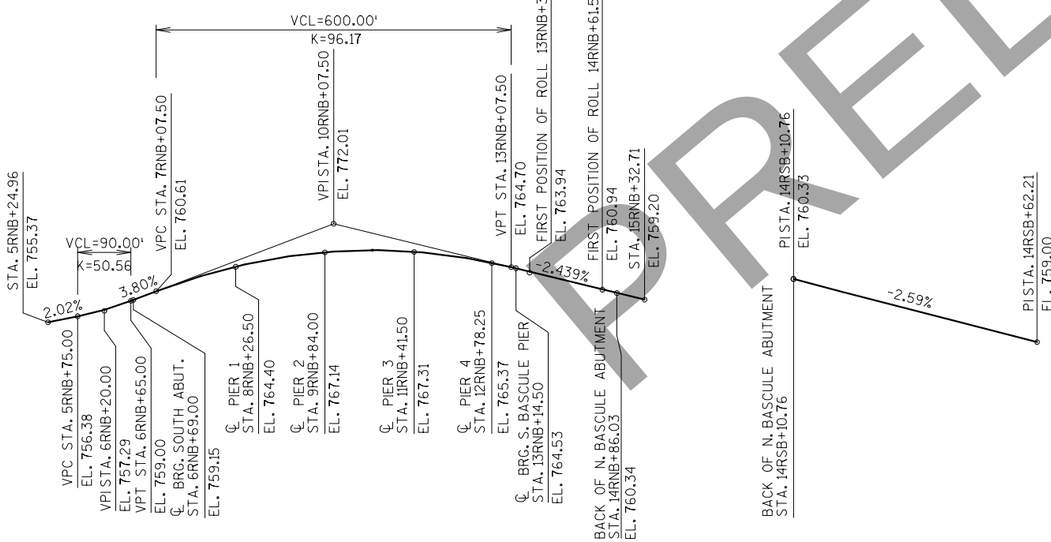
BATCH PRINT SHEET CSD OF NSD
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



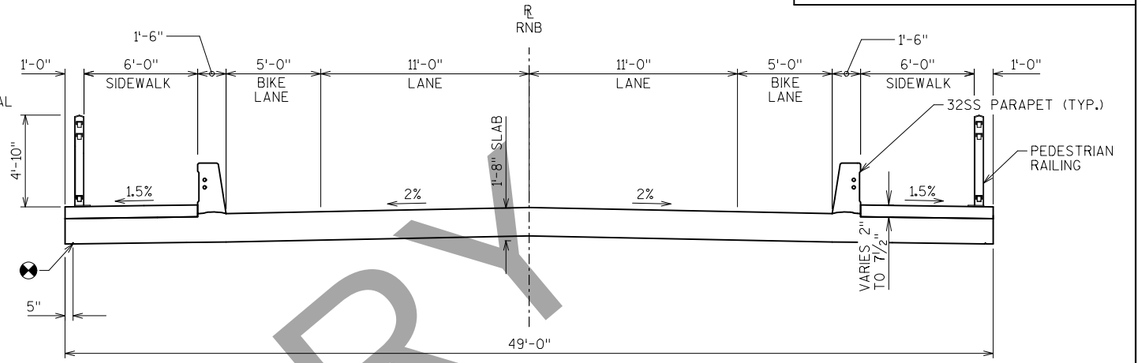
CROSS SECTION THRU ROADWAY

(LOOKING UPSTATION)
(STEEL PILES AT PIER 2 NOT SHOWN)



PROFILE GRADE LINE 'RNB'
NTS

PROFILE GRADE LINE 'RSB'
NTS

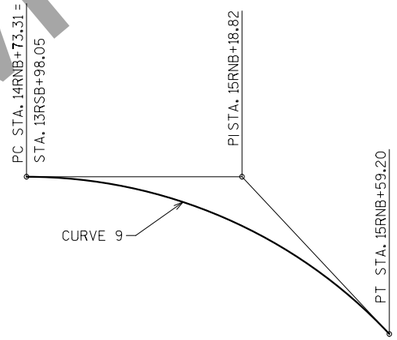


CROSS SECTION THRU AUXILIARY SPAN

(LOOKING UPSTATION)

NOTES

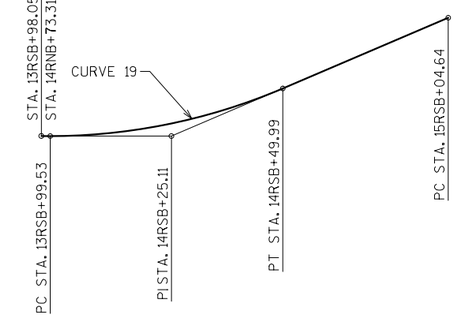
- ¾" V-GROOVE REQ'D. SEE APPROACH SPAN SHEETS FOR LIMITS.



HORIZONTAL ALIGNMENT RACINE STREET 'RNB'

CURVE 9 DATA

PI STA = 15+18.82'RNB'
Y = 540119.384
X = 817133.824
DELTA = 46°51'58"
D = 54°34'03"
T = 45.51'
L = 85.89'
R = 105.00'
PC STA = 14+73.31'RNB'
Y = 540075.907
X = 817147.275
PT STA = 15+59.20'RNB'
Y = 540158.925
X = 817156.355
BK = N17°11'28.7"W
AH = N29°40'29.5"E



HORIZONTAL ALIGNMENT RACINE STREET 'RSB'

CURVE 19 DATA

PI STA = 14+25.11'RSB'
Y = 540101.753
X = 817139.279
DELTA = 23°07'51"
D = 45°50'12"
T = 25.58'
L = 50.46'
R = 125.00'
PC STA = 13+99.53'RSB'
Y = 540077.316
X = 817146.839
PT STA = 14+49.99'RSB'
Y = 540121.256
X = 817122.726
BK = N17°11'28.7"W
AH = N40°19'19.5"W

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY: CEB | PLANS CK'D.: MAD

CROSS-SECTION, PROFILE & ALIGNMENT

DRAWING PRE_173

8

8

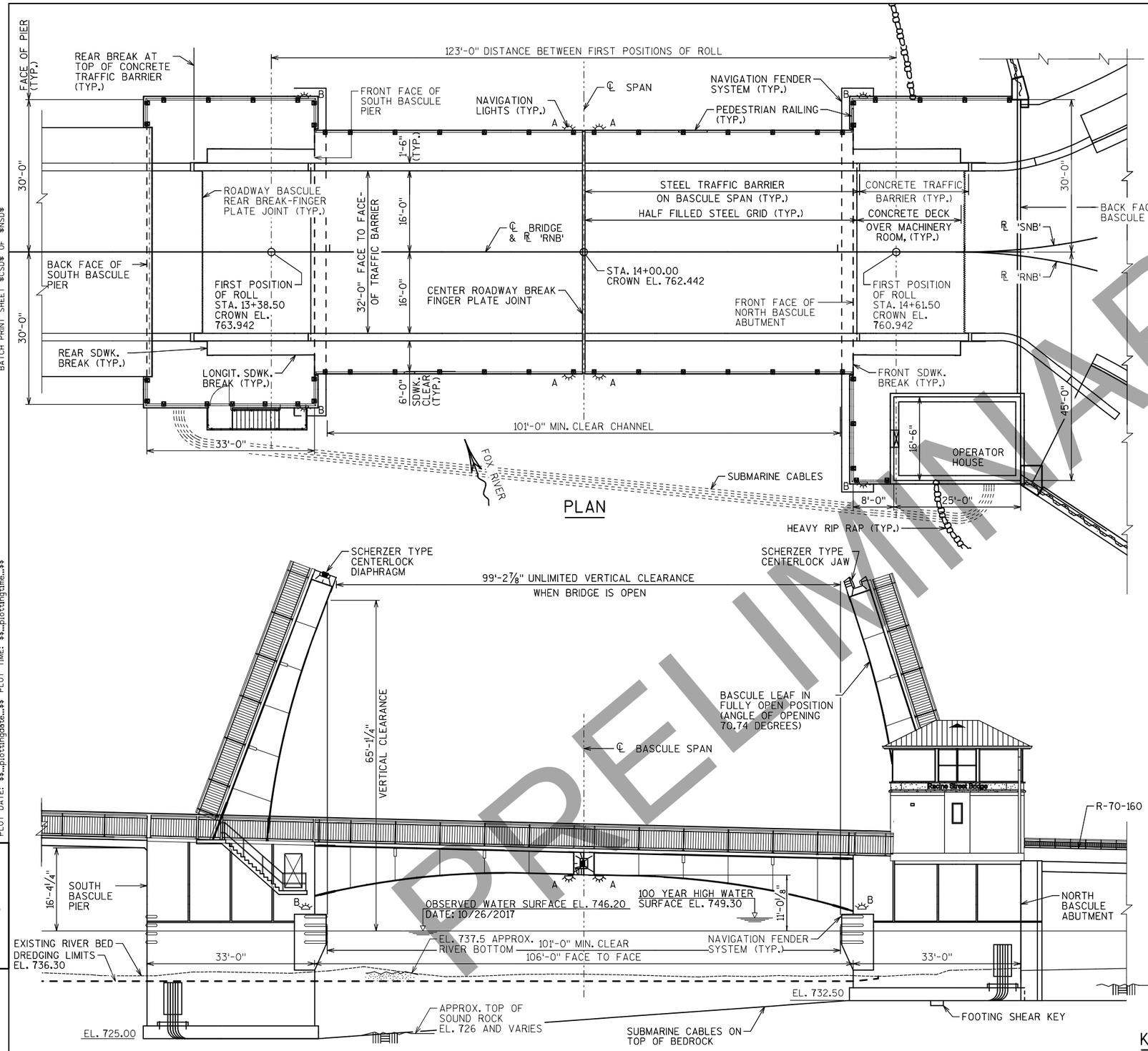
PRELIMINARY

STATE PROJECT NUMBER
4992-03-71

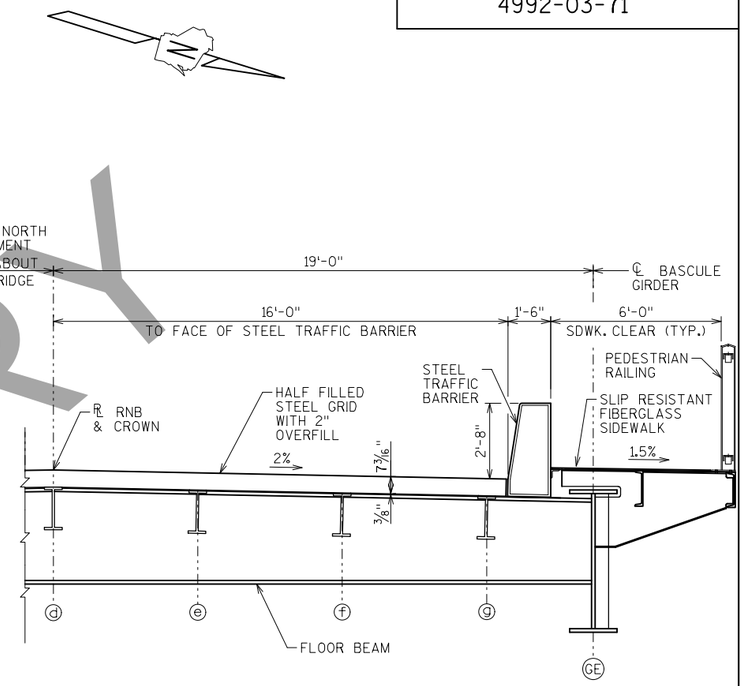
PRELIMINARY

DRAFT April 20, 2020

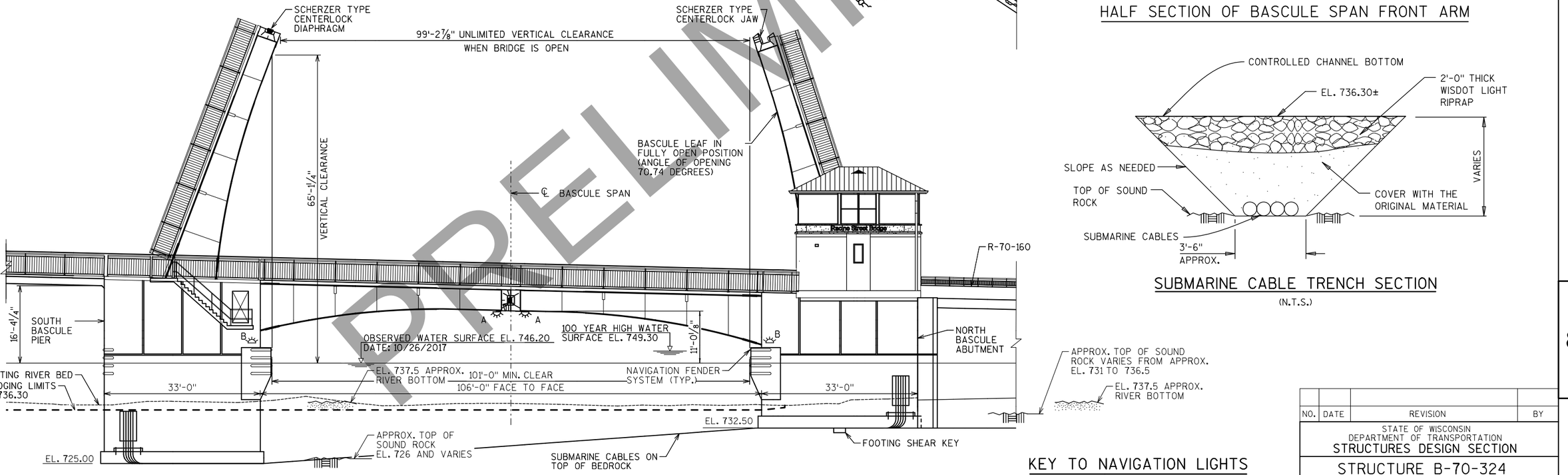
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$
BATCH PRINT SHEET CSD OF NSD



PLAN



HALF SECTION OF BASCULE SPAN FRONT ARM



ELEVATION

SUBMARINE CABLE TRENCH SECTION

(N.T.S.)

KEY TO NAVIGATION LIGHTS

- A — ON BASCULE SPAN - 360°GREEN WHEN FULLY OPEN 360°RED FOR ALL OTHER POSITIONS
- B — ON PIERS - 180°RED

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	CEB	PLANS CK'D.	MAD

GENERAL PLAN AND ELEVATION BASCULE SPAN

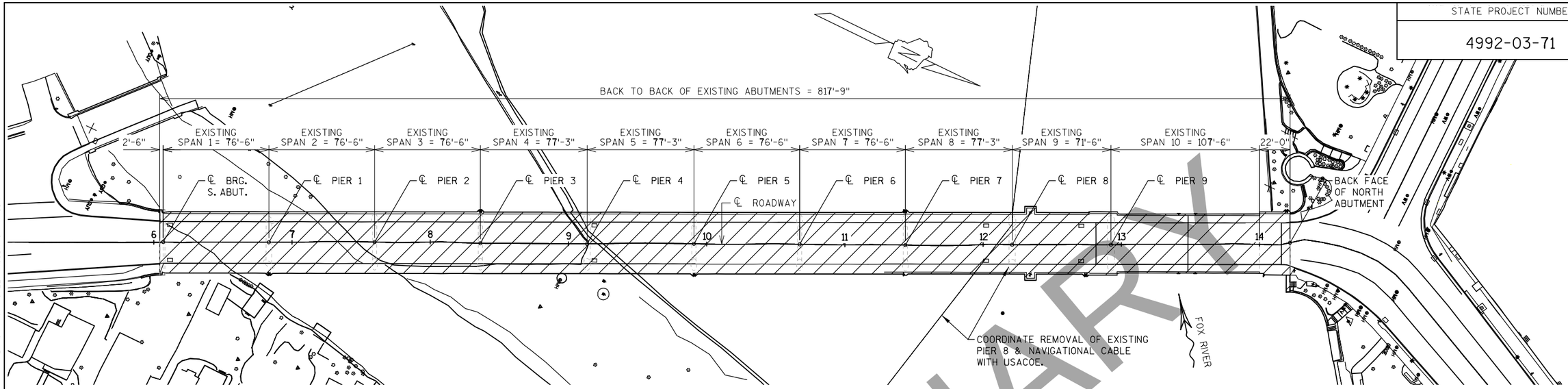
DRAWING PRE_174

8

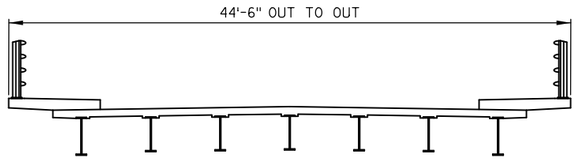
8

STATE PROJECT NUMBER

4992-03-71



REMOVAL PLAN - B-70-001



TYPICAL SECTION OF EXISTING APPROACH SPAN SUPERSTRUCTURE

LEGEND

DENOTES REMOVAL OF EXISTING STRUCTURE

NOTES:

REMOVAL OF EXISTING STRUCTURE INCLUDED IN BID ITEM "REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS 6+04".

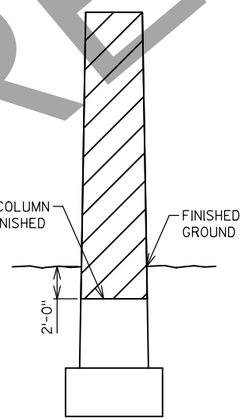
THE AVAILABLE INFORMATION ON EXISTING CONDITION IS APPROXIMATE AND IS SHOWN FOR INFORMATION ONLY AND TO BE USED BY THE CONTRACTOR AT HIS OWN RISK.

SEE ROADWAY PLANS AND ROADWAY PROFILE SHEETS FOR LOCATION OF EXISTING UTILITIES.

SEE SHEETS "SOUTH ABUTMENT" AND "SOUTH ABUTMENT DETAILS 1" FOR LIMITS OF REMOVAL OF EXISTING ABUTMENT.

SEE SHEETS "PIER 1" AND "PIER 1 DETAILS" FOR LIMITS OF REMOVAL OF EXISTING PIER 2.

SEE SHEETS "PIER 2" AND "PIER 2 DETAILS" FOR LIMITS OF REMOVAL OF EXISTING PIER 4.



PIERS 3, 5, 6, 7, 8 & 9

STRUCTURAL REMOVAL NOTES

SUMMARY OF REMOVAL ITEMS:

1. BASCULE SPAN INCLUDING STEEL SUPERSTRUCTURE, CONCRETE COUNTERWEIGHTS, BASCULE PIERS, MACHINERY AND FRAMED OPERATOR HOUSE.
2. 9 STEEL GIRDER APPROACH SPANS.
3. 8 APPROACH SPAN PIERS AND 1 ABUTMENT.

PRELIMINARY

DRAFT April 20, 2020
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$
PLOT TIME: $$...plottingtime...$$
BATCH PRINT SHEET CSD OF NSD

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

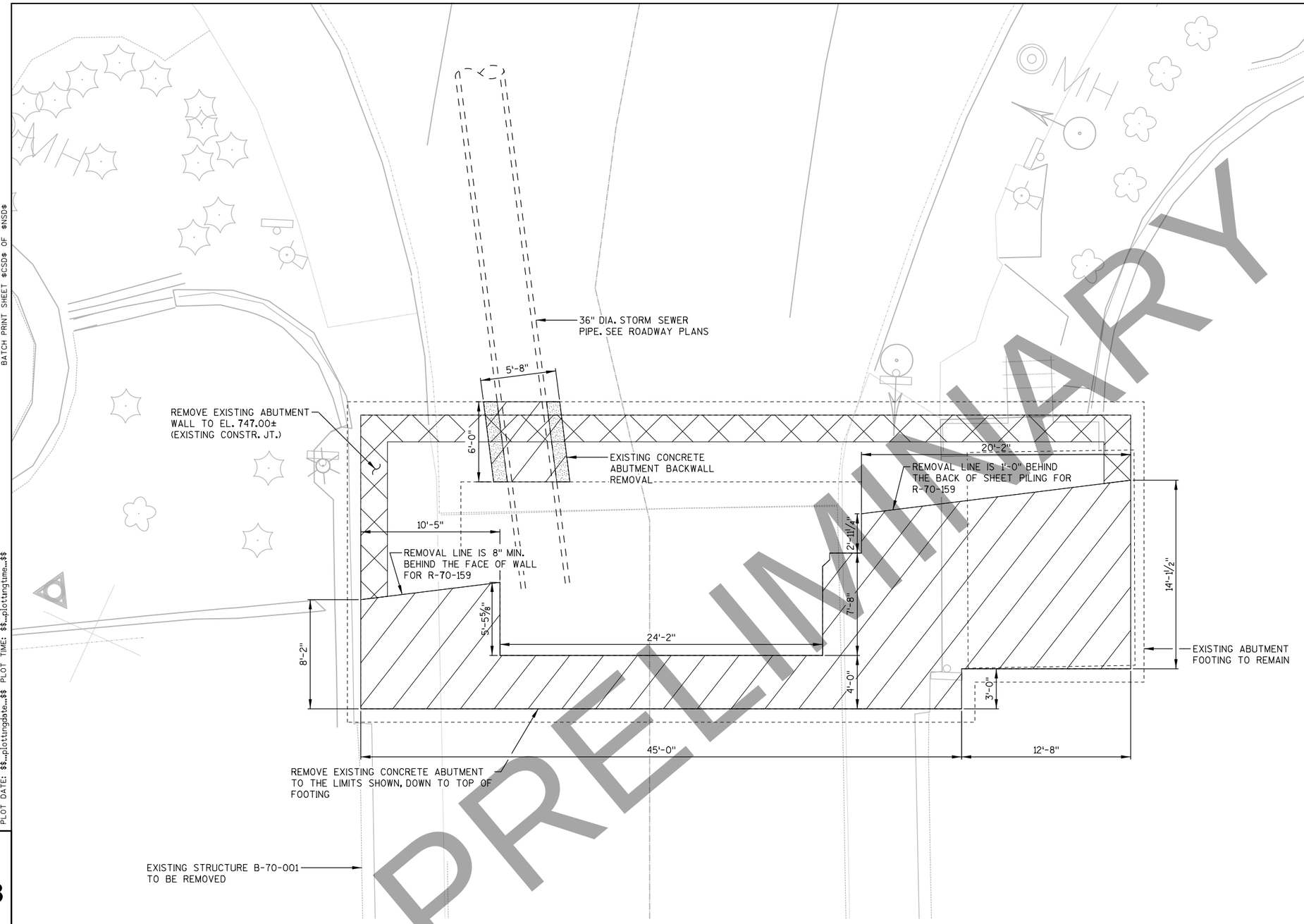
DRAWN BY	CEB	PLANS CK'D.	MAD

EXISTING STRUCTURE REMOVAL DETAILS-1

DRAWING
PRE_175

BATCH PRINT SHEET CSD OF NSD
DRAFT April 20, 2020
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

EXISTING NORTH ABUTMENT

NOTE:

REMOVAL DIMENSIONS SHOWN ARE BASED ON EXISTING PLANS. ACTUAL REMOVAL LIMITS MAY VARY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

EXISTING STRUCTURE REMOVAL DETAILS-2

DRAWING G15

PRE_176

8

8

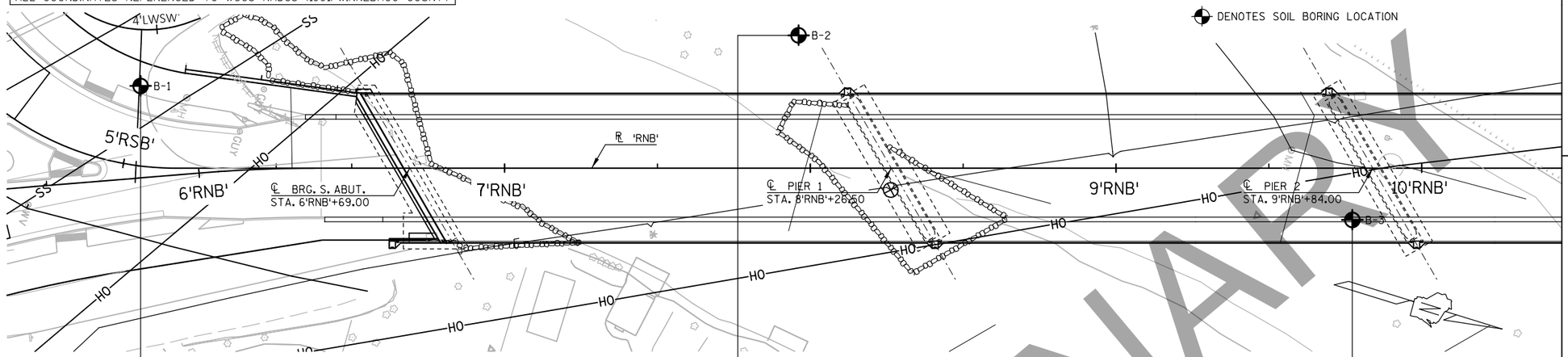
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	5/17/17	539215	817385
B-2	5/16/17	539416	817306
B-3	5/17/17	539607	817310
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: GESTRA ENGINEERING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD83 (1991) WINNEBAGO COUNTY			

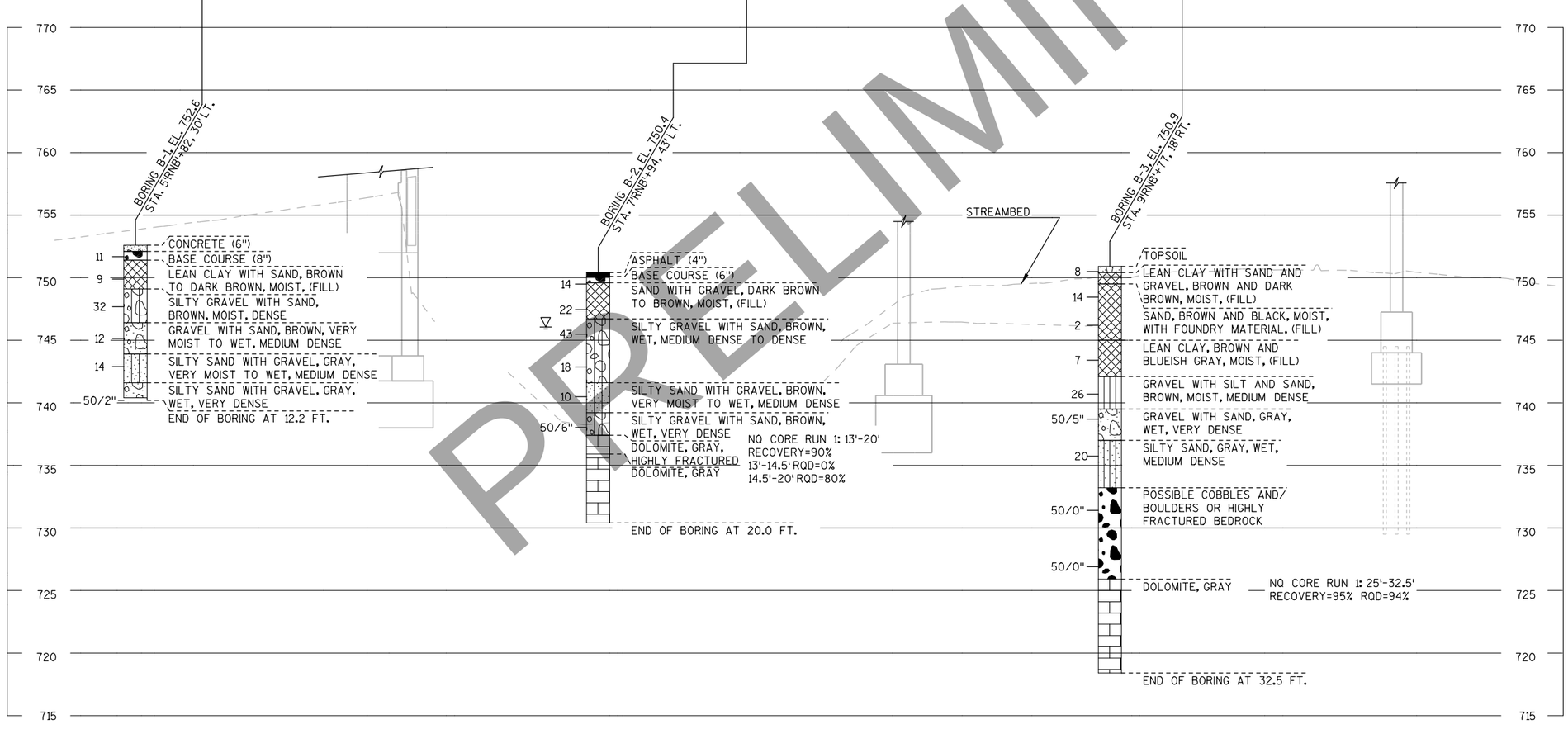
NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSIONS OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORING STATIONS AND OFFSETS ARE BASED ON ℄ 'NB' RACINE STREET.

DENOTES SOIL BORING LOCATION





PRELIMINARY

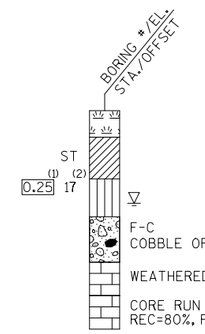
STATE PROJECT NUMBER

4992-03-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	PLANS CK'D.
CEB	MJA

SUBSURFACE EXPLORATION 1

DRAWING PRE_177

SCALE =

DRAFT April 20, 2020

8

8

DRAFT April 20, 2020

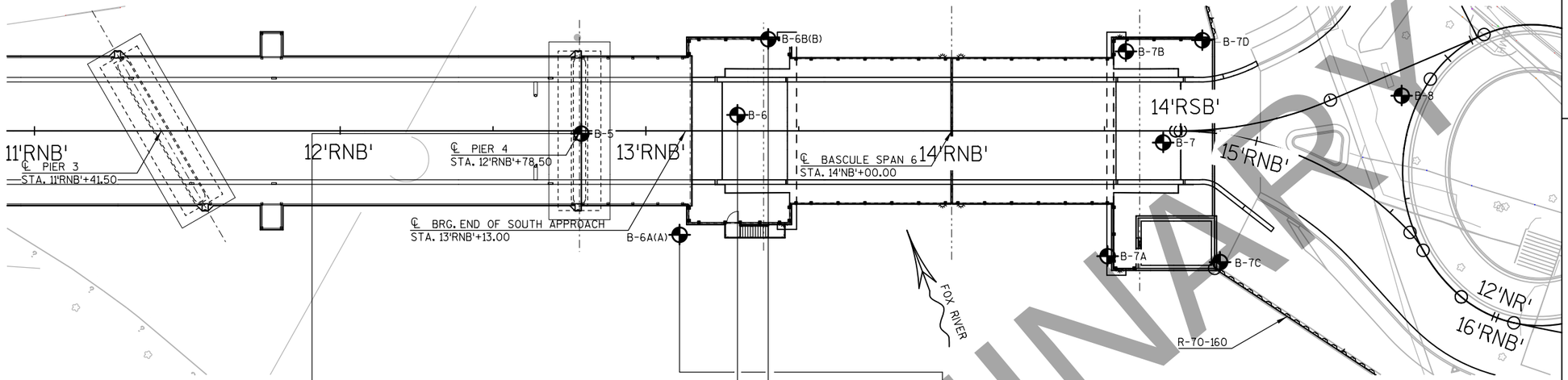
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-5	6/1/17	539890	817206
B-6	5/31/17	539937	817185
B-6A(A)	10/25/17	539931	817228
B-6B(B)	10/25/17	539940	817158
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: GESTRA ENGINEERING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD83 (1991) WINNEBAGO COUNTY			

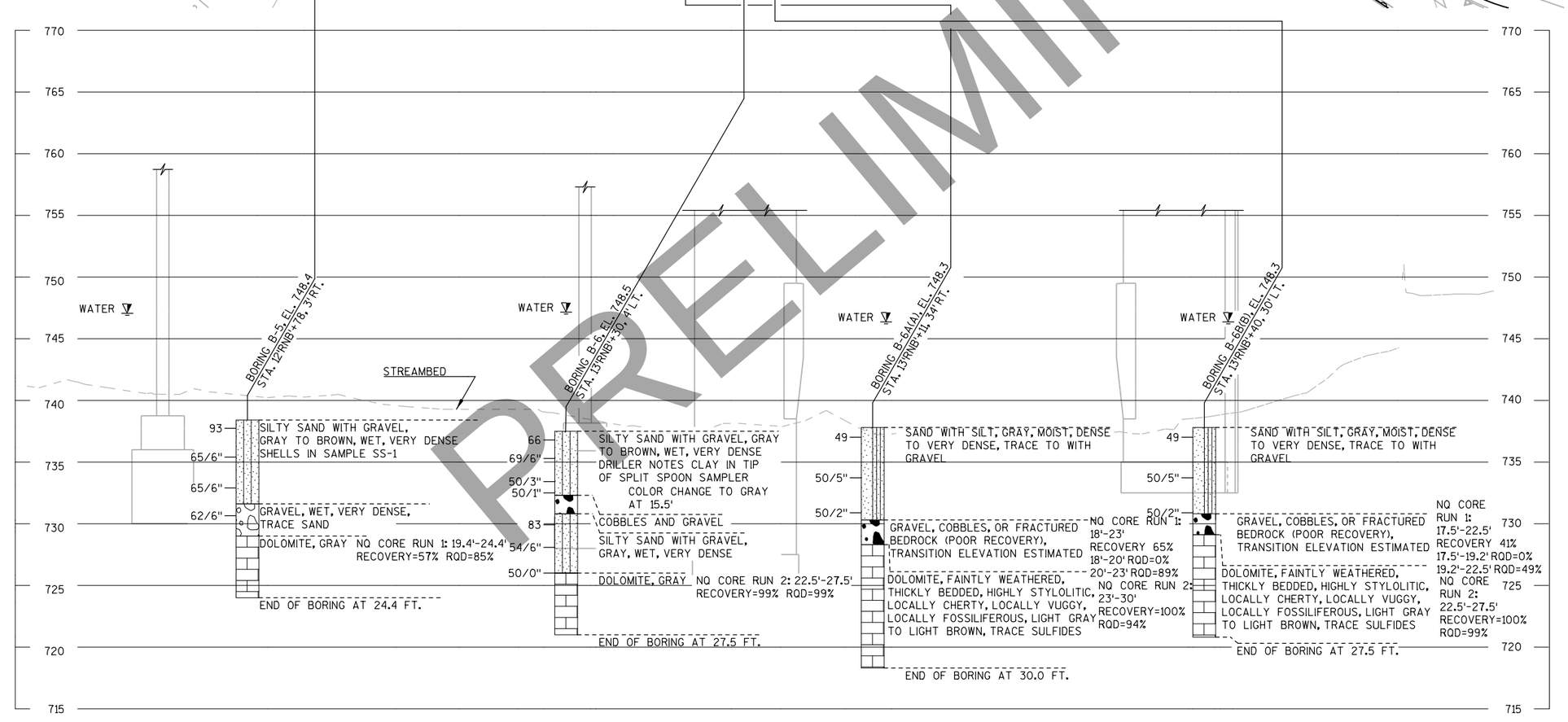
NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSIONS OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORING STATIONS AND OFFSETS ARE BASED ON ℄ 'NB' RACINE STREET.

DENOTES SOIL BORING LOCATION





PRELIMINARY

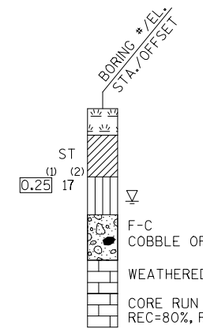
STATE PROJECT NUMBER

4992-03-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

SUBSURFACE EXPLORATION 2

DRAWING C13 OF C15
PRE_178

SCALE =

8

8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-7	6/1/17	540073	817152
B-7A	10/25/17	540067	817193
B-7B	10/26/17	540053	817127

BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.

REPORT COMPLETED BY: GESTRA ENGINEERING, INC.

ALL COORDINATES REFERENCED TO WCCS NAD83 (1991) WINNEBAGO COUNTY

NOTES

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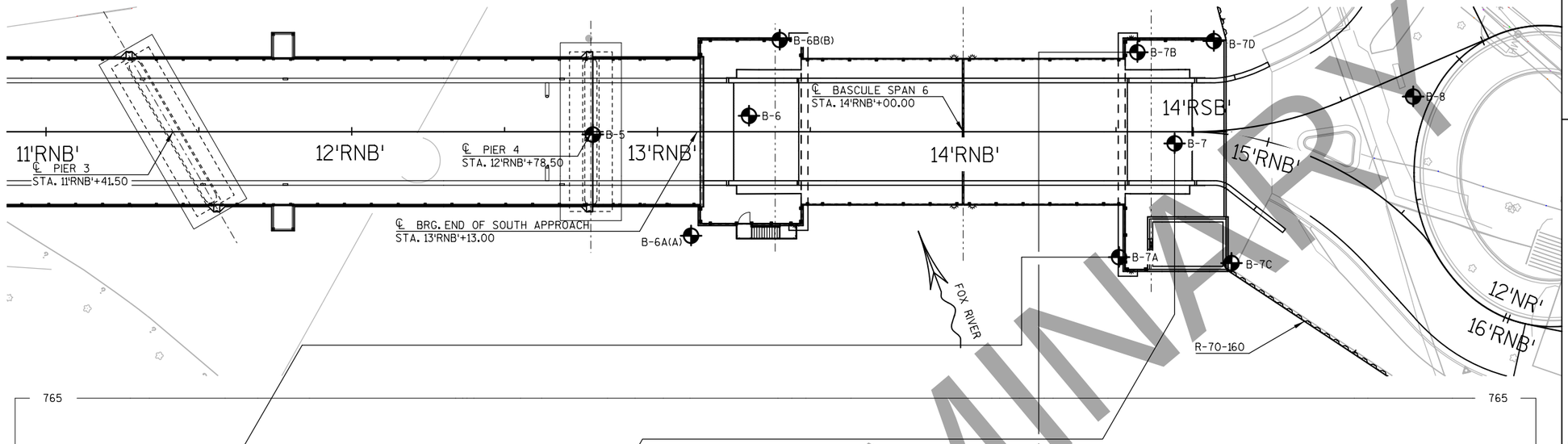
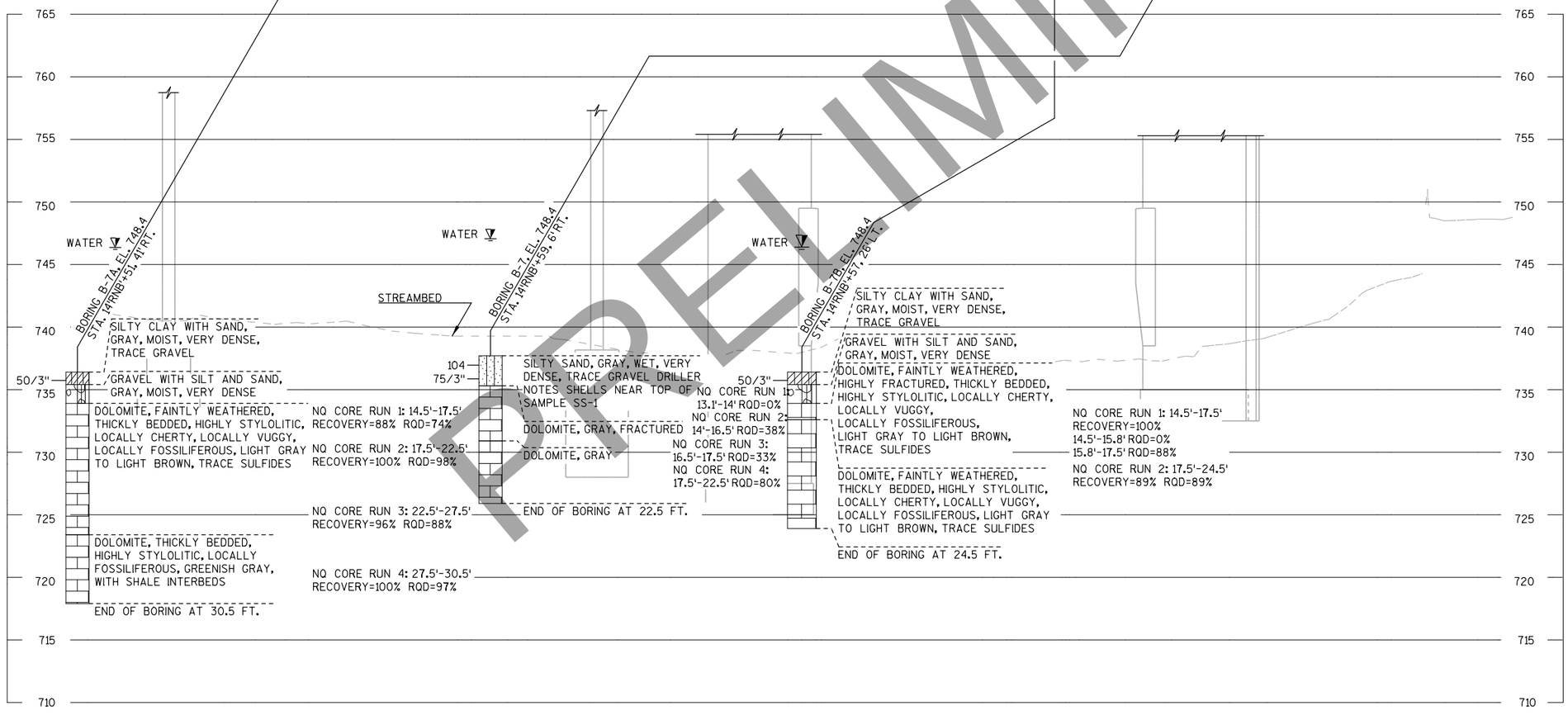
BORING STATIONS AND OFFSETS ARE BASED ON ℄ 'NB' RACINE STREET.

DENOTES SOIL BORING LOCATION





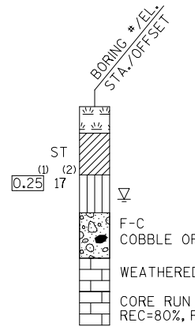
STATE PROJECT NUMBER

4992-03-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	CEB	PLANS CK'D.	MJA

SUBSURFACE EXPLORATION 3

DRAWING C14 OF C15

PRE_179

SCALE =

DRAFT April 20, 2020

PRELIMINARY

8

8

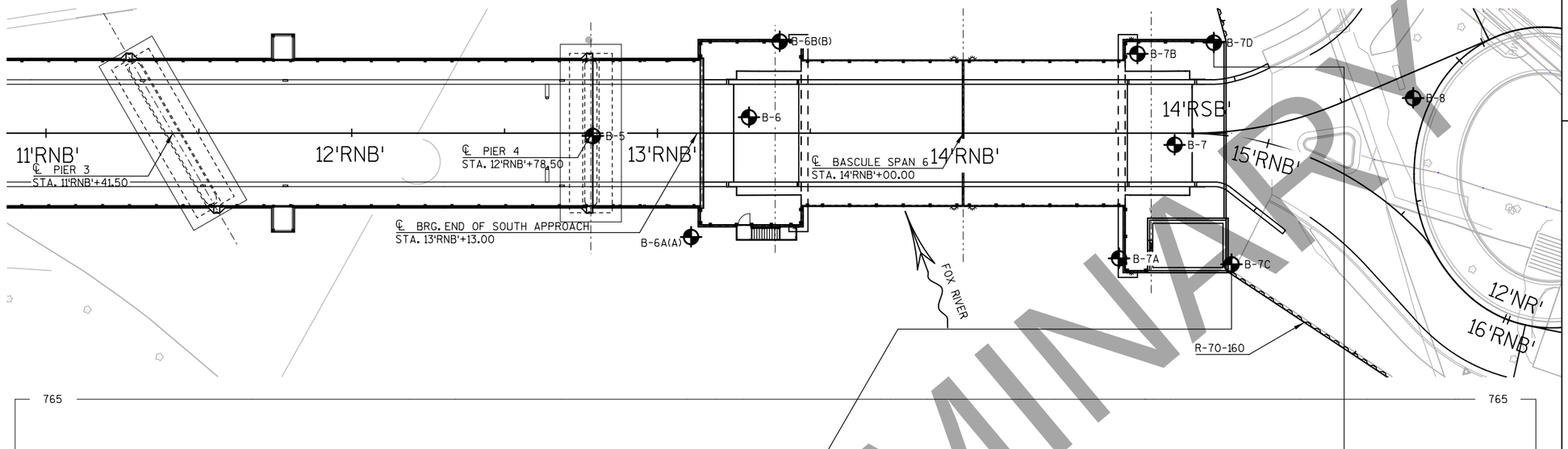
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-7C	10/24/17	540100	817184
B-7D	10/26/17	540078	817116
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: GESTRA ENGINEERING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD83 (1991) WINNEBAGO COUNTY			

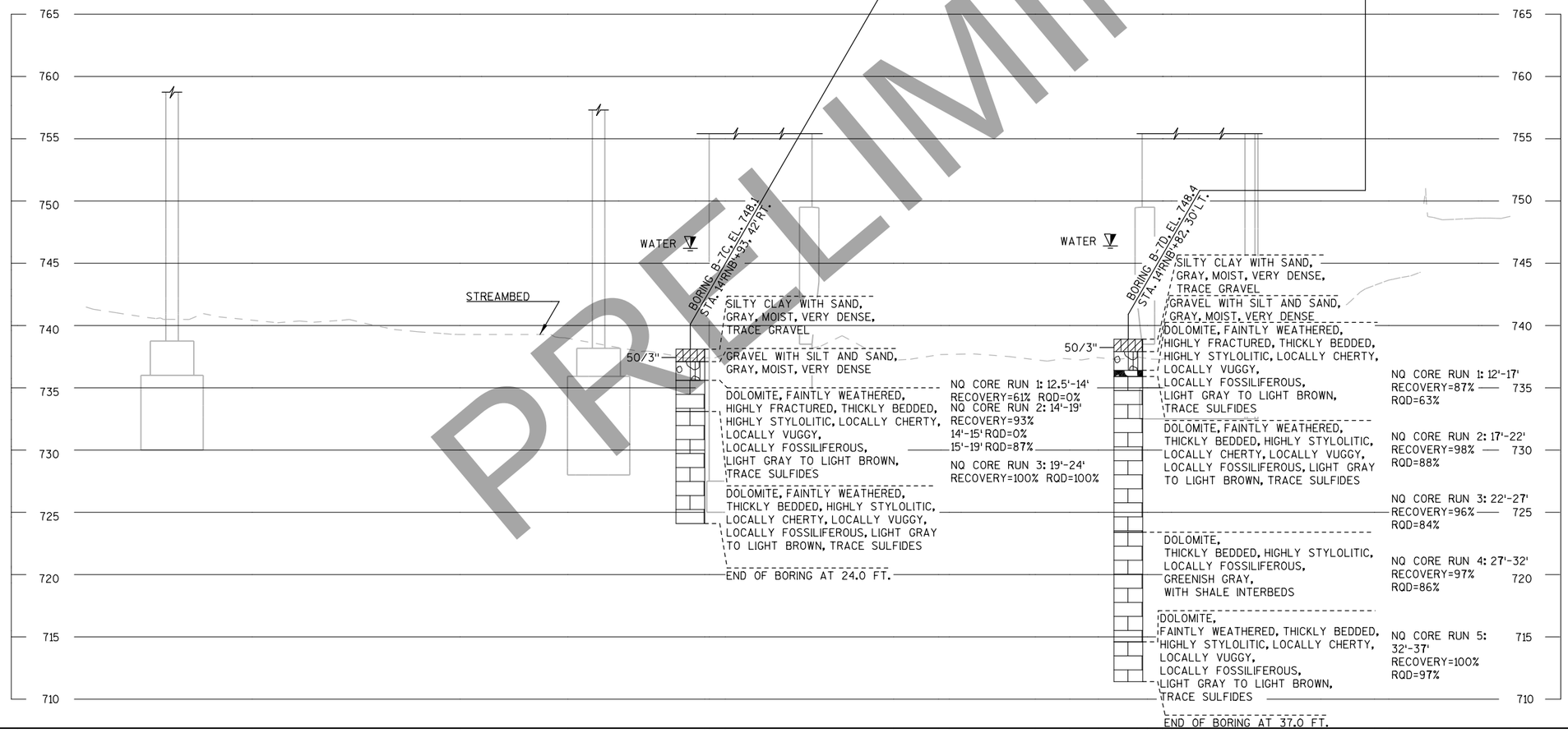
NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSIONS OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORING STATIONS AND OFFSETS ARE BASED ON ℄ 'NB' RACINE STREET.

DENOTES SOIL BORING LOCATION





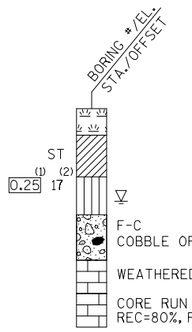
STATE PROJECT NUMBER

4992-03-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING

▼ END OF DRILLING

▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	CEB	PLANS CK'D.	MJA

SUBSURFACE EXPLORATION 4

DRAWING C15_05_C15 PRE_180

SCALE =

DRAFT April 20, 2020

PRELIMINARY

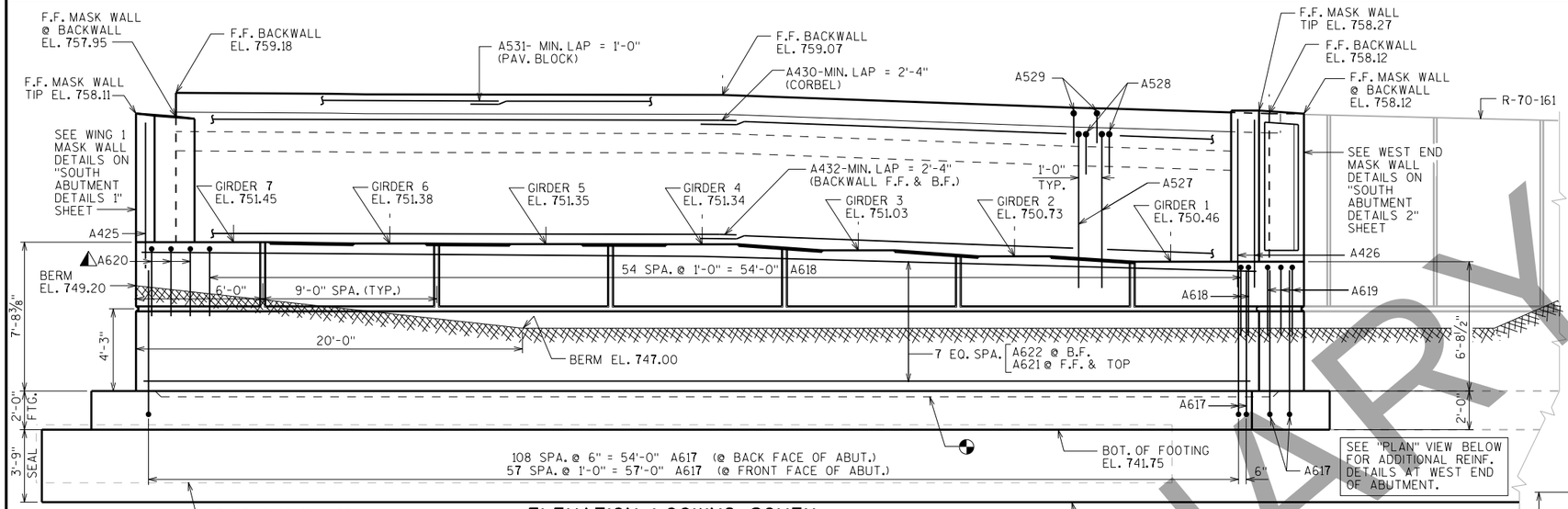
8

8

DRAFT April 20, 2020

STATE PROJECT NUMBER

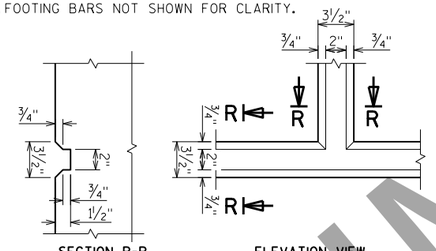
4992-03-71



ELEVATION LOOKING SOUTH

HORIZ. FOOTING BARS NOT SHOWN FOR CLARITY.

ABUTMENT IS DESIGNED FOR USE OF A TRADITIONAL COFFERDAM WITH CONCRETE SEAL FOR DEWATERING. CONCRETE SEAL IS SIZED FOR WATER LEVEL AT OR BELOW EL. 747.0 AND THE BEDROCK ELEVATION SHOWN. SEE "RIP RAP DETAILS" SHEET FOR ASSUMED COFFERDAM LAYOUT.

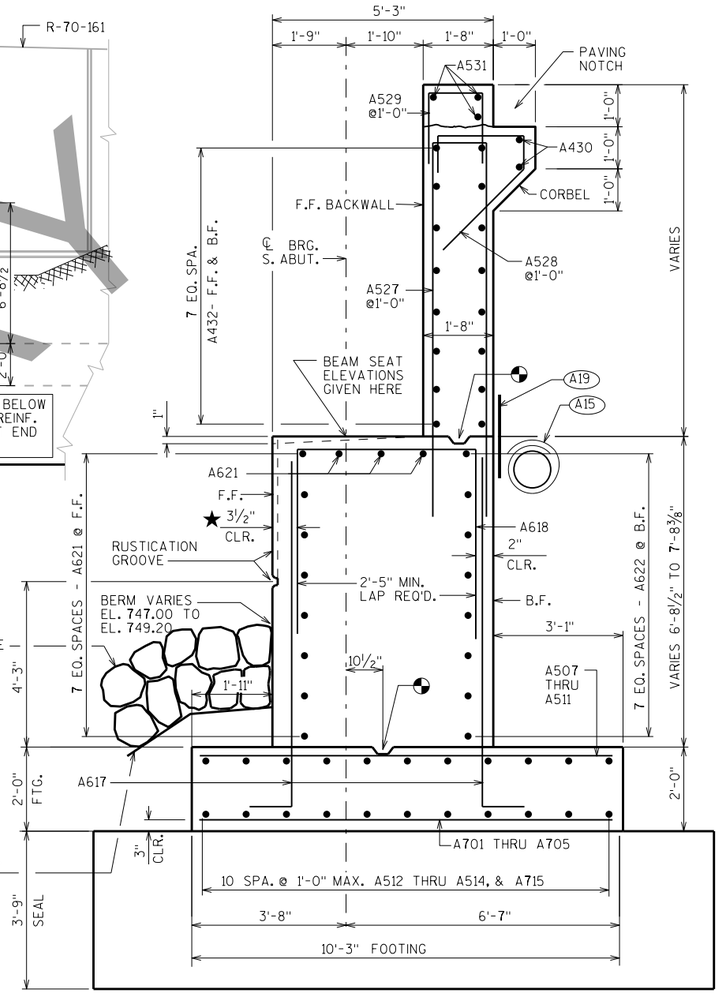


SECTION R-R ELEVATION VIEW

RUSTICATION DETAILS

NOTE:
SEE "RIP RAP DETAILS" SHEET FOR ABUTMENT BACKFILL DETAILS.

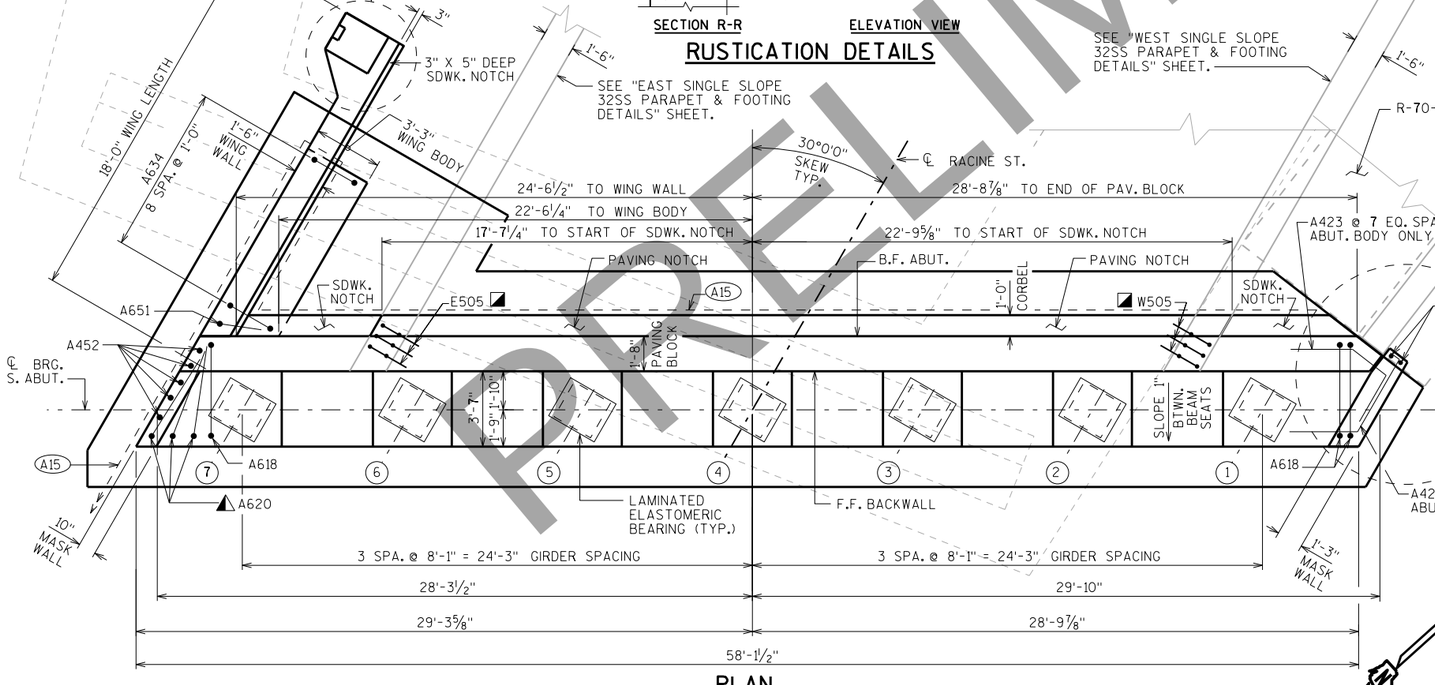
HEAVY RIPRAP 1.5:1 MAX SLOPE



SECTION THRU ABUTMENT

LOOKING EAST

SEE "SPREAD FOOTING PLAN" ON "SOUTH ABUTMENT DETAILS 1" SHEET FOR ALL FOOTING DIM. & REINF. DETAILS. MISCELLANEOUS REINF. DETAILS SHOWN HERE. SEE ADDITIONAL ABUTMENT DETAILS FOR OTHER REINF. DETAILS.



PLAN

E505 & W505 BARS TO BE PLACED PRIOR TO PAVING BLOCK POUR.

FLARE L-BARS AT ABUT. END AS NECESSARY

CLEAR DISTANCE REQUIRED DUE TO RUSTICATION GROOVE @ F.F.

KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2 X 6.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. MIN. INVERT = 749.20. RODENT SHIELD REQUIRED. COORDINATE INSTALLATION WITH PIPE UNDERDRAIN FOR R-70-161.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

SOUTH ABUTMENT

DRAWING R01 OF R43

PRE_181

SCALE = 3.50

PRELIMINARY

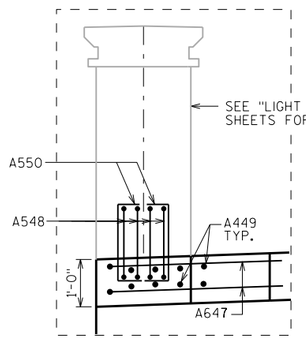
STATE PROJECT NUMBER

4992-03-71

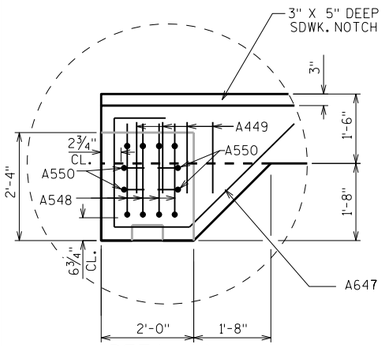
A03 OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2 x 6. (18" RMW @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

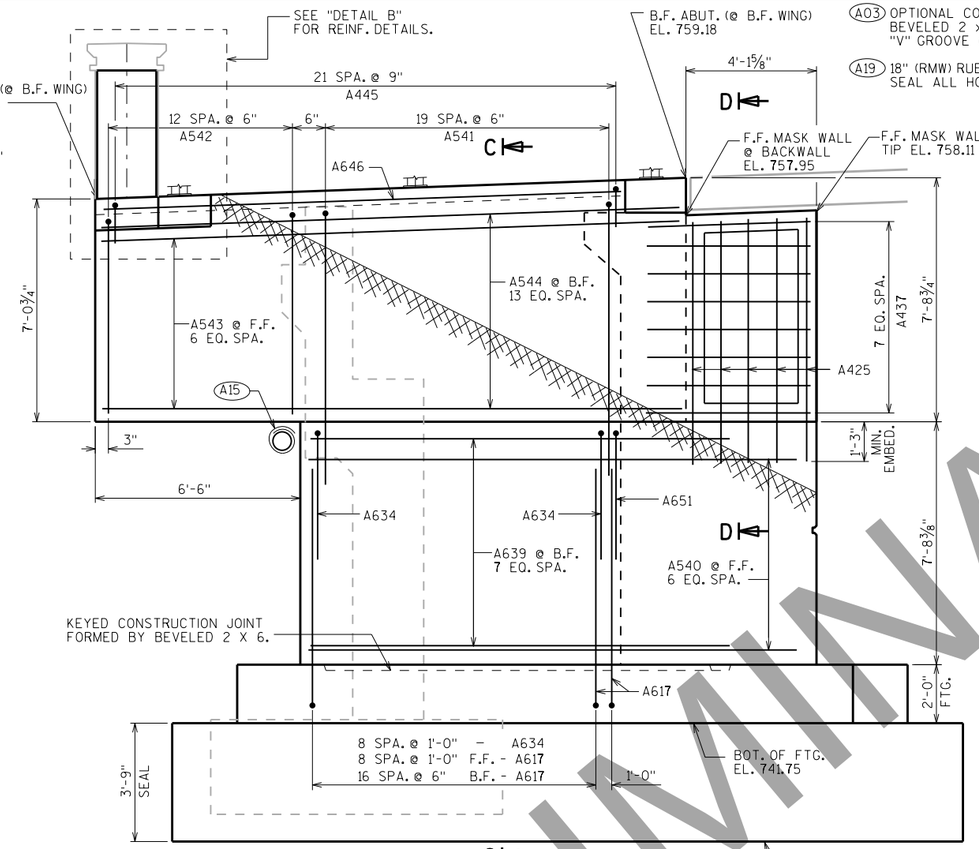
A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. MIN. INVERT = 749.20. RODENT SHIELD REQUIRED.



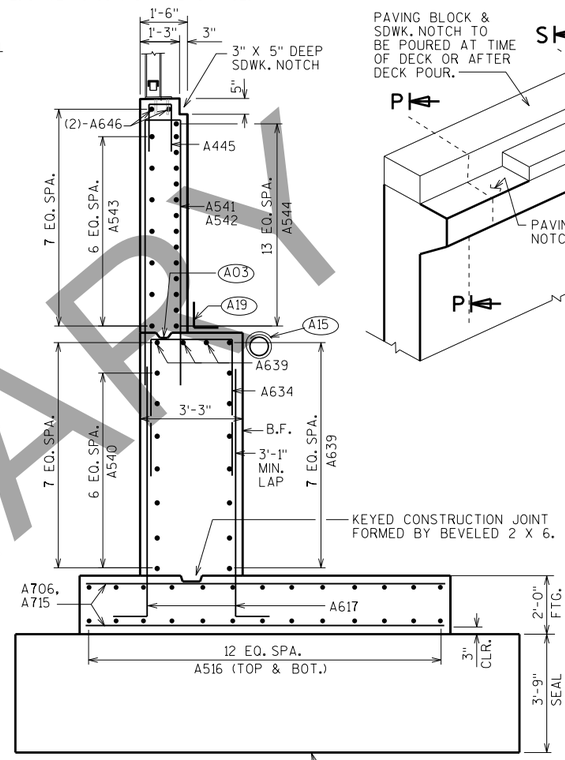
DETAIL B



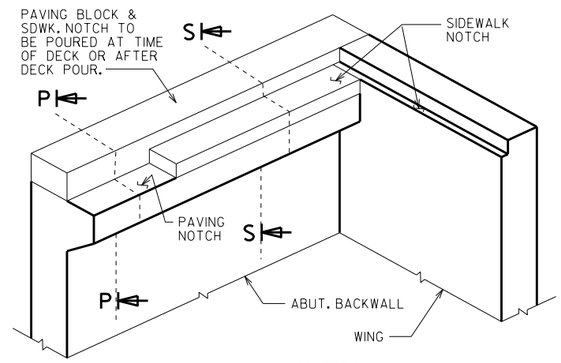
DETAIL A



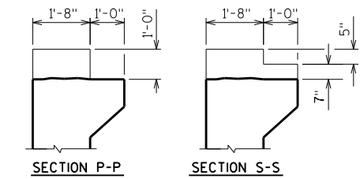
WING 1 ELEVATION



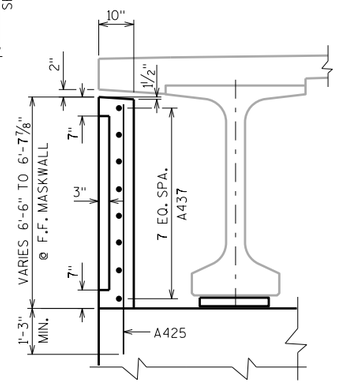
SECTION C-C



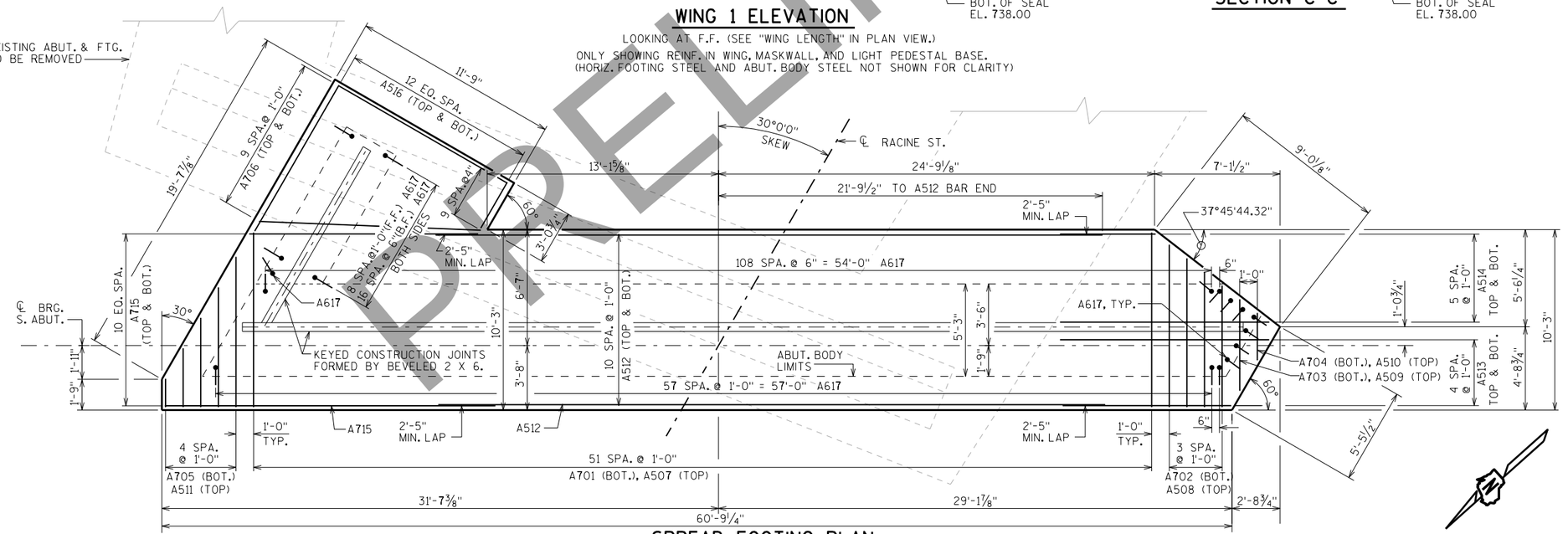
ISOMETRIC



SIDEWALK NOTCH DETAIL



SECTION D-D



SPREAD FOOTING PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

SOUTH ABUTMENT DETAILS 1

DRAWING R02 OF R43

PRE_182

SCALE = 3.50

DRAFT April 20, 2020

8

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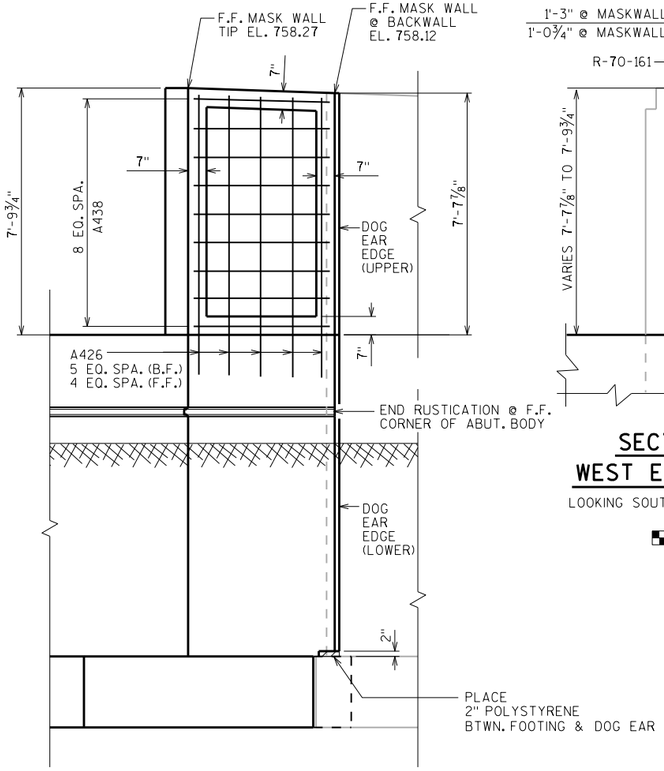
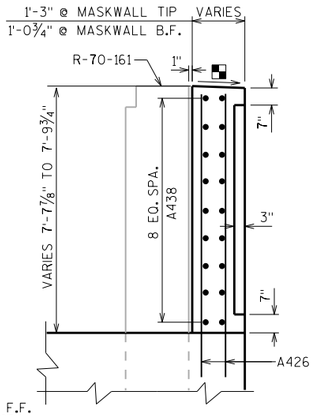
PRELIMINARY

DRAFT April 20, 2020

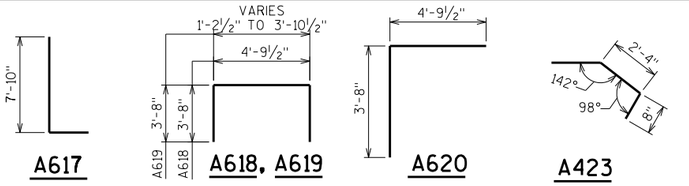


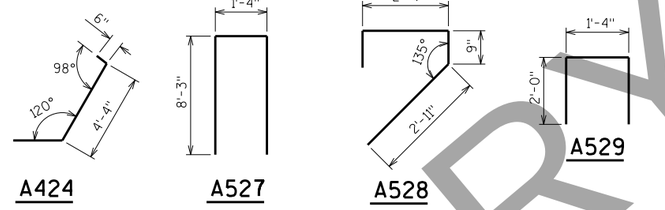


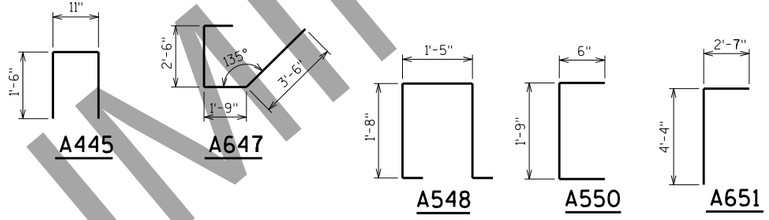
SECTION THRU WEST END MASK WALL

LOOKING SOUTH. BACKWALL NOT SHOWN.

SLOPE TO DRAIN







BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A701		52	9'-11"			FOOTING-BOT. HORIZ.
A702		4	8'-1"		⚠	FOOTING-BOT. HORIZ.
A703		1	5'-2"			FOOTING-BOT. HORIZ.
A704		1	2'-8"			FOOTING-BOT. HORIZ.
A705		5	5'-0"		⚠	FOOTING-BOT. HORIZ.
A706		20	11'-10"		⚠	FOOTING-TOP & BOT. HORIZ.-WING 1
A507		52	9'-11"			FOOTING-TOP HORIZ.
A508		4	8'-1"		⚠	FOOTING-TOP HORIZ.
A509		1	5'-2"			FOOTING-TOP HORIZ.
A510		1	2'-8"			FOOTING-TOP. HORIZ.
A511		5	5'-0"		⚠	FOOTING-TOP HORIZ.
A512		22	37'-11"			FOOTING-TOP & BOT. HORIZ.
A513		10	10'-9"		⚠	FOOTING-TOP & BOT. HORIZ.
A514		12	8'-8"		⚠	FOOTING-TOP & BOT. HORIZ.
A715		22	15'-10"		⚠	FOOTING-TOP & BOT. HORIZ.
A516		26	6'-3"		⚠	FOOTING-TOP & BOT. HORIZ.-WING 1
A617	X	202	8'-8"	X		FOOTING/ABUT. BODY-VERT. DOWEL BARS
A618	X	56	11'-9"	X		ABUT. BODY-VERT. U-BAR
A619	X	3	9'-6"	X	⚠	ABUT. BODY-VERT. U-BAR -WEST END
A620	X	3	8'-3"	X		ABUT. BODY-TOP L-BAR
A621	X	11	57'-5"			ABUT. BODY-HORIZ.-F.F. & TOP
A622	X	8	55'-0"			ABUT. BODY-HORIZ.-B.F.
A423	X	8	5'-3"	X		ABUT. BODY-HORIZ. WEST END
A424	X	8	7'-1"	X		ABUT. BODY-HORIZ. WEST END
A425	X	5	7'-9"			ABUT.BODY/WING 1 MASK WALL-VERT.
A426	X	11	8'-11"			ABUT. BODY/WEST END MASK WALL-VERT.
A527	X	57	17'-7"	X		BODY/BACKWALL-VERT. U-BAR
A528	X	52	6'-6"	X		BACKWALL-CORBEL-VERT.
A529	X	57	5'-1"	X		BACKWALL/PAV. BLOCK-VERT. U-BAR
A430	X	4	26'-11"			BACKWALL/CORBEL-HORIZ.
A531	X	24	7'-9"			BACKWALL-PAV. BLOCK-HORIZ.
A432	X	32	29'-4"			BACKWALL-HORIZ.-F.F. & B.F.
A533	X	1	3'-7"	X		PAVING BLOCK-HORIZ.-F.F. BACKWALL
A634	X	9	11'-3"	X		WING BODY-VERT.
A435	X	2	6'-2"			ABUT. BODY-VERT. WEST END (LOWER)
A436	X	2	7'-4"			WEST END MASKWALL-VERT. (UPPER)
A437	X	8	5'-3"			WING 1 MASKWALL-HORIZ.
A438	X	18	4'-6"			WEST END MASKWALL-HORIZ.
A639	X	11	11'-8"			WING 1 BODY-B.F. & TOP-HORIZ
A540	X	7	15'-6"			WING 1 BODY-F.F.-HORIZ.
A541	X	20	19'-3"	X		WINGWALL 1-VERT.
A542	X	13	13'-7"	X	⚠	WINGWALL 1-VERT.
A543	X	7	18'-2"			WINGWALL 1-HORIZ.-F.F.
A544	X	14	17'-6"			WINGWALL 1-HORIZ.-B.F.
A445	X	22	3'-9"	X		WINGWALL 1-VERT.-TOP
A646	X	2	15'-10"			WINGWALL 1-HORIZ.-TOP
A647	X	2	8'-5"	X		LIGHT PEDESTAL BASE-HORIZ.
A548	X	4	5'-3"	X		LIGHT PEDESTAL BASE-VERT.
A449	X	8	2'-0"			LIGHT PEDESTAL BASE-HORIZ.
A550	X	4	2'-6"	X		LIGHT PEDESTAL BASE-VERT. C-BAR
A651	X	1	6'-9"	X		WING 1 BODY-VERT. L-BAR
A452	X	5	7'-3"			ABUT. BODY-VERT. EAST END (LOWER)

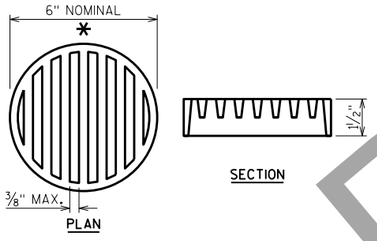
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A702	1 SERIES OF 4	6'-11" TO 9'-3"
A705	1 SERIES OF 5	1'-7" TO 8'-6"
A706	2 SERIES OF 10	11'-1" TO 12'-7"
A508	1 SERIES OF 4	6'-11" TO 9'-3"
A511	1 SERIES OF 5	1'-7" TO 8'-6"
A513	2 SERIES OF 5	9'-7" TO 11'-11"
A514	2 SERIES OF 6	5'-5" TO 11'-11"
A715	2 SERIES OF 11	13'-0" TO 18'-9"
A516	2 SERIES OF 13	3'-0" TO 9'-7"
A619	1 SERIES OF 3	8'-4" TO 11'-0"
A542	1 SERIES OF 13	13'-5" TO 13'-9"

BUNDLE AND TAG EACH SERIES SEPARATELY.

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

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



RODENT SHIELD DETAIL

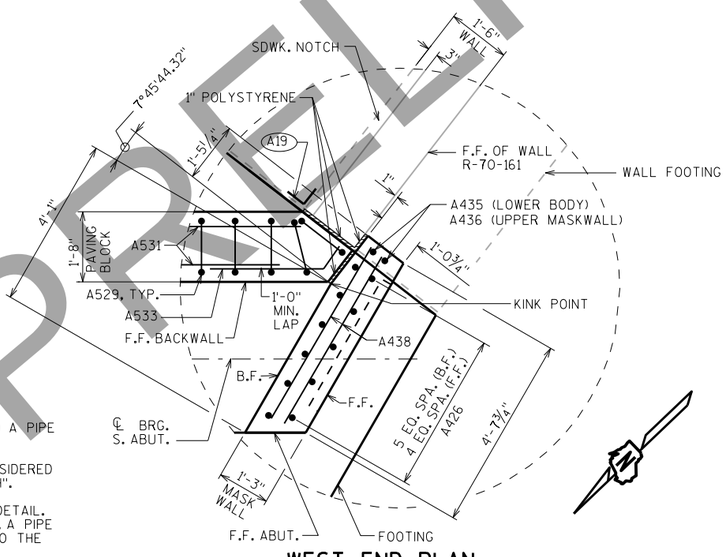
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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 COMMERCIALLY 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 END ELEVATION

LOOKING NORMAL TO MASKWALL. (SHOWING MASKWALL DETAILS ONLY)



WEST END PLAN

SHOWING MASK WALL AND CONNECTION WITH R-70-161 WALL

SEAL EXPOSED JOINTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

PRELIMINARY

STATE PROJECT NUMBER

4992-03-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

SOUTH ABUTMENT DETAILS 2

DRAWING R03 OF R43

PRE_183

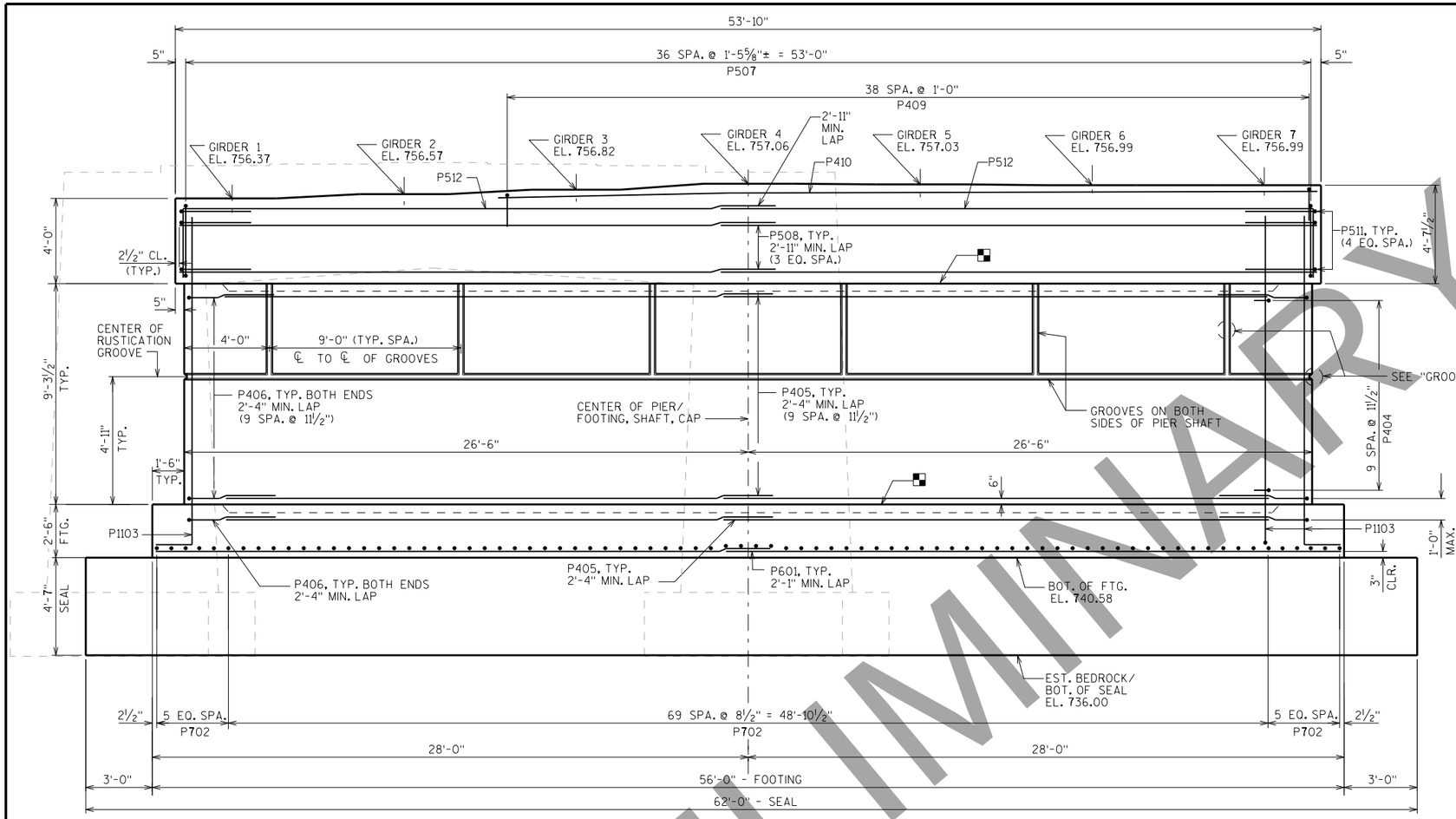
SCALE = 3.50

8

DRAFT April 20, 2020

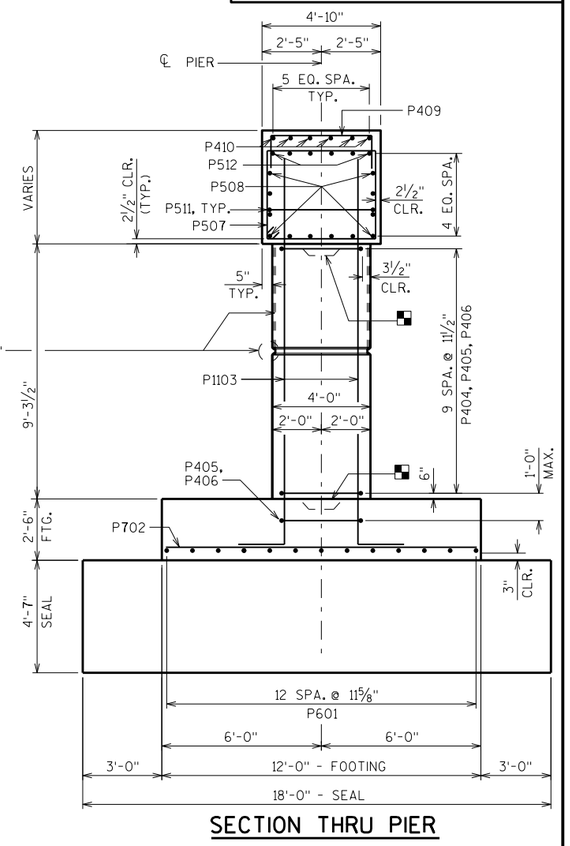
STATE PROJECT NUMBER

4992-03-71



ELEVATION

LOOKING NORTH

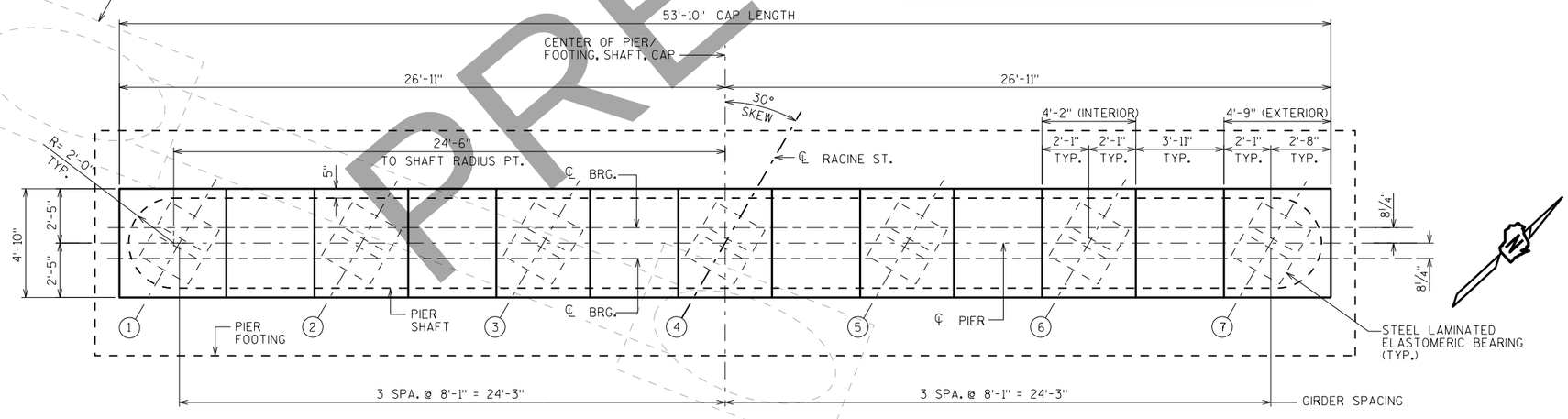


SECTION THRU PIER

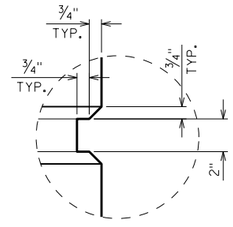
PIER IS DESIGNED FOR USE OF A TRADITIONAL COFFERDAM WITH CONCRETE SEAL FOR DEWATERING. CONCRETE SEAL IS SIZED FOR WATER LEVEL AT OR BELOW EL. 747.0 AND THE BEDROCK ELEVATION SHOWN.

■ KEYED CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY 4" DEEP X 1'-4" WIDE X 49'-0" LONG.

REMOVE EXISTING PIER 2 COMPLETELY WITHIN THE FOOTPRINT OF THE COFFERDAM, REMOVE 2'-0" BELOW FINISHED GRADE OUTSIDE OF THE LIMITS OF THE COFFERDAM.



CAP PLAN



GROOVE DETAIL

HORIZONTAL SHOWN, VERTICAL SIMILAR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

PIER 1

DRAWING R04 OF R43

PRE_184

SCALE = 3.00

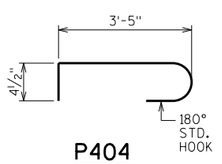
PRELIMINARY

DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

P1103



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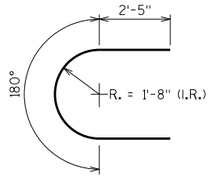
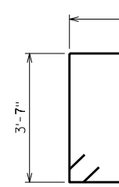


P406

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P601		26	28'-11"			FOOTING-HORIZ.
P702		80	11'-8"			FOOTING-HORIZ.
P1103	X	156	16'-8"	X		FOOTING/SHAFT-VERT.
P404	X	190	4'-3"	X		SHAFT-HORIZ. TIE BAR
P405	X	44	25'-8"			SHAFT-HORIZ. & FOOTING HORIZ.
P406	X	22	10'-2"	X		SHAFT-HORIZ. END & FOOTING HORIZ.
P507	X	37	16'-8"	X		CAP-VERT. STIRRUP
P508	X	24	28'-2"			CAP-HORIZ.
P409	X	39	7'-7"	X		CAP-VERT. TOP
P410	X	6	38'-6"			CAP-HORIZ. TOP
P511	X	10	7'-7"	X		CAP-HORIZ.-ENDS
P512	X	12	31'-6"	X		CAP-HORIZ. TOP



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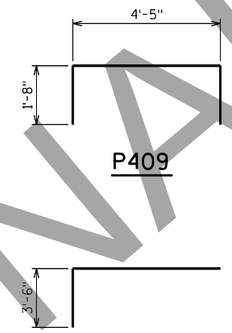
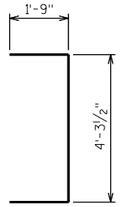


P409

P512



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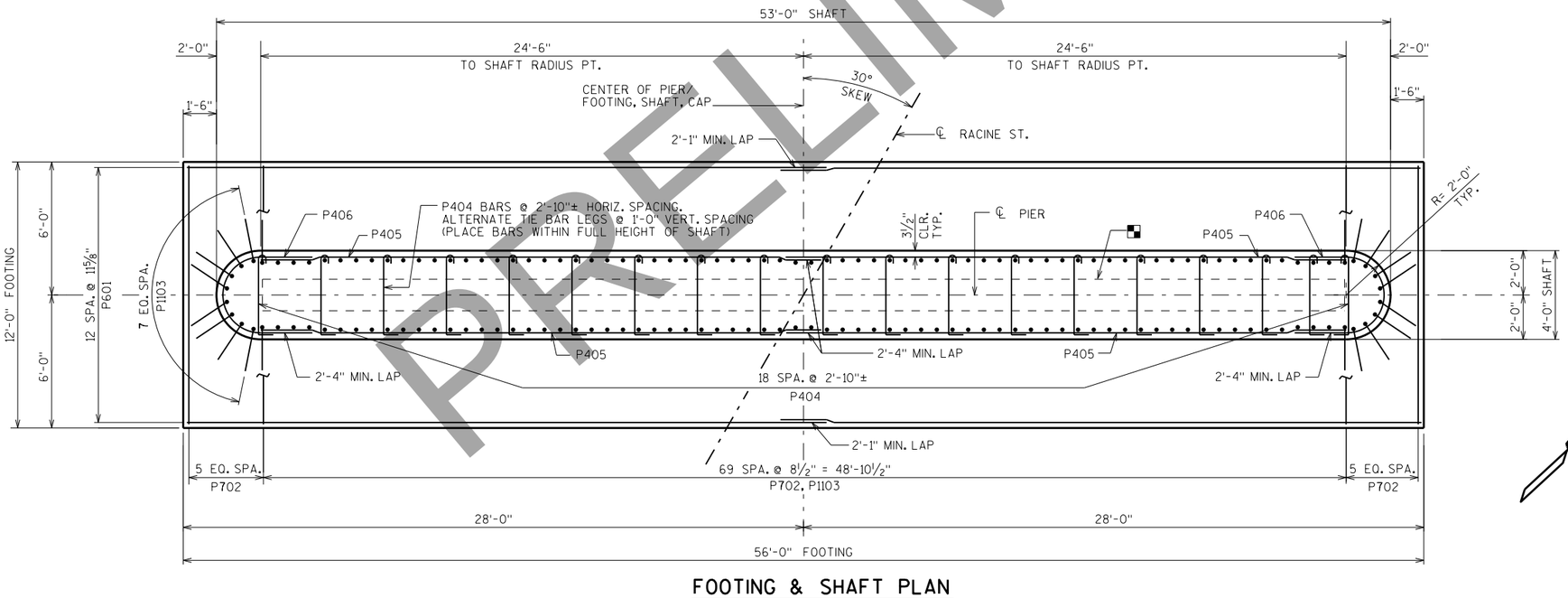


FOOTING & SHAFT PLAN

KEYED CONSTRUCTION JOINT
FORMED BY BEVELED KEYWAY
4" DEEP X 1'-4" WIDE X 49'-0" LONG.
(AT TOP OF FOOTING AND TOP OF SHAFT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

PIER 1 DETAILS

DRAWING R05 OF R43

PRE_185

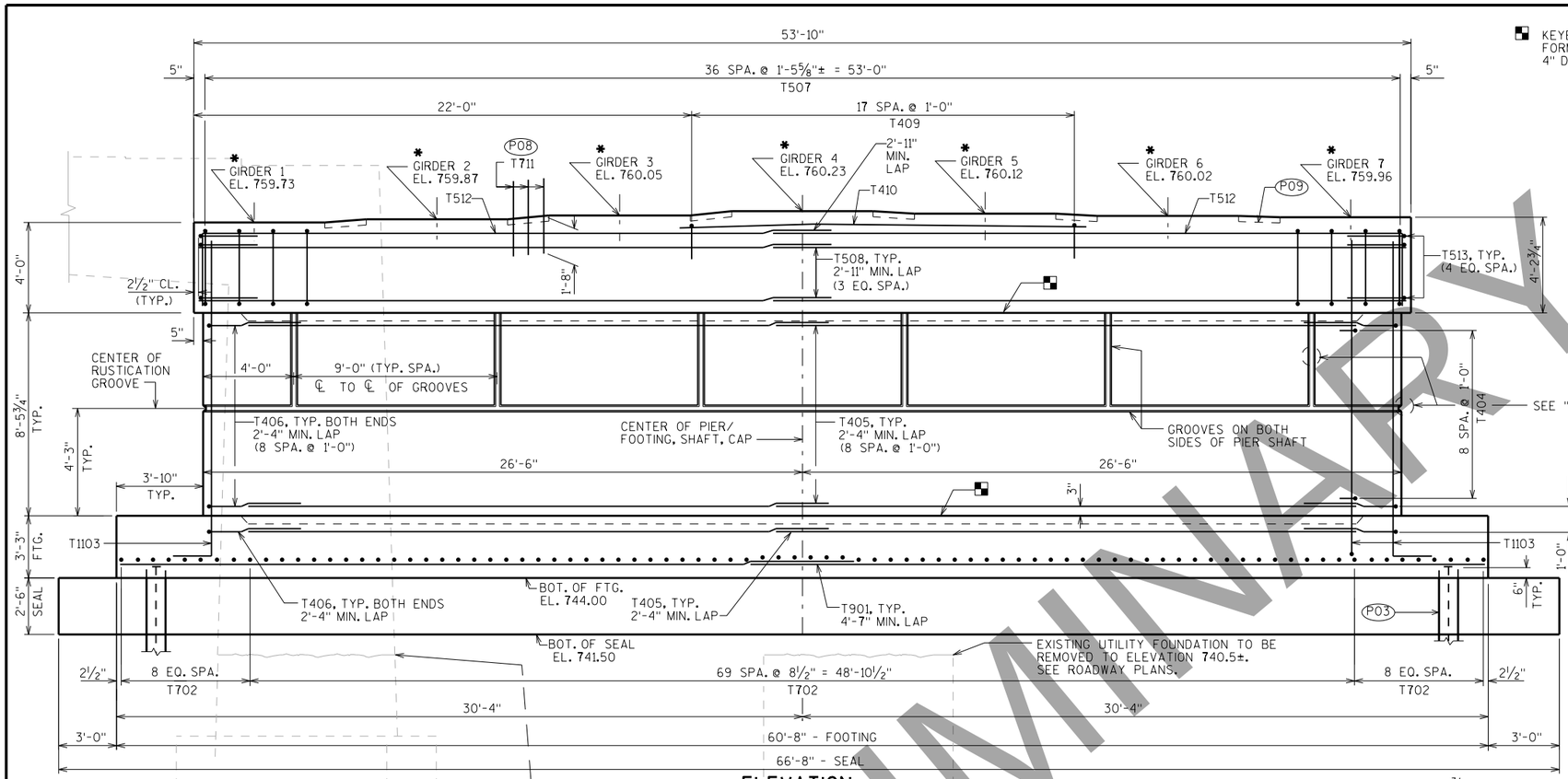
SCALE = 3.00

PRELIMINARY

DRAFT April 20, 2020

PRELIMINARY

STATE PROJECT NUMBER
4992-03-71



ELEVATION

LOOKING NORTH

BOT. OF EXIST. PIER 4 FOOTING EL. 734.1±

EXISTING B-70-1, PIER 4 COLUMN. REMOVE TO ELEVATION 740.5± OR LOWER. PLACE LOOSE SAND BETWEEN REMAINDER OF COLUMN AND BOTTOM OF CONCRETE SEAL. MATERIAL IS INCLUDED IN BID ITEM "REMOVING OLD STRUCTURE". FOR EXISTING PIER 4 OUTSIDE THE LIMITS OF THE PROPOSED PIER FOOTING. REMOVE 2 FEET BELOW FINISHED GRADE.

EXISTING UTILITY FOUNDATION TO BE REMOVED. SEE ROADWAY PLANS.

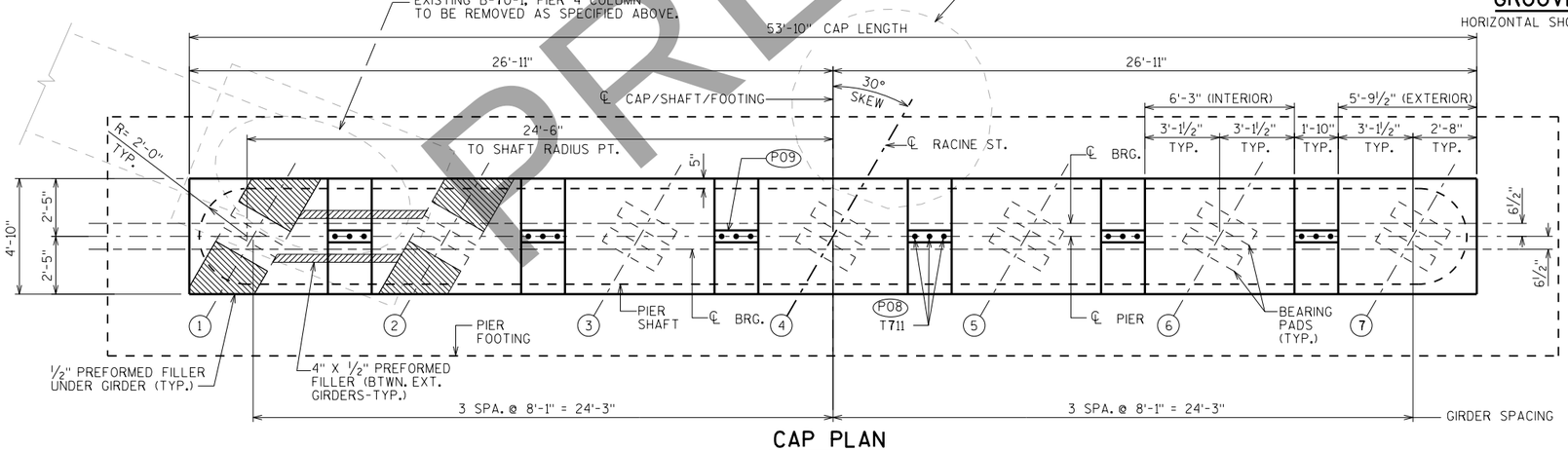
PIER IS DESIGNED FOR USE OF A TRADITIONAL COFFERDAM WITH CONCRETE SEAL FOR DEWATERING. CONCRETE SEAL IS SIZED FOR WATER LEVEL AT OR BELOW EL. 747.0 AND THE BOT. OF SEAL ELEVATION SHOWN.

KEYED CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY 4" DEEP X 1'-4" WIDE X 49'-0" LONG.

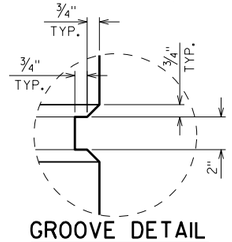
(P03) SUPPORT PIER ON HP 12 X 53 STEEL PILING, ESTIMATED 15'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. (PRE-BORING REQ'D. ESTIMATED 11.5' OF PREBORING PER PILE CASING IS LIKELY NEEDED DUE TO PRESENCE OF WATER.)

(P08) T711 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-8" INTO CONC.)

(P09) KEYED CONST. JOINT-FORMED BY BEVELED 2 x 6 BETWEEN BEAM SEATS.

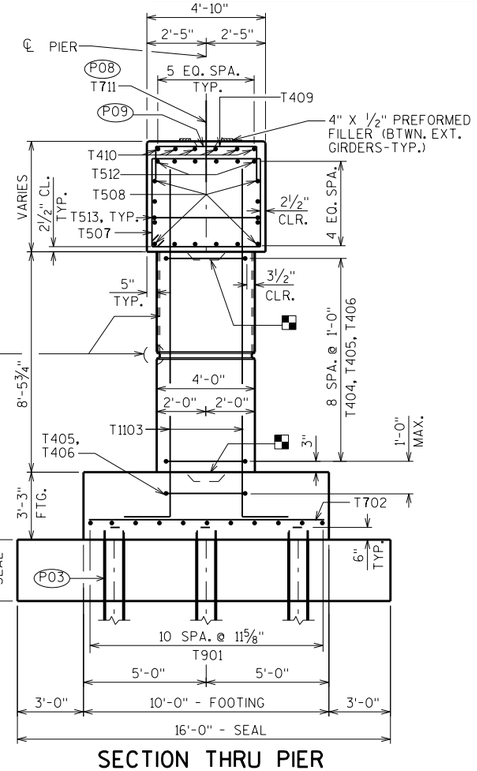


CAP PLAN



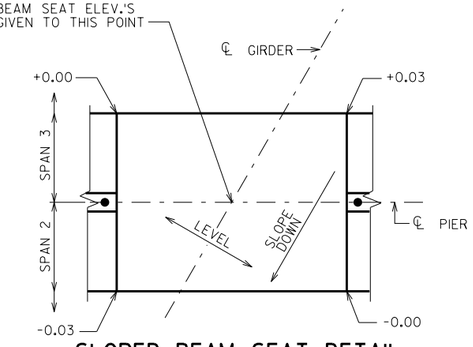
GROOVE DETAIL

HORIZONTAL SHOWN, VERTICAL SIMILAR.



SECTION THRU PIER

* BEAM SEAT ELEV.'S GIVEN TO THIS POINT



SLOPED BEAM SEAT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

PIER 2

DRAWING R06 OF R43

PRE_186

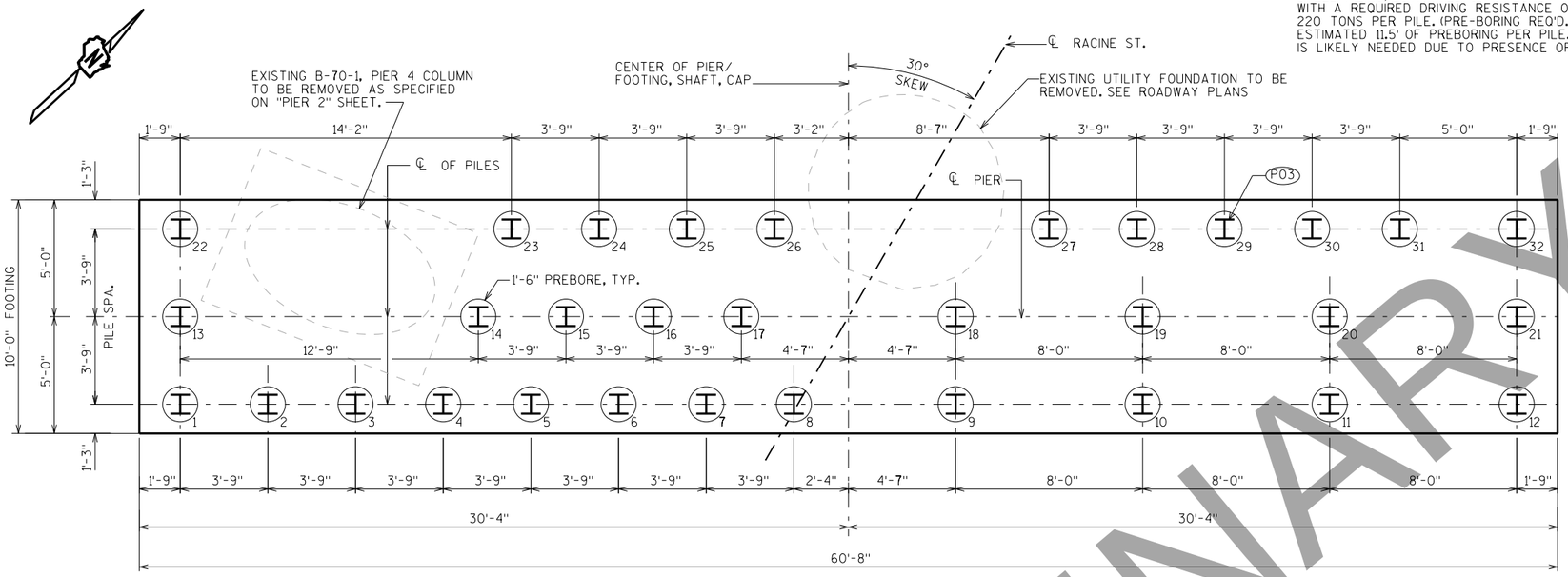
SCALE = 3.00

DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

(P03) SUPPORT PIER ON HP 12 X 53 STEEL PILING, ESTIMATED 15'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. (PRE-BORING REQ'D. ESTIMATED 11.5' OF PREBORING PER PILE. CASING IS LIKELY NEEDED DUE TO PRESENCE OF WATER.)

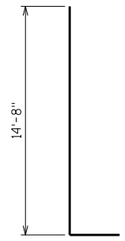


PILE PLAN

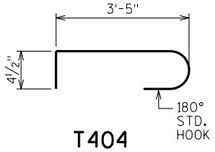
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

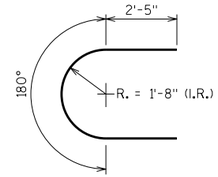
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
T901		22	32'-6"			FOOTING-HORIZ.
T702		86	9'-8"			FOOTING-HORIZ.
T1103	X	156	16'-4"	X		FOOTING/SHAFT-VERT.
T404	X	171	4'-3"	X		SHAFT-HORIZ. TIE BAR
T405	X	40	25'-8"			SHAFT-HORIZ. & FOOTING HORIZ.
T406	X	20	10'-2"	X		SHAFT-HORIZ. END & FOOTING HORIZ.
T507	X	37	16'-8"	X		CAP-VERT. STIRRUP
T508	X	24	28'-2"			CAP-HORIZ.
T409	X	18	7'-7"	X		CAP-VERT. TOP
T410	X	6	18'-0"			CAP-HORIZ. TOP
T711	X	18	3'-4"			CAP-VERT. DOWEL
T512	X	12	31'-6"	X		CAP-HORIZ.-TOP
T513	X	10	7'-7"	X		CAP-HORIZ.-ENDS



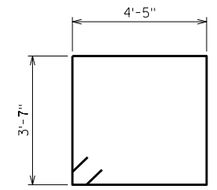
T1103



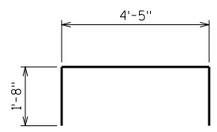
T404



T406



T409



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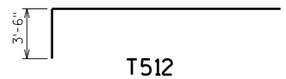

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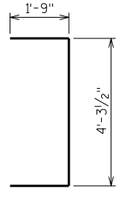

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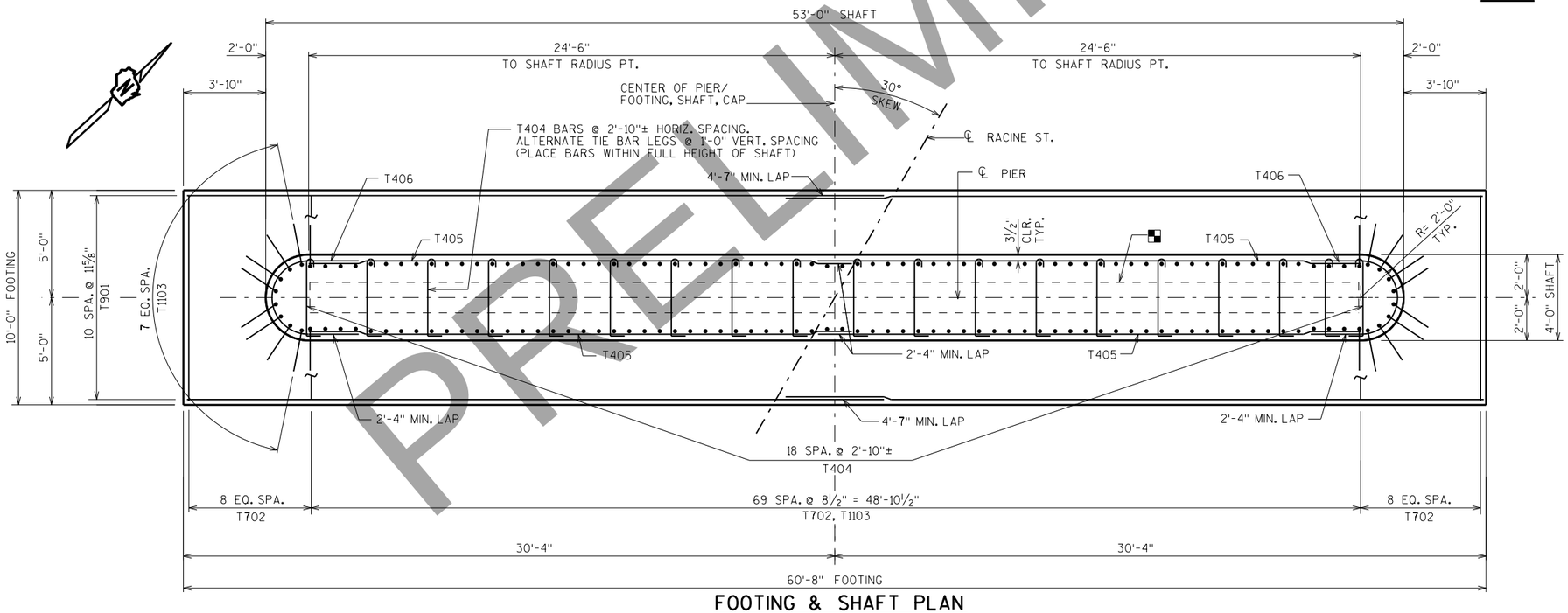


FOOTING & SHAFT PLAN

PILES NOT SHOWN FOR CLARITY

KEYED CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY 4" DEEP X 1'-4" WIDE X 49'-0" LONG. (AT TOP OF FOOTING AND TOP OF SHAFT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

PIER 2 DETAILS

DRAWING R07 OF R43

PRE_187

SCALE = 3.00

PRELIMINARY

8

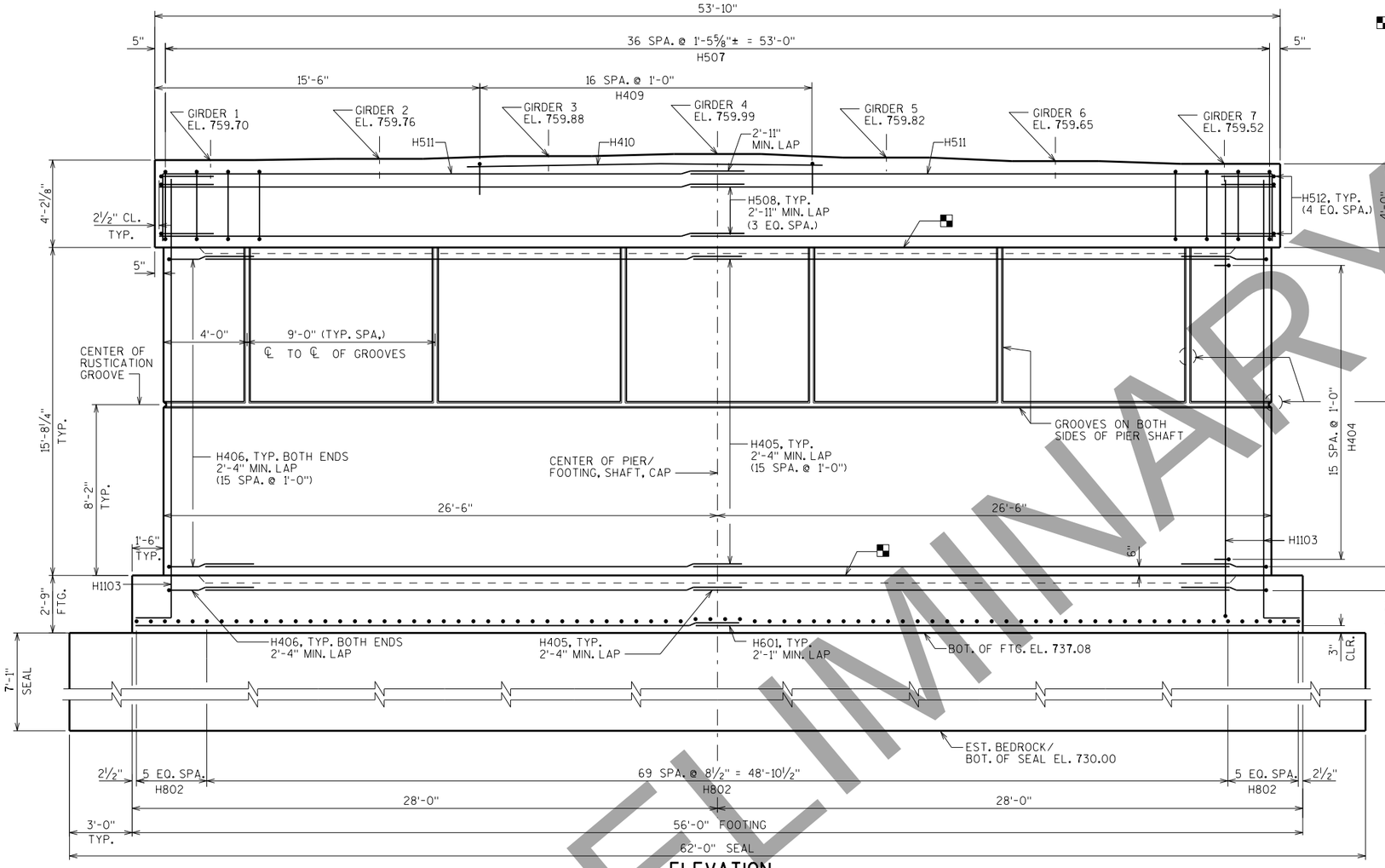
8

DRAFT April 20, 2020

STATE PROJECT NUMBER

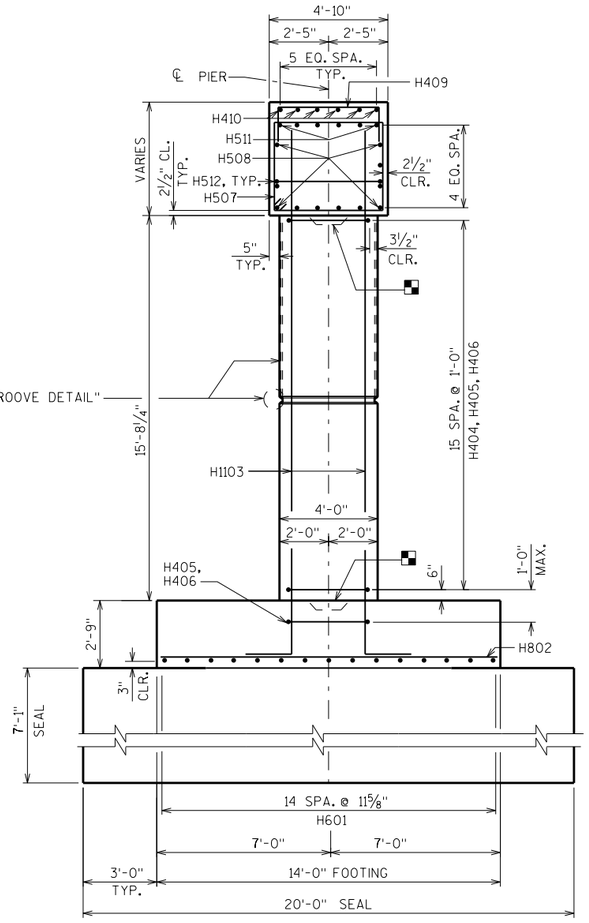
4992-03-71

KEYED CONSTRUCTION JOINT
FORMED BY BEVELED KEYWAY
4" DEEP X 1'-4" WIDE X 49'-0" LONG.

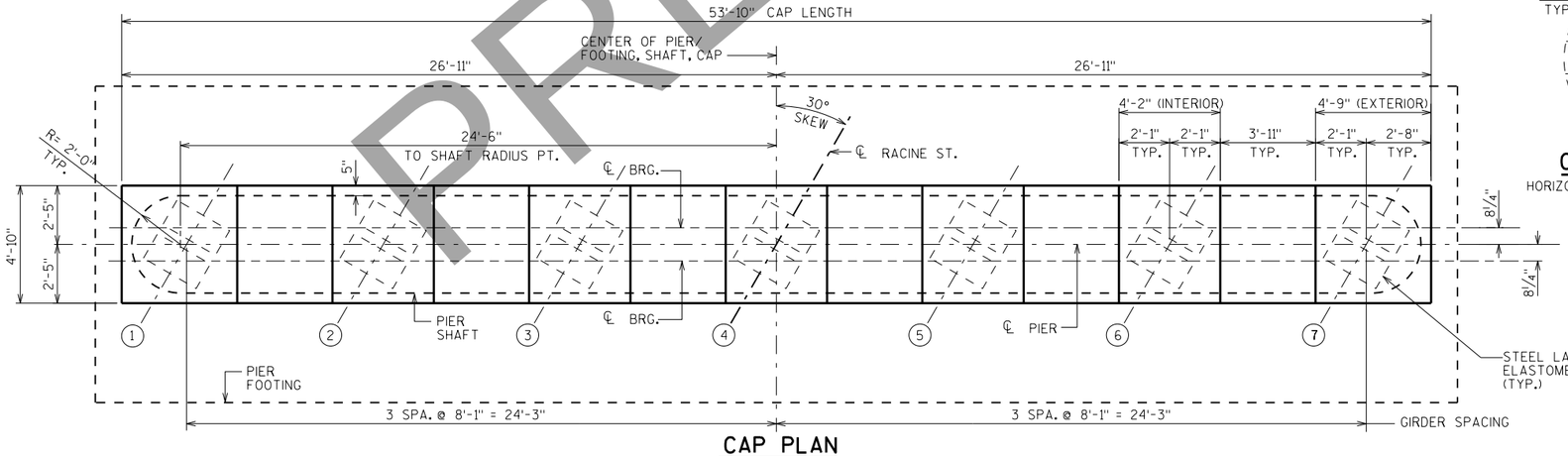


ELEVATION

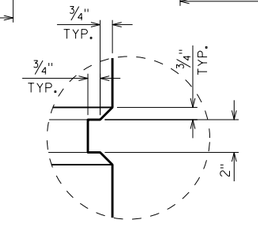
LOOKING NORTH



SECTION THRU PIER



CAP PLAN



GROOVE DETAIL

HORIZONTAL SHOWN, VERTICAL SIMILAR.

PIER IS DESIGNED FOR USE OF A TRADITIONAL COFFERDAM WITH CONCRETE SEAL FOR DEWATERING. CONCRETE SEAL IS SIZED FOR WATER LEVEL AT OR BELOW EL. 747.0 AND THE BEDROCK ELEVATION SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

PIER 3

DRAWING R08 OF R43

PRE_188

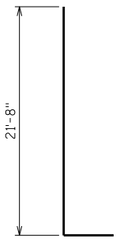
SCALE = 3.00

PRELIMINARY

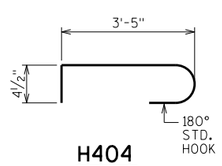
DRAFT April 20, 2020

STATE PROJECT NUMBER

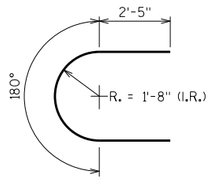
4992-03-71



H1103



H404



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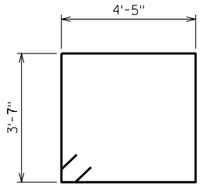

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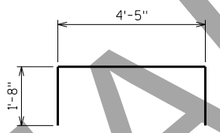
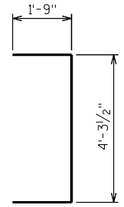


H409

H511

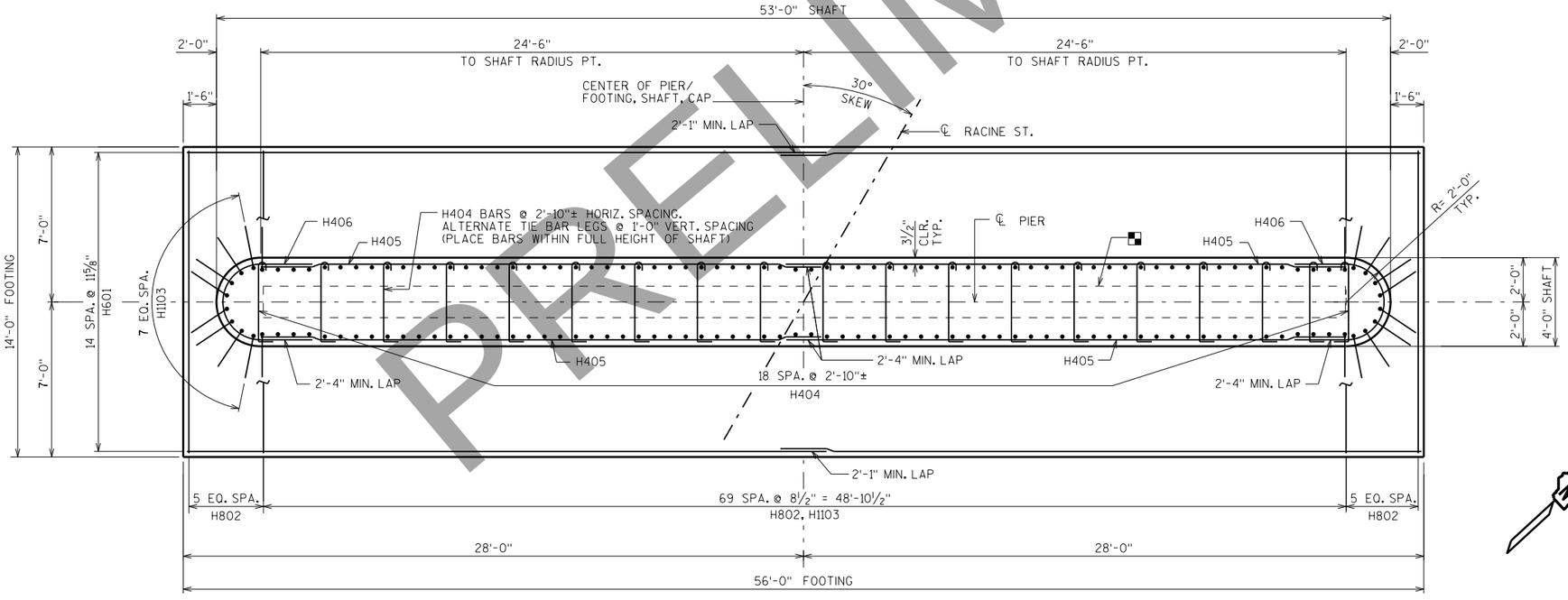


H512

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
H601		30	28'-11"			FOOTING-HORIZ.
H802		80	13'-8"			FOOTING-HORIZ.
H1103	X	156	23'-4"	X		FOOTING/SHAFT-VERT.
H404	X	304	4'-3"	X		SHAFT-HORIZ. TIE BAR
H405	X	68	25'-8"			SHAFT-HORIZ. & FOOTING HORIZ.
H406	X	34	10'-2"	X		SHAFT-HORIZ. END & FOOTING HORIZ.
H507	X	37	16'-8"	X		CAP-VERT. STIRRUP
H508	X	24	28'-2"			CAP-HORIZ.
H409	X	17	7'-7"	X		CAP-VERT. TOP
H410	X	6	17'-0"			CAP-HORIZ. TOP
H511	X	12	31'-6"	X		CAP-HORIZ. TOP
H512	X	10	7'-7"	X		CAP-HORIZ.-ENDS



FOOTING & SHAFT PLAN

KEYED CONSTRUCTION JOINT
FORMED BY BEVELED KEYWAY
4" DEEP X 1'-4" WIDE X 49'-0" LONG.
(AT TOP OF FOOTING AND TOP OF SHAFT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

PIER 3 DETAILS

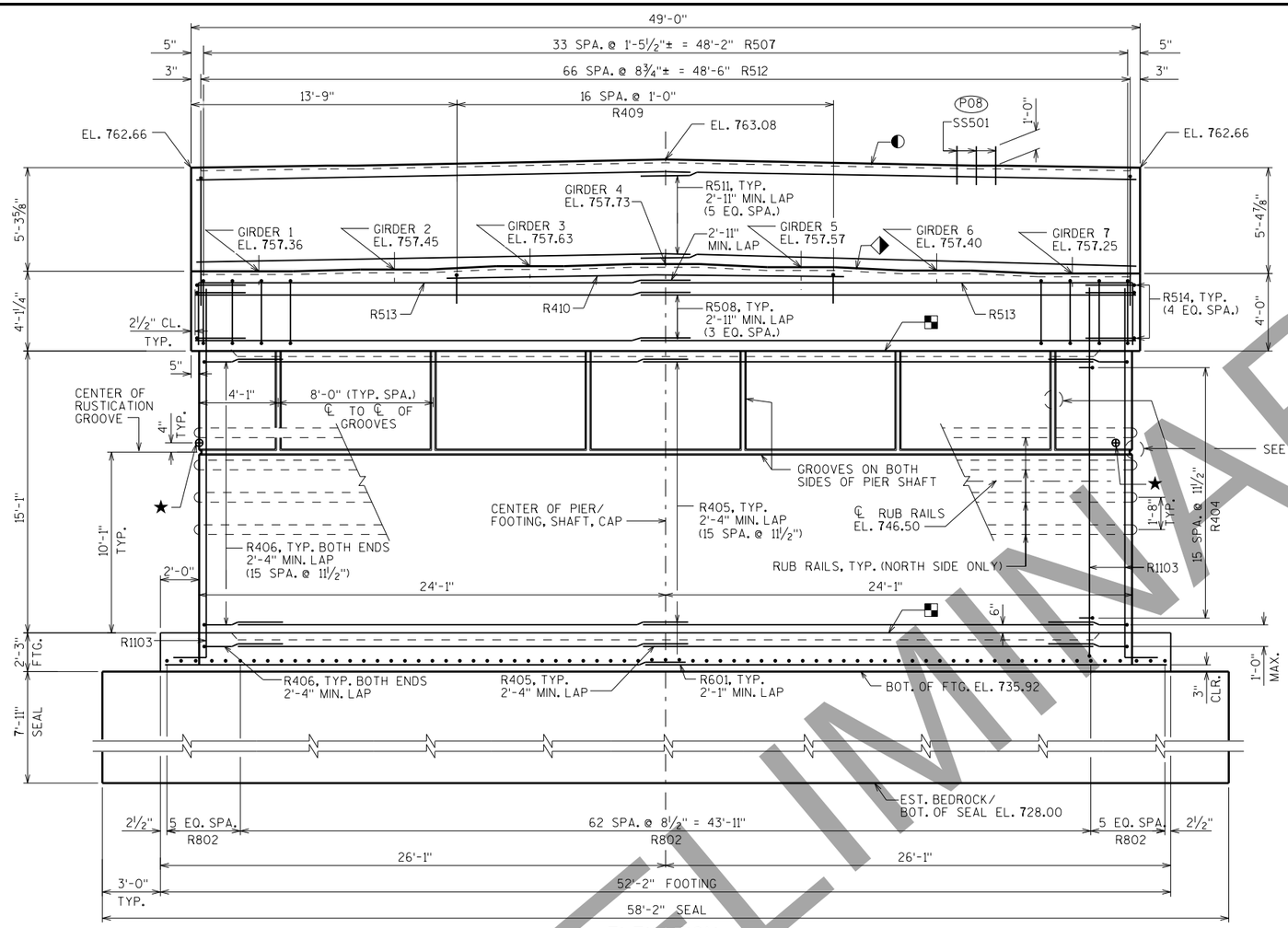
DRAWING R09 OF R43

PRE_189

SCALE = 3.00

PRELIMINARY

DRAFT April 20, 2020



ELEVATION
LOOKING NORTH

CONSTRUCTION JOINT.
KEYWAY FORMED BY BEVELED 2 X 6.
(48'-0" LONG)

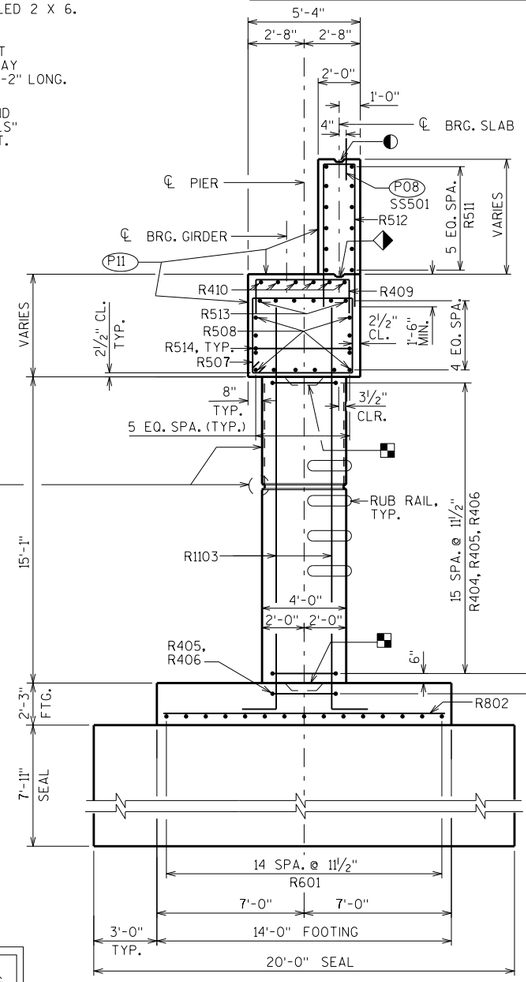
OPTIONAL CONSTRUCTION JOINT.
KEYWAY FORMED BY BEVELED 2 X 6.
(48'-0" LONG, IF USED.)

KEYED CONSTRUCTION JOINT
FORMED BY BEVELED KEYWAY
4" DEEP X 1'-4" WIDE X 44'-2" LONG.

★ SEE "EYE BOLT DETAIL" AND
"BUOY ATTACHMENT DETAILS"
ON "PIER 4 DETAILS" SHEET.

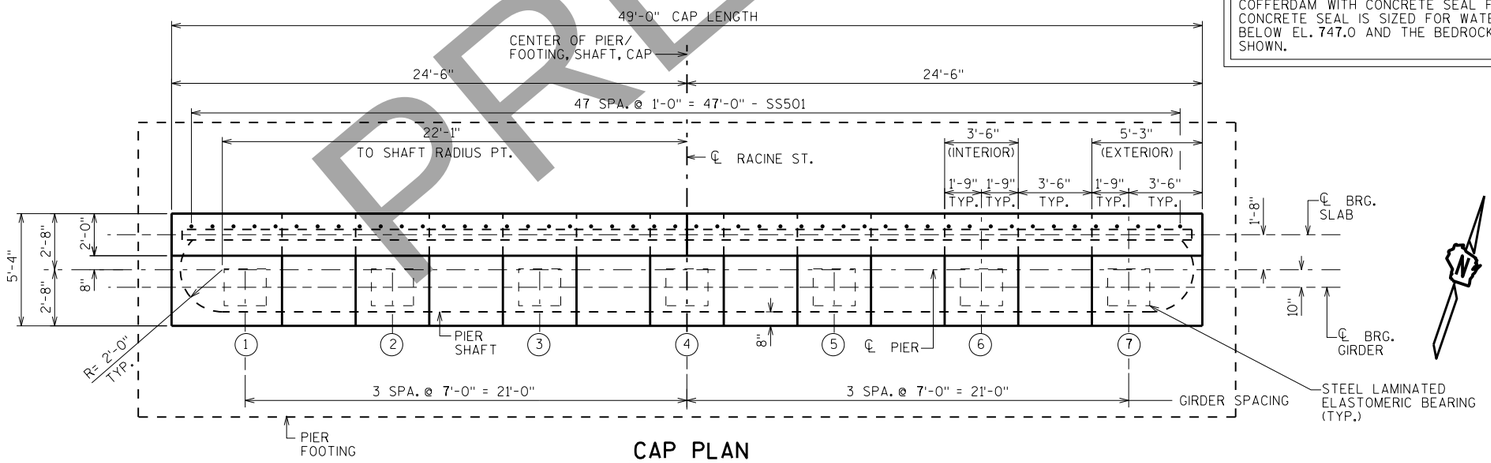
P08 SS501 BARS @ 1'-0" CTRS.
MAY BE PLACED AFTER
CONCRETE IS POURED
BUT BEFORE INITIAL
SET HAS TAKEN PLACE.
(EMBED 1'-0" INTO CONC.)

P11 COAT TOP & SIDES OF
EXPOSED PIER CAP AS
SPECIFIED FOR BRIDGE
SEAT PROTECTION.
INCIDENTAL TO BID
ITEM "CONCRETE
MASONRY BRIDGES".

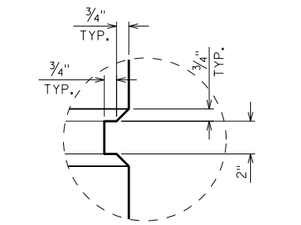


SECTION THRU PIER
LOOKING WEST

PIER IS DESIGNED FOR USE OF A TRADITIONAL COFFERDAM WITH CONCRETE SEAL FOR DEWATERING. CONCRETE SEAL IS SIZED FOR WATER LEVEL AT OR BELOW EL. 747.0 AND THE BEDROCK ELEVATION SHOWN.



CAP PLAN
ONLY PARTIAL SHAFT PLAN SHOWN FOR CLARITY.



GROOVE DETAIL
HORIZONTAL SHOWN, VERTICAL SIMILAR.

STATE PROJECT NUMBER
4992-03-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

PIER 4

DRAWING
R10 OF R43

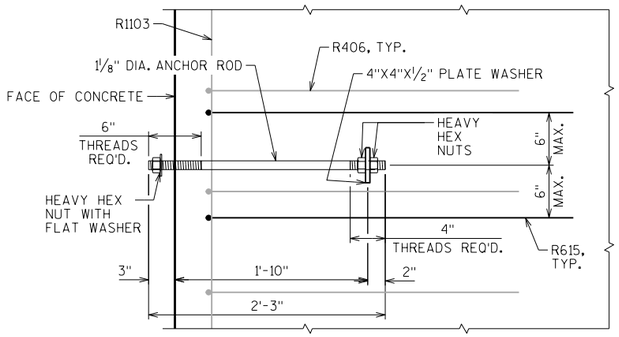
PRE_190

SCALE = 3.50

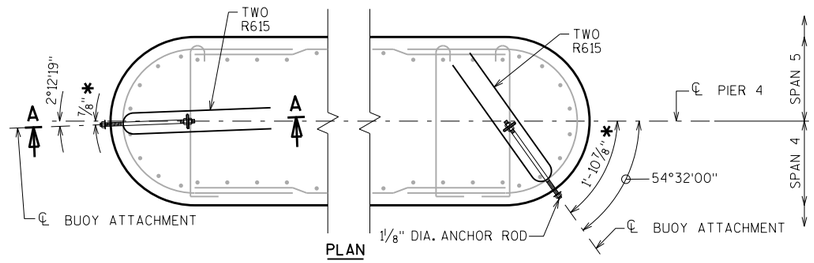
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71



SECTION A-A



PLAN

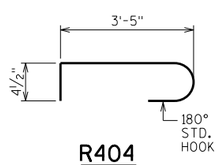
BUOY ATTACHMENT DETAILS

LOCATE ANCHOR RODS 4" ABOVE RUSTICATIONS (APPROX. EL. = 748.48)

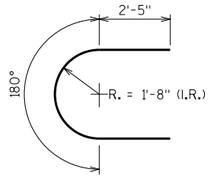
✱ DIMENSION TAKEN ALONG OUTSIDE FACE OF PIER

NOTE: ANCHOR RODS SHALL MEET THE REQUIREMENT OF ASTM F1554 GRADE 105. PROVIDE (3) HEAVY HEX NUTS, (1) FLAT WASHER, AND (1) 4"X4"X½" PLATE WASHER PER ANCHORAGE. GALVANIZE ALL COMPONENTS AFTER FABRICATION. ALL COMPONENTS ARE INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES"

R1103



R404



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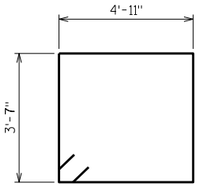

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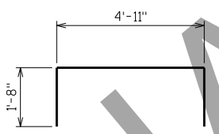

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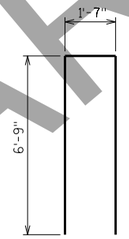


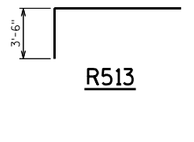
R512

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R601		30	27'-0"			FOOTING-HORIZ.
R802		73	13'-8"			FOOTING-HORIZ.
R1103	X	142	22'-3"	X		FOOTING/SHAFT-VERT.
R404	X	272	4'-3"	X		SHAFT-HORIZ. TIE BAR
R405	X	68	23'-3"			SHAFT-HORIZ. & FOOTING HORIZ.
R406	X	34	10'-2"	X		SHAFT-HORIZ. END & FOOTING HORIZ.
R507	X	34	17'-8"	X		CAP-VERT. STIRRUP
R508	X	24	25'-10"			CAP-HORIZ.
R409	X	17	8'-1"	X		CAP-VERT. TOP
R410	X	6	17'-0"			CAP-HORIZ. TOP
R511	X	24	25'-10"			CAP WALL-HORIZ.
R512	X	67	14'-10"	X		CAP WALL-VERT.
R513	X	12	29'-1"	X		CAP-HORIZ. TOP
R514	X	10	8'-1"	X		CAP-HORIZ.-ENDS
R615	X	4	7'-3"	X		SHAFT-HORIZ.-BUOY ANCHORAGE
SS501	X	48	2'-0"			CAP WALL-VERT. DOWEL BAR

STAINLESS STEEL REINFORCEMENT



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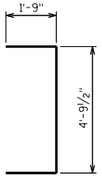

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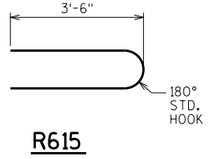

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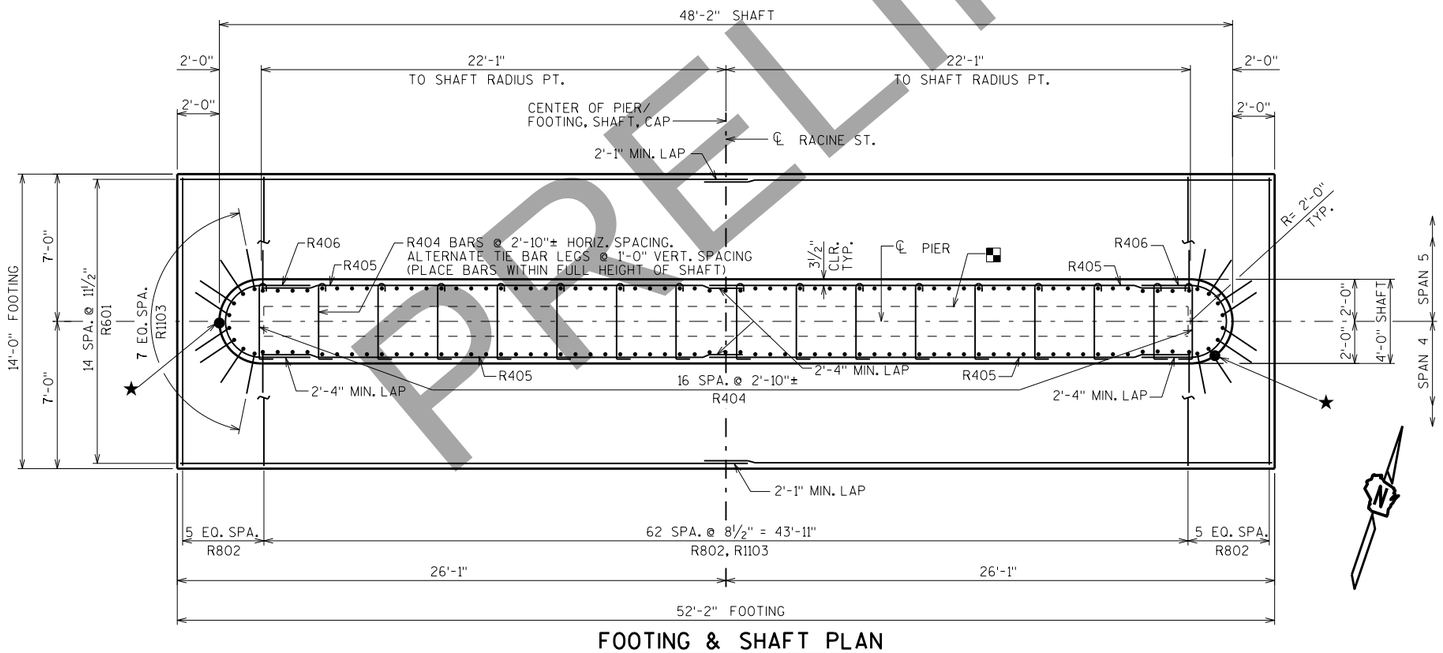

FOOTING & SHAFT PLAN

NOTE:
SEE "NAVIGATION FENDER SYSTEM DETAILS" IN BASCULE PLANS FOR RUB RAIL DETAILS.

★ SEE "EYE BOLT DETAIL" AND "BUOY ATTACHMENT DETAILS" ON "PIER 4 DETAILS" SHEET.

▀ KEYED CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY 4" DEEP X 1'-4" WIDE X 44'-2" LONG. (AT TOP OF FOOTING AND TOP OF SHAFT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY WWR | PLANS CK'D. ABS

PIER 4 DETAILS

DRAWING R11 OF R43

PRE_191

SCALE = 3.50

PRELIMINARY

DRAFT April 20, 2020

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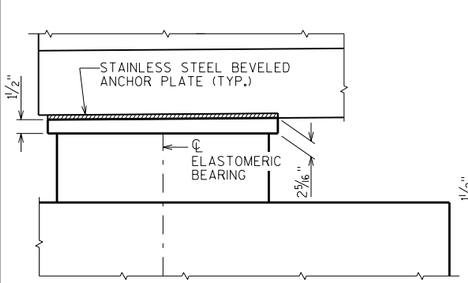
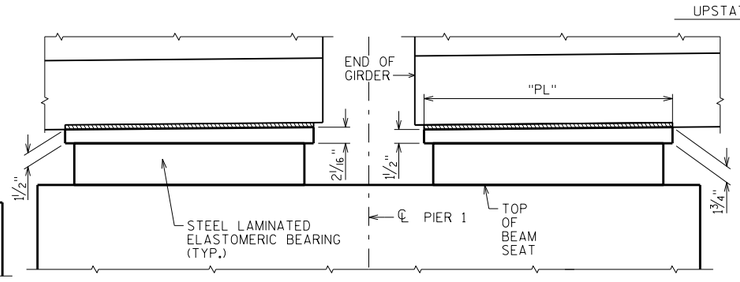
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

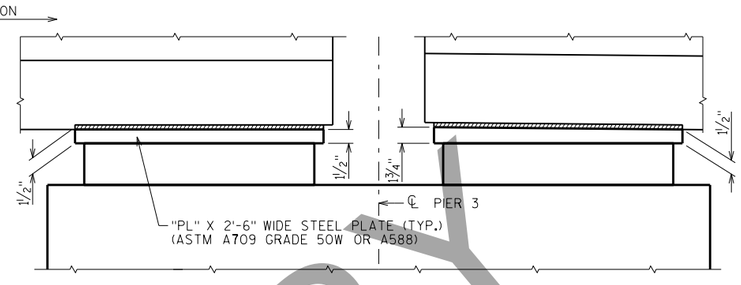


SOUTH ABUTMENT BEARINGS



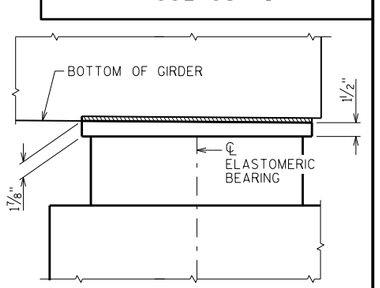
PIER 1 SOUTH SIDE BEARINGS

PIER 1 NORTH SIDE BEARINGS



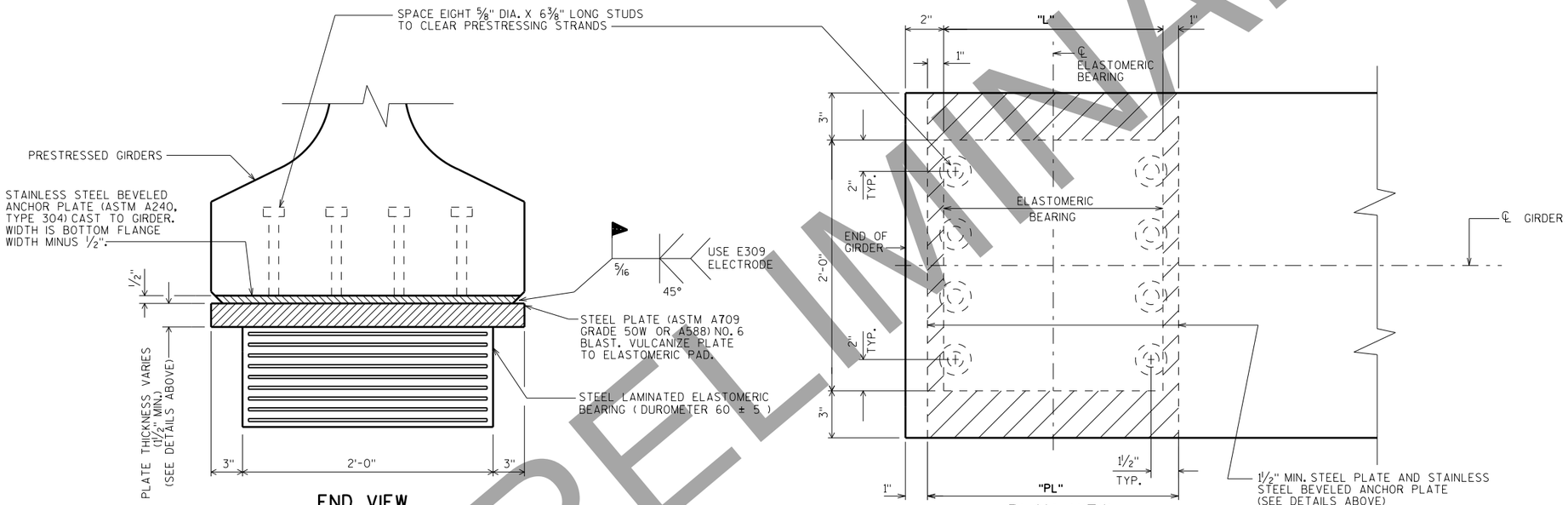
PIER 3 SOUTH SIDE BEARINGS

PIER 3 NORTH SIDE BEARINGS



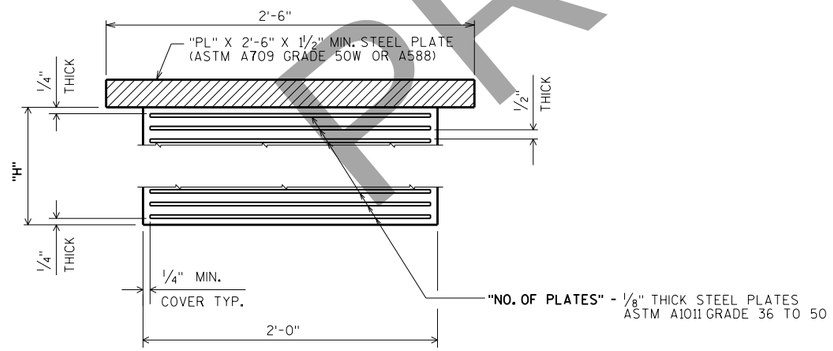
PIER 4 BEARINGS

PARTIAL LONGITUDINAL SECTION LOOKING WEST



END VIEW

PLAN VIEW



SECTION THRU ELASTOMERIC BEARING

BEARING DIMENSIONS TABLE

	SOUTH ABUTMENT	PIER 1 SOUTH SIDE	PIER 1 NORTH SIDE	PIER 3 SOUTH SIDE	PIER 3 NORTH SIDE	PIER 4
"L" (PAD LENGTH)	23 IN.	12 IN.	12 IN.	12 IN.	12 IN.	21 IN.
"H" (TOTAL PAD HEIGHT)	7.5 IN.	3.75 IN.	3.75 IN.	3.75 IN.	3.75 IN.	6.875 IN.
"NO. OF PLATES"	12	6	6	6	6	11
"PL" (PLATE LENGTH)	25 IN.	14 IN.	14 IN.	14 IN.	14 IN.	23 IN.

NOTES

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85° F.

ALL MATERIAL USED FOR BEARINGS SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING PADS ELASTOMERIC LAMINATED", EACH.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

DRAWING R12 OF R43

BEARING DETAILS

PRE_192

SCALE = 0.33

PRELIMINARY

8

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DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

◨ GIRDER DATA - "P" DIMENSION TABLE

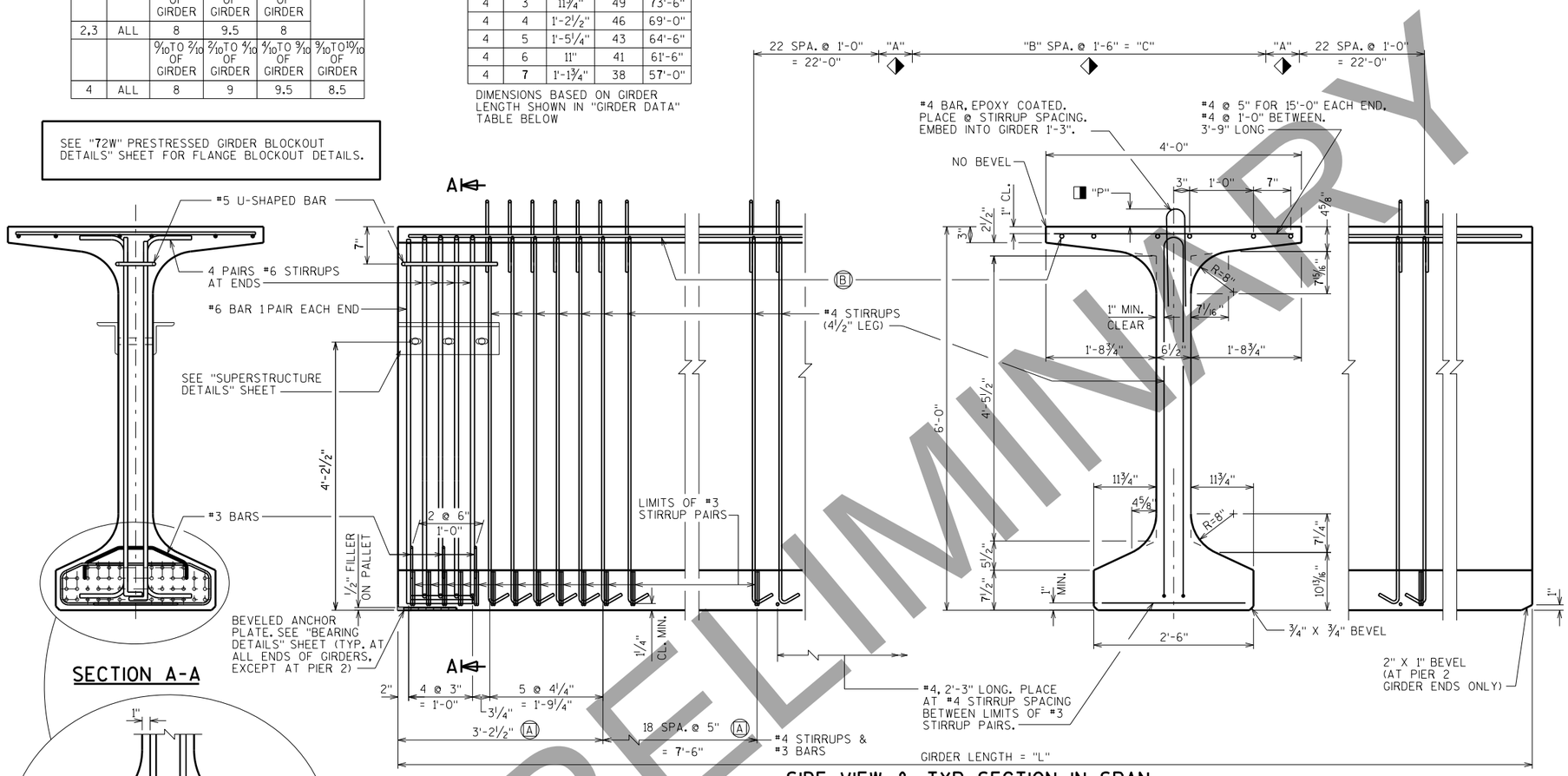
SPAN	GIRDER	"P" (IN.)			
		0/10 TO 6/10 OF GIRDER	6/10 TO 8/10 OF GIRDER	8/10 TO 10/10 OF GIRDER	
1	ALL	9.5	9	8	
		0/10 TO 7/10 OF GIRDER	7/10 TO 9/10 OF GIRDER	9/10 TO 10/10 OF GIRDER	
2,3	ALL	8	9.5	8	
		0/10 TO 2/10 OF GIRDER	2/10 TO 4/10 OF GIRDER	4/10 TO 9/10 OF GIRDER	9/10 TO 10/10 OF GIRDER
4	ALL	8	9	9.5	8.5

SEE "72W" PRESTRESSED GIRDER BLOCKOUT DETAILS" SHEET FOR FLANGE BLOCKOUT DETAILS.

◆ STIRRUP SPACING TABLE

SPAN	GIRDER	"A"	"B"	"C"
1	ALL	10"	61	91'-6"
2,3	ALL	11"	60	90'-0"
4	1	1'-3 1/4"	54	81'-0"
4	2	9"	52	78'-0"
4	3	11 3/4"	49	73'-6"
4	4	1'-2 1/2"	46	69'-0"
4	5	1'-5 1/4"	43	64'-6"
4	6	11"	41	61'-6"
4	7	1'-1 3/4"	38	57'-0"

DIMENSIONS BASED ON GIRDER LENGTH SHOWN IN "GIRDER DATA" TABLE BELOW



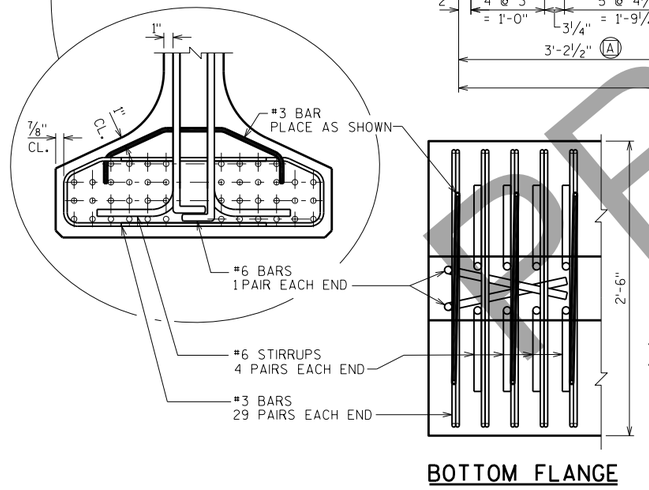
SIDE VIEW & TYP. SECTION IN SPAN

A DETAIL TYP. AT EACH END

B 6 #6 BARS, FOR 20'-10" AT BOTH ENDS OF ALL GIRDERS AND 6 #4 BARS IN BETWEEN WITH MIN. LAP = 1'-11"

⚠ GIRDER LENGTH ACCOUNTS FOR VERTICAL PROFILE.

✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.



SECTION A-A

BOTTOM FLANGE

GIRDER DATA

	SPAN	GIRDER	GIRDER LENGTH "L" (FEET)	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.) ✳	◨ "P" (IN.) SEE "GIRDER DATA - 'P' DIMENSION" TABLE, THIS SHEET	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
⚠	1	1,7	158.583	1.2	2.2	3.0	3.5	3.7	3.5	3.0	2.2	1.1	8,000		0.6	48	7,000	67	20.5	23.5	5		
⚠	1	2-6	158.583	1.0	2.0	2.7	3.1	3.3	3.1	2.7	1.9	1.0	8,000		0.6	48	7,000	67	20.5	23.5	5		
	2,3	1,7	157.25	1.1	2.1	2.9	3.4	3.6	3.4	2.9	2.1	1.1	8,000		0.6	44	7,000	67	20.5	23.5	5		
	2,3	2-6	157.25	1.0	1.9	2.6	3.0	3.2	3.0	2.6	1.9	1.0	8,000		0.6	44	7,000	67	20.5	23.5	5		
	4	1	148.958	0.9	1.7	2.3	2.7	2.9	2.7	2.3	1.7	0.9	8,000		0.6	40	7,000	67	20.5	23.5	5		
	4	2	144.917	0.7	1.3	1.8	2.2	2.3	2.2	1.9	1.4	0.7	8,000		0.6	38	7,000	67	20.5	23.5	5		
	4	3	140.875	0.6	1.2	1.6	1.9	2.0	1.9	1.7	1.2	0.6	8,000		0.6	34	7,000	67	20.5	23.5	5		
	4	4	136.833	0.6	1.1	1.5	1.7	1.8	1.7	1.5	1.1	0.6	8,000		0.6	34	7,000	67	20.5	23.5	5		
	4	5	132.792	0.5	0.9	1.3	1.5	1.6	1.5	1.3	1.0	0.5	8,000		0.6	30	7,000	67	20.5	23.5	5		
	4	6	128.75	0.4	0.8	1.1	1.3	1.4	1.4	1.2	0.8	0.4	8,000		0.6	28	7,000	67	20.5	23.5	5		
	4	7	124.709	0.4	0.8	1.1	1.3	1.4	1.3	1.1	0.8	0.4	8,000		0.6	28	7,000	67	20.5	23.5	5		

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

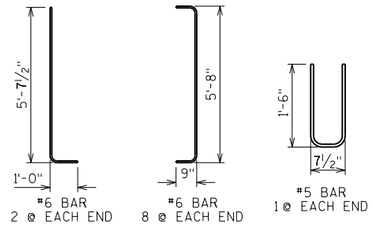
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON ACCEPTANCE OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

FOR STORAGE, HANDLING, AND TRANSPORTING, THIS GIRDER IS REINFORCED TO ALLOW A MAXIMUM OVERHANG FROM THE LIFTING LOCATION OR POINT OF SUPPORT OF UP TO 1/10TH THE GIRDER LENGTH. THE CONTRACTOR IS RESPONSIBLE FOR LATERAL STABILITY OF THE GIRDER UNTIL THE DECK IS CURED.



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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ABS/JPH | PLANS CK'D. ABS

72W" PRESTRESSED GIRDER DETAILS 1

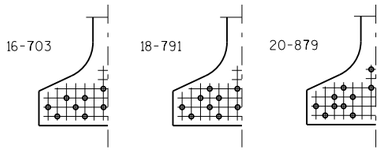
DRAWING R13 OF R43

PRE_193

SCALE = 1.00

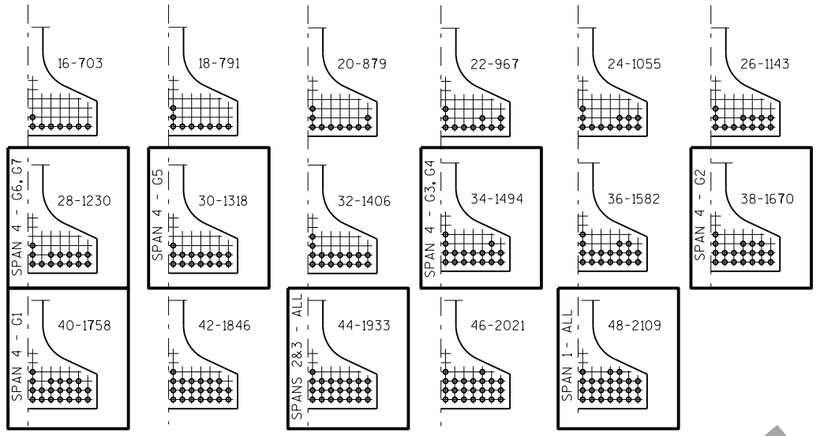
PRELIMINARY

DRAFT April 20, 2020



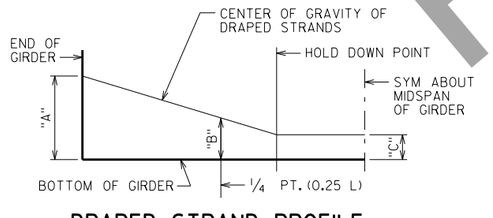
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS



ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



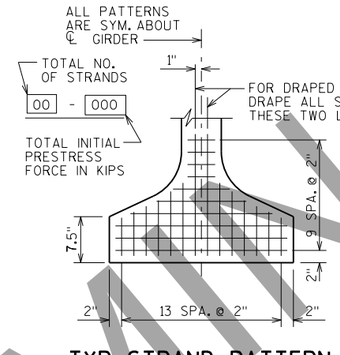
DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

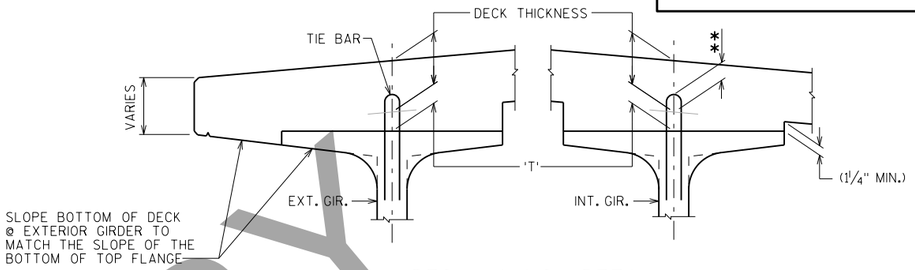
SPAN	GIRDER	CAMBER (IN.) *
1	ALL	4.87
2	ALL	4.16
3	ALL	4.16
4	G1	3.50
4	G2	3.19
4	G3	2.56
4	G4	2.56
4	G5	2.14
4	G6	1.86
4	G7	1.89

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'. USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



TYP. STRAND PATTERN



DECK HAUNCH DETAIL

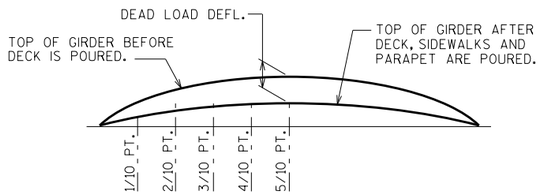
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 4.4" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM

PRELIMINARY

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ABS/JPH | PLANS CK'D. ABS

72W" PRESTRESSED GIRDER DETAILS 2

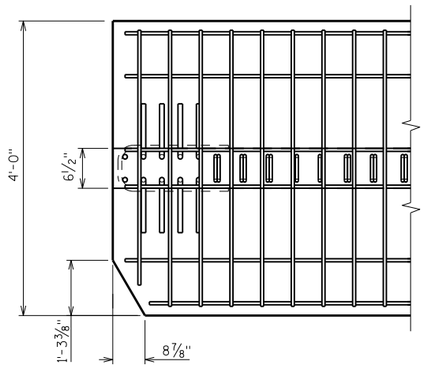
DRAWING R14 OF R43

PRE_194

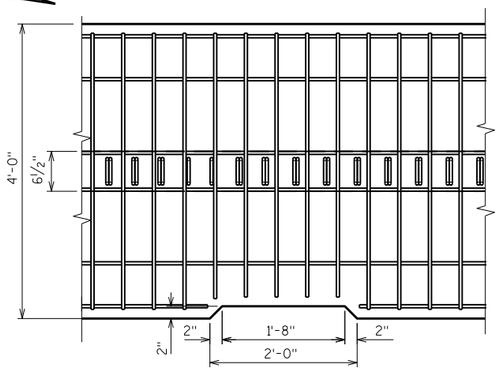
SCALE = 1.00

STATE PROJECT NUMBER

4992-03-71



TOP FLANGE AT S. ABUT.

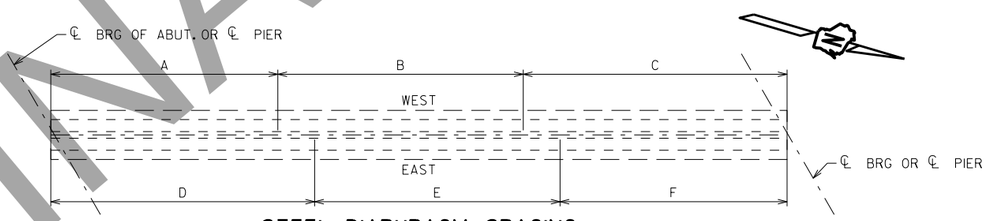


TOP FLANGE AT FLOOR DRAINS

GIRDER 2 SHOWN. MIRROR DETAIL FOR GIRDER 6.

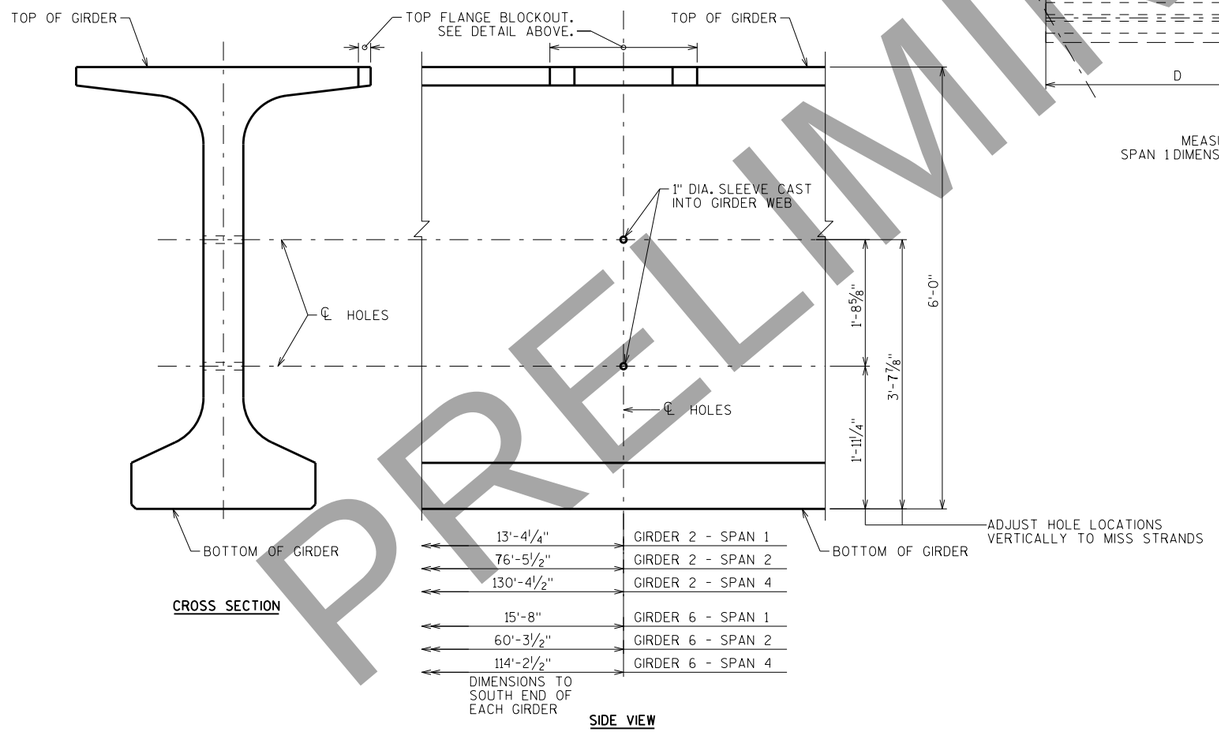
	SPAN 1						SPAN 2					
	WEST			EAST			WEST			EAST		
GIRDER	A	B	C	D	E	F	A	B	C	D	E	F
1	--	--	--	54'-10⅝"	52'-10⅜"	50'-10"	--	--	--	54'-5¼"	52'-5"	50'-4¾"
2	50'-10"	52'-10⅜"	54'-10⅝"	↑	↑	↑	50'-4¾"	52'-5"	54'-5¼"	↑	↑	↑
3	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
4	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
5	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
6	↑	↑	↑	54'-10⅝"	52'-10⅜"	50'-10"	↑	↑	↑	54'-5¼"	52'-5"	50'-4¾"
7	50'-10"	52'-10⅜"	54'-10⅝"	--	--	--	50'-4¾"	52'-5"	54'-5¼"	--	--	--

	SPAN 3						SPAN 4					
	WEST			EAST			WEST			EAST		
GIRDER	A	B	C	D	E	F	A	B	C	D	E	F
1	--	--	--	54'-5¼"	52'-5"	50'-4¾"	--	--	--	51'-0"	48'-11¾"	48'-11¾"
2	50'-4¾"	52'-5"	54'-5¼"	↑	↑	↑	46'-11½"	48'-11¾"	48'-11¾"	49'-7¾"	47'-7⅝"	47'-7⅝"
3	↑	↑	↑	↑	↑	↑	45'-7¼"	47'-7⅝"	47'-7⅝"	48'-3¾"	46'-3⅜"	46'-3⅜"
4	↑	↑	↑	↑	↑	↑	44'-3¼"	46'-3⅜"	46'-3⅜"	46'-11½"	44'-11¼"	44'-11¼"
5	↑	↑	↑	↑	↑	↑	42'-11"	44'-11¼"	44'-11¼"	45'-7¼"	43'-7⅛"	43'-7⅛"
6	↑	↑	↑	54'-5¼"	52'-5"	50'-4¾"	41'-6¾"	43'-7⅛"	43'-7⅛"	44'-3¼"	42'-2⅞"	42'-2⅞"
7	50'-4¾"	52'-5"	54'-5¼"	--	--	--	40'-2¾"	42'-2⅞"	42'-2⅞"	--	--	--



STEEL DIAPHRAGM SPACING

MEASUREMENTS TAKEN ALONG ℄ GIRDER, FROM ENDS OF GIRDER.
SPAN 1 DIMENSIONS ACCOUNT FOR GIRDER LENGTH SHOWN IN "GIRDER DATA" TABLE.



FLOOR DRAIN INSERT DETAILS

SLEEVES FOR FLOOR DRAINS ARE REQUIRED FOR GIRDER 2 AND GIRDER 6.
MEASUREMENTS TAKEN ALONG ℄ GIRDER, FROM SOUTH END OF EACH GIRDER.
SPAN 1 DIMENSIONS ACCOUNT FOR GIRDER LENGTH SHOWN IN "GIRDER DATA" TABLE.

PRELIMINARY

DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ABS/JPH | PLANS CK'D. ABS

72W" PRESTRESSED GIRDER BLOCKOUT DETAILS

DRAWING R15 OF R43

PRE_195

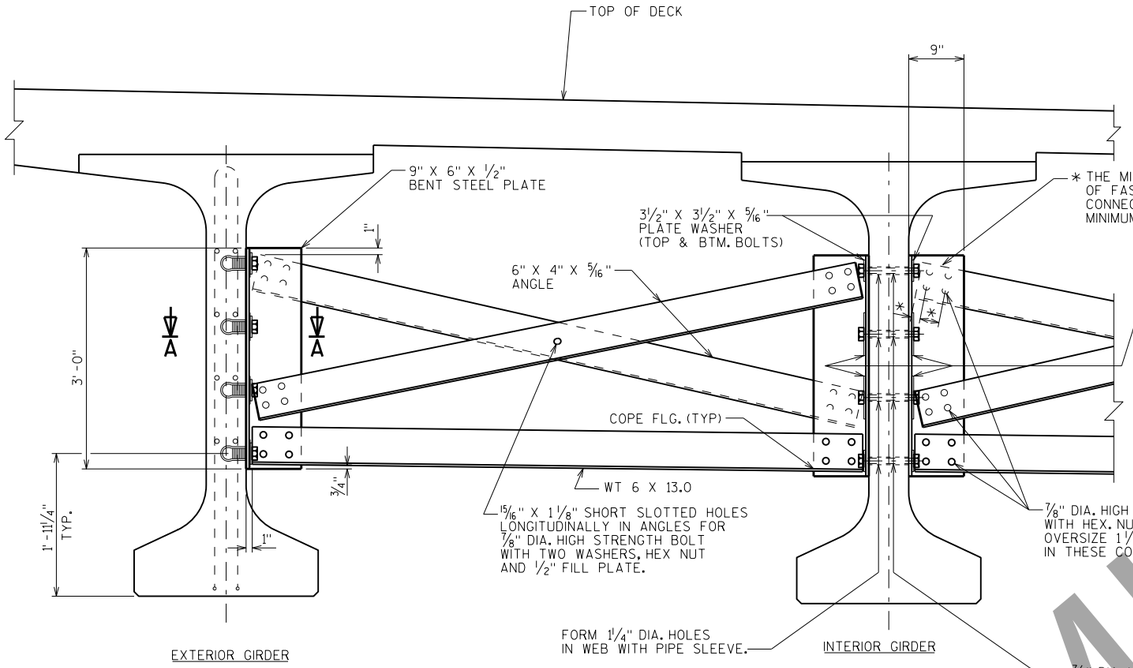
SCALE = 1.00

8

8

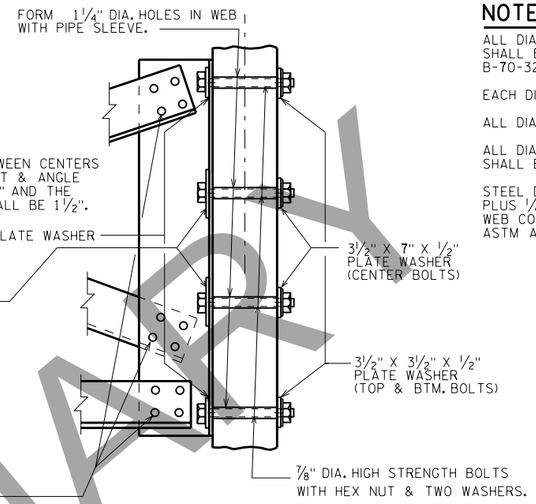
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



PART TRANSVERSE SECTION AT DIAPHRAGM

(72W" PRESTRESSED GIRDER)



SECTION AT INTERIOR GIRDERS (FOR STAGGERED DIAPHRAGMS)

NOTES

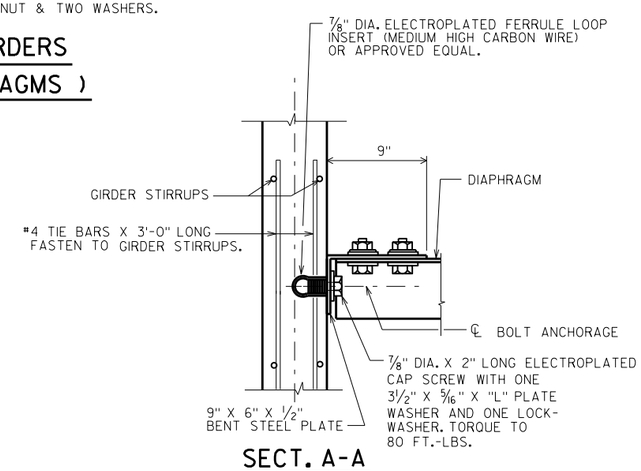
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-70-324", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

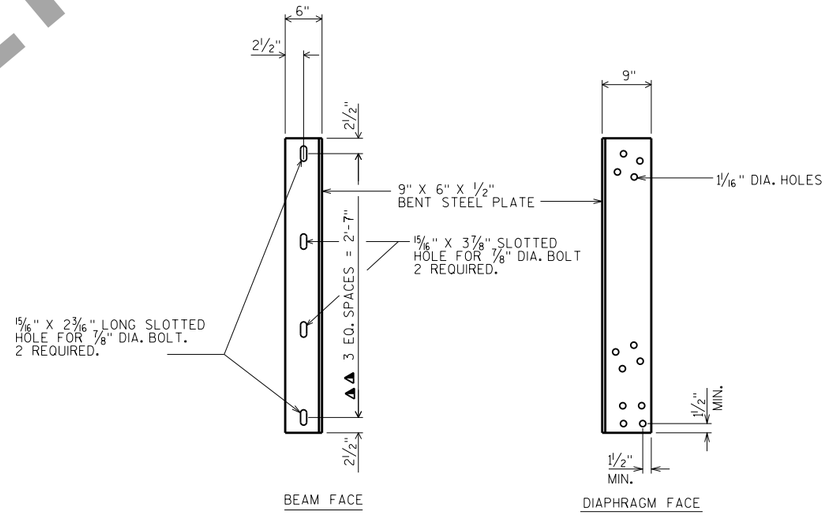
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.



SECT. A-A

(FOR EXTERIOR ATTACHMENT)

"L" = 3 1/2": TOP AND BOTTOM BOLTS
"L" = 7": CENTER BOLTS



DIAPHRAGM SUPPORT

▲▲ BOLT HOLES SHALL BE SPACED SO AS TO MISS PRESTRESSED STRANDS IN CONCRETE BEAMS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

STEEL DIAPHRAGM

DRAWING R16 OF R43

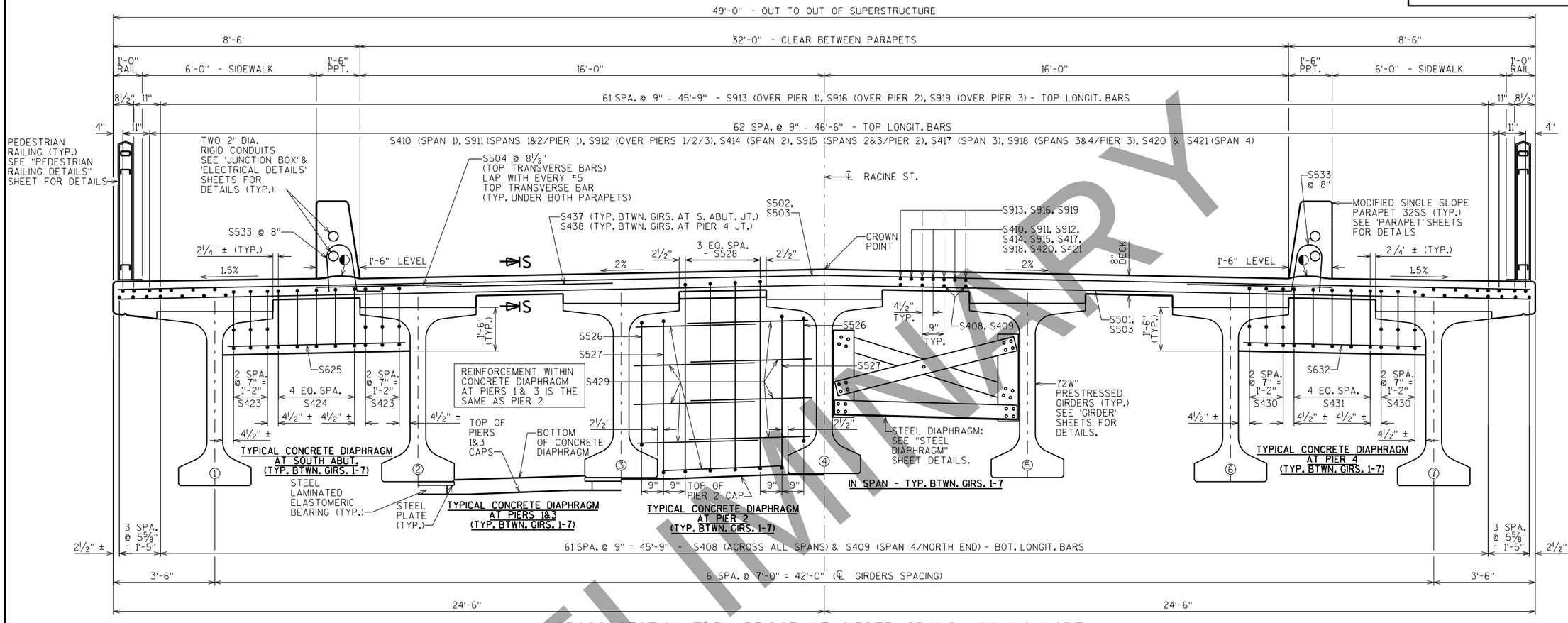
PRE_196

SCALE = 1.00

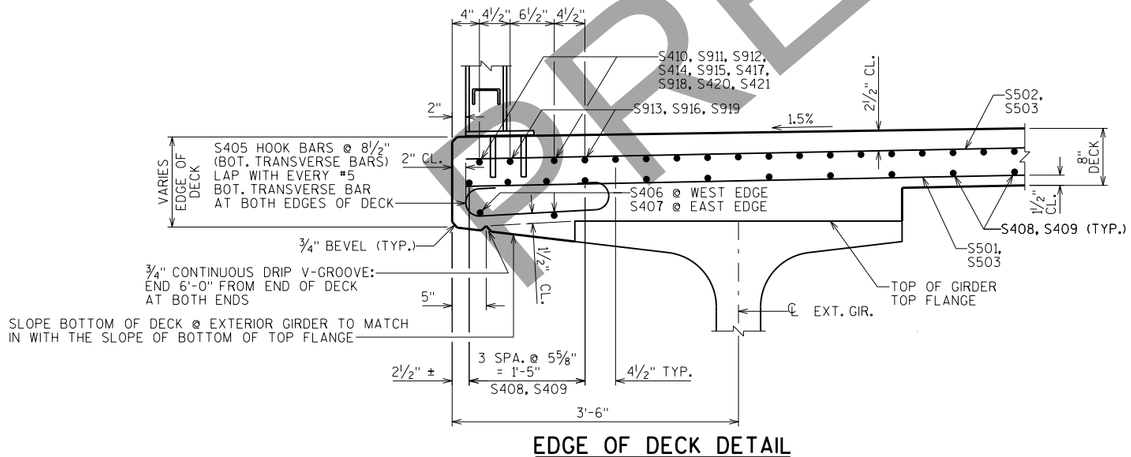
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71

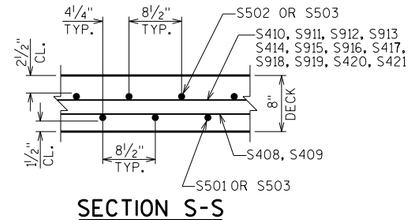


CROSS SECTION THRU BRIDGE AT GIRDER SPANS LOOKING NORTH

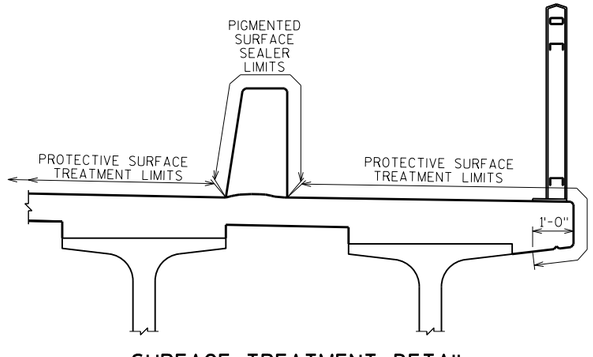


EDGE OF DECK DETAIL

(TYP. AT BOTH EDGES)



SECTION S-S



SURFACE TREATMENT DETAIL

◐ HORIZ. CONST. JOINT: STRIKE OFF AND LEAVE ROUGH AS SHOWN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

SUPERSTRUCTURE CROSS SECTIONS AT SPANS 1-4

DRAWING R17 OF R43

PRE_197

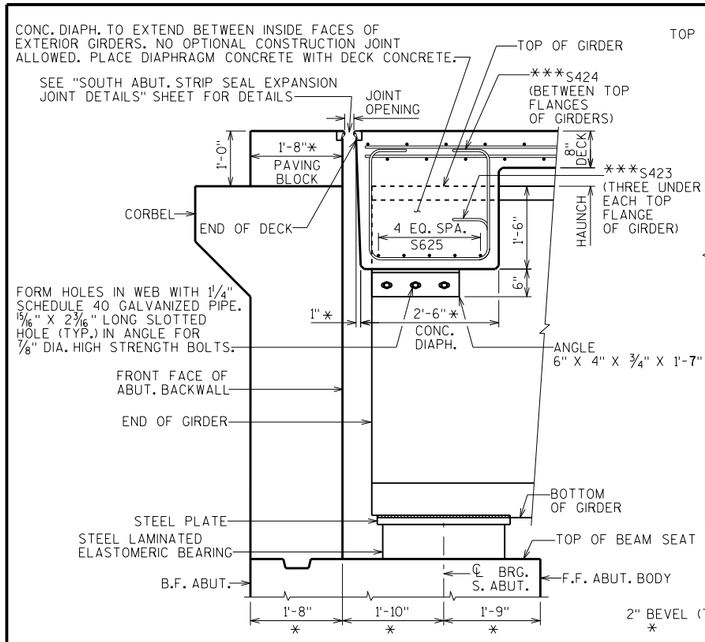
SCALE = 1.80

PRELIMINARY

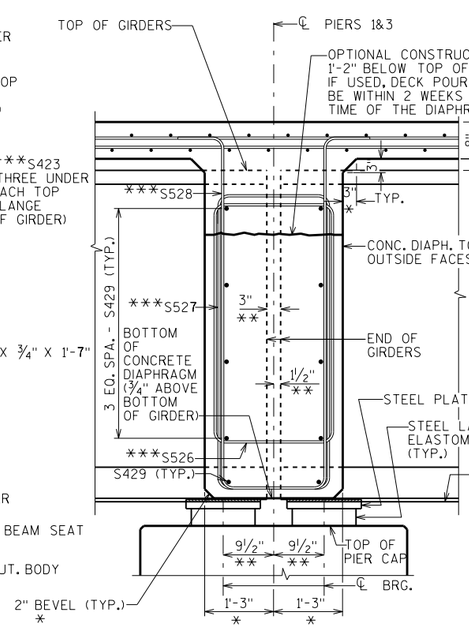
DRAFT April 20, 2020

STATE PROJECT NUMBER

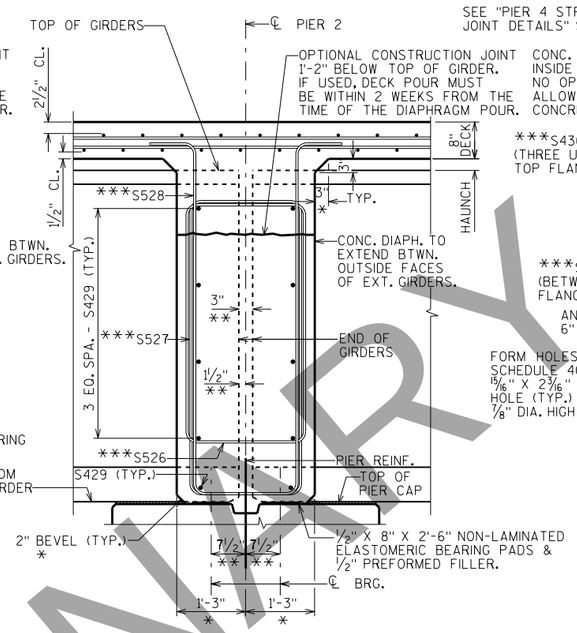
4992-03-71



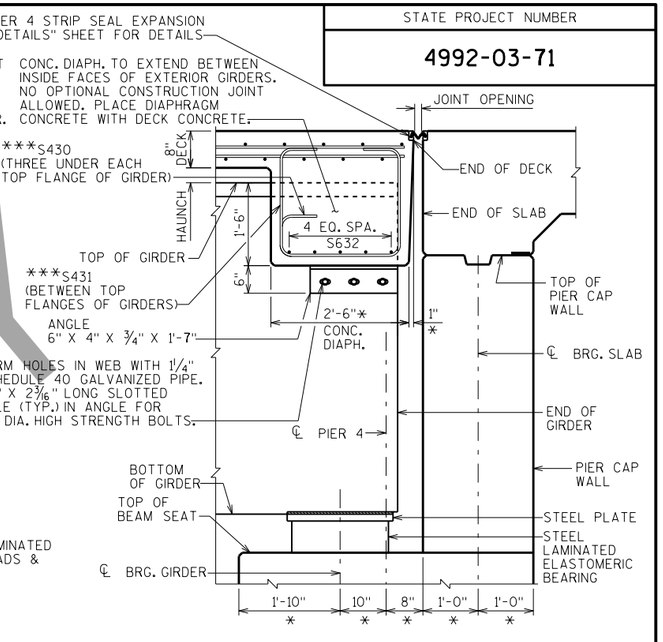
CROSS SECTION AT SOUTH ABUTMENT DIAPHRAGM
(EXPANSION)



CROSS SECTION AT PIERS 1&3 DIAPHRAGMS
(EXPANSION)

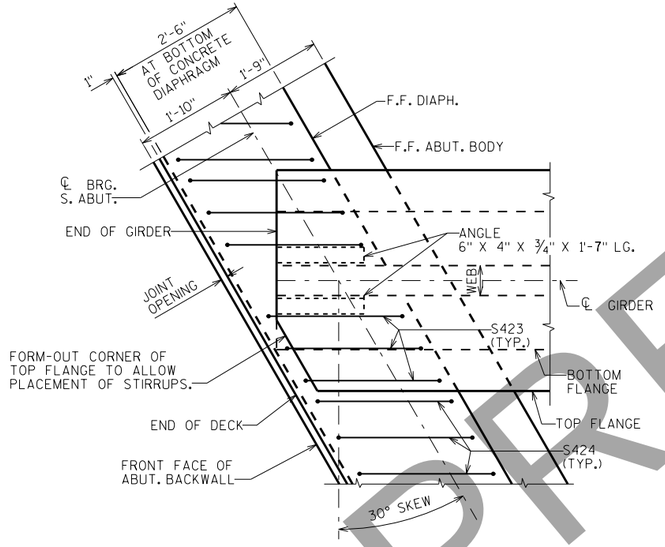


CROSS SECTION AT PIER 2 DIAPHRAGM
FIXED



CROSS SECTION AT PIER 4 DIAPHRAGM
(EXPANSION)

PARTIAL LONGITUDINAL SECTION

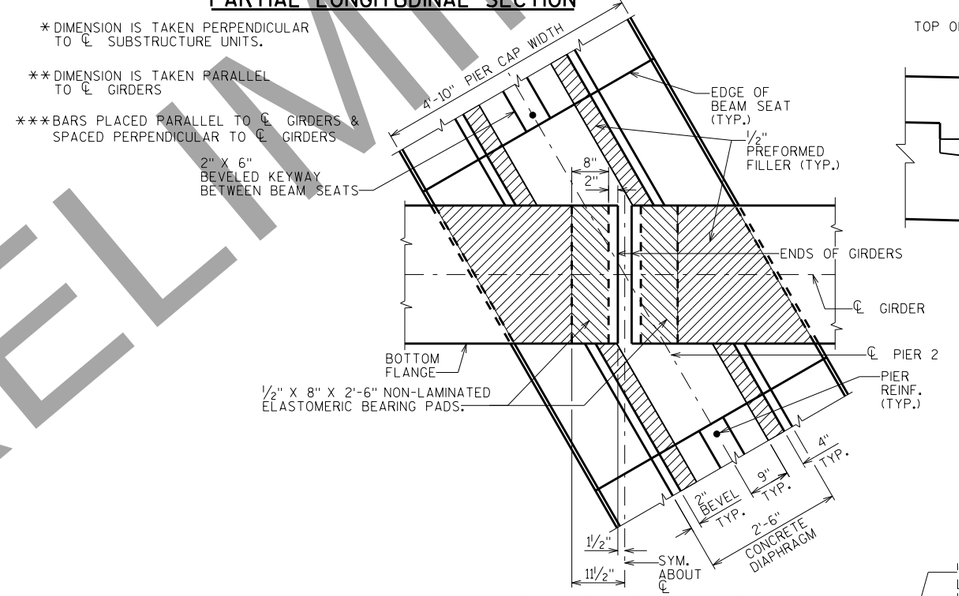


PLAN VIEW OF SOUTH ABUT. DIAPHRAGM

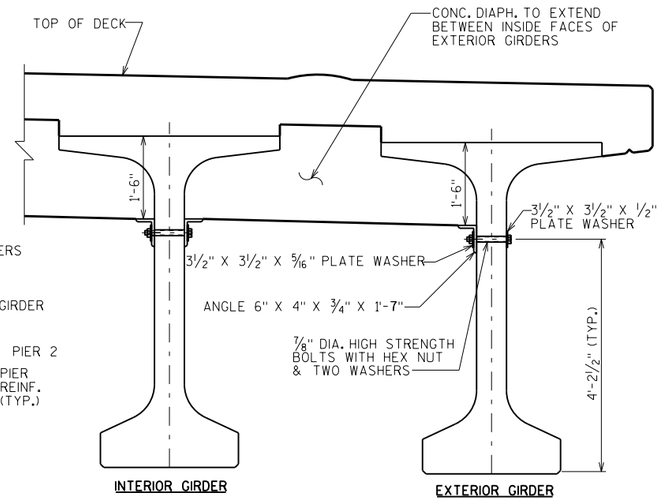
* DIMENSION IS TAKEN PERPENDICULAR TO ℄ SUBSTRUCTURE UNITS.

** DIMENSION IS TAKEN PARALLEL TO ℄ GIRDERS

*** BARS PLACED PARALLEL TO ℄ GIRDERS & SPACED PERPENDICULAR TO ℄ GIRDERS



PLAN VIEW OF PIER 2 DIAPHRAGM



PART TRANSVERSE SECTION AT SOUTH ABUT. & PIER 4 DIAPHRAGM EXPANSION ENDS

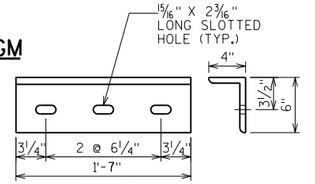
NOTES

ALL DIAPHRAGM SUPPORT HARDWARE SHALL BE INCIDENTAL TO "CONCRETE MASONRY BRIDGES".

DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM SUPPORT HARDWARE INCLUDING BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM SUPPORT ANGLE TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PUS ¼ TURN. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.



ANGLE
6" X 4" X ¾" X 1'-7"

PROVIDE 3½" X 3½" X 5/16" PLATE WASHERS AT ALL LOCATIONS EXCEPT AT EXTERIOR FACES OF EXTERIOR GIRDERS WHERE 3½" X 3½" X ½" PLATE WASHERS SHALL BE PROVIDED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

SUPERSTRUCTURE DETAILS

DRAWING R18 OF R43

PRE_198

SCALE = 1.33

DRAFT April 20, 2020

PRELIMINARY

8

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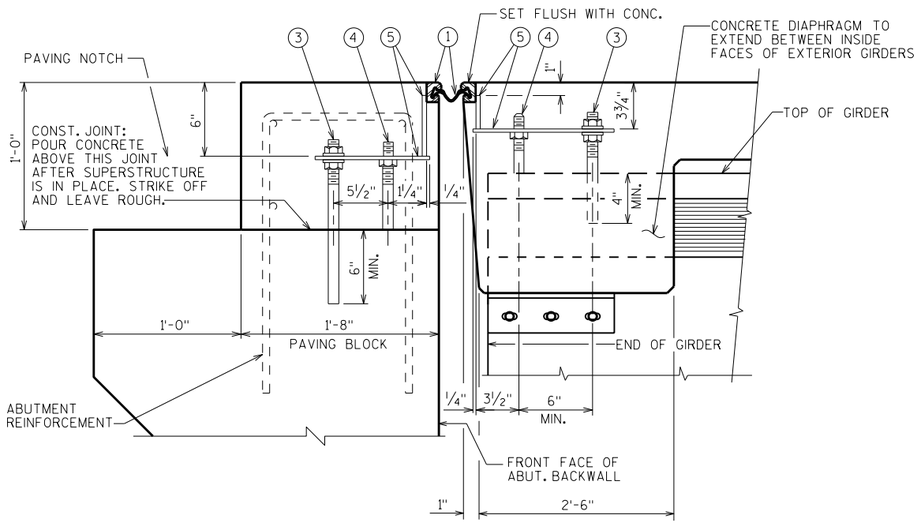
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

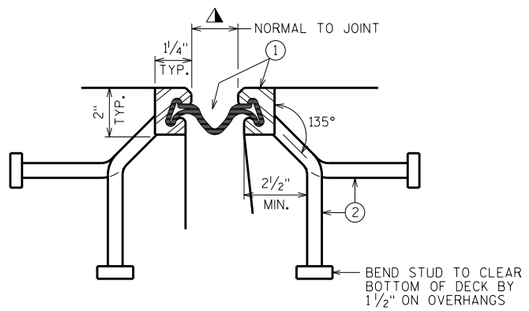


SECTION THRU JOINT AT SOUTH ABUTMENT

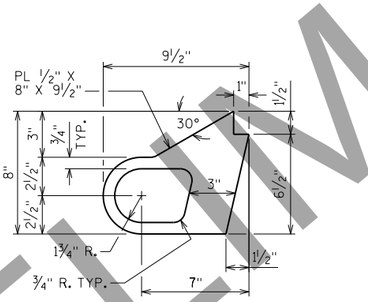
NORMAL TO ℄ BRG. SOUTH ABUT.

LEGEND

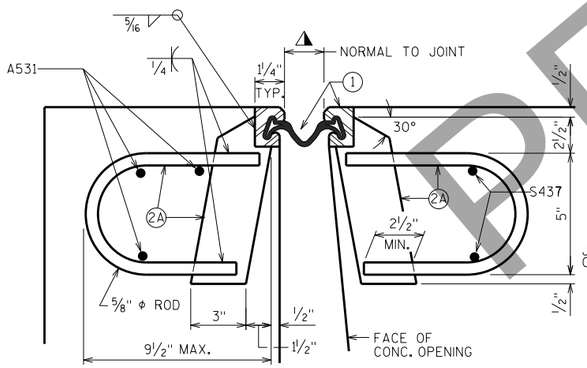
1. NEOPRENE STRIP SEAL (5-INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"Φ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾"Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½"Φ HOLE FOR NO. 3 AND 1"Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.
7. ¾"Φ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾"Φ X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
11. SIDEWALK COVER PLATE ⅜" X 2'-0" X LIMITS SHOWN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.



SECTION THRU JOINT AT PARAPETS



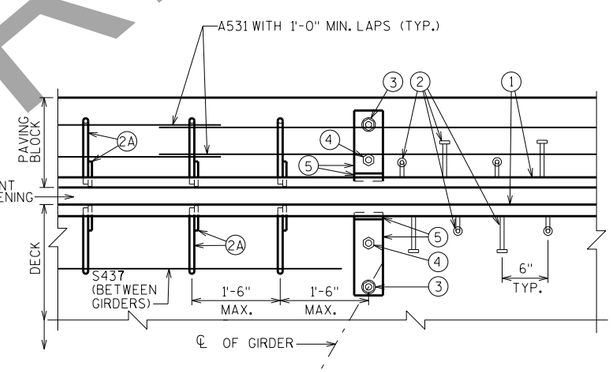
ALTERNATE STRIP SEAL ANCHOR



NOTE: SYMMETRICAL ABOUT ℄ JOINT UNLESS OTHERWISE SHOWN OR NOTED.

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN GIRDERS 2&6



PART PLAN

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-70-324", LF.

⚠ TEMPERATURE TABLE

SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
85°	⅝"
75°	⅞"
65°	1¼"
55°	1½"
45°	1¾"
35°	2"
25°	2¼"
15°	2⅝"
5°	2⅞"

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

SOUTH ABUT. STRIP SEAL EXPANSION JOINT DETAILS PRE_199

DRAWING R19 OF R43

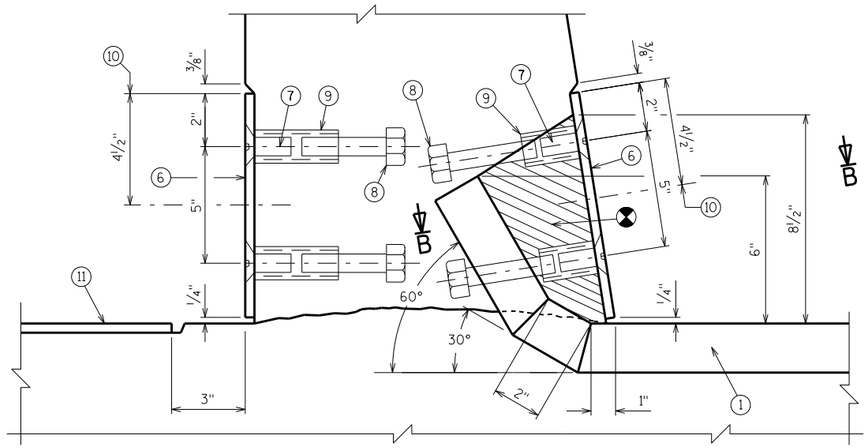
SCALE = 1.00

PRELIMINARY

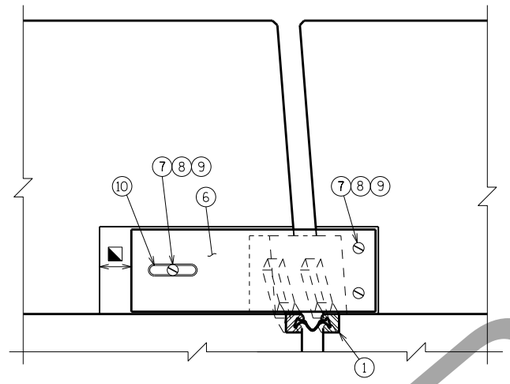
DRAFT April 20, 2020

STATE PROJECT NUMBER

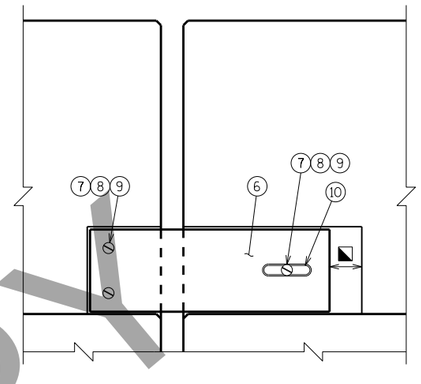
4992-03-71



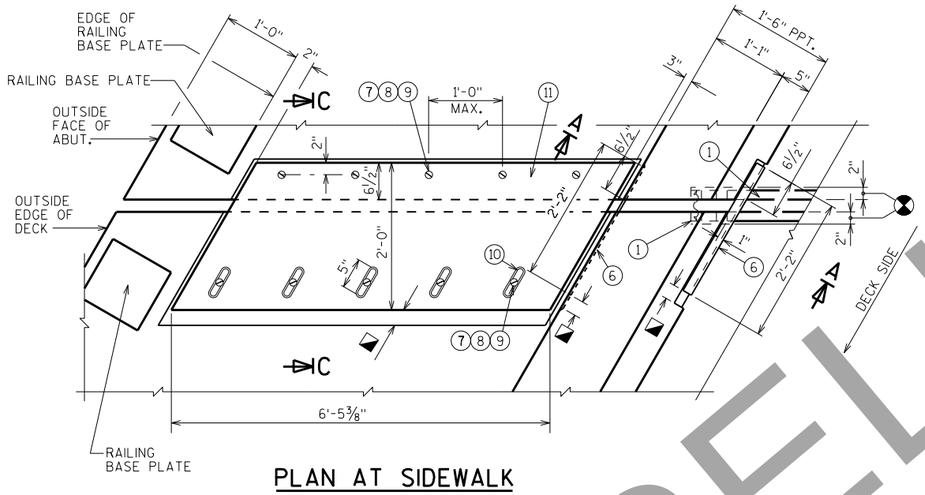
SECTION A-A
TRAFFIC BARRIER



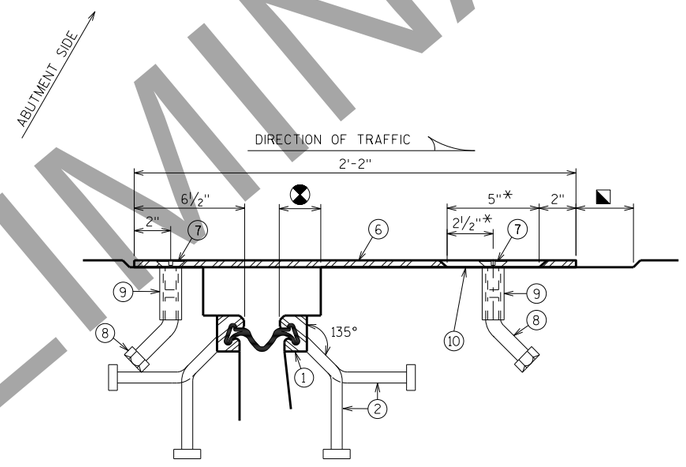
VIEW OF PARAPET PLATES FROM ROADWAY
TRAFFIC BARRIER



VIEW OF PARAPET PLATES FROM SIDEWALK
TRAFFIC BARRIER

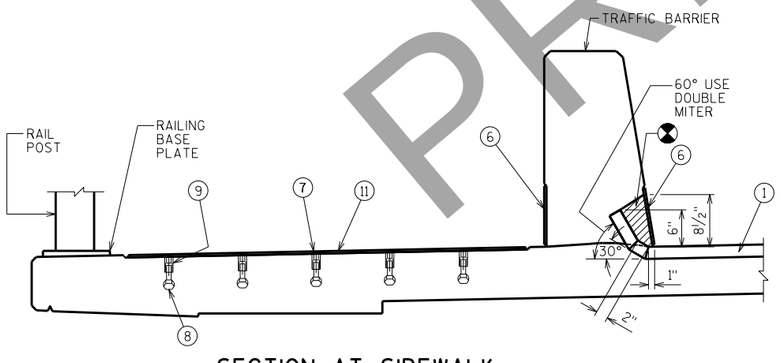


PLAN AT SIDEWALK

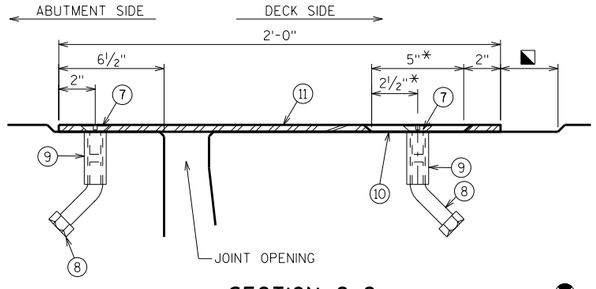


SECTION B-B

*DIMENSION ALONG DIRECTION OF MOVEMENT



SECTION AT SIDEWALK



SECTION C-C

LEGEND

(1) NEOPRENE STRIP SEAL (5-INCH) AND STEEL EXTRUSIONS.

(2) STUDS 5/8"Φ X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(6) GALVANIZED PLATE 3/8" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.

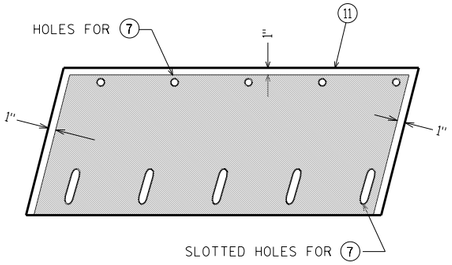
(7) 3/4"Φ X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.

(8) 3/4"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(9) 3/4"Φ X 2 1/4" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

(11) SIDEWALK COVER PLATE 3/8" X 2'-0" X LIMITS SHOWN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.



PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

⊠ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIMENSION ALONG SKEW PLUS 1/2".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

SOUTH ABUTMENT COVER PLATE DETAILS

DRAWING R20 OF R43

PRE_200

SCALE = 1.00

8

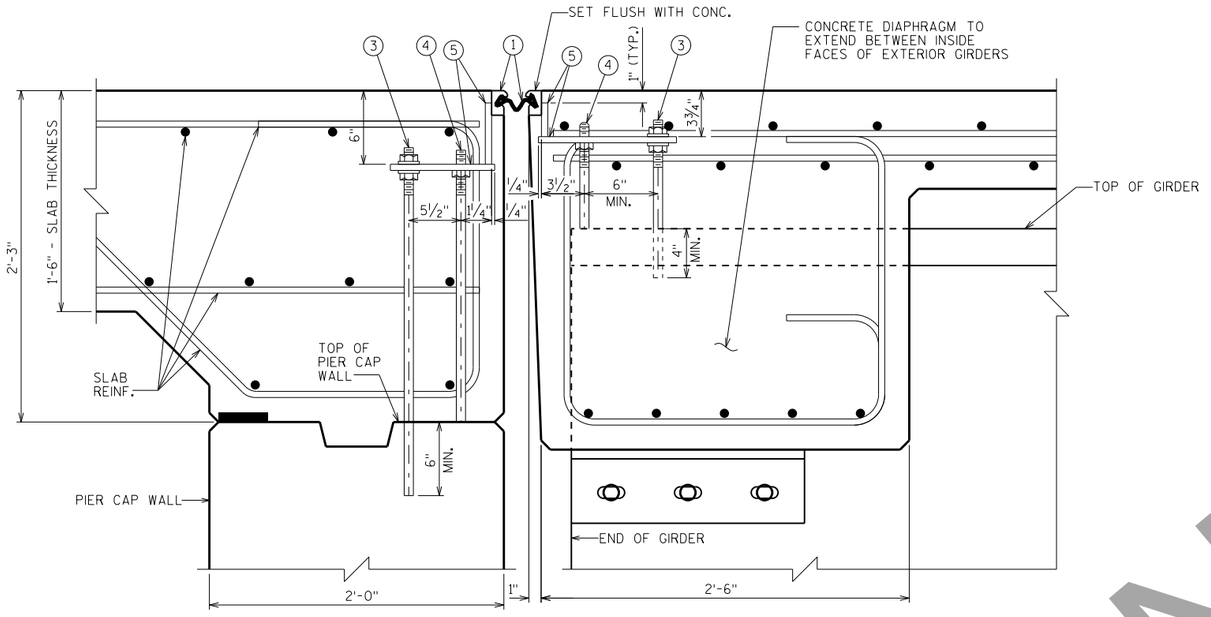
8

PRELIMINARY

DRAFT April 20, 2020

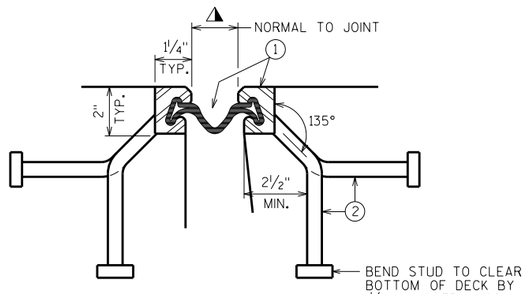
STATE PROJECT NUMBER

4992-03-71

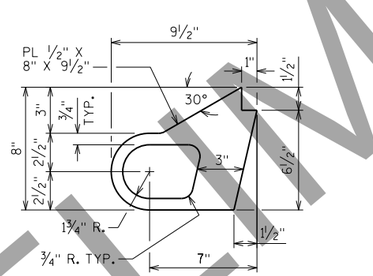


SECTION THRU JOINT AT PIER 4

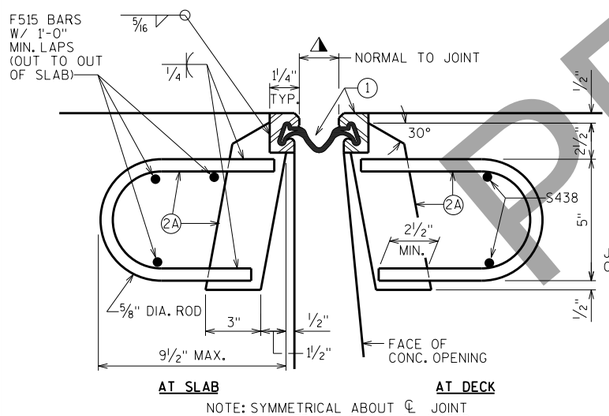
NORMAL TO ℄ PIER 4



SECTION THRU JOINT AT PARAPETS



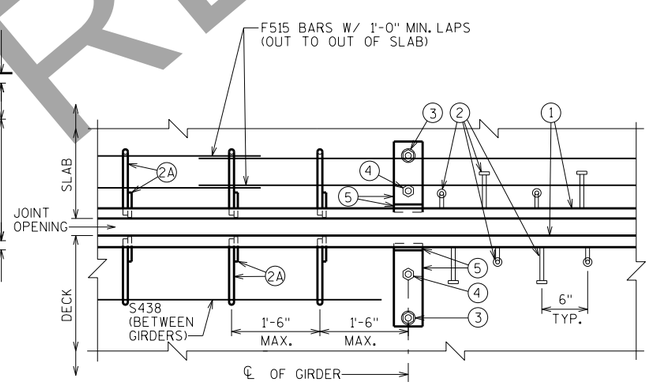
ALTERNATE STRIP SEAL ANCHOR



NOTE: SYMMETRICAL ABOUT ℄ JOINT UNLESS OTHERWISE SHOWN OR NOTED.

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN GIRDERS 2&6.



PART PLAN

LEGEND

1. NEOPRENE STRIP SEAL (5-INCH) AND STEEL EXTRUSIONS.
2. STUDS ⅝"Φ X 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝"Φ ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾"Φ THREADED ROD WITH 2 NUTS AND PLATE WASHERS. GROUT THREADED ROD INTO FIELD DRILLED HOLES ON ℄ OF GIRDER. ON SLAB SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN PIER CAP WALL AS SHOWN.
4. ¾"Φ THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" X ½" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½"Φ HOLE FOR NO. 3 AND 1"Φ HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.
7. ¾"Φ X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
8A. ¾"Φ X 6" GALVANIZED HEX HEAD BOLT. BEND 45°. ON SLAB SIDE OF SIDEWALK COVER PLATE. POST-INSTALLED ADHESIVE ANCHORS MAY BE USED IN LIEU OF BENT HEX HEAD BOLT AT CONTRACTOR'S OPTION.
9. ¾"Φ X 2¼" GALVANIZED THREADED COUPLING.
10. 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
11. SIDEWALK COVER PLATE ⅜" X 2'-0" X LIMITS SHOWN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

⚠ TEMPERATURE TABLE

SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
85°	¾"
75°	1"
65°	1¼"
55°	1½"
45°	1¾"
35°	2"
25°	2¼"
15°	2½"
5°	2¾"

A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-70-324", LF.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

PIER 4 STRIP SEAL EXPANSION JOINT DETAILS PRE_201

DRAWING R21 OF R43

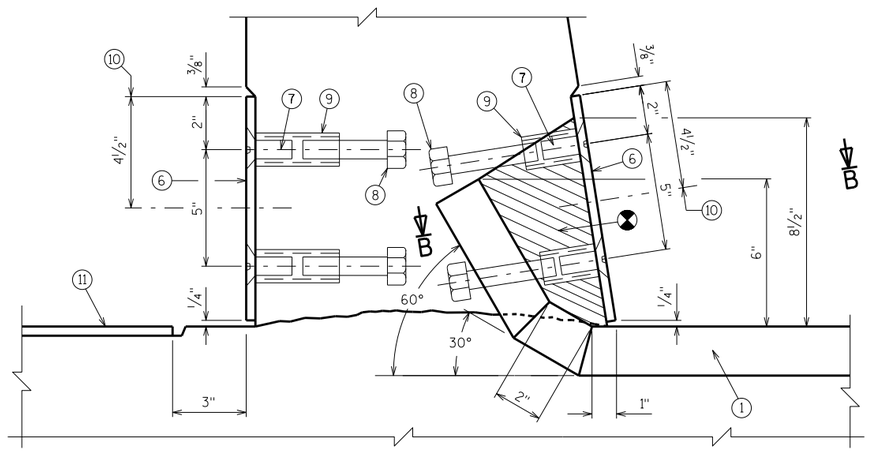
SCALE = 1.00

PRELIMINARY

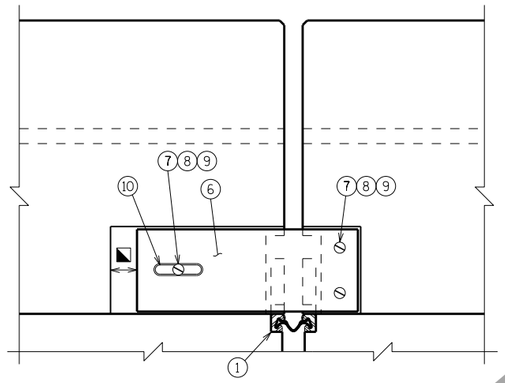
DRAFT April 20, 2020

STATE PROJECT NUMBER

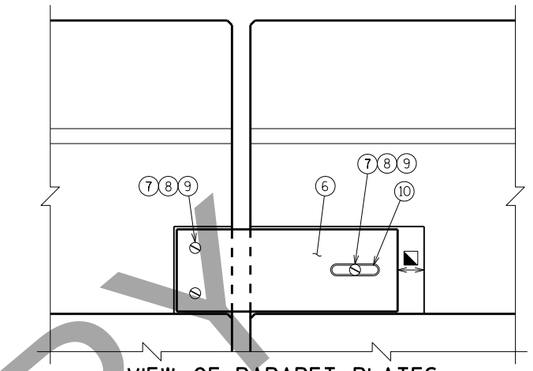
4992-03-71



SECTION A-A
TRAFFIC BARRIER



VIEW OF PARAPET PLATES FROM ROADWAY
TRAFFIC BARRIER



VIEW OF PARAPET PLATES FROM SIDEWALK
TRAFFIC BARRIER

LEGEND

(1) NEOPRENE STRIP SEAL (5-INCH) AND STEEL EXTRUSIONS.

(2) STUDS $\frac{5}{8}$"Φ X $6\frac{3}{8}$" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(6) GALVANIZED PLATE $\frac{3}{8}$" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.

(7) $\frac{3}{4}$"Φ X $1\frac{1}{2}$" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS $\frac{1}{16}$" BELOW PLATE SURFACE.

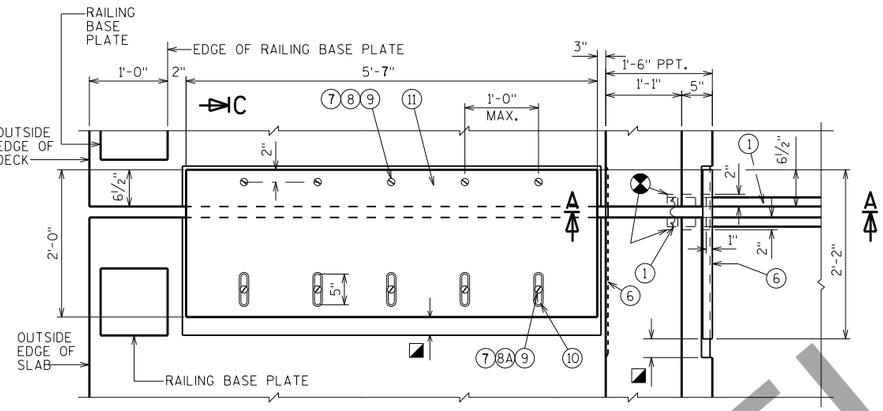
(8) $\frac{3}{4}$"Φ X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.

(8A) $\frac{3}{4}$"Φ X 6" GALVANIZED HEX HEAD BOLT. BEND 45°. ON SLAB SIDE OF SIDEWALK COVER PLATE. POST-INSTALLED ADHESIVE ANCHORS MAY BE USED IN LIEU OF BENT HEX HEAD BOLT AT CONTRACTOR'S OPTION.

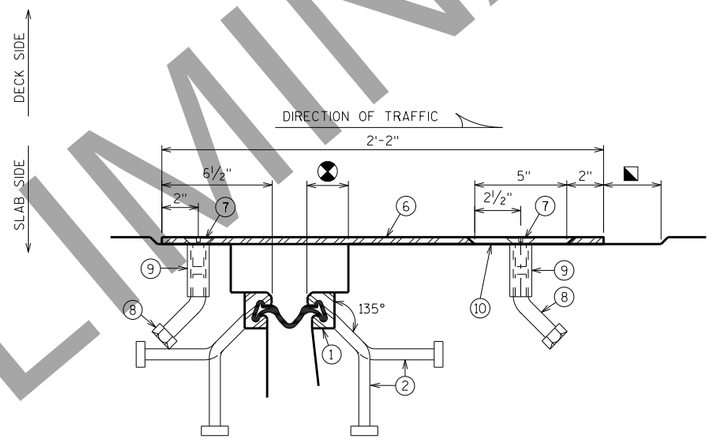
(9) $\frac{3}{4}$"Φ X $2\frac{1}{4}$" GALVANIZED THREADED COUPLING.

(10) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

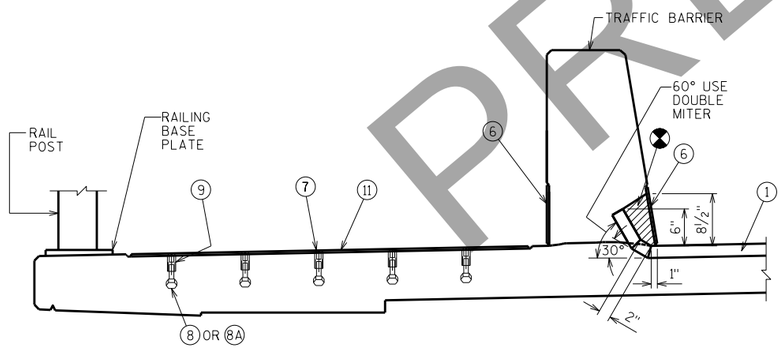
(11) SIDEWALK COVER PLATE $\frac{3}{8}$" X 2'-0" X LIMITS SHOWN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.



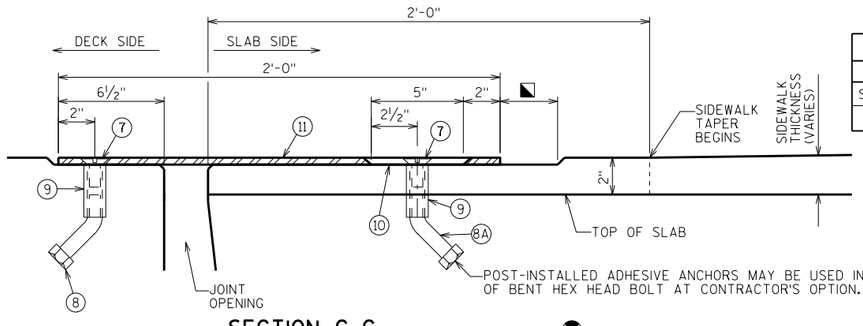
C PLAN AT SIDEWALK



SECTION B-B



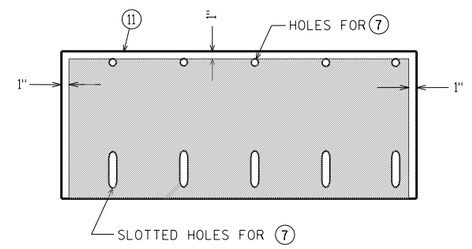
SECTION AT SIDEWALK



SECTION C-C

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIMENSION ALONG SKEW PLUS $\frac{1}{2}$".



PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

PIER 4 COVER PLATE DETAILS

DRAWING R22 OF R43

PRE_202

SCALE = 1.00

PRELIMINARY

8

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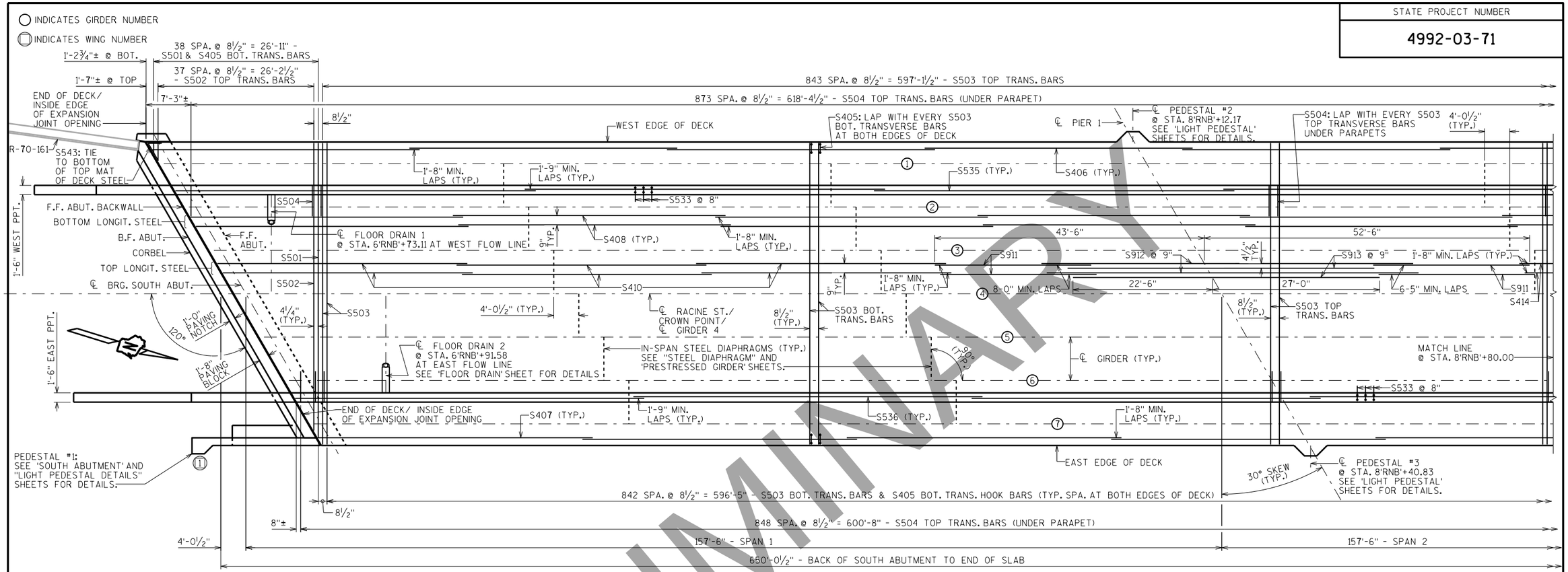
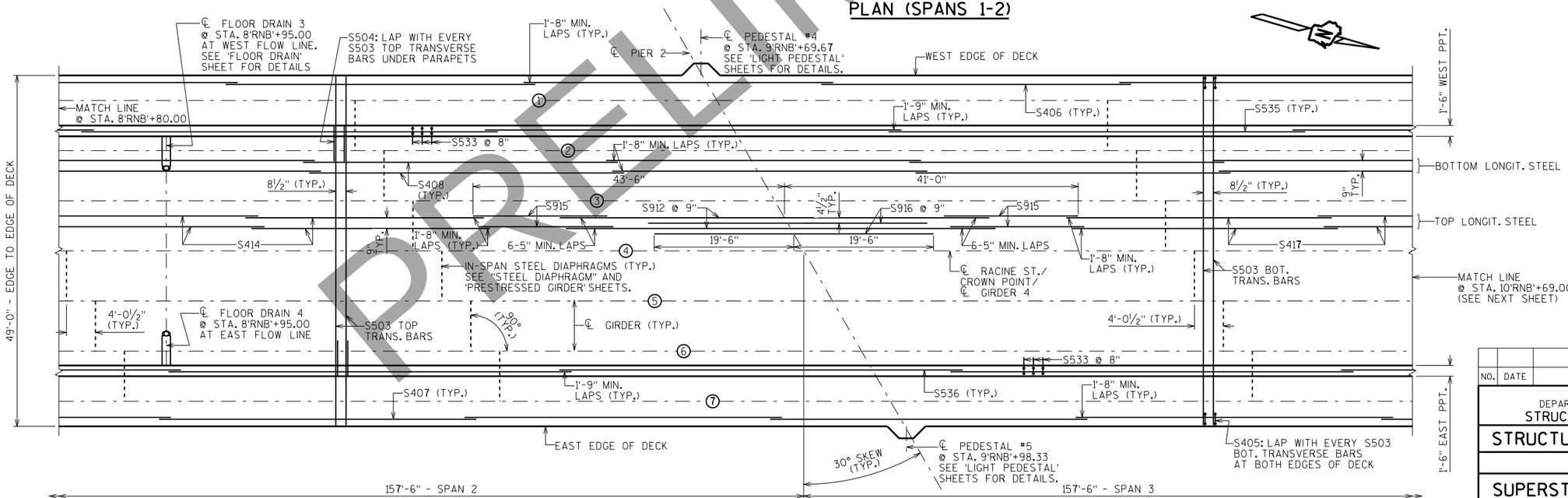
STATE PROJECT NUMBER

4992-03-71



PLAN (SPANS 1-2)



PLAN (SPANS 2-3)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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SUPERSTRUCTURE PLAN AT SPANS 1-3

DRAWING R23 OF R43

PRE_203

SCALE = 8.00

DRAFT April 20, 2020

8

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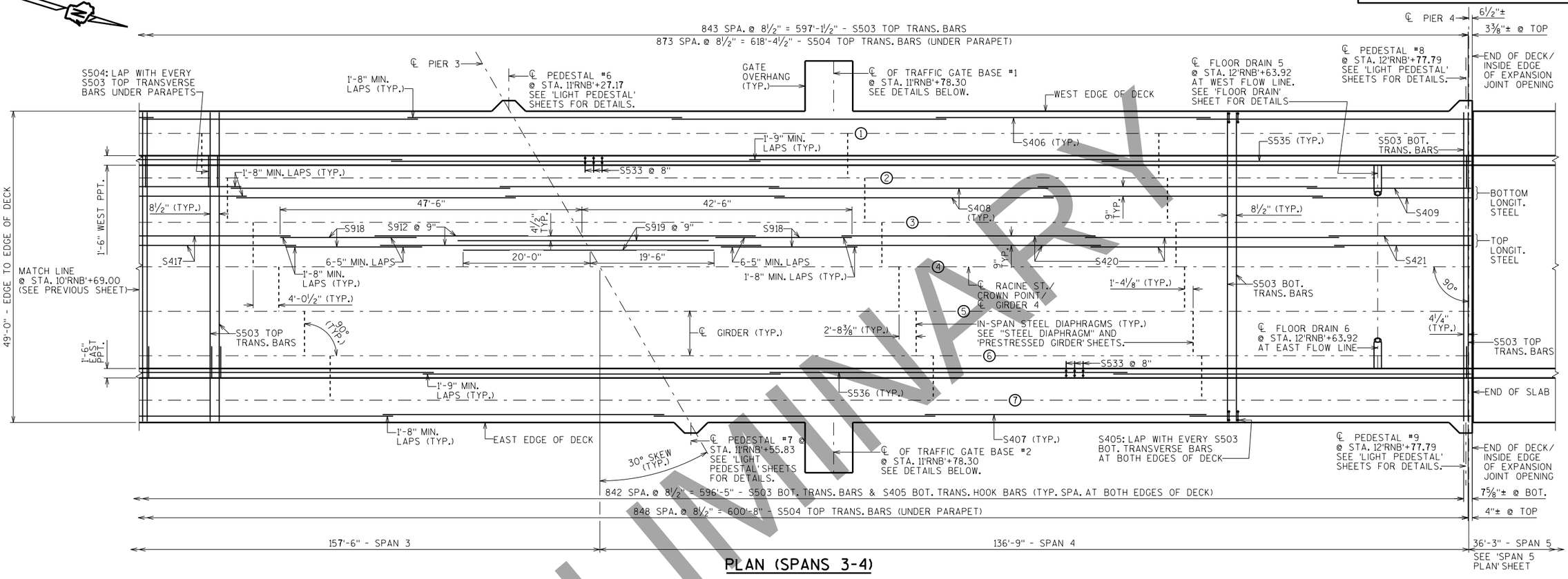
PRELIMINARY

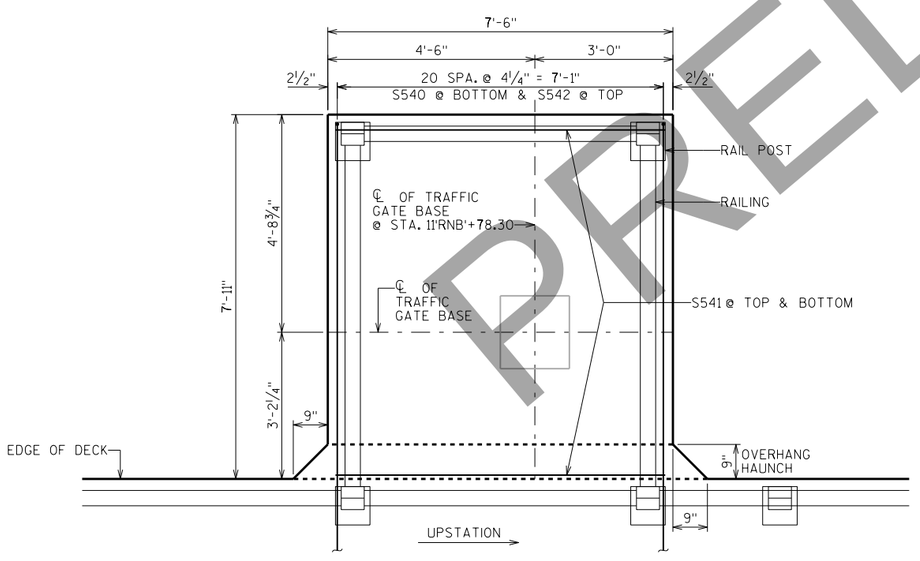
STATE PROJECT NUMBER

4992-03-71

INDICATES GIRDER NUMBER

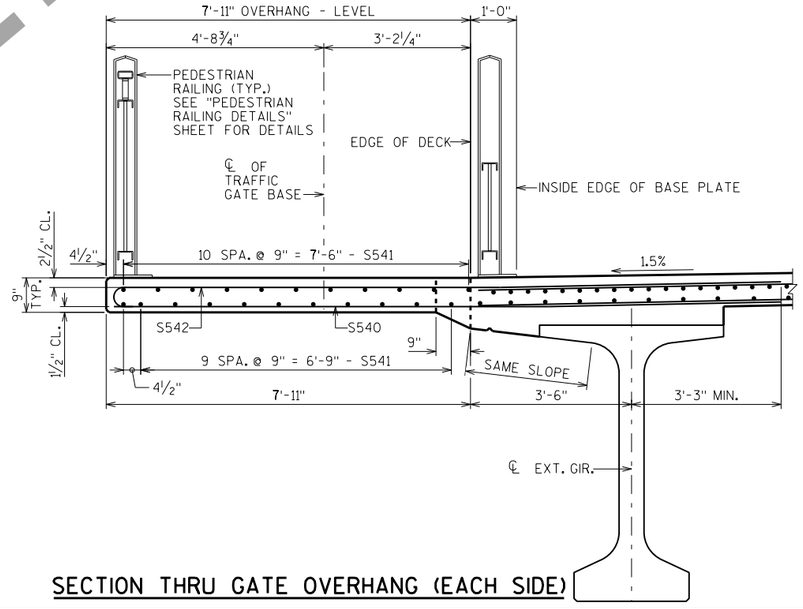


PLAN (SPANS 3-4)



GATE OVERHANG PLAN DETAIL (EACH SIDE)

(WEST SIDE SHOWN, EAST SIDE SIMILAR)



SECTION THRU GATE OVERHANG (EACH SIDE)

OVERHANG NOTES

POSITION OVERHANG SLAB STEEL TO AVOID CONFLICT WITH TRAFFIC GATE BASE ANCHORAGE.

OVERHANG TO BE FULLY SUPPORTED UNTIL CONCRETE IS FULLY CURED.

FORM OVERHANG WITH ½" CAMBER AT OUTSIDE EDGE TO ACCOUNT FOR DEAD LOAD DEFLECTION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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SUPERSTRUCTURE PLAN AT SPANS 3-4

DRAWING R24 OF R43

PRE_204

SCALE = 8.00

DRAFT April 20, 2020

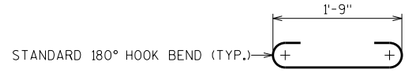
PRELIMINARY

8

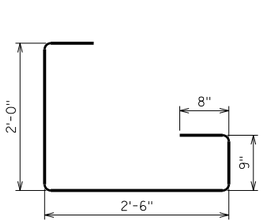
8

STATE PROJECT NUMBER

4992-03-71



S405



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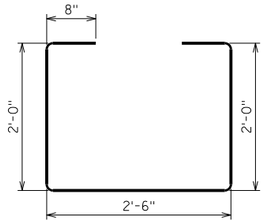

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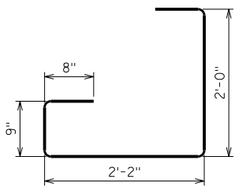

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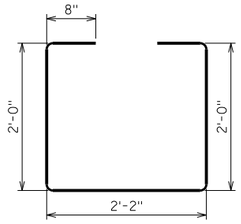

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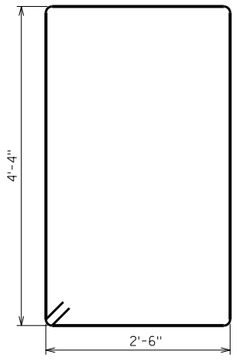

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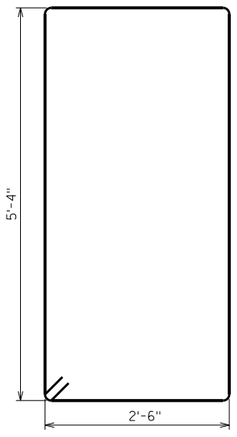
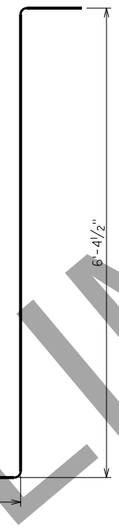


S527

S528



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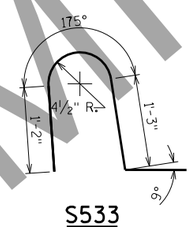

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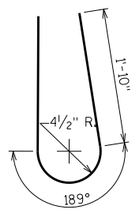

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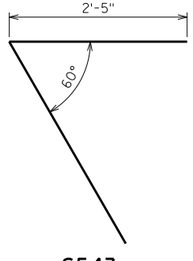

S543

BILL OF BARS

NOTE:
THE FIRST OR FIRST TWO DIGITS OF
THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	39	24'-11"		⚠	DECK-BOTTOM-HORIZONTAL-TRANSVERSE-SOUTH END
S502	X	38	24'-11"		⚠	DECK-TOP-HORIZ.-TRANS.-SOUTH END
S503	X	1687	48'-8"			DECK-TOP & BOT.-HORIZ.-TRANS.-END TO END
S504	X	1723	5'-0"			DECK-TOP-HORIZONTAL-TRANS.-UNDER PARAPETS-END TO END
S405	X	1725	2'-9"	X		DECK-BOT.-VERT.-TRANS.-BOTH EDGES-END TO END
S406	X	30	43'-3"			DECK-BOT.-HORIZ.-LONGITUDINAL-END TO END-AT WEST EDGE
S407	X	28	44'-4"			DECK-BOT.-HORIZ.-LONGIT.-END TO END-AT EAST EDGE
S408	X	952	44'-0"			DECK-BOT.-HORIZ.-LONGIT.-SOUTH END TO SPAN 4
S409	X	68	18'-11"		⚠	DECK-BOT.-HORIZ.-LONGIT.-AT NORTH END ONLY
S410	X	195	40'-4"			DECK-TOP-HORIZ.-LONGIT.-AT SPAN 1
S911	X	130	25'-3"			DECK-TOP-HORIZ.-LONGIT.-AT SPANS 1&2/PIER 1
S912	X	195	60'-0"			DECK-TOP-HORIZ.-LONGIT.-OVER PIERS 1,2&3
S913	X	64	49'-6"			DECK-TOP-HORIZ.-LONGIT.-OVER PIER 1
S414	X	130	33'-4"			DECK-TOP-HORIZ.-LONGIT.-AT SPAN 2
S915	X	130	18'-9"			DECK-TOP-HORIZ.-LONGIT.-AT SPANS 2&3/PIER 2
S916	X	64	39'-0"			DECK-TOP-HORIZ.-LONGIT.-OVER PIER 2
S417	X	130	37'-1"			DECK-TOP-HORIZ.-LONGIT.-AT SPAN 3
S918	X	130	21'-6"			DECK-TOP-HORIZ.-LONGIT.-AT SPANS 3&4/PIER 3
S919	X	64	39'-6"			DECK-TOP-HORIZ.-LONGIT.-OVER PIER 3
S420	X	130	40'-0"			DECK-TOP-HORIZ.-LONGIT.-AT SPAN 4
S421	X	65	19'-10"		⚠	DECK-TOP-HORIZ.-LONGIT.-AT NORTH END ONLY
S522	X	42	5'-0"			DECK-TOP & BOT.-HORIZ.-LONGIT.-AROUND DRAINS ONLY-7 PER DRAIN
S423	X	36	6'-3"	X		SOUTH ABUTMENT DIAPHRAGM/DECK-VERT.-UNDER GIR. FLANGES
S424	X	30	7'-6"	X		SOUTH ABUTMENT DIAPHRAGM/DECK-VERT.-BTWN. EXTERIOR GIRDERS
S625	X	30	7'-1"			SOUTH ABUTMENT DIAPHRAGM-BOT.-HORIZ.-BTWN. GIRS.
S526	X	36	14'-4"	X		PIERS 1/2/3 DIAPHRAGMS-VERT.-UNDER GIR. FLANGES-STIRRUPS
S527	X	36	16'-4"	X		PIERS 1/2/3 DIAPHRAGMS-VERT.-UNDER GIR. FLANGES-STIRRUPS
S528	X	72	16'-5"	X		PIERS 1/2/3 DIAPHRAGMS/DECK-VERT.-BTWN. GIR FLANGES
S429	X	324	4'-10"			PIERS 1/2/3 DIAPHRAGMS-HORIZ.-BOTH FACES-BTWN. GIRS.
S430	X	36	5'-11"	X		PIER 4 DIAPHRAGM/DECK-VERT.-UNDER GIR. FLANGES
S431	X	30	7'-2"	X		PIER 4 DIAPHRAGM/DECK-VERT.-BTWN. EXTERIOR GIRDERS
S632	X	30	6'-1"			PIER 4 DIAPHRAGM-BOT.-HORIZ.-BTWN. GIRS.
S533	X	1856	4'-5"	X		DECK/PARAPETS-VERT.-TRANS.-END TO END
S534	X	1836	5'-0"	X		PARAPETS-VERT.-TRANS.-END TO END
S535	X	66	58'-2"			WEST PARAPET-HORIZ.-LONGIT.-BOTH FACES-END TO END
S536	X	66	56'-4"			EAST PARAPET-HORIZ.-LONGIT.-BOTH FACES-END TO END
S437	X	12	7'-5"			SOUTH ABUTMENT JOINT/DECK-HORIZ.-BTWN. GIRS.
S438	X	12	6'-5"			PIER 4 JOINT/DECK-HORIZ.-BTWN. GIRS.
S539	X	20	2'-4"			PARAPETS-VERT.-TRANS.-INSIDE FACE-2 PER JUNCTION BOX ONLY
S540	X	42	14'-6"			GATE OVERHANGS/DECK-BOT.-HORIZ.-TRANS.
S541	X	44	7'-2"			GATE OVERHANGS-TOP & BOT.-HORIZ.-LONGIT.
S542	X	42	15'-1"	X		GATE OVERHANGS/DECK-TOP-VERT.-TRANS.
S543	X	1	5'-7"	X		DECK-TOP-HORIZ.-SOUTHWEST CORNER

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

BAR SERIES TABLE

BAR MARK	NUMBER REQUIRED	TOTAL BAR LENGTH
S501	1 SERIES OF 39 BARS	1'-7" TO 48'-3"
S502	1 SERIES OF 38 BARS	2'-3" TO 47'-7"
S409	1 SERIES OF 68 BARS	4'-10" TO 33'-0"
S421	1 SERIES OF 65 BARS	6'-2" TO 33'-6"

BUNDLE AND TAG EACH SERIES SEPARATELY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

SUPERSTRUCTURE BAR DETAILS AT SPANS 1-4

DRAWING R25 OF R43

PRE_205

SCALE = 1.00

PRELIMINARY

DRAFT April 20, 2020

8

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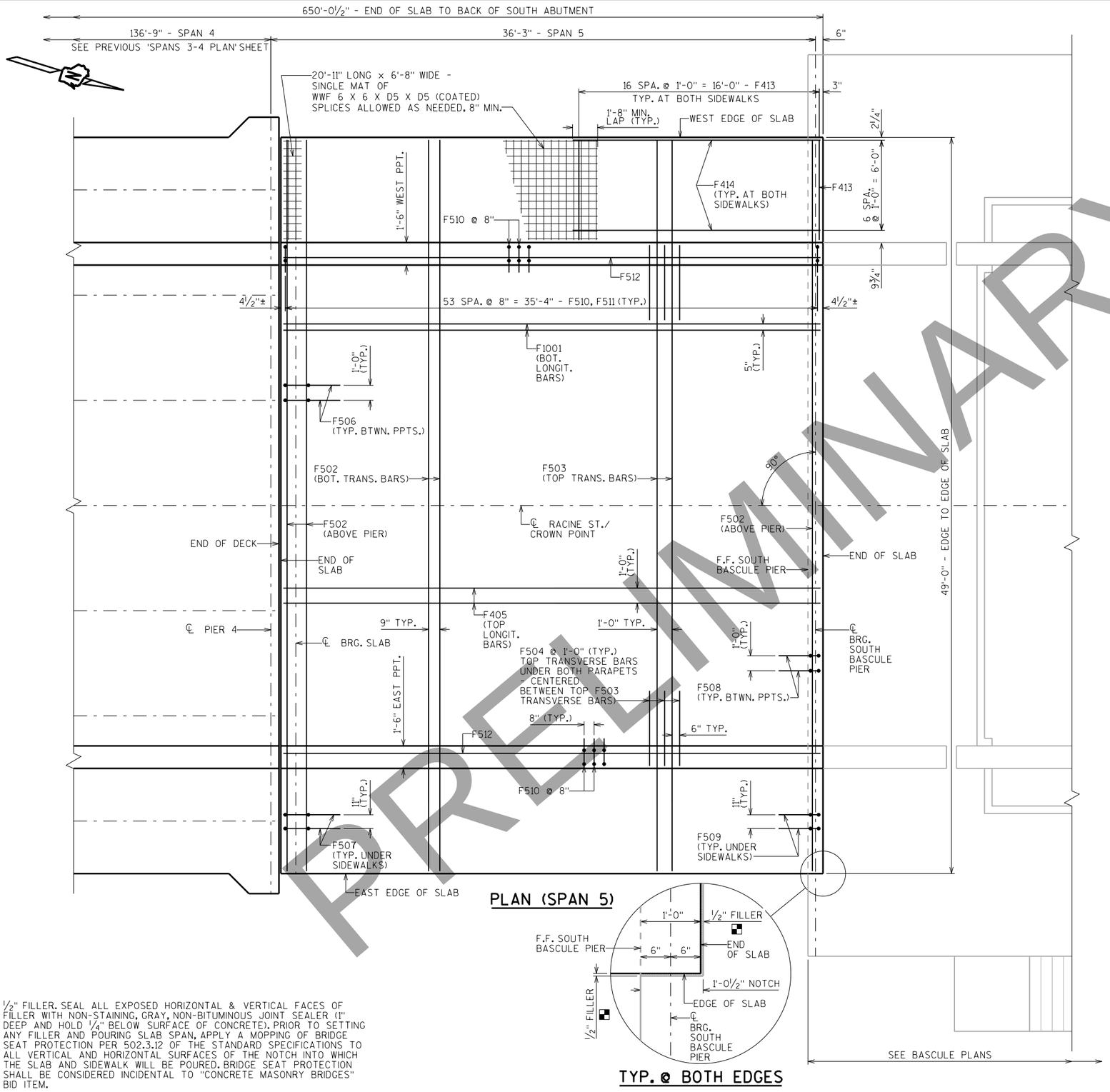
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



PLAN (SPAN 5)

TYP. @ BOTH EDGES

■ ½" FILLER. SEAL ALL EXPOSED HORIZONTAL & VERTICAL FACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ¼" BELOW SURFACE OF CONCRETE). PRIOR TO SETTING ANY FILLER AND POURING SLAB SPAN, APPLY A MOPPING OF BRIDGE SEAT PROTECTION PER 502.3.12 OF THE STANDARD SPECIFICATIONS TO ALL VERTICAL AND HORIZONTAL SURFACES OF THE NOTCH INTO WHICH THE SLAB AND SIDEWALK WILL BE POURED. BRIDGE SEAT PROTECTION SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES" BID ITEM.

NOTES

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

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

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

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

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS, THE ℄ OF PIERS AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN POINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

SUPERSTRUCTURE PLAN AT SPAN 5

DRAWING R26 OF R43

PRE_206

SCALE = 3.50

PRELIMINARY

8

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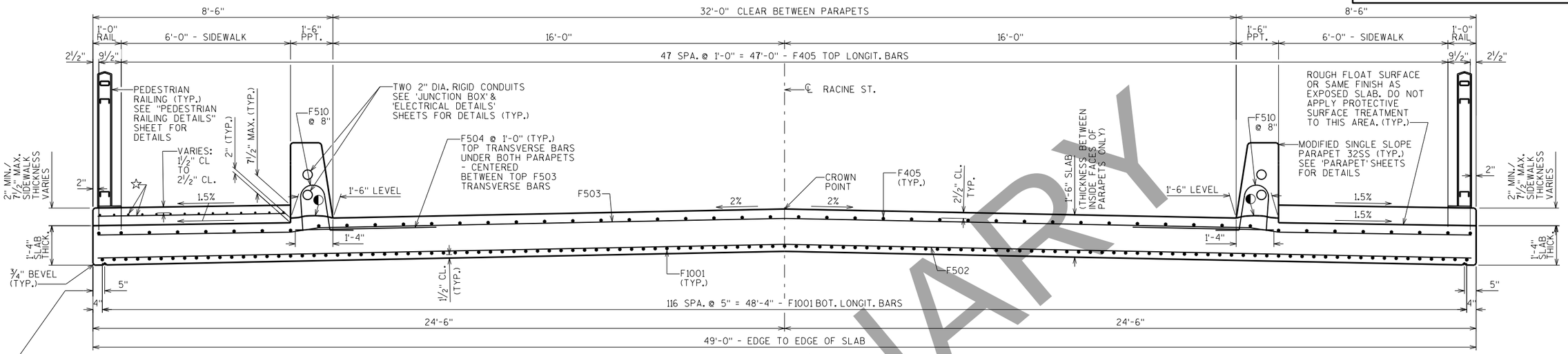
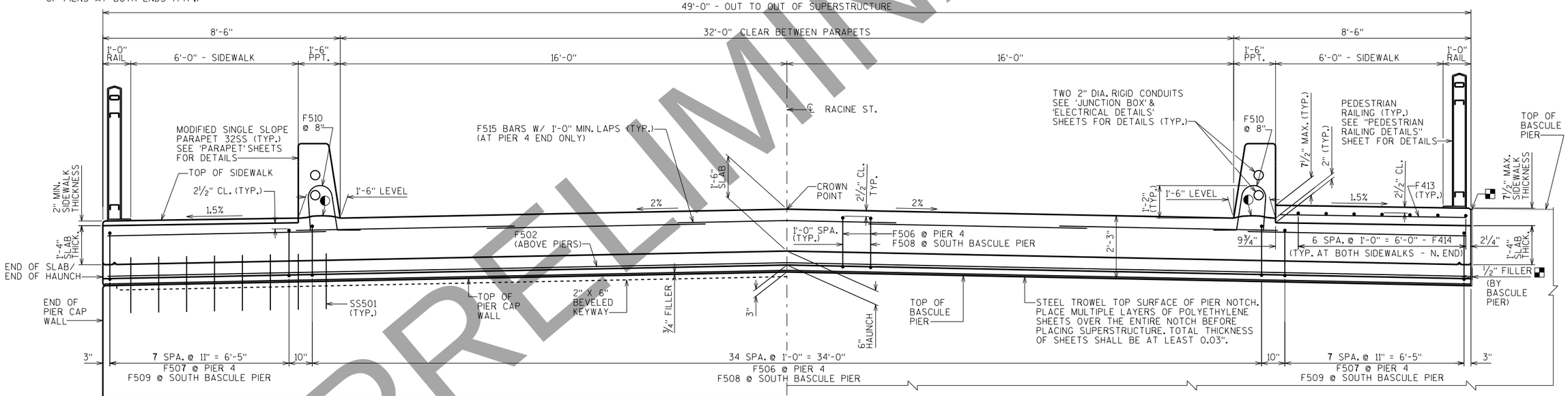
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



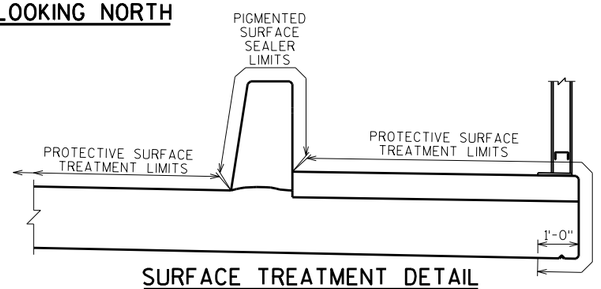
TYPICAL CROSS SECTION THRU BRIDGE AT SLAB SPAN LOOKING NORTH



CROSS SECTION THRU BRIDGE AT PIERS LOOKING NORTH

(SLAB REINFORCEMENT NOT SHOWN)

◐ HORIZ. CONST. JOINT: STRIKE OFF AND LEAVE ROUGH AS SHOWN



SURFACE TREATMENT DETAIL

▩ ½" FILLER. SEAL ALL EXPOSED HORIZONTAL & VERTICAL FACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ¼" BELOW SURFACE OF CONCRETE). PRIOR TO SETTING ANY FILLER AND POURING SLAB SPAN, APPLY A MOPPING OF BRIDGE SEAT PROTECTION PER 502.3.12 OF THE STANDARD SPECIFICATIONS TO ALL VERTICAL AND HORIZONTAL SURFACES OF THE NOTCH INTO WHICH THE SLAB AND SIDEWALK WILL BE POURED. BRIDGE SEAT PROTECTION SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES" BID ITEM.

☆ 20'-11" LONG X 6'-8" WIDE AT SOUTH END ONLY - SINGLE MAT OF WWF 6 X 6 X D5 X D5 (COATED) SPLICES ALLOWED AS NEEDED, 8" MIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

SUPERSTRUCTURE CROSS SECTIONS AT SPAN 5

DRAWING R27 OF R43

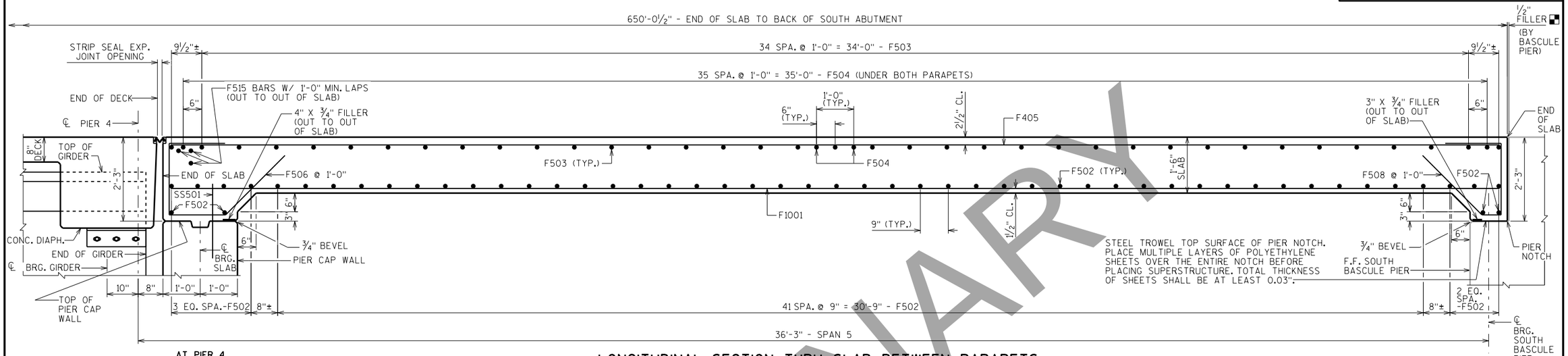
PRE_207

SCALE = 1.80

PRELIMINARY

DRAFT April 20, 2020

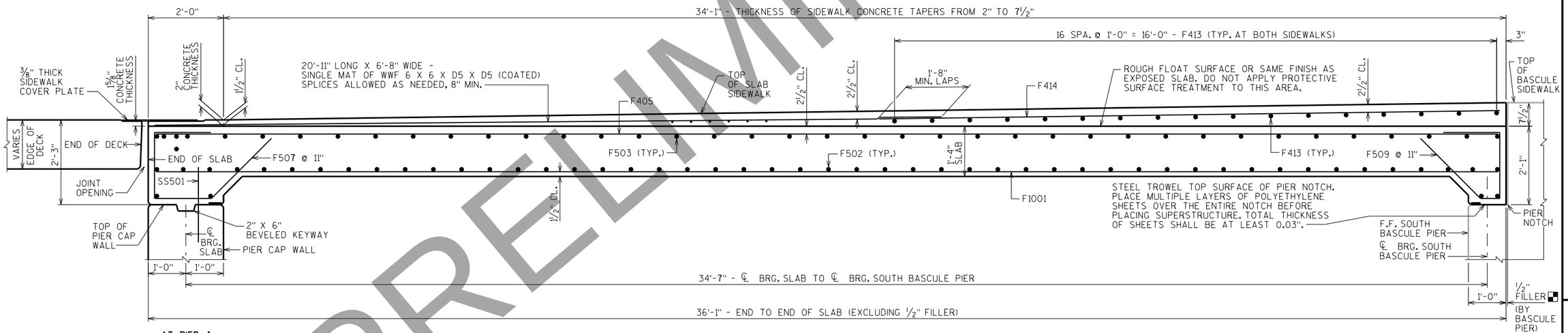
STATE PROJECT NUMBER
4992-03-71



AT PIER 4

LONGITUDINAL SECTION THRU SLAB BETWEEN PARAPETS

AT SOUTH BASCULE PIER



AT PIER 4

LONGITUDINAL SECTION THRU SLAB AT SIDEWALKS

SEE LONGIT. SECTION ABOVE FOR ALL OTHER DIMENSIONS

NOTE:
CLEAN ALL LOOSE MATERIAL ON THE SLAB AT THE SIDEWALK LOCATION PRIOR TO SIDEWALK PLACEMENT USING HIGH PRESSURE WATER OR AIR, ENSURING ALL FREE-STANDING WATER IS REMOVED PRIOR TO SIDEWALK PLACEMENT. NEAT CEMENT IS REQUIRED AS PER 509.3.9.2 OF THE STANDARD SPECIFICATIONS UNLESS THE SIDEWALK IS POURED WITHIN 45 DAYS OF COMPLETING THE SLAB POUR.

AT SOUTH BASCULE PIER

PRELIMINARY

1/2" FILLER. SEAL ALL EXPOSED HORIZONTAL & VERTICAL FACES OF FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/4" BELOW SURFACE OF CONCRETE). PRIOR TO SETTING ANY FILLER AND POURING SLAB SPAN, APPLY A MOPPING OF BRIDGE SEAT PROTECTION PER 502.3.12 OF THE STANDARD SPECIFICATIONS TO ALL VERTICAL AND HORIZONTAL SURFACES OF THE NOTCH INTO WHICH THE SLAB AND SIDEWALK WILL BE POURED. BRIDGE SEAT PROTECTION SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES" BID ITEM.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

LONGITUDINAL SECTIONS AT SPAN 5

DRAWING R28 OF R43

PRE_208

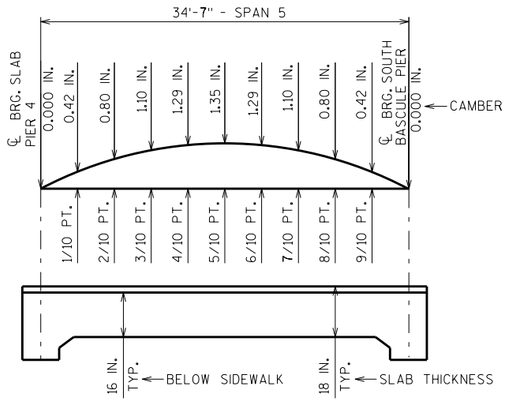
SCALE = 1.33

8

8

DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.
PARAPETS, SIDEWALKS AND MEDIANS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED, EXCEPT FOR STAGED CONSTRUCTION.

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

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

SURVEY TOP OF SLAB ELEVATIONS

	℄ BRG. SLAB	5/10 PT.	℄ BRG. SOUTH BASCULE PIER
WEST EDGE OF SLAB			
WEST GUTTERLINE			
℄ RACINE ST./ CROWN POINT			
EAST GUTTERLINE			
EAST EDGE OF SLAB			

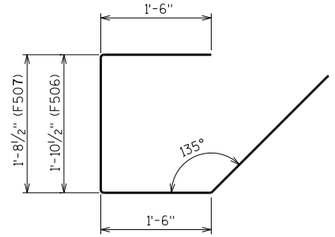
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF BRGS. AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES, EDGES OF SLAB AND CROWN POINT. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

NOTE:
SEE 'DECK POURING SEQUENCE' SHEET FOR TOP OF SLAB ELEVATIONS

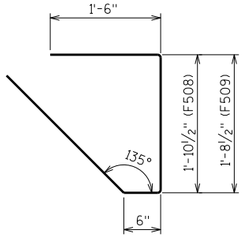
BILL OF BARS

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
F1001	X	117	35'-9"		SLAB-BOTTOM-HORIZ.-LONGIT.-BOTTOM LAYER
F502	X	53	48'-8"		SLAB-BOT.-HORIZONTAL-TRANSVERSE-TOP LAYER
F503	X	37	48'-8"	X	SLAB-TOP-HORIZONTAL-TRANS.-BOT. LAYER
F504	X	72	5'-0"		SLAB-TOP-HORIZ.-TRANS.-BOT. LAYER-UNDER PARAPETS
F405	X	50	35'-9"		SLAB-TOP-HORIZ.-LONGITUDINAL-TOP LAYER
F506	X	35	6'-10"	X	PIER 4 HAUNCH/SLAB-BOT.-VERTICAL-LONGIT.-BETWEEN PARAPETS
F507	X	16	6'-8"	X	PIER 4 HAUNCH/SLAB-BOT.-VERTICAL-LONGIT.-UNDER SIDEWALKS
F508	X	35	5'-10"	X	SOUTH BASCULE PIER HAUNCH/SLAB-BOT.-VERT.-LONGIT.-BETWEEN PARAPETS
F509	X	16	5'-8"	X	SOUTH BASCULE PIER HAUNCH/SLAB-BOT.-VERT.-LONGIT.-UNDER SIDEWALKS
F510	X	108	4'-5"	X	SLAB/PARAPETS-VERT.-TRANS.-END TO END OF SLAB
F511	X	108	5'-0"	X	PARAPETS-VERT.-TRANS.-END TO END OF SLAB
F512	X	12	35'-9"		PARAPETS-HORIZ.-LONGIT.-BOTH FACES
F413	X	34	6'-8"		SIDEWALKS-TOP-HORIZ.-TRANS.-BOT. LAYER-NORTH END
F414	X	14	16'-6"		SIDEWALKS-TOP-HORIZ.-LONGIT.-TOP LAYER-NORTH END
F515	X	21	7'-10"		PIER 4 JOINT/SLAB-HORIZ.-TRANS.-TOP-OUT TO OUT OF SLAB

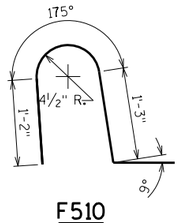


F506 F507



F508 F509

F503



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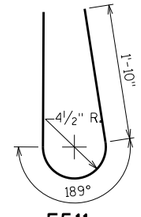

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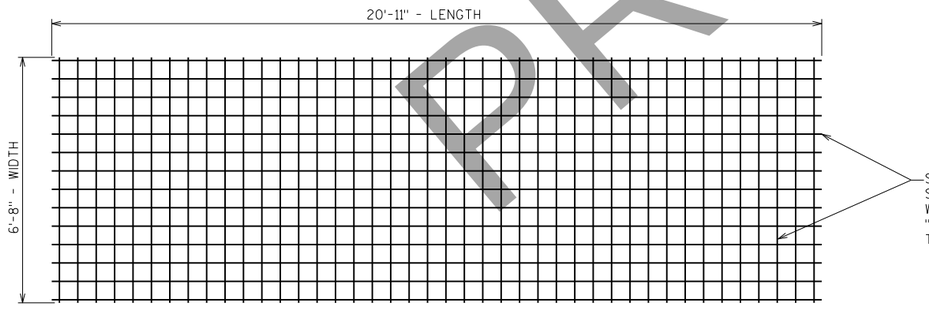


SINGLE MAT OF WWF 6 X 6 X D5 X D5 (COATED)
SPLICES ALLOWED AS NEEDED, 8" MIN.
WWF QUANTITY IS INCLUDED IN BID ITEM:
"BAR STEEL REINFORCEMENT HS COATED STRUCTURES"
TOTAL ESTIMATED QUANTITY = 200 LBS.

WWF 6 X 6 X D5 X D5 DETAIL

(REINFORCEMENT AT SOUTH END OF SIDEWALKS)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

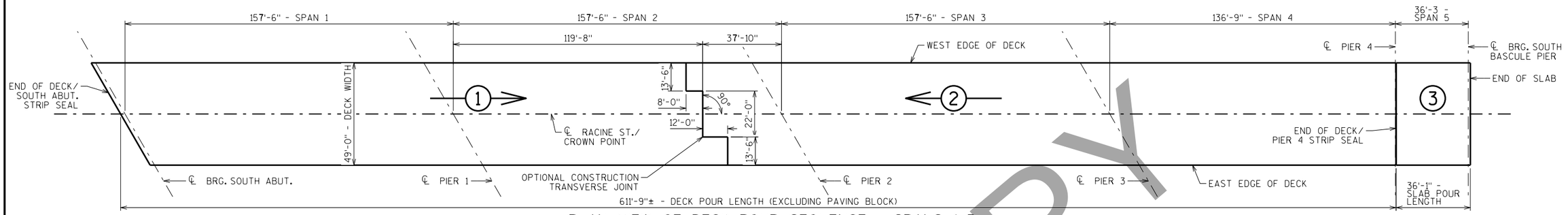
DRAWN BY JPH | PLANS CK'D. ABS

SUPERSTRUCTURE DATA & BAR DETAILS AT SPAN PRE_209

DRAWING R29 OF R43

SCALE = 1.00

STATE PROJECT NUMBER
4992-03-71



PLAN VIEW OF DECK POUR SEQUENCE - SPANS 1-5

TOP OF DECK ELEVATIONS - SPANS 1-4

	℄ BRG. S. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ PIER 1	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ PIER 2
W. EOD	758.20	758.78	759.38	759.98	760.57	761.14	761.68	762.20	762.69	763.16	763.60	764.01	764.40	764.76	765.10	765.41	765.69	765.95	766.19	766.40	766.58
G1	758.33	758.91	759.51	760.11	760.70	761.27	761.80	762.32	762.81	763.27	763.71	764.12	764.50	764.86	765.19	765.50	765.78	766.04	766.27	766.47	766.65
W. PPT. O.F.	758.45	759.04	759.64	760.24	760.83	761.39	761.92	762.44	762.92	763.38	763.81	764.22	764.60	764.96	765.29	765.59	765.87	766.12	766.35	766.55	766.72
W. PPT. I.F.	758.48	759.07	759.67	760.27	760.86	761.42	761.95	762.46	762.95	763.40	763.83	764.24	764.62	764.98	765.30	765.61	765.88	766.13	766.36	766.56	766.73
G2	758.57	759.16	759.76	760.36	760.94	761.50	762.03	762.54	763.02	763.48	763.91	764.31	764.69	765.04	765.37	765.67	765.94	766.19	766.42	766.61	766.79
G3	758.86	759.45	760.05	760.65	761.23	761.78	762.30	762.80	763.28	763.73	764.15	764.55	764.92	765.27	765.59	765.88	766.15	766.39	766.61	766.80	766.97
G4 / PGL	759.15	759.75	760.34	760.94	761.51	762.06	762.58	763.07	763.54	763.98	764.40	764.79	765.15	765.49	765.80	766.09	766.35	766.59	766.80	766.98	767.14
G5	759.16	759.76	760.36	760.95	761.51	762.05	762.56	763.05	763.51	763.95	764.36	764.74	765.10	765.43	765.74	766.02	766.28	766.51	766.71	766.89	767.04
G6	759.17	759.77	760.37	760.95	761.51	762.05	762.55	763.03	763.49	763.92	764.32	764.70	765.05	765.38	765.68	765.95	766.20	766.42	766.62	766.79	766.94
E. PPT. I.F.	759.18	759.78	760.37	760.96	761.51	762.04	762.55	763.03	763.48	763.91	764.31	764.68	765.03	765.36	765.66	765.93	766.18	766.40	766.59	766.76	766.90
E. PPT. O.F.	759.21	759.81	760.41	760.99	761.54	762.07	762.57	763.05	763.50	763.93	764.33	764.70	765.05	765.38	765.67	765.94	766.19	766.41	766.60	766.77	766.91
G7	759.24	759.83	760.43	761.01	761.56	762.09	762.59	763.06	763.51	763.93	764.33	764.70	765.04	765.36	765.66	765.92	766.17	766.38	766.57	766.74	766.88
E. EOD	759.26	759.86	760.45	761.03	761.58	762.10	762.59	763.07	763.51	763.93	764.32	764.69	765.03	765.35	765.64	765.90	766.14	766.36	766.54	766.70	766.84

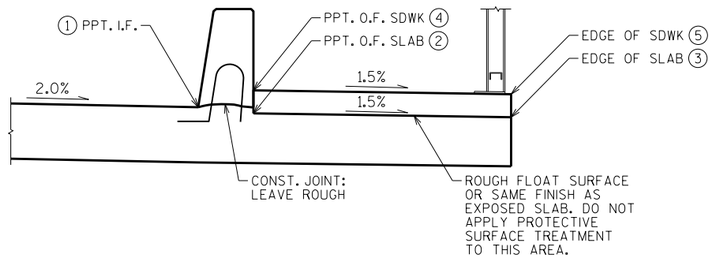
	℄ PIER 2	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ PIER 3	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ BRG. PIER 4 S.
W. EOD	766.58	766.73	766.86	766.97	767.05	767.10	767.13	767.13	767.10	767.05	766.98	766.88	766.76	766.62	766.45	766.26	766.05	765.81	765.55	765.27	764.96
G1	766.65	766.80	766.93	767.03	767.11	767.16	767.18	767.18	767.15	767.10	767.02	766.92	766.80	766.66	766.49	766.30	766.09	765.85	765.60	765.32	765.01
W. PPT. O.F.	766.72	766.87	767.00	767.10	767.17	767.21	767.23	767.23	767.20	767.14	767.06	766.96	766.84	766.69	766.53	766.34	766.13	765.90	765.64	765.37	765.07
W. PPT. I.F.	766.73	766.88	767.00	767.10	767.17	767.22	767.24	767.23	767.20	767.14	767.05	766.95	766.83	766.69	766.52	766.33	766.12	765.89	765.64	765.36	765.07
G2	766.79	766.93	767.05	767.15	767.22	767.26	767.28	767.27	767.23	767.17	767.09	766.99	766.86	766.72	766.55	766.37	766.16	765.93	765.67	765.40	765.11
G3	766.97	767.10	767.22	767.31	767.37	767.41	767.42	767.40	767.36	767.29	767.20	767.10	766.97	766.83	766.66	766.48	766.27	766.05	765.80	765.53	765.25
G4 / PGL	767.14	767.28	767.38	767.47	767.52	767.55	767.55	767.53	767.49	767.41	767.31	767.21	767.08	766.94	766.77	766.59	766.39	766.17	765.92	765.67	765.39
G5	767.04	767.17	767.27	767.34	767.39	767.41	767.41	767.38	767.33	767.25	767.14	767.03	766.91	766.76	766.60	766.42	766.22	766.00	765.77	765.52	765.25
G6	766.94	767.05	767.15	767.22	767.26	767.28	767.27	767.23	767.17	767.08	766.97	766.86	766.73	766.59	766.43	766.25	766.06	765.84	765.62	765.37	765.11
E. PPT. I.F.	766.90	767.02	767.11	767.18	767.22	767.24	767.22	767.19	767.13	767.04	766.92	766.81	766.68	766.54	766.38	766.20	766.01	765.80	765.57	765.33	765.07
E. PPT. O.F.	766.91	767.03	767.12	767.18	767.22	767.24	767.22	767.19	767.12	767.03	766.92	766.80	766.68	766.53	766.37	766.20	766.00	765.79	765.57	765.32	765.07
G7	766.88	766.99	767.08	767.14	767.17	767.18	767.17	767.13	767.06	766.97	766.85	766.73	766.61	766.46	766.30	766.13	765.94	765.73	765.51	765.27	765.01
E. EOD	766.84	766.95	767.03	767.09	767.12	767.13	767.11	767.07	767.00	766.90	766.78	766.66	766.54	766.39	766.24	766.06	765.87	765.67	765.45	765.21	764.96

TOP OF SLAB ELEVATIONS - SPAN 5

		℄ BRG. PIER 4 N.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ BRG. BASC. PIER
⑤	W. EDGE SDWK	764.91	764.88	764.85	764.82	764.78	764.75	764.71	764.68	764.64	764.60	764.56
④	W. PPT. O.F. SDWK	765.01	764.98	764.95	764.92	764.89	764.85	764.82	764.78	764.74	764.71	764.67
③	W. EDGE SLAB	764.74	764.67	764.59	764.51	764.43	764.35	764.27	764.19	764.11	764.02	763.94
②	W. PPT. O.F. SLAB	764.85	764.77	764.69	764.62	764.54	764.46	764.38	764.29	764.21	764.13	764.04
①	W. PPT. I.F.	765.01	764.94	764.86	764.78	764.71	764.63	764.54	764.46	764.38	764.29	764.21
	PGL	765.33	765.26	765.18	765.10	765.03	764.95	764.86	764.78	764.70	764.61	764.53
①	E. PPT. I.F.	765.01	764.94	764.86	764.78	764.71	764.63	764.54	764.46	764.38	764.29	764.21
②	E. PPT. O.F. SLAB	764.85	764.77	764.69	764.62	764.54	764.46	764.38	764.29	764.21	764.13	764.04
③	E. EDGE SLAB	764.74	764.67	764.59	764.51	764.43	764.35	764.27	764.19	764.11	764.02	763.94
④	E. PPT. O.F. SDWK	765.01	764.98	764.95	764.92	764.89	764.85	764.82	764.78	764.74	764.71	764.67
⑤	E. EDGE SDWK	764.91	764.88	764.85	764.82	764.78	764.75	764.71	764.68	764.64	764.60	764.56

LEGEND

PGL - PROFILE GRADE LINE
PPT. - PARAPET
O.F. - OUTSIDE FACE
I.F. - INSIDE FACE
EOD - EDGE OF DECK
SDWK - SIDEWALK
BASC. - BASCULE

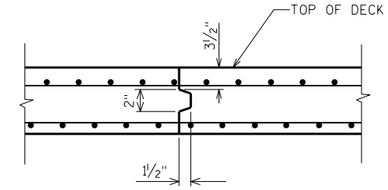


TOP OF SLAB ELEVATION LOCATIONS - SPAN 5

NOTES

THE NEXT DECK POUR CAN BE MADE NO LESS THAN 72 HOURS AFTER THE PREVIOUS POUR.

THE CONTRACTOR MAY SUBMIT AN ALTERNATE POURING SEQUENCE SUBJECT TO THE APPROVAL OF THE STRUCTURES DESIGN SECTION.



SECTION THRU OPTIONAL TRANSVERSE CONSTRUCTION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

DECK POURING SEQUENCE AND ELEVATIONS

DRAWING R30 OF R43

PRE_210

SCALE = 1.00

DRAFT April 20, 2020

PRELIMINARY

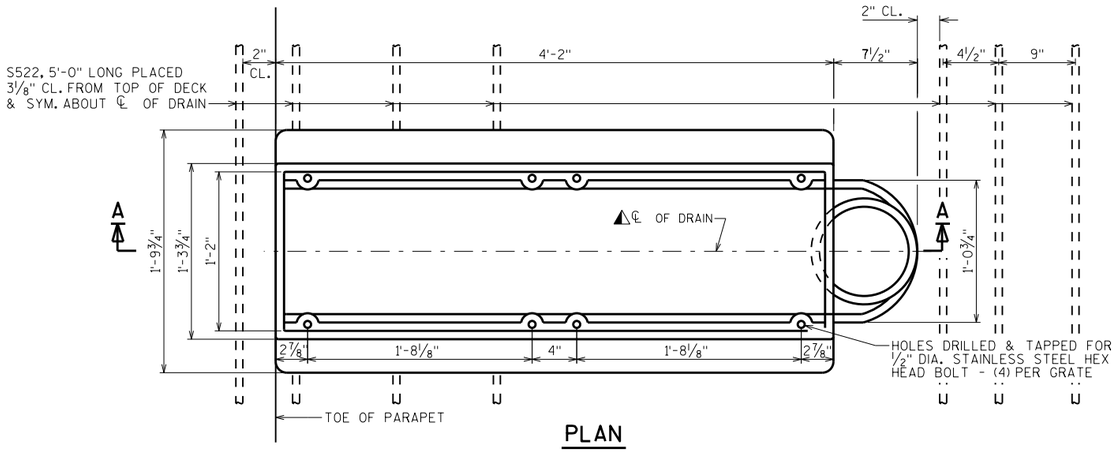
8

8

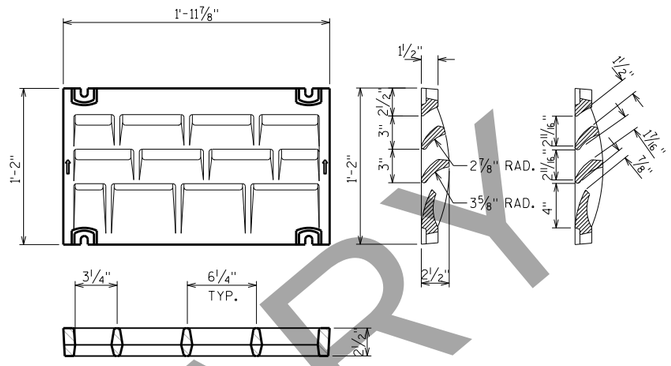
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71



PLAN



GRATE CASTING DETAILS

ATTACH GRATES TO FRAME FOR SHIPMENT

NOTES

ALL MATERIAL FOR TYPE "WF" CASTING AND 8" DIA. CONNECTION PIPE, EXCLUDING GRATE HOLD DOWN SCREWS, SHALL BE GRAY IRON CONFORMING TO ASTM A48, CLASS 30.

MATERIAL FOR BRACKETS SHALL CONFORM TO ASTM A36.

ALTERNATE BRACKETS ARE NOT ALLOWED.

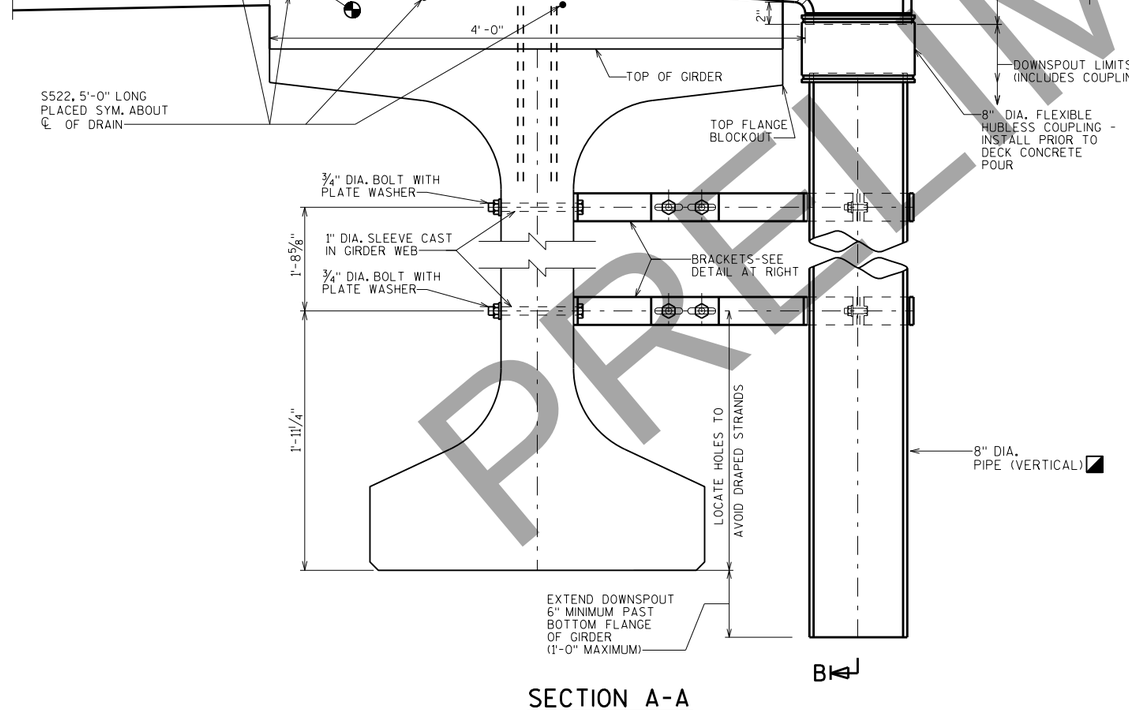
ALL MATERIAL FOR FLOOR DRAINS TO BE INCLUDED IN THE BID ITEM "FLOOR DRAINS TYPE WF".

ALL MATERIAL FOR DOWNSPOUTS, DOWNSPOUT CONNECTIONS, AND BRACKETS TO BE INCLUDED IN THE BID ITEM "DOWNSPOUT 8-INCH".

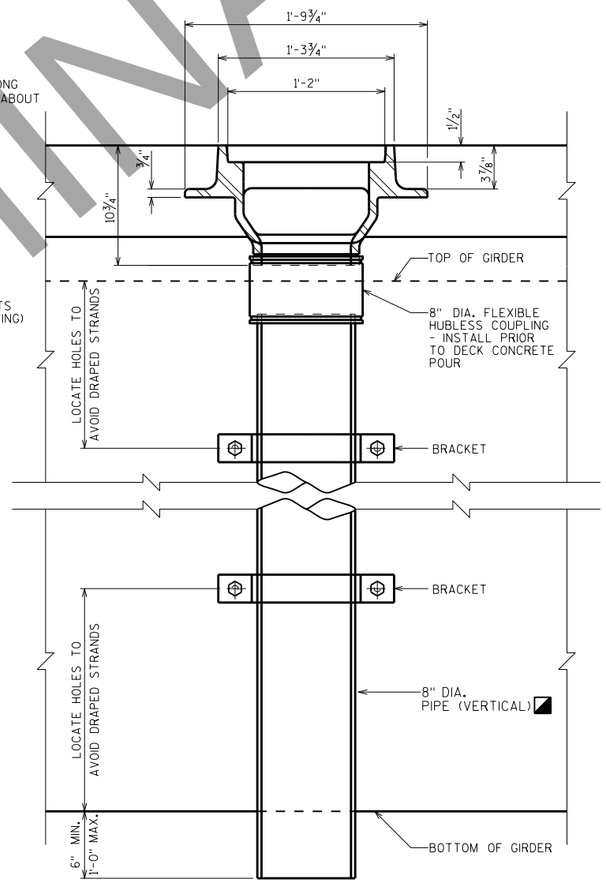
◪ 8" DIA. DOWNSPOUTS SHALL BE REINFORCED THERMOSETTING RESIN PIPE (RTRP).

⊕ TRANSVERSE & LONGITUDINAL DECK BAR REINFORCEMENT TO BE CUT A MAXIMUM OF 1" CLEAR FROM DRAIN FRAME. DISPLACE BARS WHERE POSSIBLE.

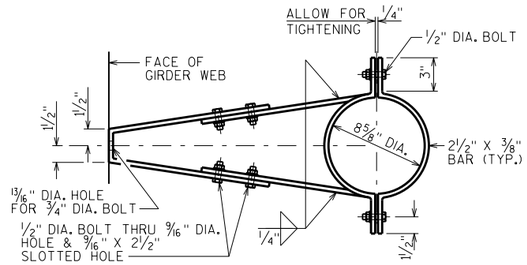
△ FOR FLOOR DRAIN LOCATIONS. SEE 'SUPERSTRUCTURE PLAN' SHEETS.



SECTION A-A



SECTION B-B



BRACKET DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

FLOOR DRAIN TYPE 'WF'

DRAWING R31 OF R43

PRE_211

SCALE = 0.55

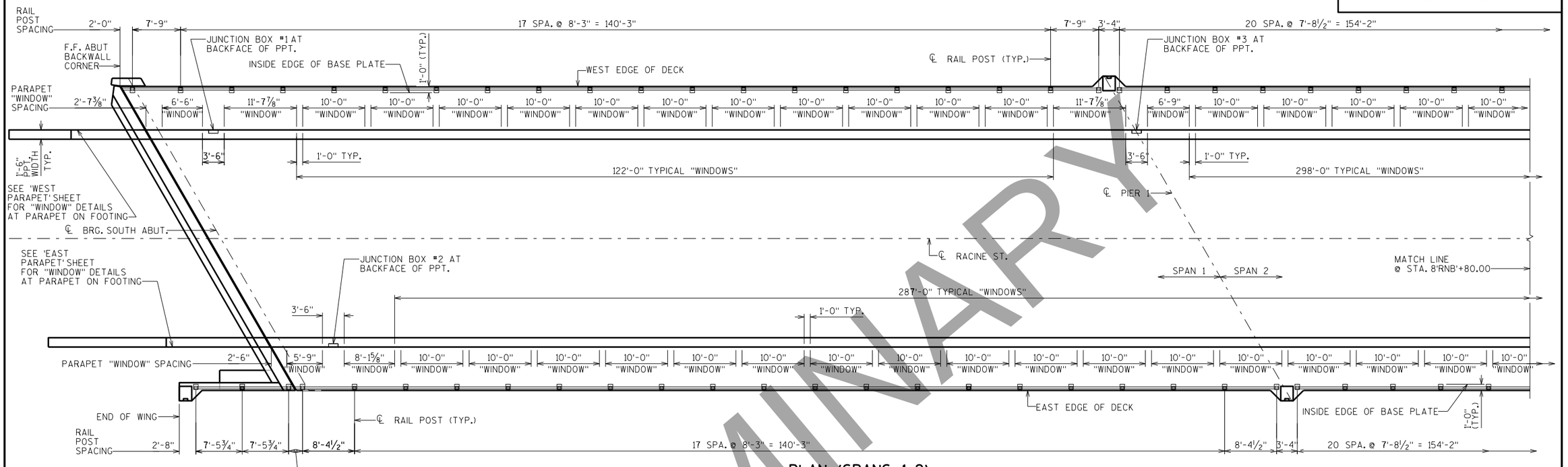
PRELIMINARY

8

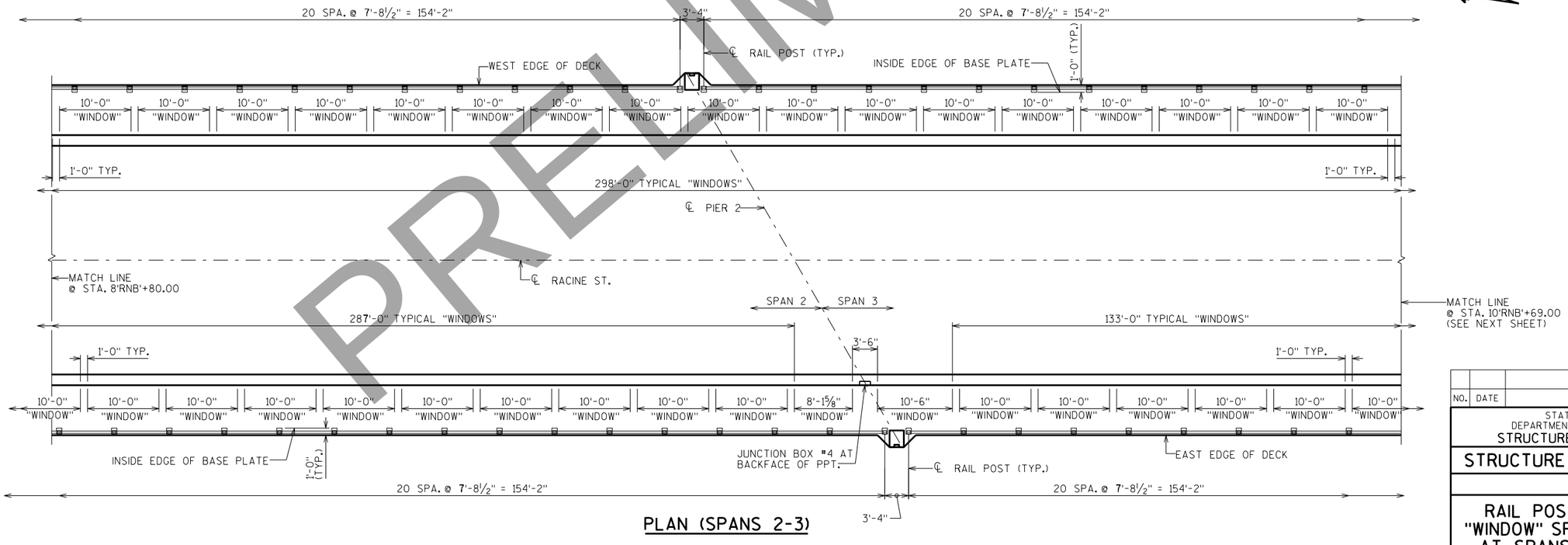
8

STATE PROJECT NUMBER

4992-03-71



PLAN (SPANS 1-2)



PLAN (SPANS 2-3)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

RAIL POST & "WINDOW" SPACING AT SPANS 1-3 PRE_212

DRAWING R32 OF R43

SCALE = 8.00

DRAFT April 20, 2020

PRELIMINARY

8

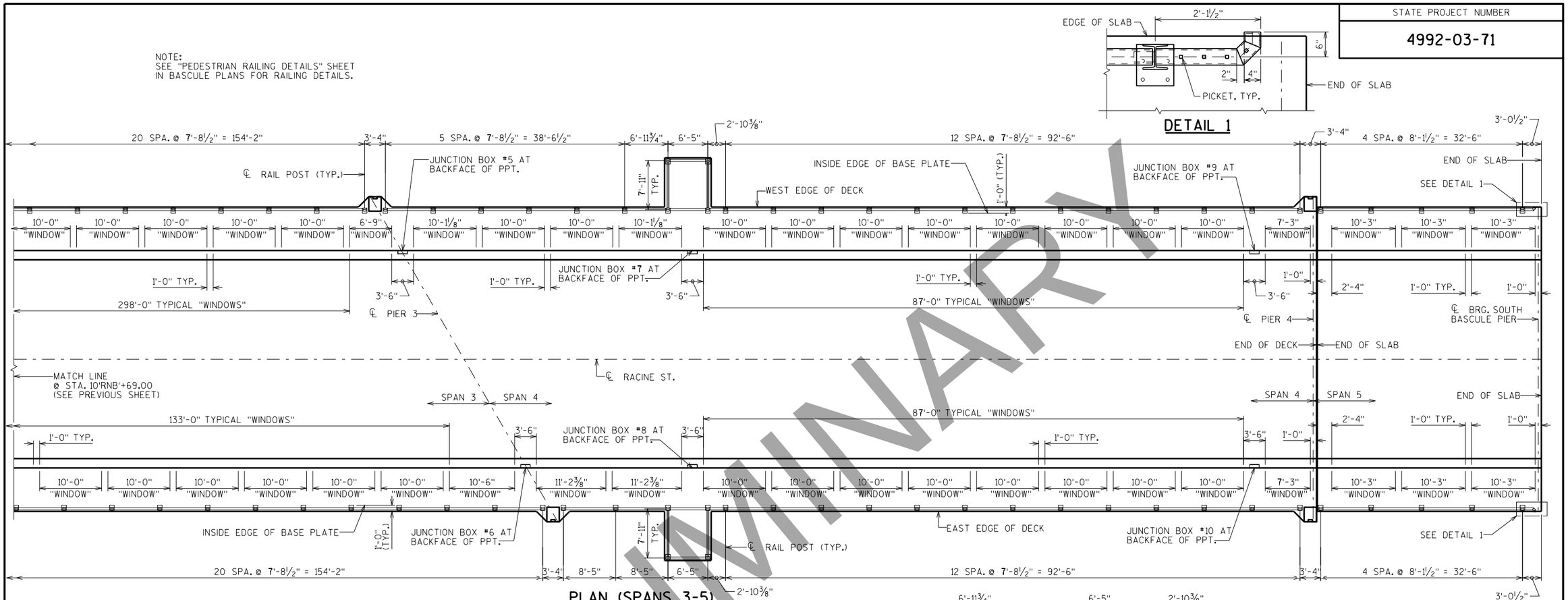
8

DRAFT April 20, 2020

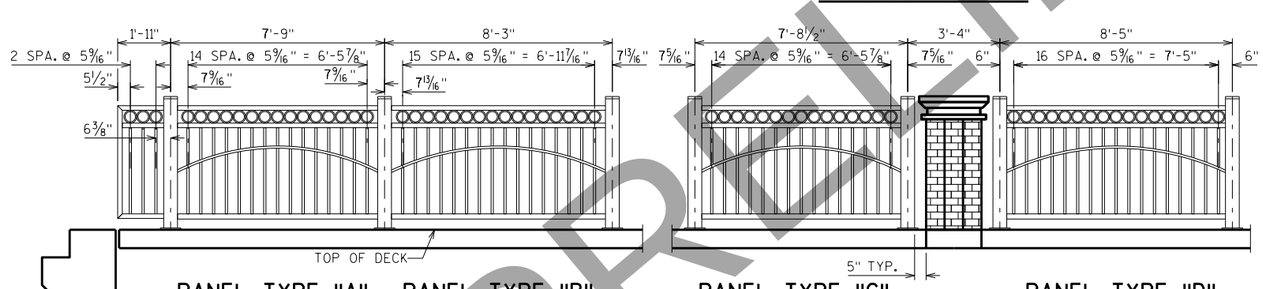
STATE PROJECT NUMBER

4992-03-71

NOTE:
SEE "PEDESTRIAN RAILING DETAILS" SHEET
IN BASCULE PLANS FOR RAILING DETAILS.



PLAN (SPANS 3-5)

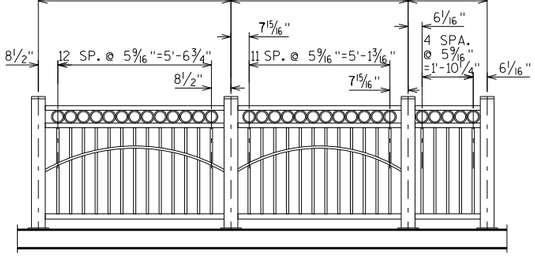


PANEL TYPE "A"
AT BOTH SPAN 1 ENDS/
WEST EDGE OF DECK

PANEL TYPE "B"
AT SPAN 1/
BOTH EDGES OF DECK

PANEL TYPE "C"
AT SPANS 2,3&4/
BOTH EDGES OF DECK

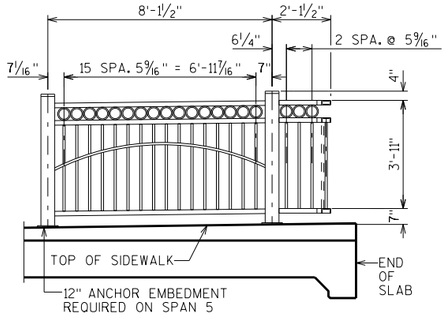
PANEL TYPE "D"
AT SPAN 4 SOUTH END/
EAST EDGE OF DECK



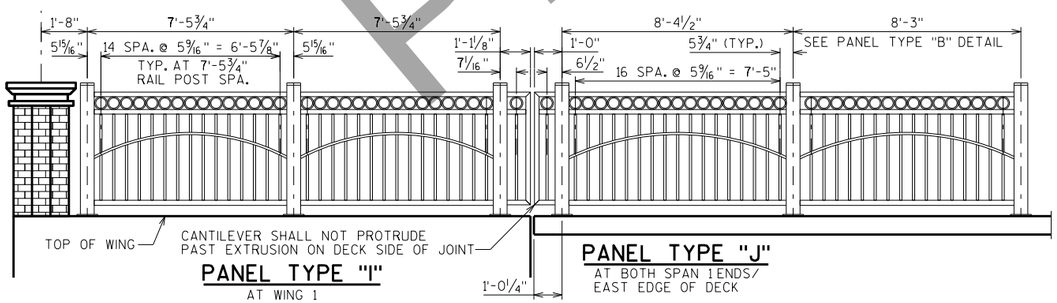
PANEL TYPE "E"
ADJACENT TO
GATE OVERHANG
AT WEST EDGE OF DECK

PANEL TYPE "F"
AT BOTH GATE
OVERHANGS
AT OUTSIDE EDGE

PANEL TYPE "G"
ADJACENT TO
GATE OVERHANG
AT BOTH EDGES
OF DECK

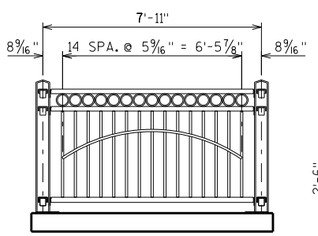


PANEL TYPE "H"
AT SPAN 5/
BOTH EDGES OF SLAB

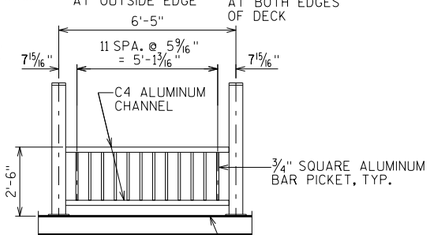


PANEL TYPE "I"
AT WING 1

PANEL TYPE "J"
AT BOTH SPAN 1 ENDS/
EAST EDGE OF DECK



PANEL TYPE "K"
AT BOTH GATE
OVERHANGS
AT EACH SIDE



PANEL TYPE "L"
AT BOTH GATE OVERHANGS
AT INSIDE FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

RAIL POST & "WINDOW" SPACING AT SPANS 3-5 PRE_213

DRAWING R33 OF R43

SCALE = 8.00

PRELIMINARY

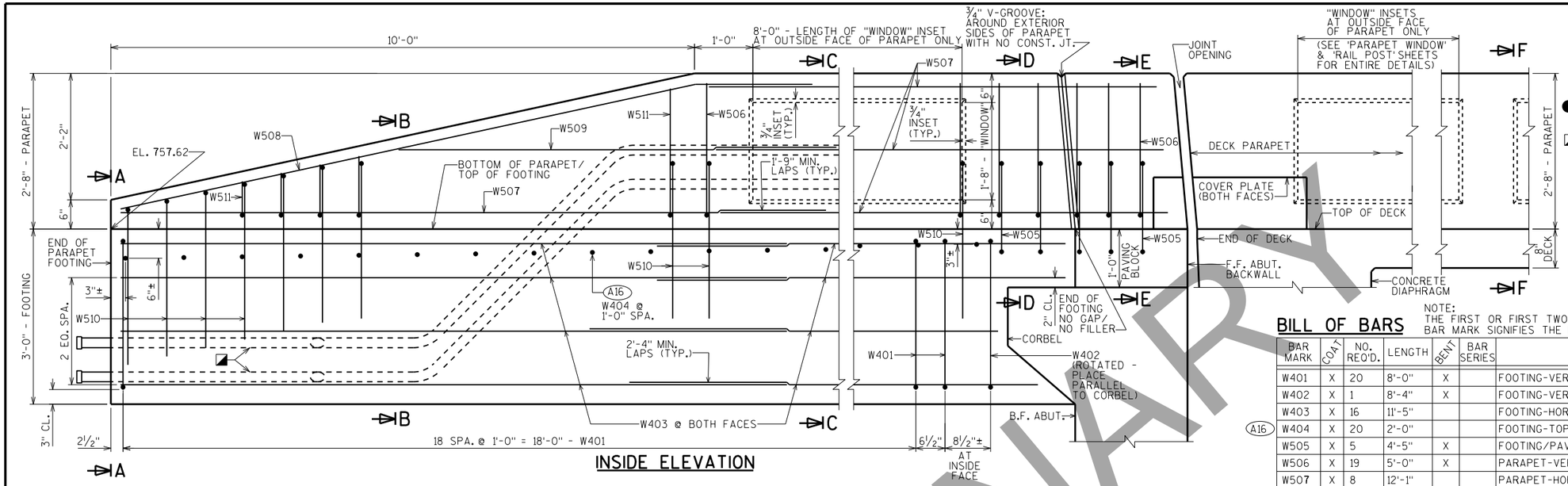
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71

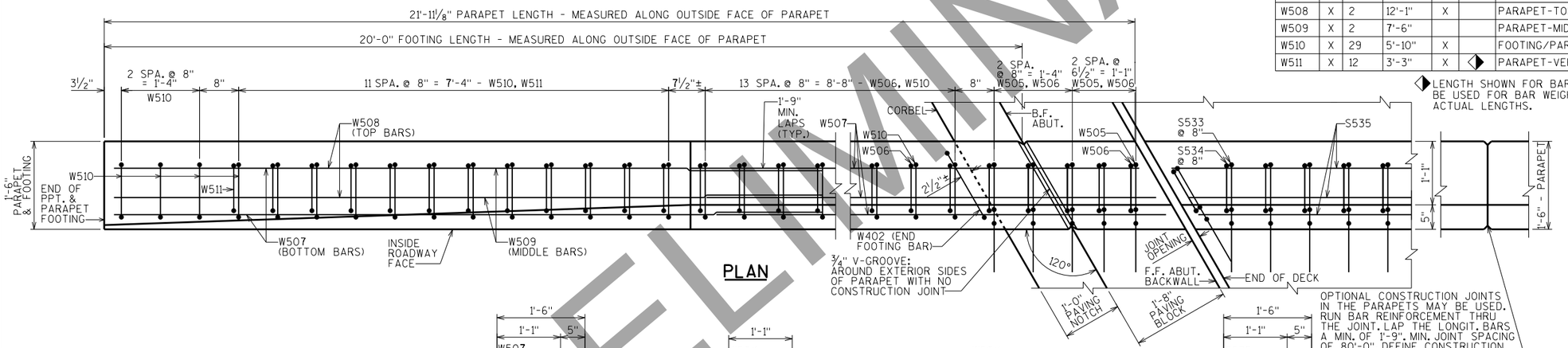
NOTES:

- HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH
- TWO 2" DIA. RIGID CONDUITS RUNNING THRU PARAPET AND FOOTING. SEE 'JUNCTION BOX' & 'ELECTRICAL DETAILS' SHEETS FOR DETAILS.

ALL BID ITEMS ON THIS SHEET SHALL BE INCLUDED WITH THE SOUTH APPROACH QUANTITIES.



INSIDE ELEVATION



PLAN

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

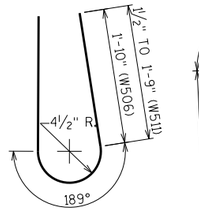
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
W401	X	20	8'-0"	X		FOOTING-VERTICAL-TRANSVERSE-STIRRUP
W402	X	1	8'-4"	X		FOOTING-VERT.-TRANS.-STIRRUP-AT NORTH END
W403	X	16	11'-5"			FOOTING-HORIZONTAL-LONGITUDINAL-BOTH FACES
(A16) W404	X	20	2'-0"			FOOTING-TOP-HORIZ.-TRANS.-INSIDE FACE
W505	X	5	4'-5"	X		FOOTING/PAVING BLOCK/PARAPET-VERT.-TRANS.-AT N. END
W506	X	19	5'-0"	X		PARAPET-VERT.-TRANS.-AT N. END
W507	X	8	12'-1"			PARAPET-HORIZ.-LONGIT.-BOTH FACES-BOTH ENDS
W508	X	2	12'-1"	X		PARAPET-TOP-LONGIT.-BOTH FACES-AT SOUTH END
W509	X	2	7'-6"			PARAPET-MIDDLE-HORIZ.-LONGIT.-BOTH FACES-AT S. END
W510	X	29	5'-10"	X		FOOTING/PARAPET-VERT.-TRANS.
W511	X	12	3'-3"	X	◆	PARAPET-VERT.-TRANS.-AT S. END

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

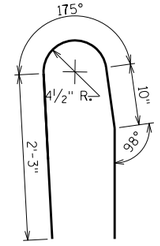
BAR SERIES TABLE

BAR MARK	NUMBER REQUIRED	LENGTH
W511	1 SERIES OF 12 BARS	1'-7" TO 4'-10"

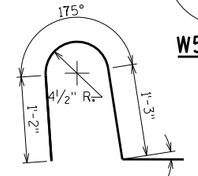
BUNDLE AND TAG EACH SERIES SEPARATELY.



W506 W511



W510



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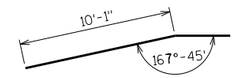

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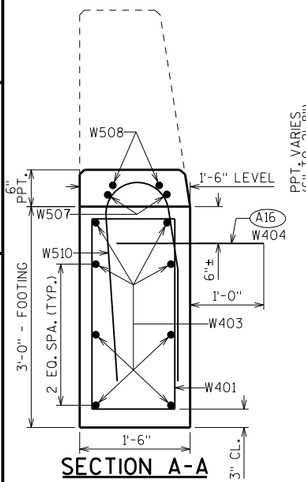
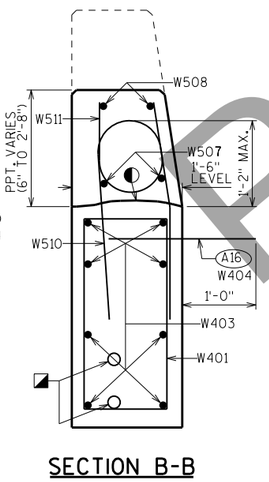
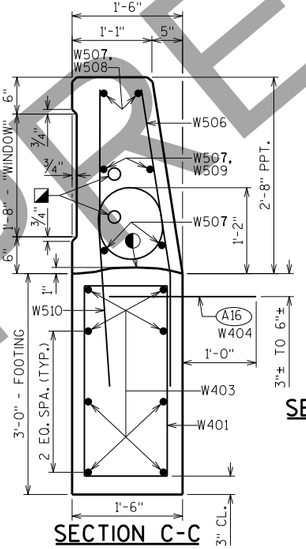


SECTION A-A



SECTION B-B



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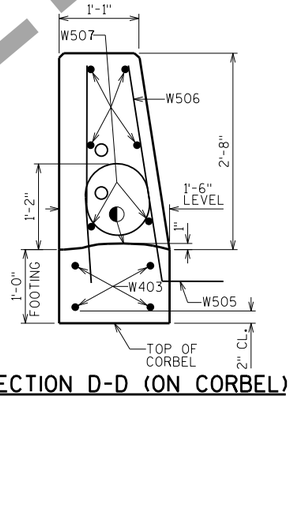
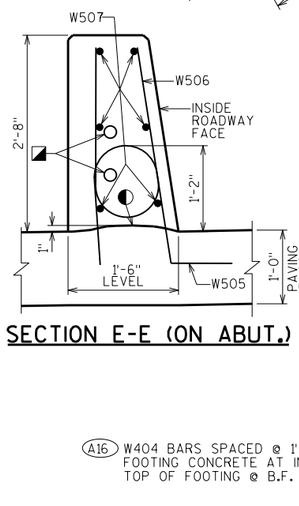
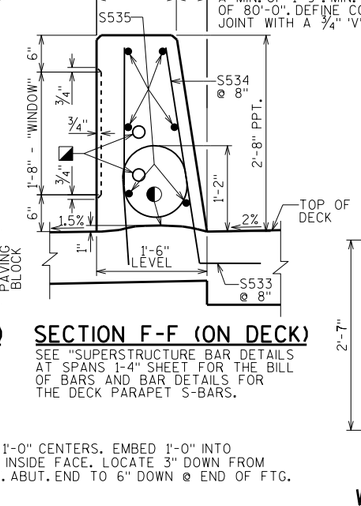


SECTION D-D (ON CORBEL)



SECTION E-E (ON ABUT.)

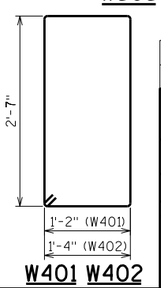


SECTION F-F (ON DECK)

SEE "SUPERSTRUCTURE BAR DETAILS AT SPANS 1-4" SHEET FOR THE BILL OF BARS AND BAR DETAILS FOR THE DECK PARAPET S-BARS.

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

(A16) W404 BARS SPACED @ 1'-0" CENTERS. EMBED 1'-0" INTO FOOTING CONCRETE AT INSIDE FACE. LOCATE 3" DOWN FROM TOP OF FOOTING @ B.F. ABUT. END TO 6" DOWN @ END OF FTG.



W401 W402

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

WEST SINGLE SLOPE PARAPET 32SS & FOOTING DETAILS

DRAWING R34 OF R43

PRE_214

SCALE = 1.00

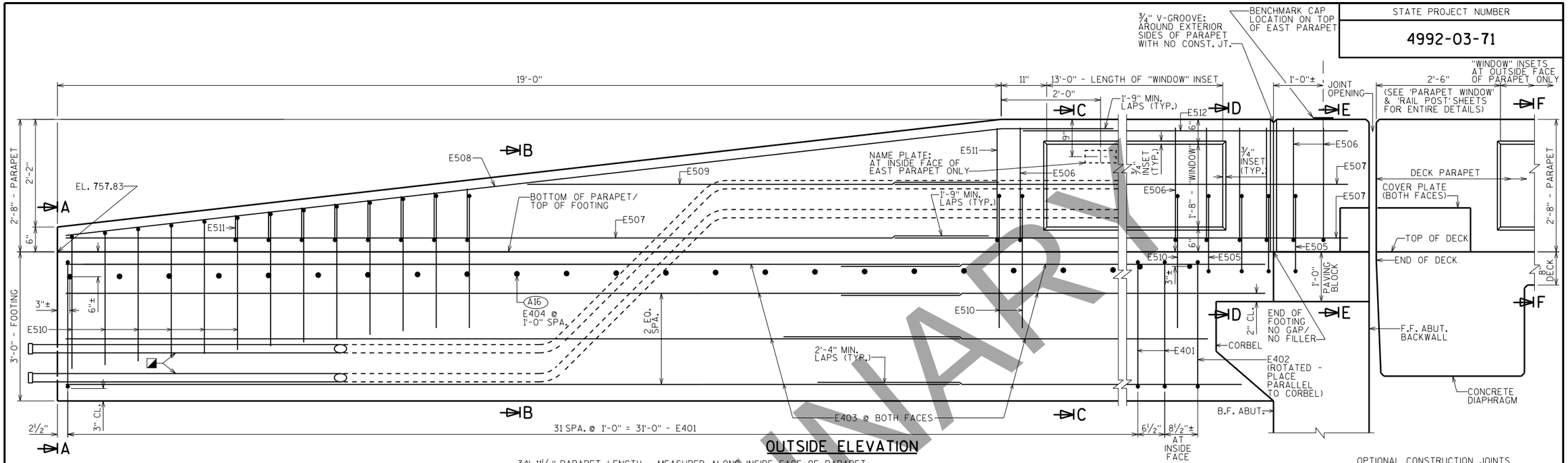
PRELIMINARY

DRAFT April 20, 2020

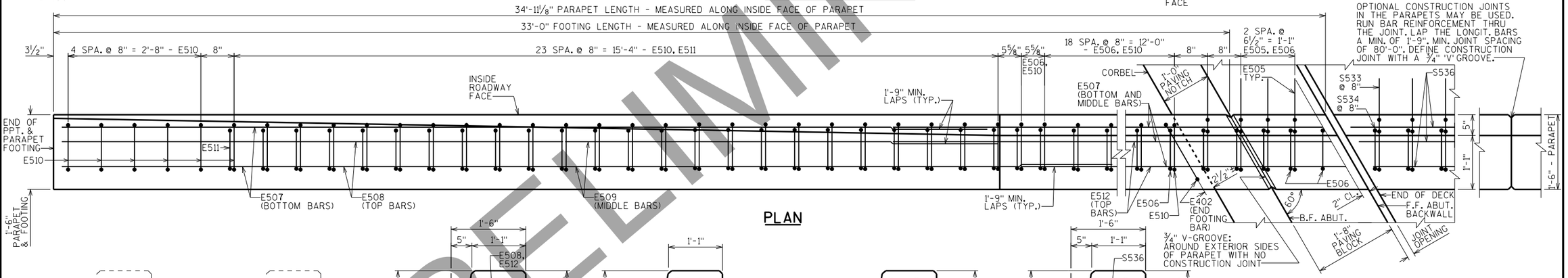
STATE PROJECT NUMBER

4992-03-71

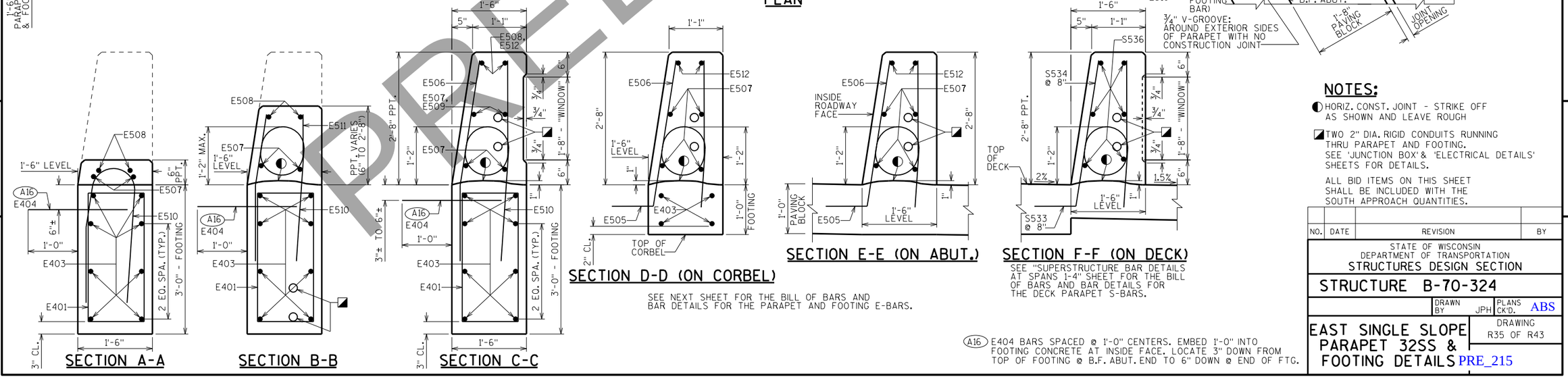
PRELIMINARY



OUTSIDE ELEVATION



PLAN



SECTION A-A

SECTION B-B

SECTION C-C

SECTION D-D (ON CORBEL)

SEE NEXT SHEET FOR THE BILL OF BARS AND BAR DETAILS FOR THE PARAPET AND FOOTING E-BARS.

SECTION E-E (ON ABUT.)

SECTION F-F (ON DECK)

SEE "SUPERSTRUCTURE BAR DETAILS AT SPANS 1-4" SHEET FOR THE BILL OF BARS AND BAR DETAILS FOR THE DECK PARAPET S-BARS.

(A16) E404 BARS SPACED @ 1'-0" CENTERS. EMBED 1'-0" INTO FOOTING CONCRETE AT INSIDE FACE. LOCATE 3" DOWN FROM TOP OF FOOTING @ B.F. ABUT. END TO 6" DOWN @ END OF FTG.

NOTES:

- HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH
- TWO 2" DIA. RIGID CONDUITS RUNNING THRU PARAPET AND FOOTING. SEE 'JUNCTION BOX' & 'ELECTRICAL DETAILS' SHEETS FOR DETAILS.

ALL BID ITEMS ON THIS SHEET SHALL BE INCLUDED WITH THE SOUTH APPROACH QUANTITIES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

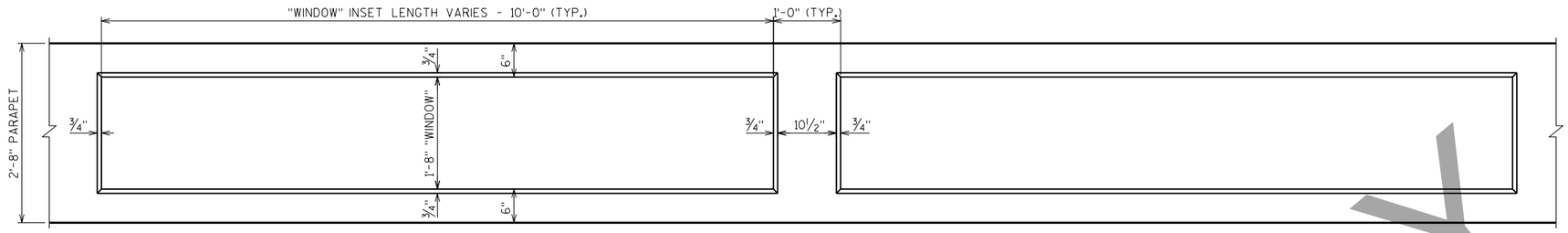
DRAWN BY JPH | PLANS CK'D. ABS

EAST SINGLE SLOPE PARAPET 32SS & FOOTING DETAILS

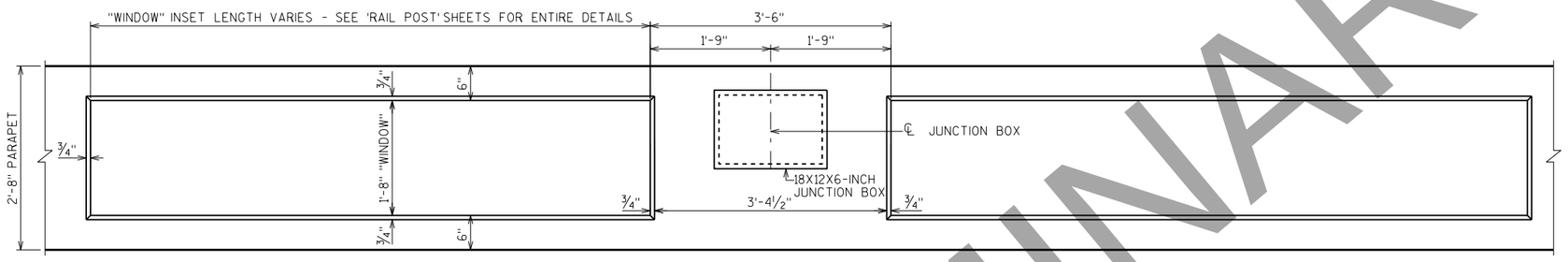
DRAWING R35 OF R43

PRE_215

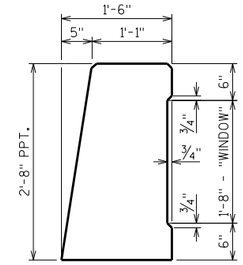
SCALE = 1.00



TYPICAL PARTIAL OUTSIDE FACE OF PARAPET SHOWING "WINDOW" DETAILS ON DECK (SPANS 1-4)



PARTIAL OUTSIDE FACE OF PARAPET SHOWING "WINDOW" DETAILS AROUND JUNCTION BOXES ON DECK (SPANS 1-4)



SECTION THRU PARAPET ON DECK
SHOWING "WINDOW" DETAILS

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BILL OF BARS AT EAST PARAPET AND FOOTING

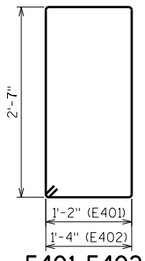
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
E401	X	33	8'-0"	X		FOOTING-VERTICAL-TRANSVERSE-STIRRUP
E402	X	1	8'-4"	X		FOOTING-VERT.-TRANS.-STIRRUP-AT NORTH END
E403	X	16	18'-0"			FOOTING-HORIZONTAL-LONGITUDINAL-BOTH FACES
E404	X	33	2'-0"			FOOTING-TOP-HORIZ.-TRANS.-INSIDE FACE
E505	X	4	4'-5"	X		FOOTING/PAVING BLOCK/PARAPET-VERT.-TRANS.-AT N. END
E506	X	25	5'-0"	X		PARAPET-VERT.-TRANS.-AT N. END
E507	X	6	18'-7"			PARAPET-HORIZ.-LONGIT.-BOTH FACES-BOTH ENDS
E508	X	2	21'-3"	X		PARAPET-TOP-LONGIT.-BOTH FACES-AT SOUTH END
E509	X	2	9'-6"			PARAPET-MIDDLE-HORIZ.-LONGIT.-BOTH FACES-AT S. END
E510	X	49	5'-10"	X		FOOTING/PARAPET-VERT.-TRANS.
E511	X	24	3'-4"	X	◆	PARAPET-VERT.-TRANS.-AT S. END
E512	X	2	16'-0"			PARAPET-TOP-HORIZ.-LONGIT.-BOTH FACES-AT N. END

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

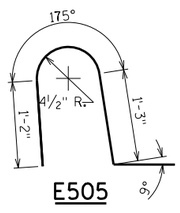
BAR SERIES TABLE

BAR MARK	NUMBER REQUIRED	LENGTH
E511	1 SERIES OF 24 BARS	1'-7" TO 5'-0"

BUNDLE AND TAG EACH SERIES SEPARATELY.



E401 E402



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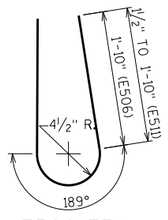
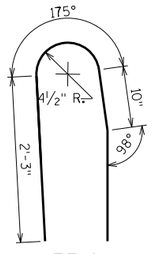
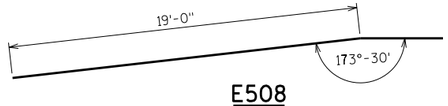


E506 E511



E510



E508

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

PARAPET "WINDOW" DETAILS ON DECK & BAR DETAILS PRE_216

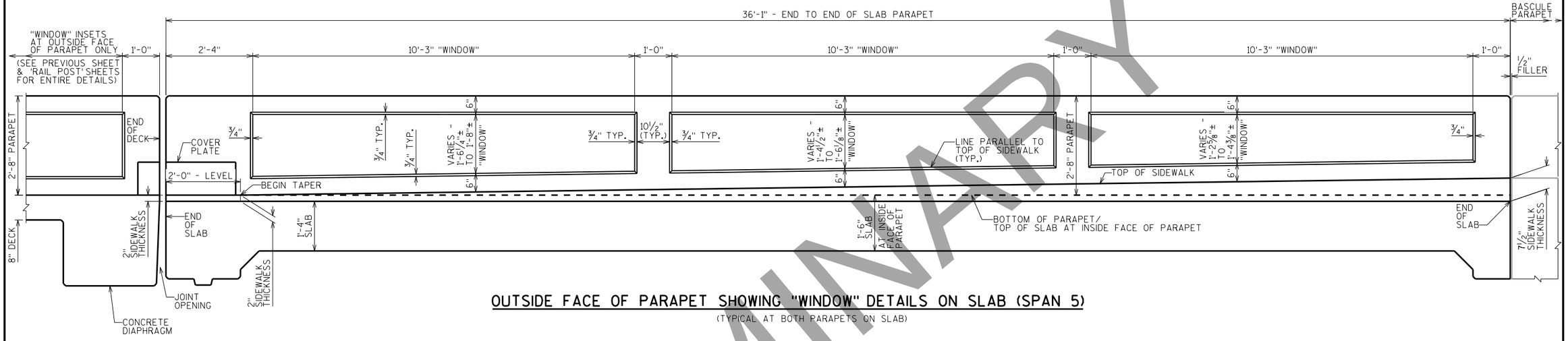
DRAWING R36 OF R43

SCALE = 1.00

DRAFT April 20, 2020
PRELIMINARY

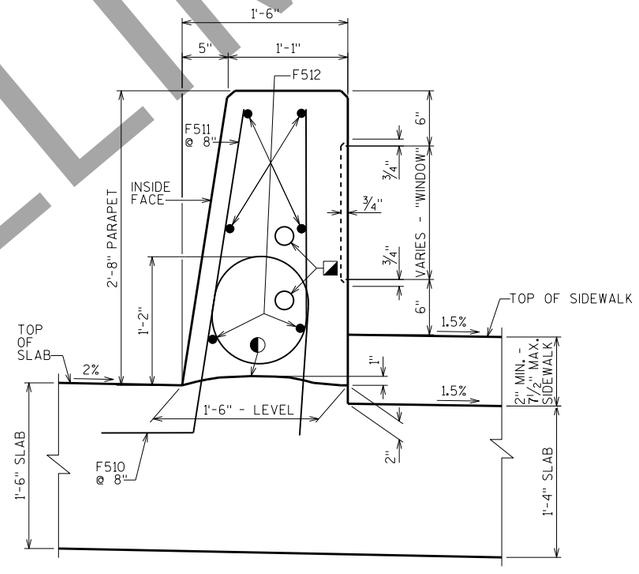
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



OUTSIDE FACE OF PARAPET SHOWING "WINDOW" DETAILS ON SLAB (SPAN 5)

(TYPICAL AT BOTH PARAPETS ON SLAB)



SECTION THRU PARAPET ON SLAB (SPAN 5)

SEE "SUPERSTRUCTURE DATA & BAR DETAILS AT SPAN 5" SHEET FOR THE BILL OF BARS AND BAR DETAILS FOR THE SLAB PARAPET F-BARS.

◐ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH

◪ TWO 2" DIA. RIGID CONDUITS RUNNING THRU PARAPET AND FOOTING. SEE 'JUNCTION BOX' & 'ELECTRICAL DETAILS' SHEETS FOR DETAILS (TYP.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JPH | PLANS CK'D. ABS

SINGLE SLOPE PARAPET 32SS ON SLAB DETAILS

DRAWING R37 OF R43

PRE_217

SCALE = 1.33

8

8

PRELIMINARY

DRAFT April 20, 2020

PRELIMINARY

STATE PROJECT NUMBER

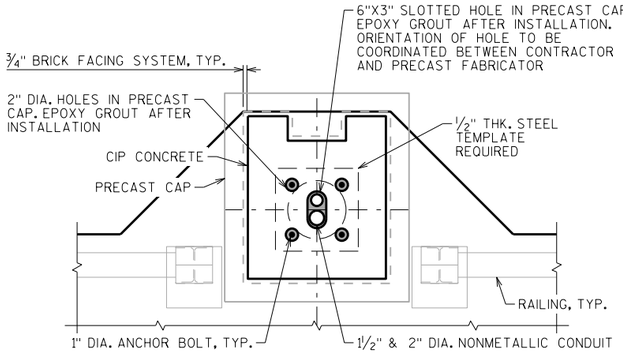
4992-03-71

NOTES:

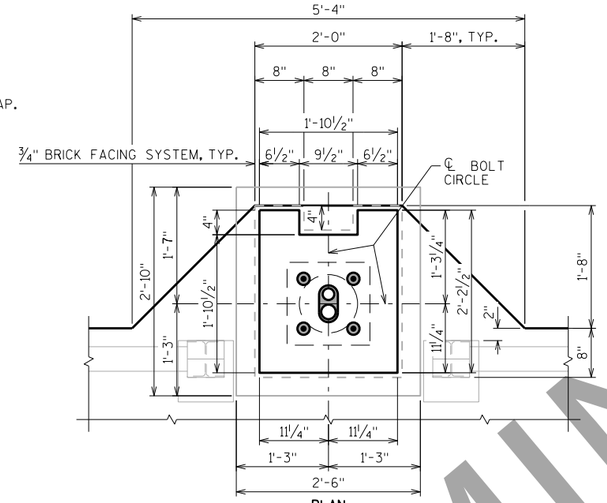
DETAILS ACCOMMODATE MAXIMUM BRICK FACING SYSTEM THICKNESS OF ¾".

DETAILS AND DIMENSIONS SHOWN ARE FOR PEDESTALS WITH ANCHORAGES FOR LIGHT AND CAMERA POLES. PRECAST CAP IS TO BE CAST WITHOUT HOLES FOR PEDESTALS WITHOUT ANCHORAGES.

SEE "A" SHEETS FOR FURTHER DETAILS ON BRICK FACING SYSTEM AND PRECAST CAP.



PLAN



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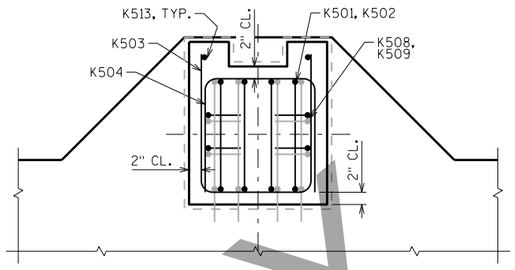
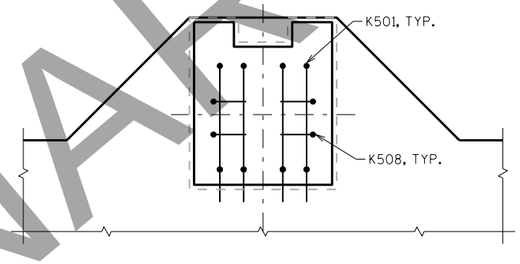


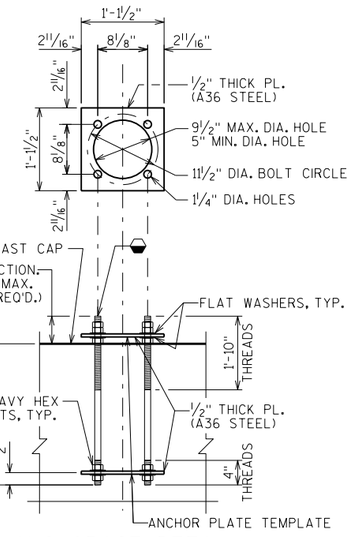
PLAN

SHOWING PEDESTAL REINFORCEMENT TO BE PLACED AFTER DECK POUR. SEE NEXT SHEET FOR ADDITIONAL REINFORCEMENT AND DETAILS.



PLAN

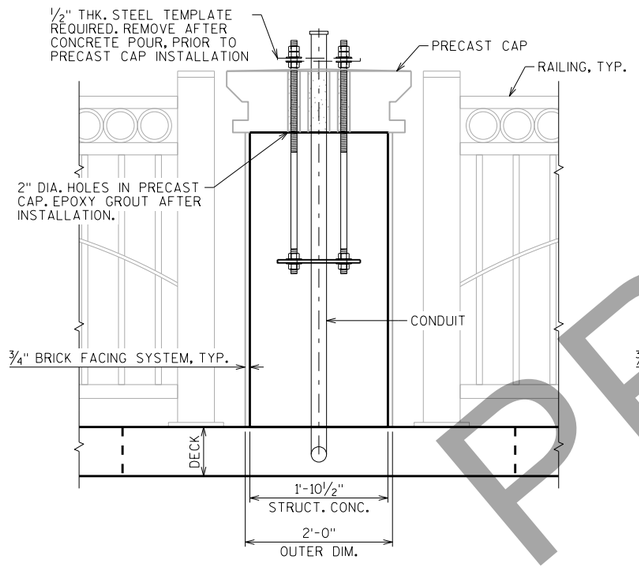
SHOWING PEDESTAL REINFORCEMENT TO BE PLACED PRIOR TO DECK POUR. SEE NEXT SHEET FOR ADDITIONAL REINFORCEMENT AND DETAILS.



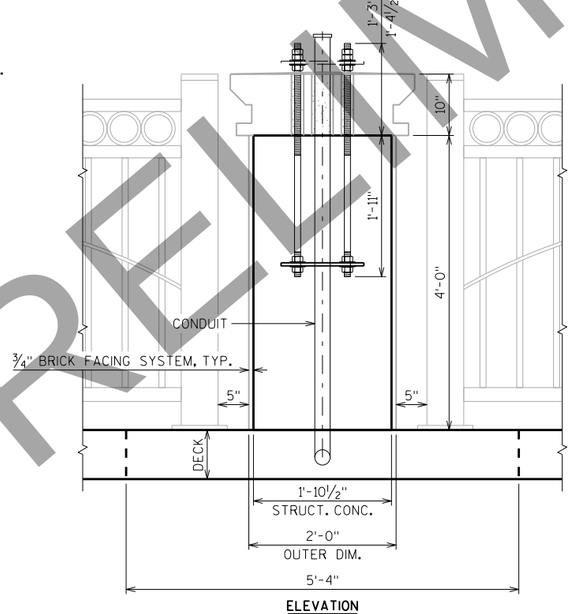
ANCHORAGE DETAIL

(5 REQUIRED)

⬭ 1" DIA. THREADED ANCHOR BOLTS ASTM A449 OR AASHTO M 314-90 GR 55. HOT DIP ASTM A153, CLASS C, UPPER 2'-0" OF BOLT INCLUDING NUTS & WASHERS. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING. PROVIDE (2) FLAT WASHERS & (3) NUTS PER ANCHOR BOLT.



ELEVATION



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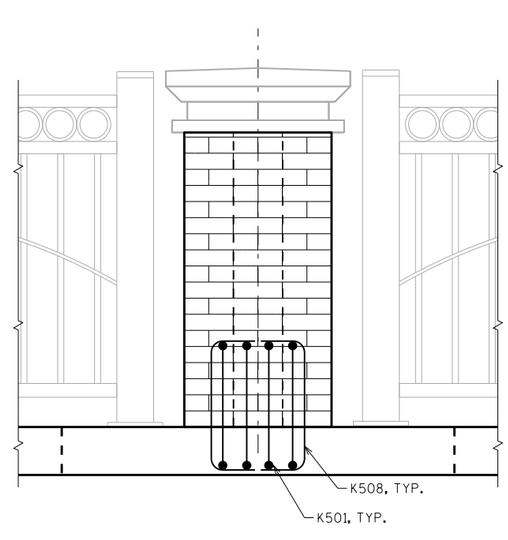


ELEVATION

SHOWING PEDESTAL REINFORCEMENT TO BE PLACED PRIOR TO DECK POUR. SEE NEXT SHEET FOR ADDITIONAL REINFORCEMENT AND DETAILS.

PEDESTAL DETAILS

PEDESTAL DIMENSIONS

PEDESTAL REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ABS/JPH | PLANS CK'D. ABS

LIGHT PEDESTAL DETAILS 1

DRAWING R38 OF R43

PRE_218

SCALE = 1.00

8

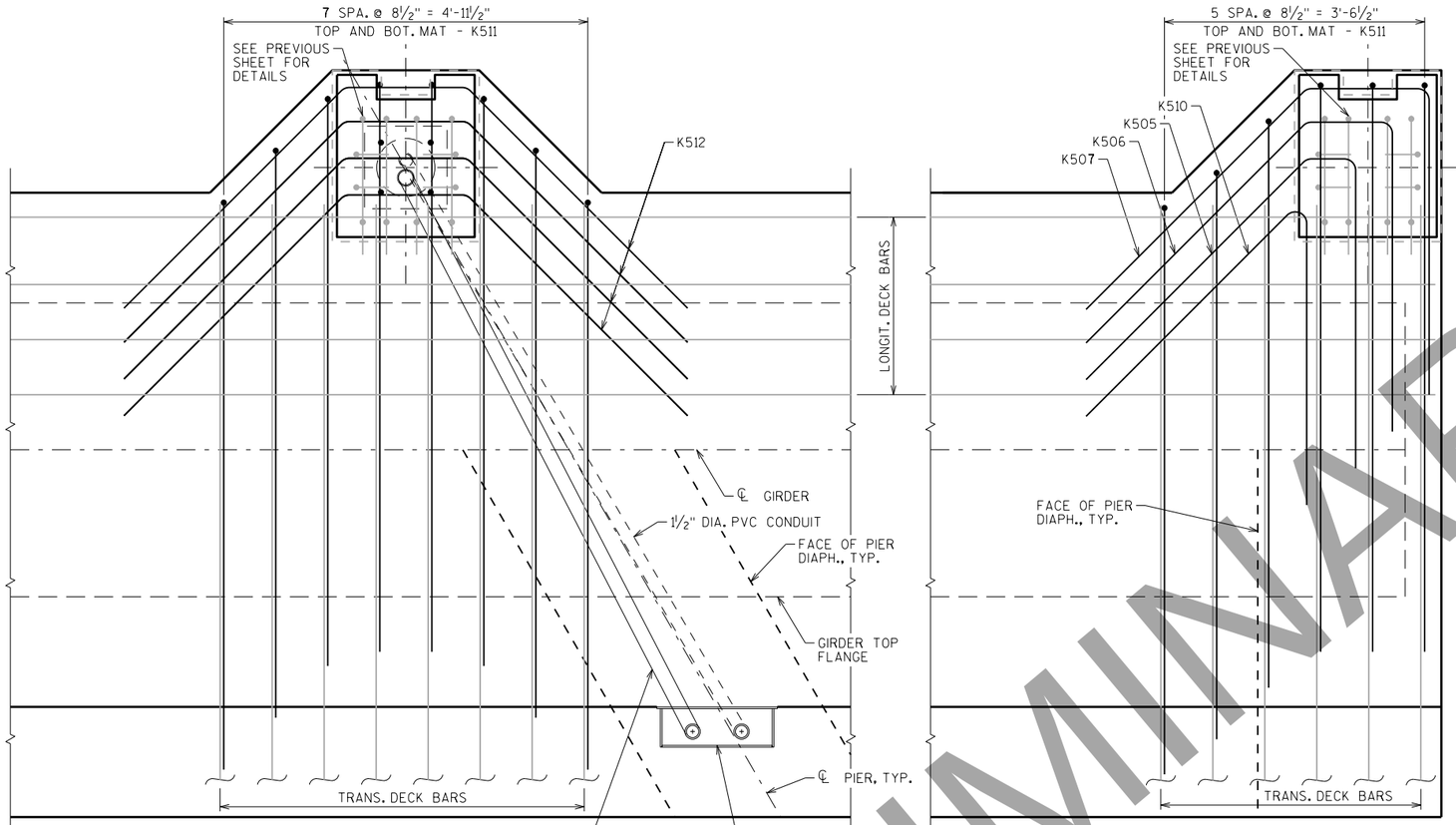
8

DRAFT April 20, 2020

PRELIMINARY

STATE PROJECT NUMBER

4992-03-71

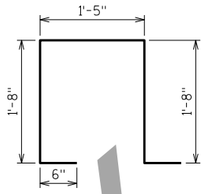


PLAN

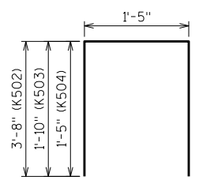
AT PIERS 1, 2, & 3

PLAN

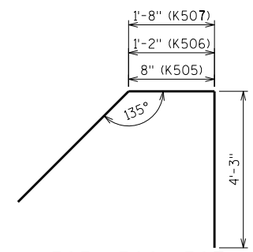
AT PIER 4



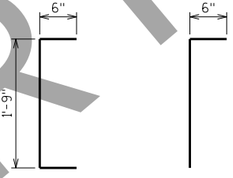
K501



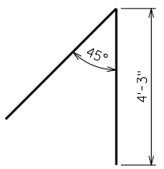
K502 K503 K504



K505 K506 K507



K508 K509



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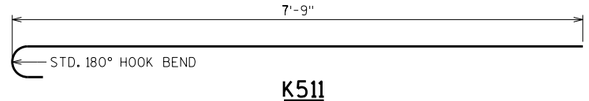

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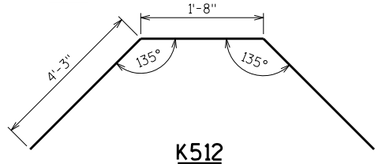
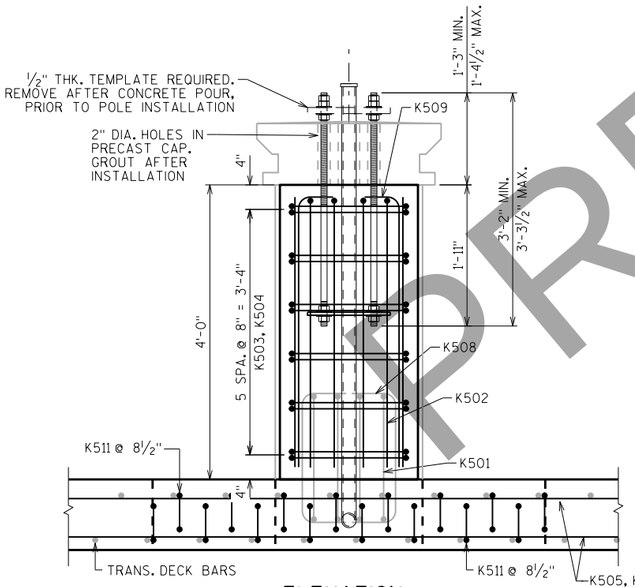
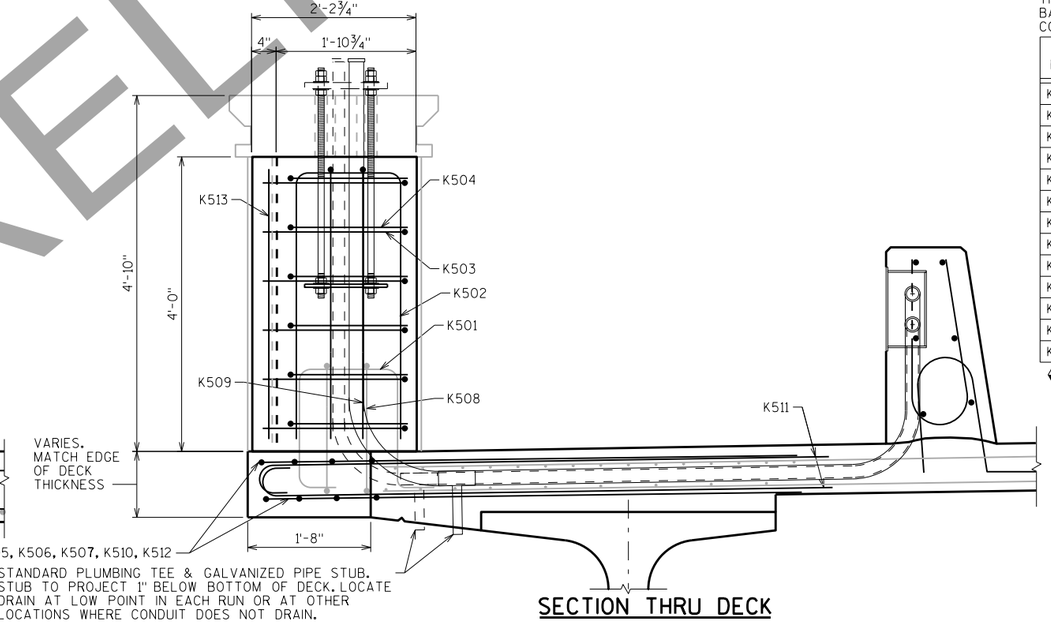


K512



ELEVATION



SECTION THRU DECK

BILL OF BARS

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR STEEL SHOWN IN THIS TABLE IS INCLUDED IN THE SUPERSTRUCTURE COLUMN OF THE ESTIMATED QUANTITIES.

BAR MARK	COAT	NUMBER REQUIRED SOUTH ABUT.	PIERS 1-3	PIER 4	LENGTH	BENT	LOCATION
K501	X	◒	24	8	5'-3"	X	PEDESTALS - VERTICAL
K502	X	4	24	8	8'-6"	X	PEDESTALS - VERTICAL
K503	X	6	36	12	4'-10"	X	PEDESTALS - HORIZONTAL
K504	X	6	36	12	4'-0"	X	PEDESTALS - HORIZONTAL
K505	X	--	--	4	9'-0"	X	PEDESTALS - HORIZONTAL
K506	X	--	--	4	9'-6"	X	PEDESTALS - HORIZONTAL
K507	X	--	--	4	10'-0"	X	PEDESTALS - HORIZONTAL
K508	X	◒	24	8	2'-6"	X	PEDESTALS - VERTICAL
K509	X	4	24	8	4'-1"	X	PEDESTALS - VERTICAL
K510	X	--	--	4	8'-5"	X	PEDESTALS - HORIZONTAL
K511	X	--	96	24	8'-4"	X	PEDESTAL BASE - VERTICAL
K512	X	--	48	--	10'-1"	X	PEDESTALS - HORIZONTAL
K513	X	2	12	4	3'-8"		PEDESTAL BASE - VERTICAL

◒ SEE 'ABUTMENT' SHEETS FOR EQUIVALENT BAR MARK

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ABS/JPH | PLANS CK'D. ABS

LIGHT PEDESTAL DETAILS 2

DRAWING R39 OF R43

PRE_219

SCALE = 1.00

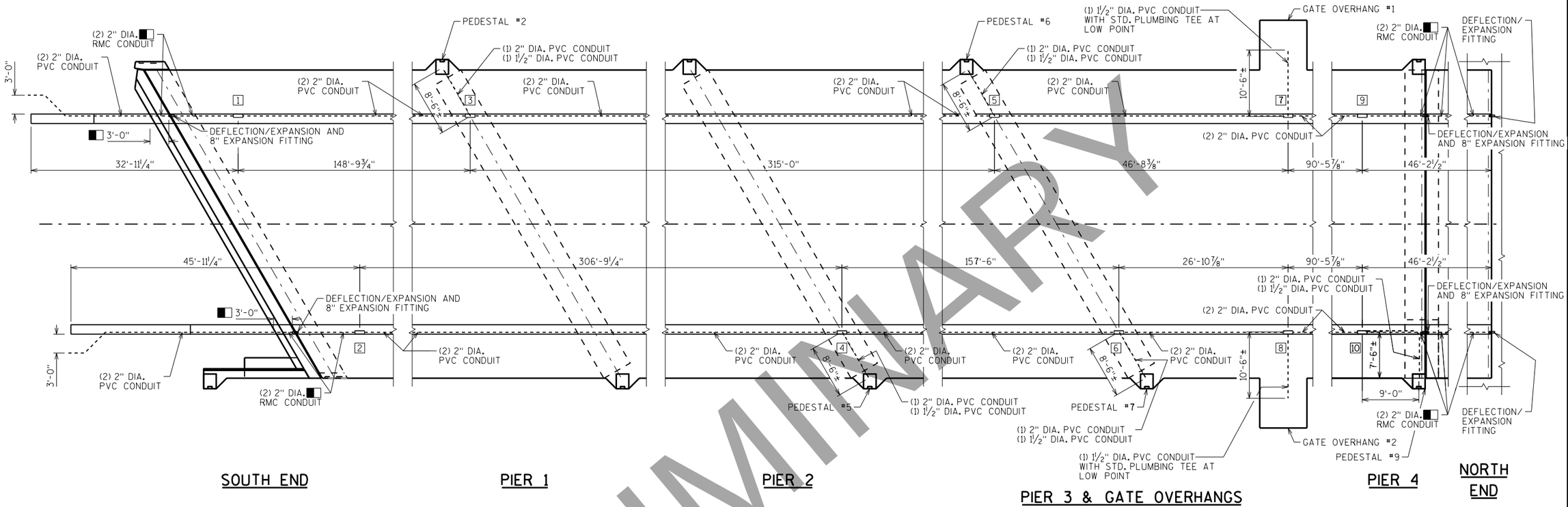
8

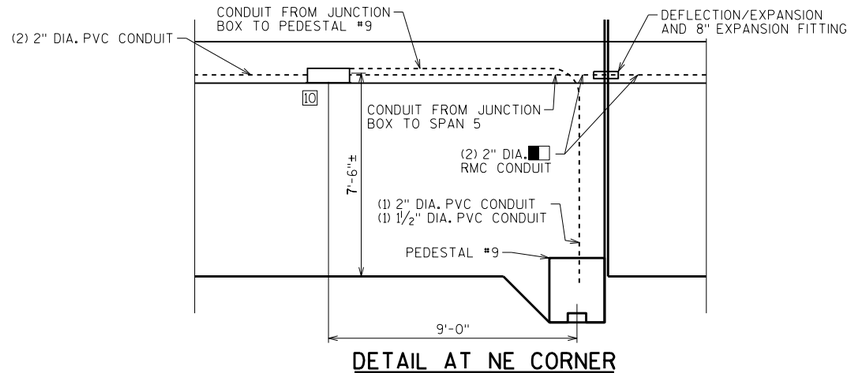
8

DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71





DETAIL AT NE CORNER

℄ JUNCTION BOX STATIONING LOCATIONS

1 = STA. 6'RNB'+67.79 @ WEST PPT.
2 = STA. 6'RNB'+87.13 @ EAST PPT.
3 = STA. 8'RNB'+16.60 @ WEST PPT.
4 = STA. 9'RNB'+93.90 @ EAST PPT.
5 = STA. 11'RNB'+31.60 @ WEST PPT.
6 = STA. 11'RNB'+51.40 @ EAST PPT.
7 = STA. 11'RNB'+78.30 @ WEST PPT.
8 = STA. 11'RNB'+78.30 @ EAST PPT.
9 = STA. 12'RNB'+68.79 @ WEST PPT.
10 = STA. 12'RNB'+68.79 @ EAST PPT.

SEE "JUNCTION BOX DETAILS" AND "ELECTRICAL DETAILS AT JOINTS" SHEETS FOR MORE DETAILS.

LEGEND

1 JUNCTION BOX I.D.

■ USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT

RMC = RIGID METALLIC CONDUIT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ABS/JPH | PLANS CK'D. ABS

DRAWING R40 OF R43

CONDUIT PLAN

PRE_220

SCALE = 8.00

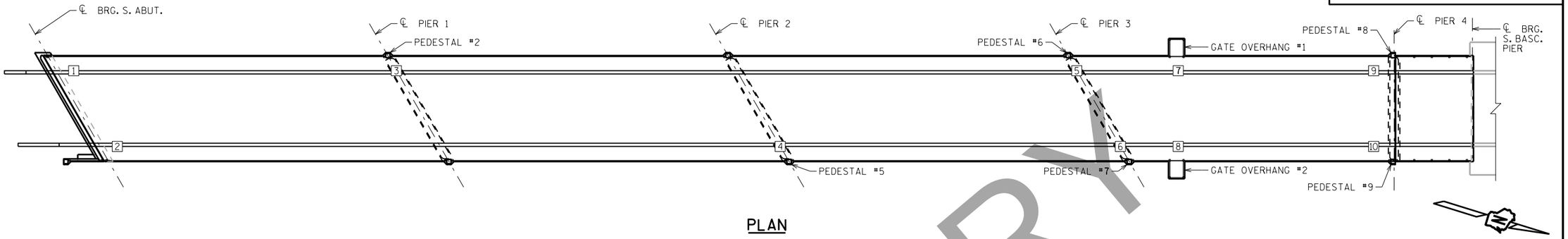
PRELIMINARY

8

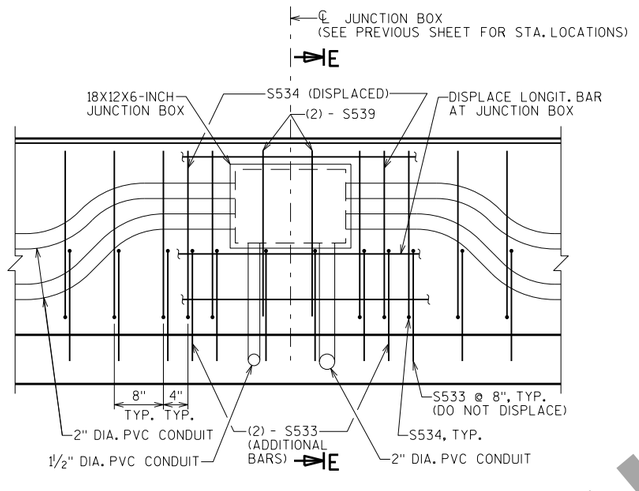
8

STATE PROJECT NUMBER

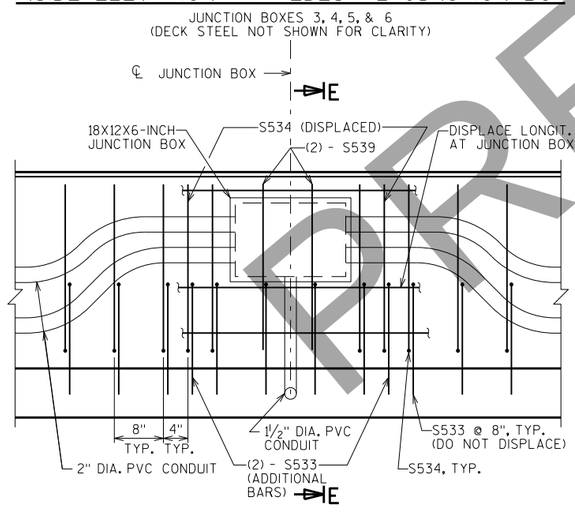
4992-03-71



PLAN

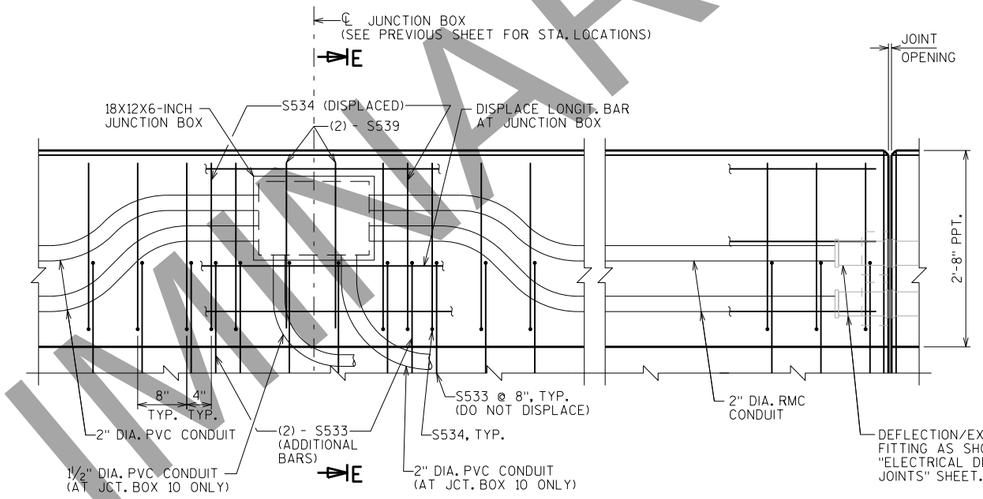


INSIDE ELEVATION AT PEDESTAL JUNCTION BOX



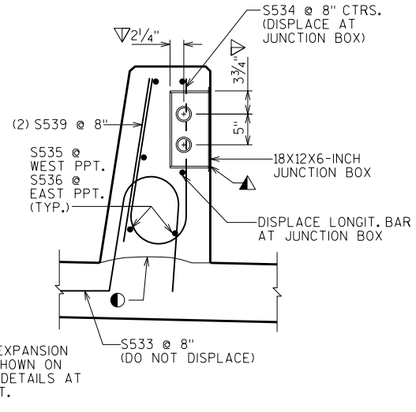
INSIDE ELEVATION AT GATE OVERHANG JUNCTION BOX

JUNCTION BOXES 7 & 8
(DECK STEEL NOT SHOWN FOR CLARITY)



INSIDE ELEVATION AT JUNCTION BOX

JUNCTION BOXES 1, 2, 9, & 10
(DECK STEEL NOT SHOWN FOR CLARITY)



SECTION E-E

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

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

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

SEE "ELECTRICAL DETAILS AT JOINTS" AND "CONDUIT PLAN" SHEETS FOR ADDITIONAL INFORMATION.

LEGEND

◐ CONSTRUCTION JOINT, STRIKE OFF AS SHOWN.

◭ CUT OUT ± 1" OF GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.

▽ LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.

⫩ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).

PVC = POLYVINYL CHLORIDE (RIGID NONMETALLIC) CONDUIT

RMC = RIGID METALLIC CONDUIT

[1] JUNCTION BOX ID

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ABS/JPH | PLANS CK'D. ABS

JUNCTION BOX DETAILS

DRAWING R41 OF R43

PRE_221

SCALE = 1.00

DRAFT April 20, 2020

PRELIMINARY

8

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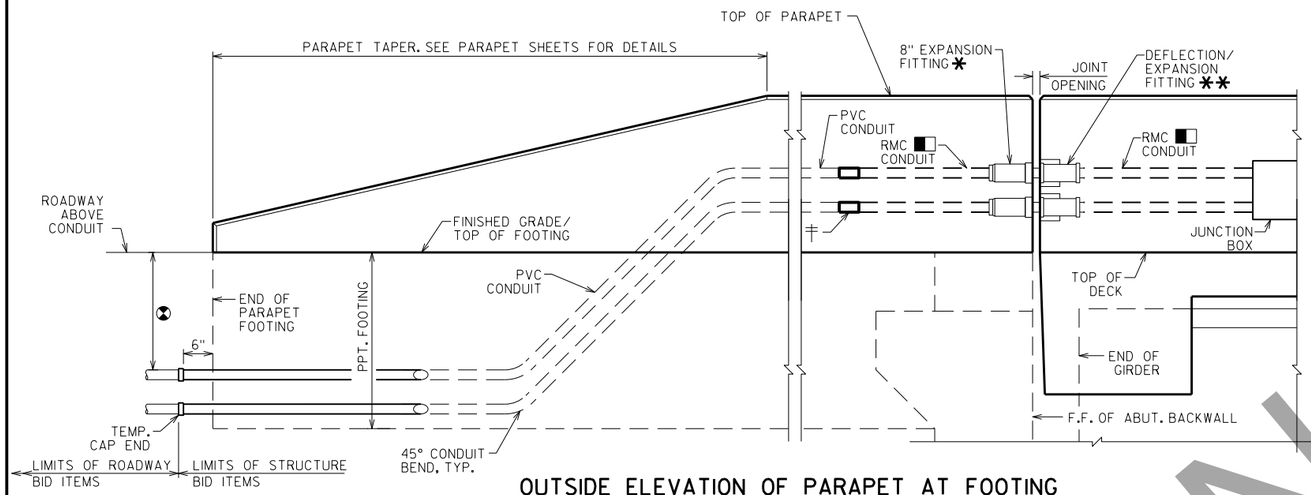
DRAFT April 20, 2020

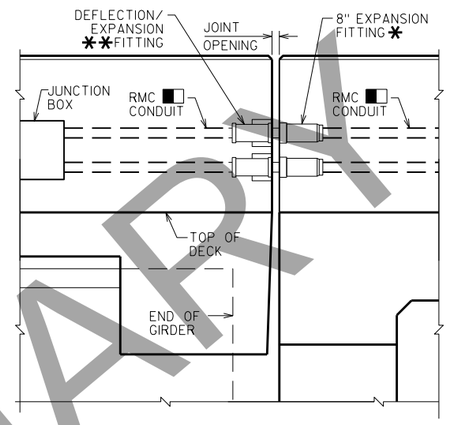
STATE PROJECT NUMBER

4992-03-71

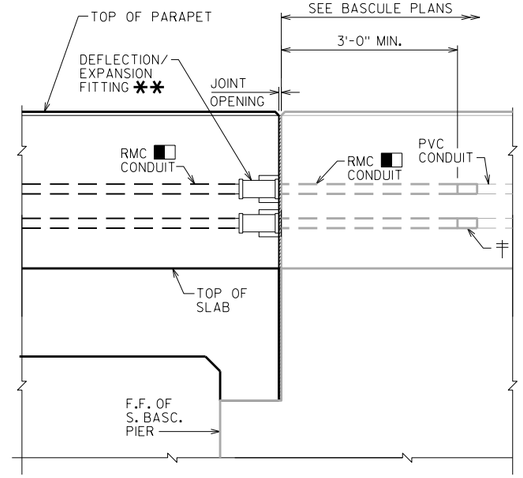


OUTSIDE ELEVATION OF PARAPET AT FOOTING

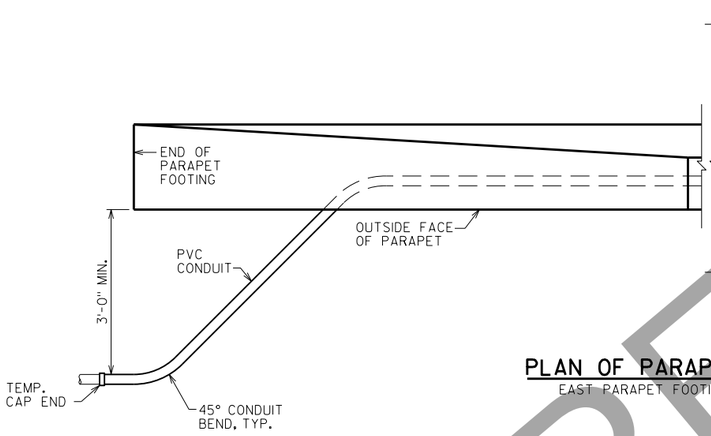
EAST PARAPET FOOTING SHOWN. WEST SIMILAR.



SECTION AT PIER 4

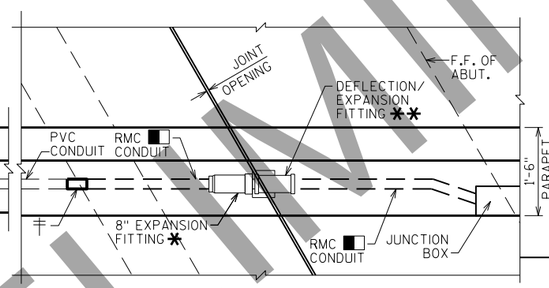


SECTION AT BASCULE PIER

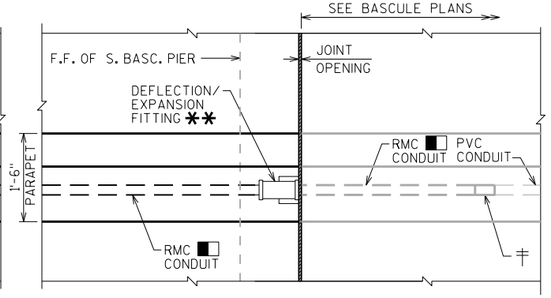


PLAN OF PARAPET AT FOOTING

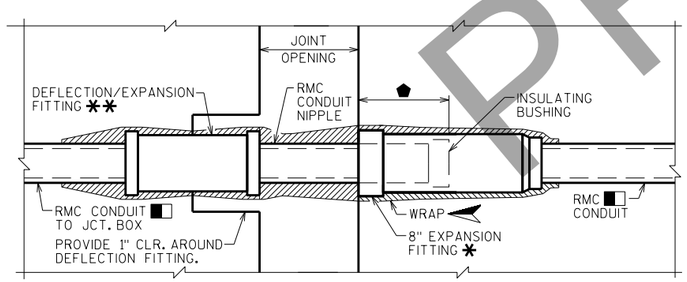
EAST PARAPET FOOTING SHOWN. WEST SIMILAR.



PLAN AT PIER 4

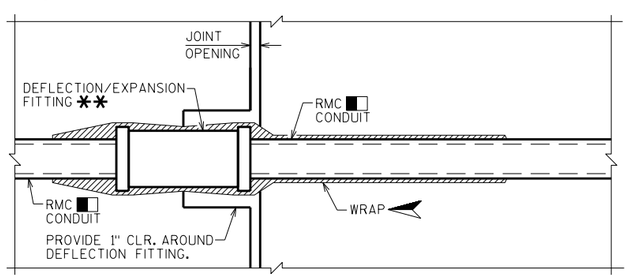


PLAN AT BASCULE PIER



DEFLECTION/EXPANSION AND 8" EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF 8" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION. BOND JUMPER NOT SHOWN FOR CLARITY



DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF ¾" TOTAL MOVEMENT AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION. BOND JUMPER NOT SHOWN FOR CLARITY

LEGEND

- USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.
- NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).
- SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".
- POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.
- 2'-0" MIN. CONDUIT COVER UNDER ROADWAYS, 1'-6" OTHERWISE. CONDUIT COVER SHOULD NOT EXCEED 3'-0".
- ✱ EXPANSION FITTING REQUIREMENTS:
  - 8" TOTAL MOVEMENT WITH BONDING JUMPER
- ✱✱ DEFLECTION/EXPANSION FITTING REQUIREMENTS:
  - UP TO ¾" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30° OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

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

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ABS/JPH | PLANS CK'D. ABS

ELECTRICAL DETAILS AT JOINTS

DRAWING R42 OF R43

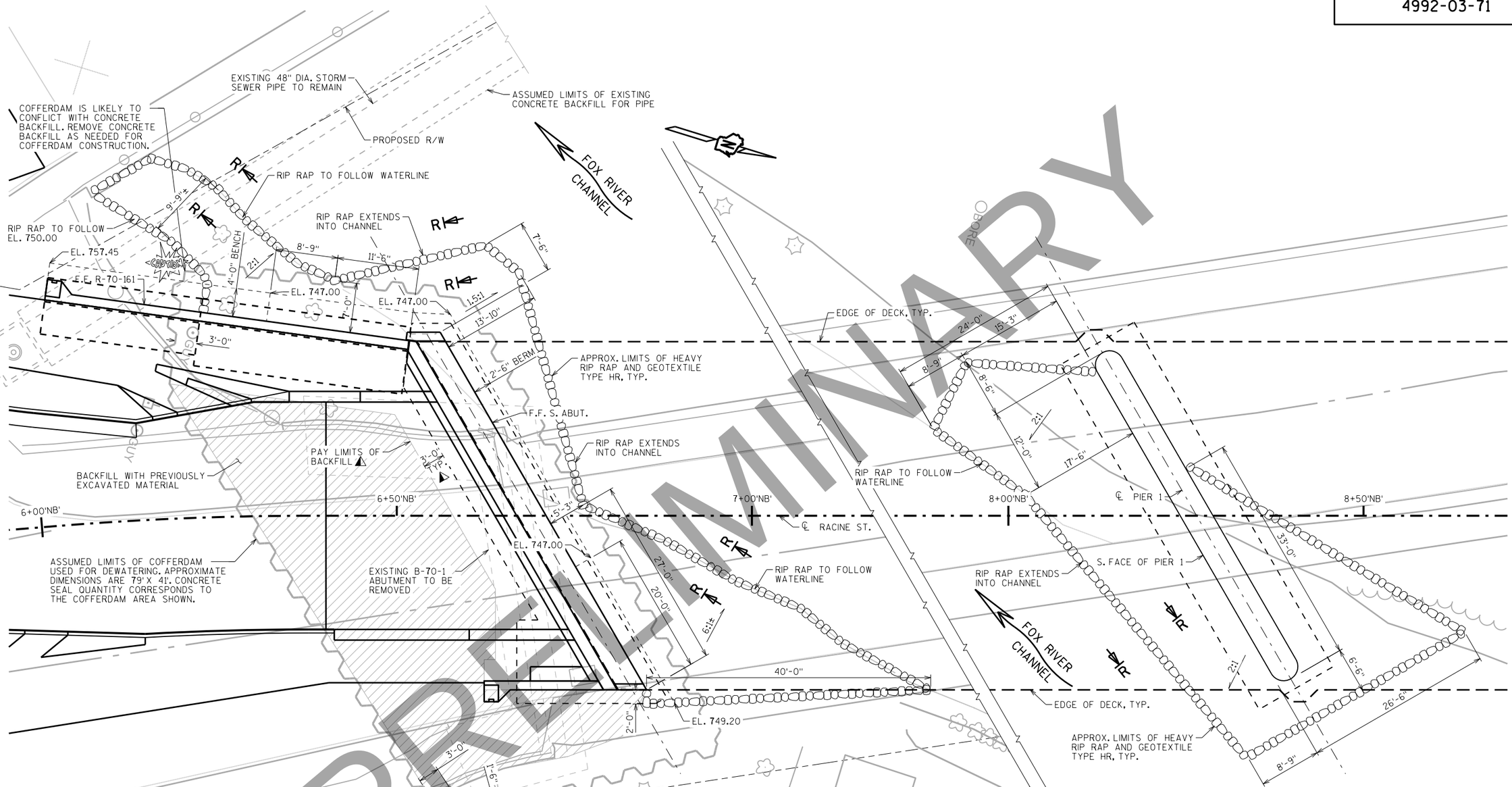
PRE_222

SCALE = 1.25

PRELIMINARY

DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



PLAN - S. ABUT.

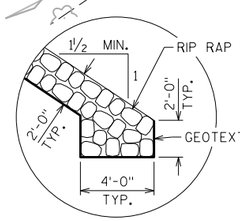
PLAN - PIER 1

PRELIMINARY

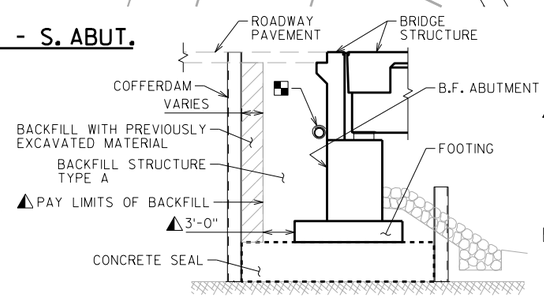
NOTES

LIMITS OF RIP RAP SHOWN ARE APPROXIMATE. ESTIMATED QUANTITIES ARE BASED ON LIMITS SHOWN ON THIS SHEET. ENGINEER TO DETERMINE EXTENT OF RIP RAP LIMITS.

SOUTH ABUTMENT IS DESIGNED FOR USE OF A TRADITIONAL COFFERDAM WITH CONCRETE SEAL FOR DEWATERING. CONCRETE SEAL IS SIZED FOR WATER LEVEL AT OR BELOW EL. 747.0 AND THE BEDROCK ELEVATION SHOWN ON THE ABUTMENT SHEETS. COFFERDAM SHOWN IS ILLUSTRATIVE OF WHAT MAY BE USED TO DEWATER THE SOUTH ABUTMENT AND SEGMENT A OF R-70-161. DEWATERING SYSTEM IS TO BE DESIGNED BY THE CONTRACTOR AND PAID UNDER THE BID ITEM "SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM SOUTH ABUTMENT". CONCRETE SEAL IS PAID UNDER THE BID ITEM "CONCRETE MASONRY SEAL".



SECTION R-R



TYPICAL SECTION THRU ABUTMENT

△ BACKFILL PAY LIMITS. LIMITS ARE A CONSTANT OFFSET FROM THE B.F. OF ABUTMENT FOOTING, B.F. OF WING 1 FOOTING, & B.F. OF R-70-161 SEGMENT A FOOTING. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

▪ PIPE UNDERDRAIN WRAPPED (6 INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. MIN. INVERT = 749.20. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ABS/JPH | PLANS CK'D. ABS

RIP RAP DETAILS

DRAWING R43 OF R43

PRE_223

SCALE = 7.00

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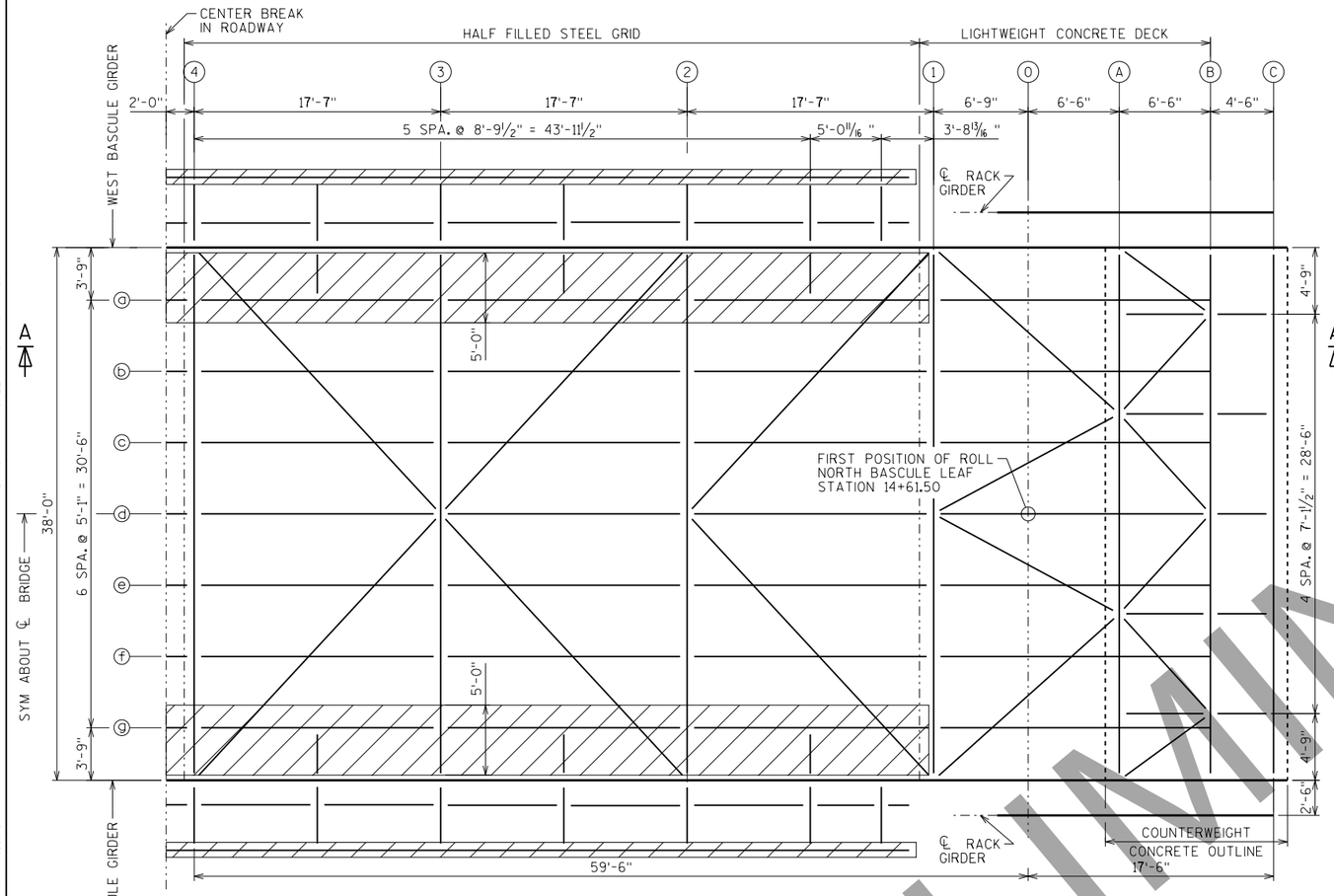
DRAFT April 20, 2020

PRELIMINARY

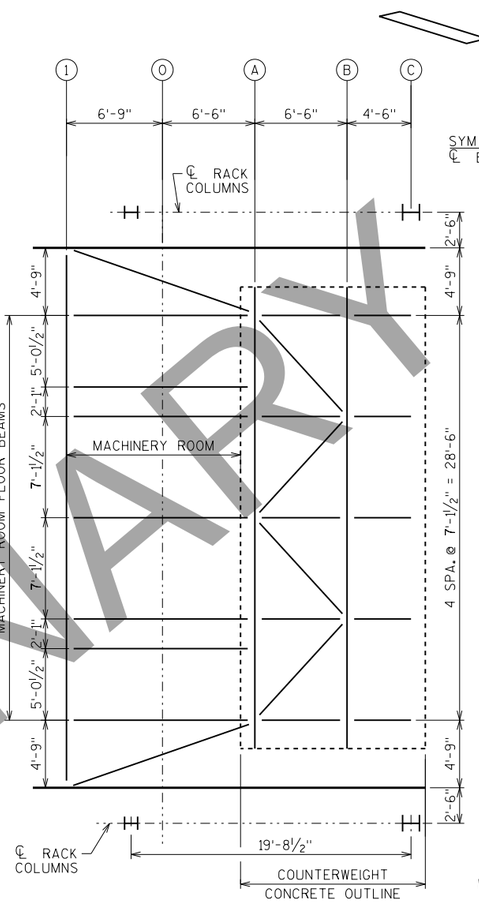
STATE PROJECT NUMBER

4992-03-71

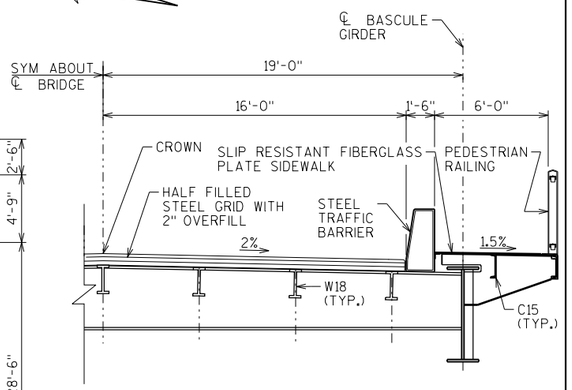


PLAN OF FLOOR SYSTEM

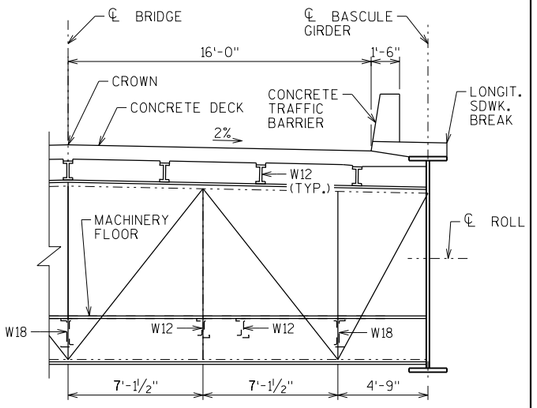
(NORTH LEAF SHOWN, SOUTH LEAF SIMILAR)



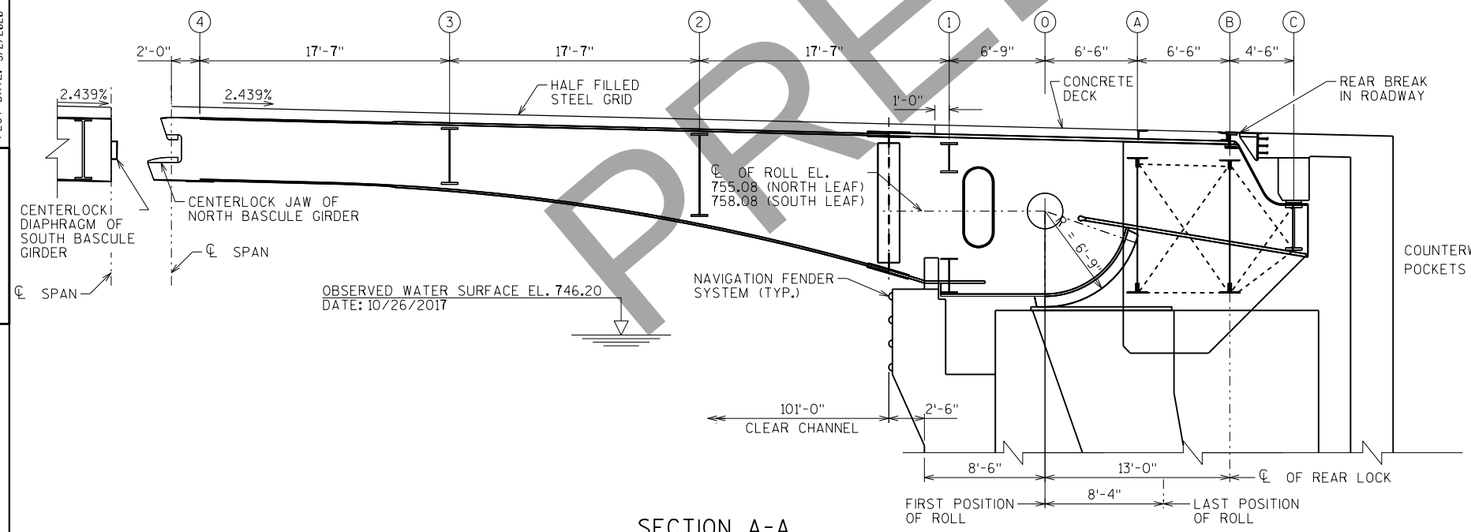
PLAN AT BOTTOM COUNTERWEIGHT TRUSS



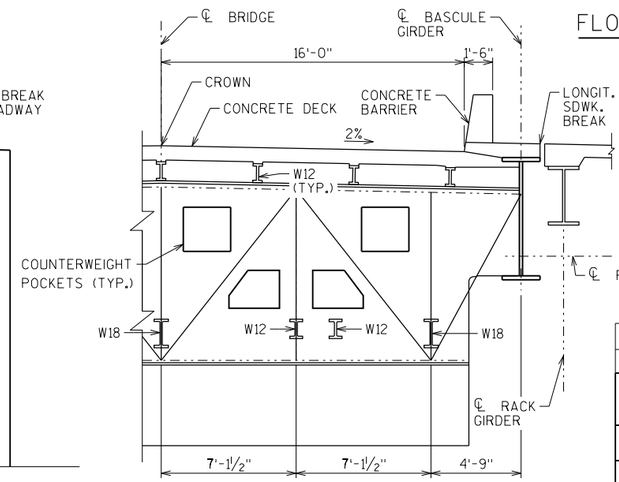
SECTION AT FLOOR BEAMS 2-4



SECTION AT FLOOR BEAM TRUSS 1



SECTION A-A



SECTION AT COUNTERWEIGHT TRUSS A

LIMITS OF GALVANIZATION. GALVANIZE STRINGERS ALONG LINES A & G, SIDEWALK FASCIA STRINGERS, INTERMEDIATE SIDEWALK BRACKETS BETWEEN EXTERIOR STRINGER AND BASCULE GIRDER, ENDS OF FLOOR BEAMS AND LATERAL BRACING WITHIN 5'-0" OF BASCULE GIRDER, AND ALL ASSOCIATED PLATES, CONNECTION ANGLES, AND CONNECTION PLATES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

BASCULE FRAMING PLAN AND SECTIONS

DRAWING SO1 OF S56

PRE_224

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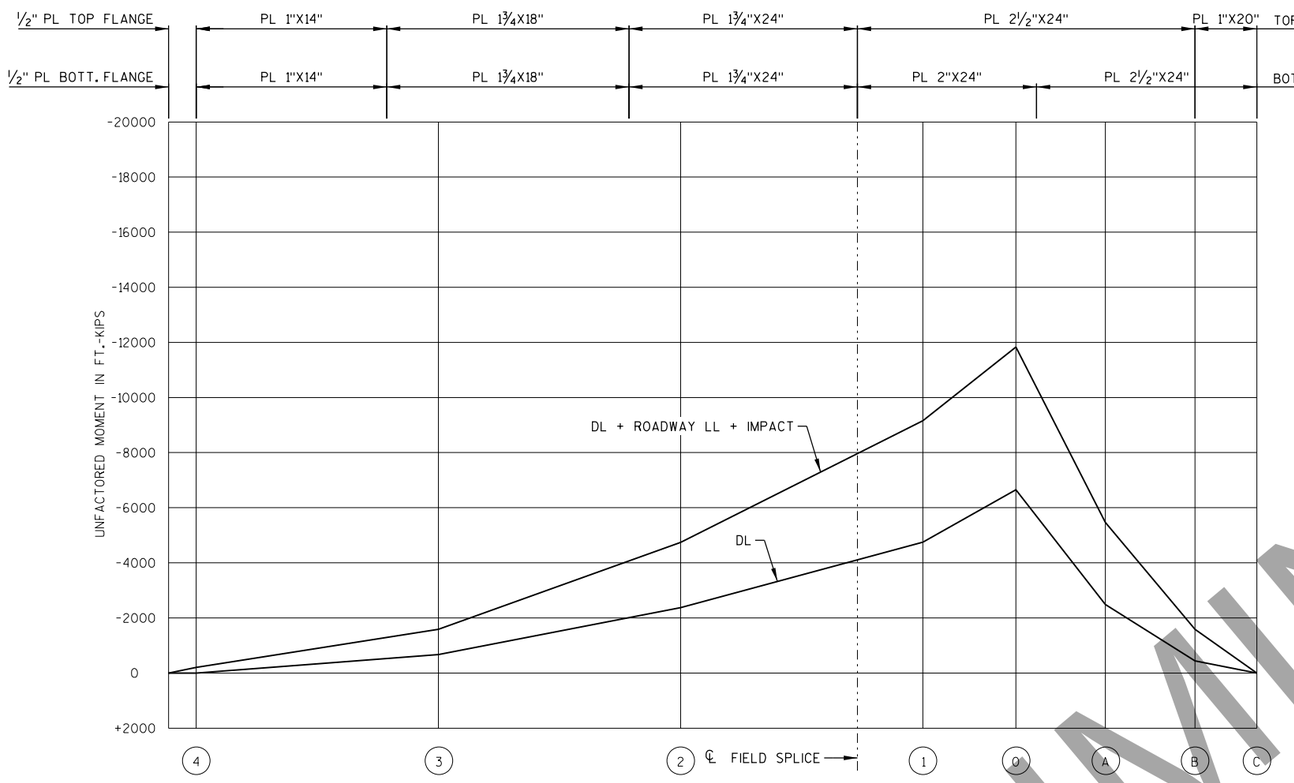
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71



MOMENT DIAGRAMS - BASCULE GIRDER

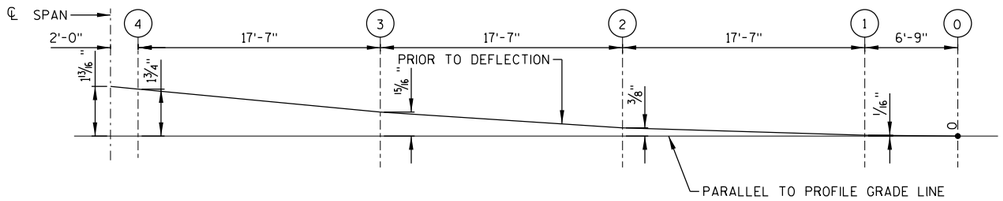
FORCES - STRINGERS AND FLOOR BEAMS										
		POSITIVE MOMENT (KIP-FT)				SHEAR (KIP)				
	MEMBER	DL	PED.	RDWY LL+I	TOTAL	DL	PED.	RDWY LL+I	TOTAL	SECTION
ROADWAY STRINGERS	COMP.	10	-	85	95	4.9	-	38.8	43.7	W12x65 + CONCRETE SLAB
	NON-COMP.	19	-	147	166	4.3	-	24.2	28.5	W18x65
SIDEWALK STRINGERS	STRINGER (INTERIOR)	0.9	2.4	-	3.3	0.4	1.1	-	1.5	C15x33.9
	STRINGER (EXTERIOR)	0.6	1.0	-	1.6	0.4	0.6	-	1.0	C15x33.9
FLOORBEAMS	F1	-	-	-	-	-	-	-	-	TRUSS SEE DETAILS
	F2	386	-	1076	1462	40	-	100	140	WEB ⅝", 2 FLG'S PL 14"x1½"
	F3	379	-	1076	1455	39	-	100	139	WEB ⅝", 2 FLG'S PL 14"x1½"
	F4	312	-	1262	1574	32	-	122	154	WEB ⅝", 2 FLG'S PL 14"x1¾"

NOTES FOR STRINGER AND FLOOR BEAM STRESS CHART

1. IMPACT FACTOR FOR ROADWAY STRINGERS = 33%
2. IMPACT FACTOR FOR FLOOR BEAMS 2 AND 3 = 33%
3. IMPACT FACTOR FOR FLOOR BEAM 4 = 66%
4. UNFACTORED LOADS USED ON SHEAR & MOMENT DIAGRAMS, STRESS, & BASCULE GIRDER LOAD CHARTS, EXCEPT AS NOTED.

FACTORED LOADS PER BASCULE GIRDER (KIPS)			
	UPLIFT REACTION AT Ⓒ	MAXIMUM REACTION AT Ⓞ	SHEAR ON REAR LOCK
DEAD LOAD	7	1114	0
ROADWAY LIVE LOAD+IMPACT	534	803	144
PEDESTRIAN LOAD	94	157	3
TOTAL	635	2074	147

SHEAR DIAGRAMS - BASCULE GIRDER



BASCULE GIRDER DEAD LOAD CAMBER DIAGRAM

NOTE:

THE BASCULE GIRDERS ARE TO BE CAMBERED WITH ORDINATES AS SHOWN ON THE CAMBER DIAGRAM. HEATING IS TO BE USED, IF NECESSARY, TO INSURE CAMBER PERMANENCY WITHIN THE TOLERANCE SPECIFIED IN THE AWS SPECIFICATIONS. (THE CAMBER SHOWN IS WITH THE BEAM ERECTED).

LIVE LOAD + IMPACT DEFLECTION TABLE

ALLOWABLE LIVE LOAD + IMPACT DEFLECTION AT MID-SPAN BASCULE GIRDER	L/1000 = 1.48"
LIVE LOAD + IMPACT DEFLECTION AT MID-SPAN BASCULE GIRDER	1.10"
ALLOWABLE LIVE LOAD + IMPACT DEFLECTION AT MID-SPAN FLOOR BEAM 4	L/800 = 0.57"
LIVE LOAD + IMPACT DEFLECTION AT MID-SPAN FLOOR BEAM 4	0.429"

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BASCULE SPAN STRESS SHEET

DRAWING PRE_225

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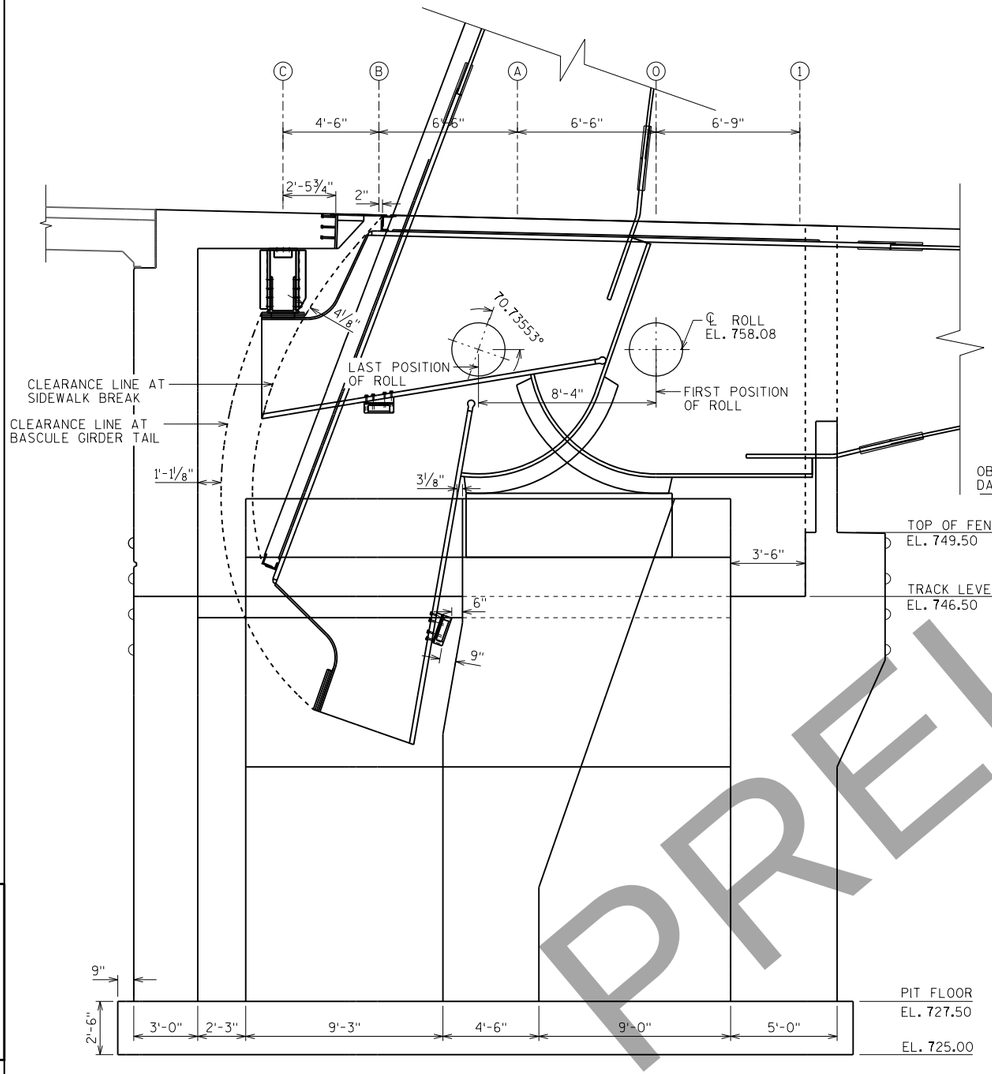
DRAFT April 20, 2020

PRELIMINARY

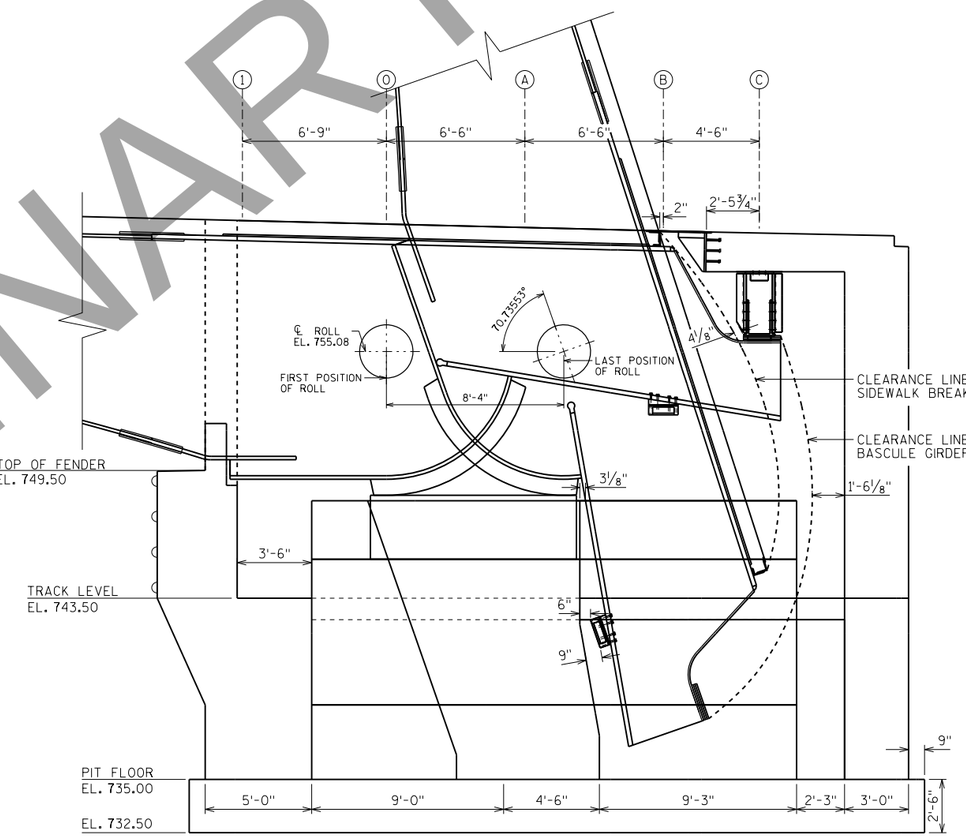
STATE PROJECT NUMBER

4992-03-71



SECTION AT SOUTH BASCULE GIRDER

(LOOKING WEST)



SECTION AT NORTH BASCULE GIRDER

(LOOKING WEST)

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DEPARTMENT OF TRANSPORTATION
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STRUCTURE B-70-324

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CLEARANCE DIAGRAM AT BASCULE GIRDER

DRAWING S03 OF S56

PRE_226

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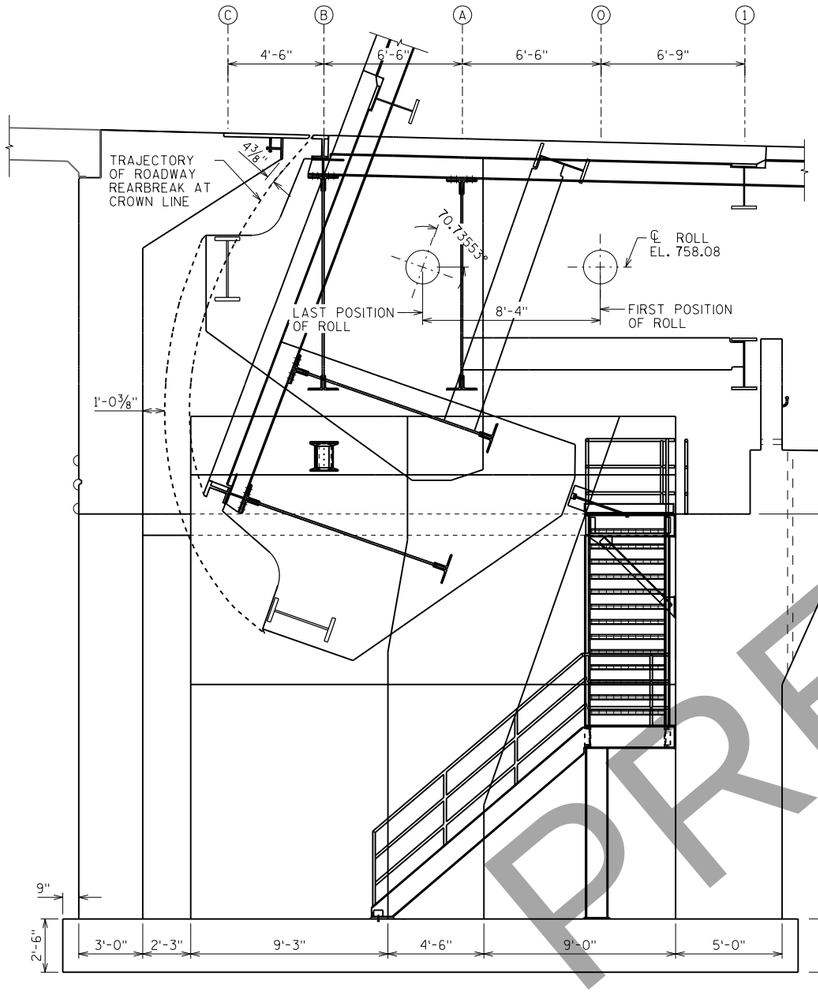
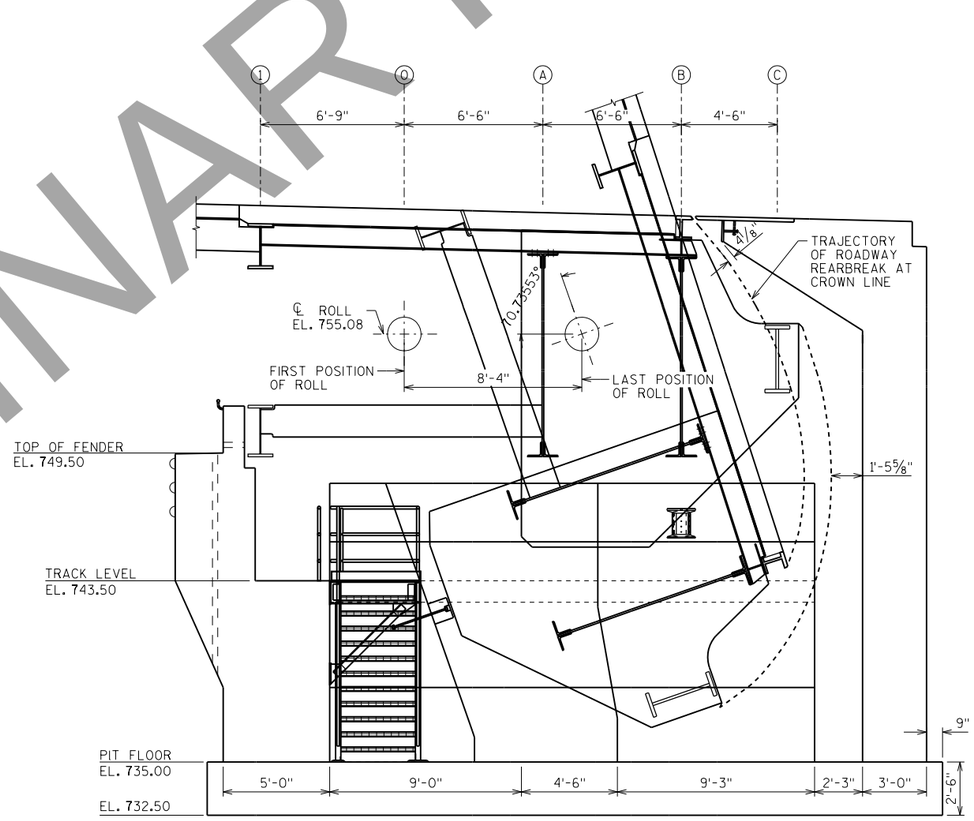


SECTION AT SOUTH BASCULE PIER CENTERLINE OF BRIDGE & ℞ RNB

OBSERVED WATER SURFACE EL. 746.20
DATE: 10/26/2017



SECTION AT NORTH BASCULE ABUTMENT CENTERLINE OF BRIDGE & ℞ RNB

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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CLEARANCE DIAGRAM AT CENTERLINE OF BRIDGE

DRAWING S04 OF S56

PRE_227

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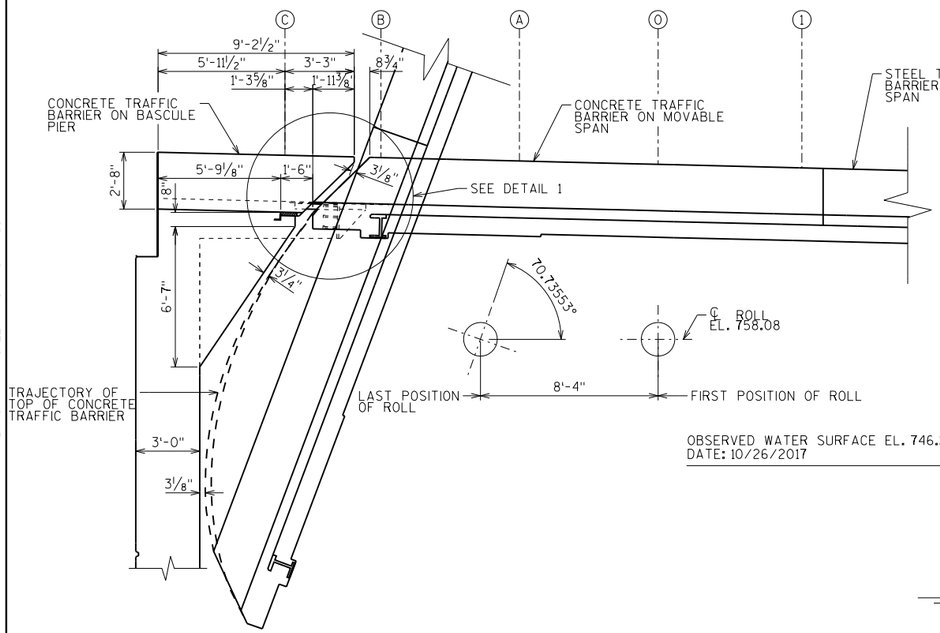
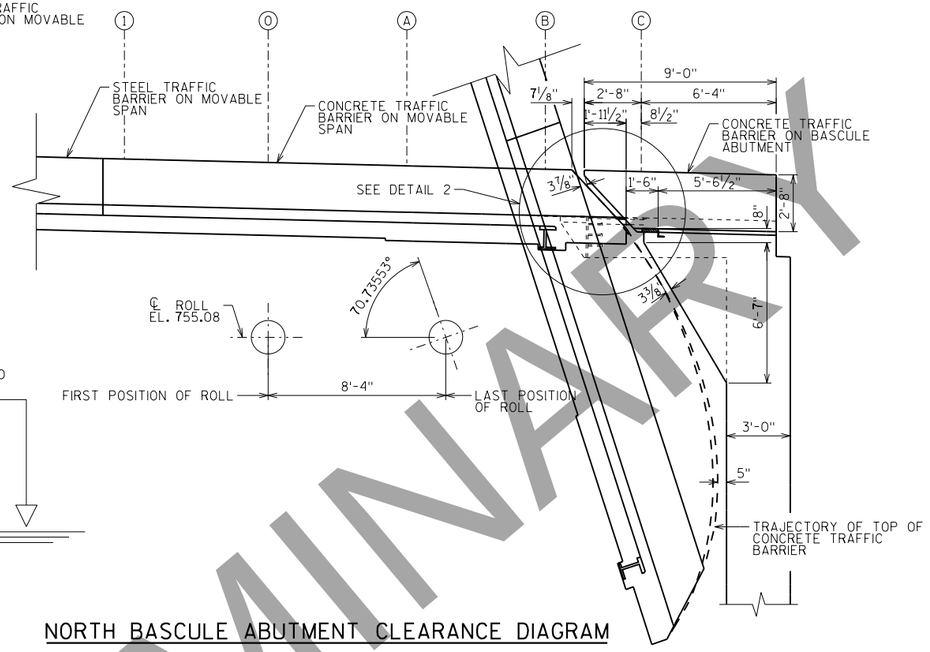
BATCH PRINT SHEET 5 OF 56

DRAFT April 20,



SOUTH BASCULE PIER CLEARANCE DIAGRAM

COUNTERWEIGHT UNDER BARRER NOT SHOWN FOR CLARITY.



NORTH BASCULE ABUTMENT CLEARANCE DIAGRAM

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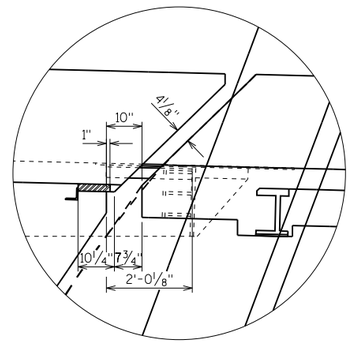
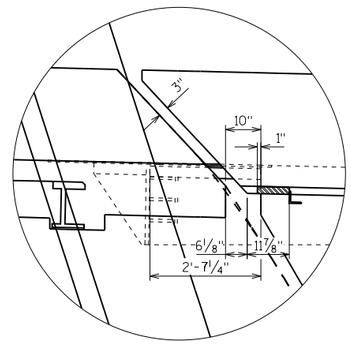


DETAIL 1



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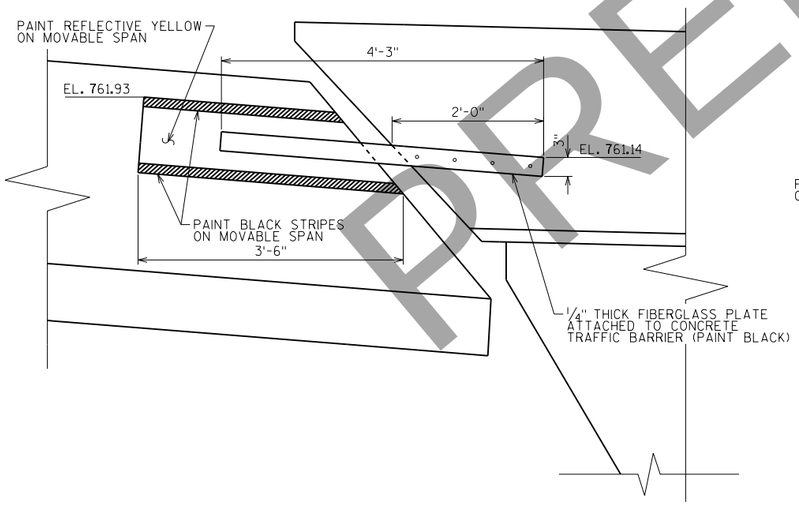
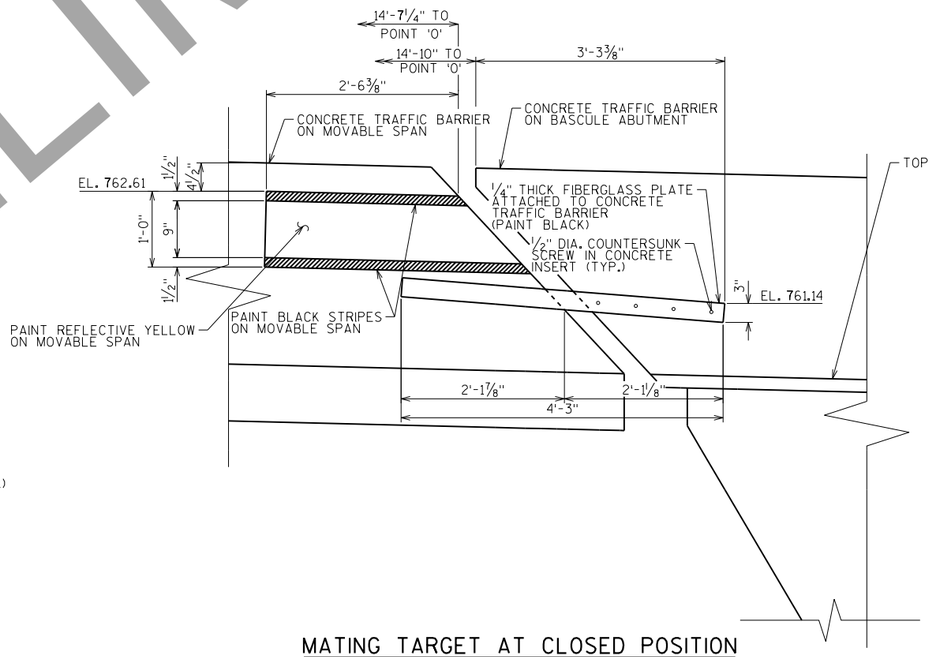


MATING TARGET AT MATING WINDOW



MATING TARGET AT CLOSED POSITION

LOOKING AT THE ROADWAY SIDE OF THE WEST TRAFFIC BARRIER FROM THE OPERATOR HOUSE

NOTES:

1. THE COST OF MATING TARGET WORK IS INCLUDED IN THE PRICE OF "CONCRETE MASONRY BRIDGES".
2. THE MATING TARGET IS REQUIRED ONLY AT ROADWAY FACE OF WEST TRAFFIC BARRIER OF NORTH LEAF.
3. THE DETAILS OF MATING TARGET SHOWN IS ONLY A GUIDE. PROVIDE AN ACCURATE LOCATION AND SIZE OF THE MATING TARGET ZONE BASED ON THE AS-BUILT CONDITION IN THE FIELD.
4. THE MATING TARGET SHALL BE ORIENTED AND PROPORTIONED SUCH THAT THE MATING POSITION OF THE NORTH LEAF IS EASILY VISIBLE FROM THE OPERATOR HOUSE.

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STRUCTURE B-70-324

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CLEARANCE DIAGRAM AT TRAFFIC BARRIER

DRAWING PRE_228

PRELIMINARY

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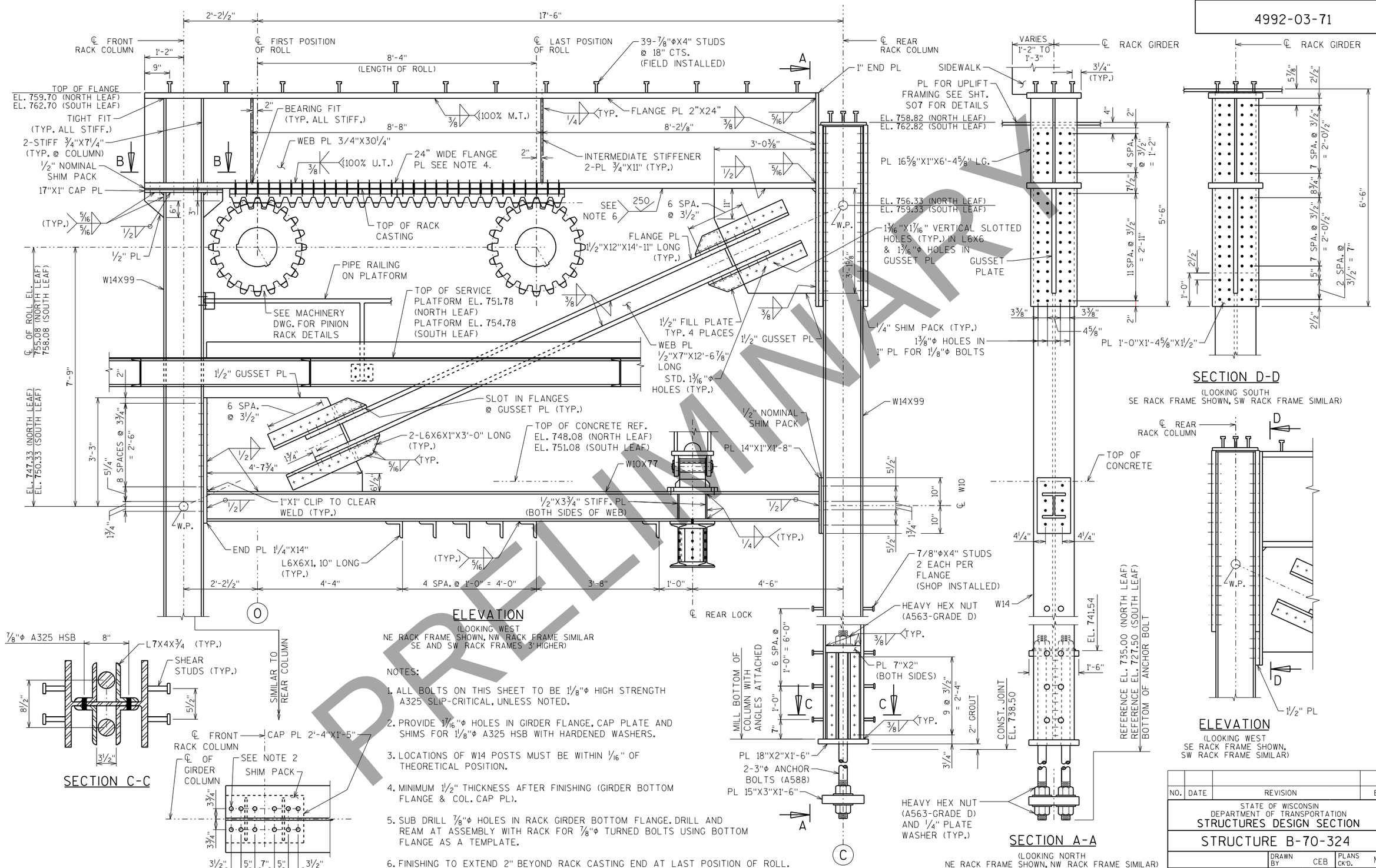
DRAFT April 20,

STATE PROJECT NUMBER

4992-03-71



ELEVATION

(LOOKING WEST
NE RACK FRAME SHOWN, NW RACK FRAME SIMILAR
SE AND SW RACK FRAMES 3" HIGHER)

SECTION C-C

SECTION B-B

NOTES:

1. ALL BOLTS ON THIS SHEET TO BE 1⅛"Φ HIGH STRENGTH A325 SLIP-CRITICAL, UNLESS NOTED.
2. PROVIDE 1⁹⁄₁₆"Φ HOLES IN GIRDER FLANGE, CAP PLATE AND SHIMS FOR 1⅛"Φ A325 HSB WITH HARDENED WASHERS.
3. LOCATIONS OF W14 POSTS MUST BE WITHIN 1⁄16" OF THEORETICAL POSITION.
4. MINIMUM 1½" THICKNESS AFTER FINISHING (GIRDER BOTTOM FLANGE & COL. CAP PL).
5. SUB DRILL ⅞"Φ HOLES IN RACK GIRDER BOTTOM FLANGE. DRILL AND REAM AT ASSEMBLY WITH RACK FOR ⅞"Φ TURNED BOLTS USING BOTTOM FLANGE AS A TEMPLATE.
6. FINISHING TO EXTEND 2" BEYOND RACK CASTING END AT LAST POSITION OF ROLL. TRANSITION AT THE MACHINED SURFACE TO HAVE A SMOOTH RADIUS.
7. FINAL ADJUSTMENT OF RACK MUST BE COMPLETED PRIOR TO POURING SLAB.

SECTION D-D

(LOOKING SOUTH
SE RACK FRAME SHOWN, SW RACK FRAME SIMILAR)

SECTION A-A

(LOOKING NORTH
NE RACK FRAME SHOWN, NW RACK FRAME SIMILAR)

ELEVATION

(LOOKING WEST
SE RACK FRAME SHOWN,
SW RACK FRAME SIMILAR)

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STRUCTURE B-70-324

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RACK FRAME

DRAWING PRE_229

8

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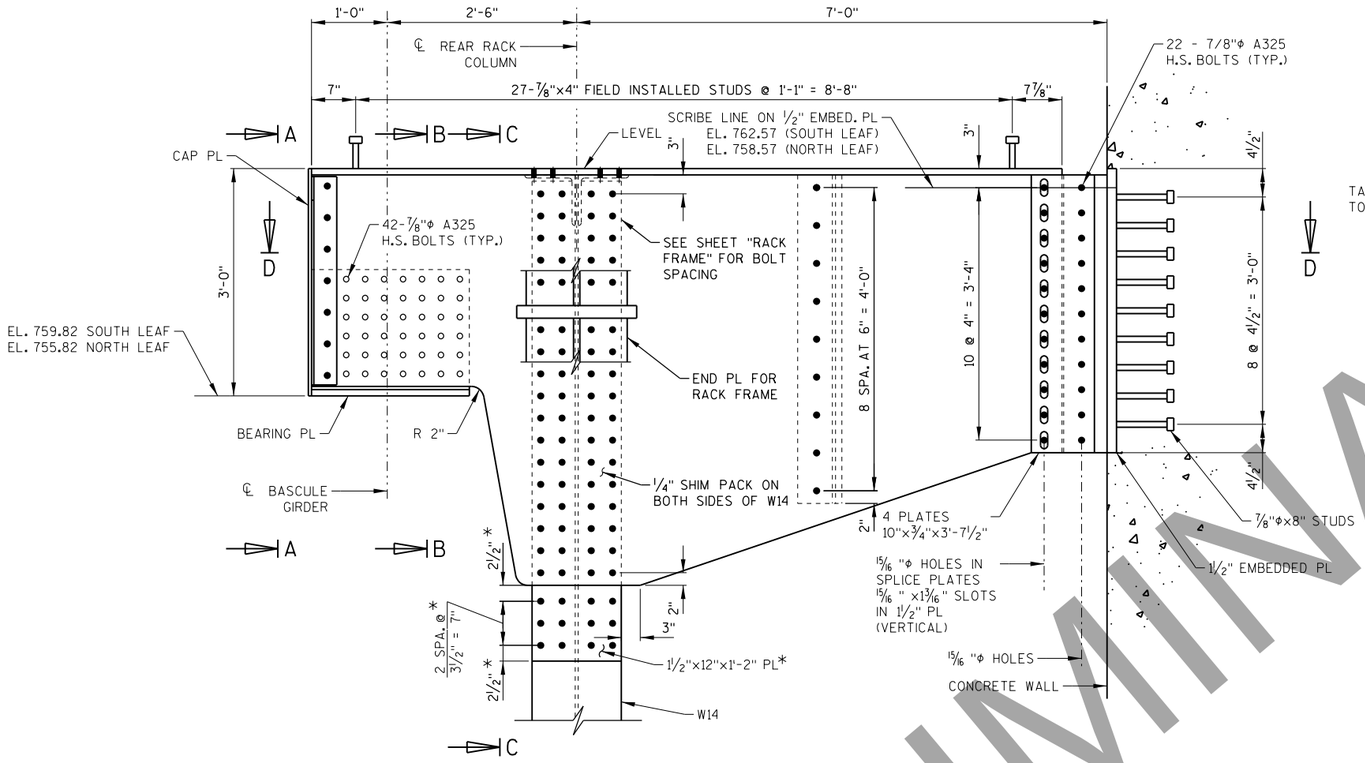
DRAFT FOR COLORADO 2020

STATE PROJECT NUMBER

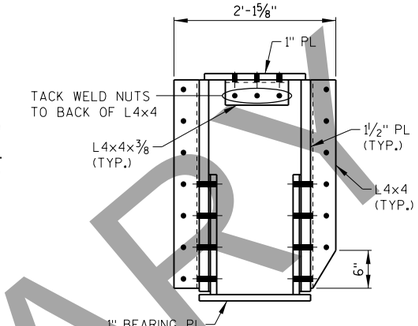
4992-03-71



UPLIFT FRAMING ELEVATION

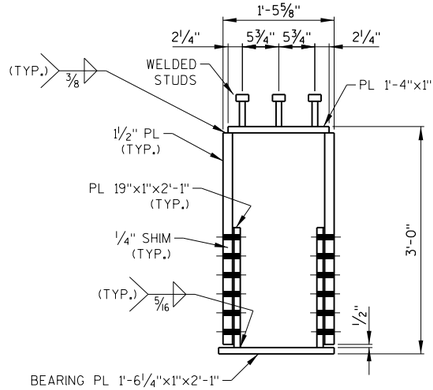
(NORTH RACK)

* SOUTH RACK, GIRDER SIDE ONLY

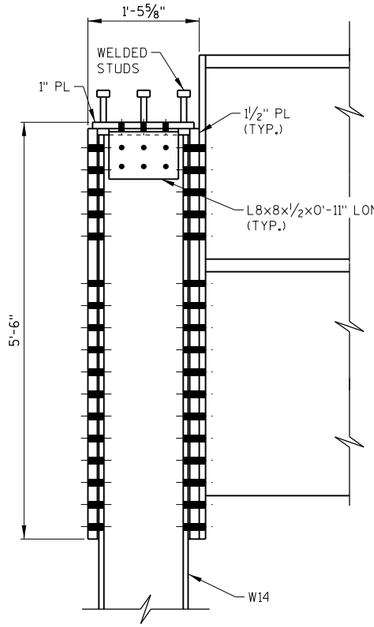


SECTION A-A

(CAP PLATE NOT SHOWN FOR CLARITY)

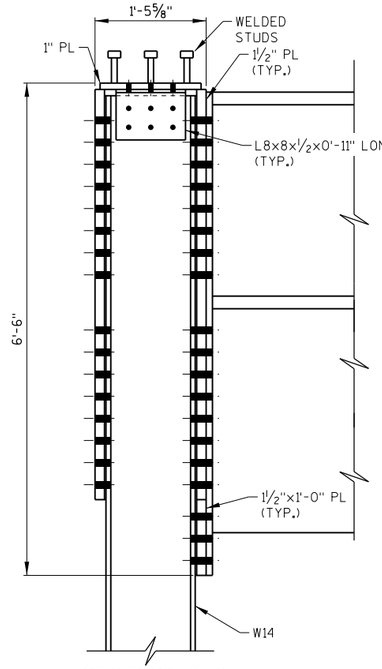


SECTION B-B



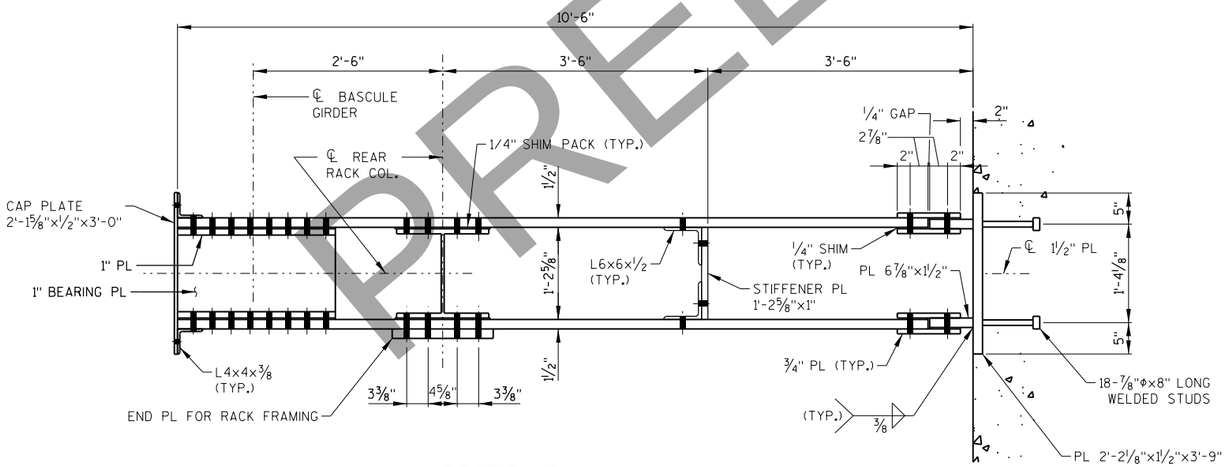
SECTION C-C

(NORTH RACK)



SECTION C-C

(SOUTH RACK)



SECTION D-D

SEE S06 FOR RACK FRAME DETAILS.

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STRUCTURE B-70-324

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UPLIFT SUPPORT DETAILS

DRAWING S07 OF S56

PRE_230

PRELIMINARY

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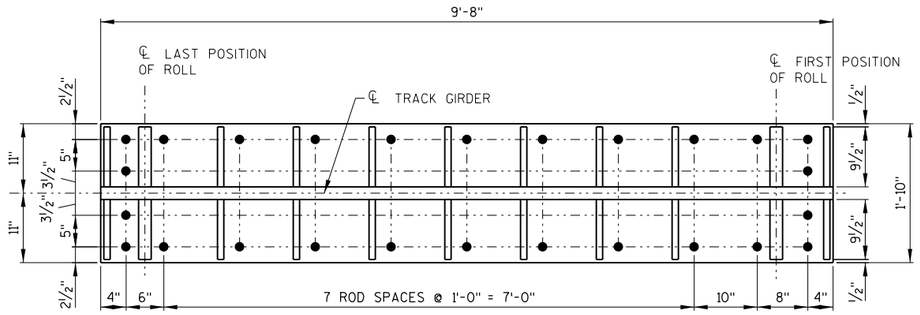
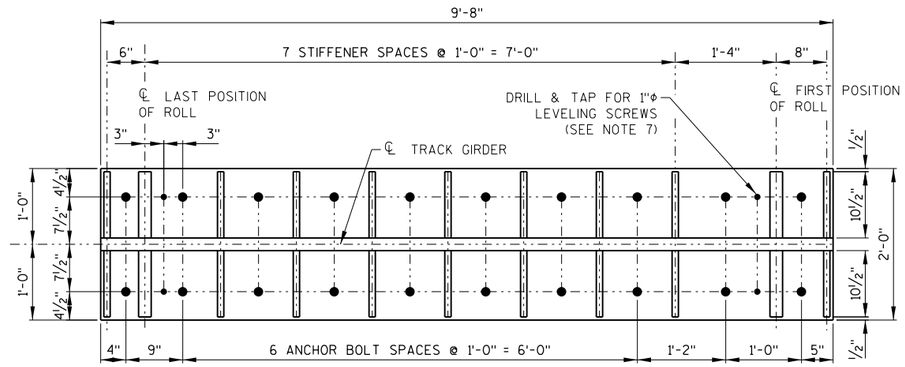
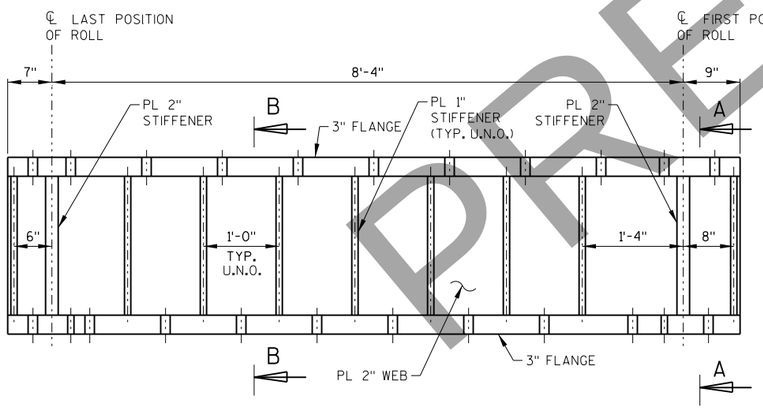
4992-03-71



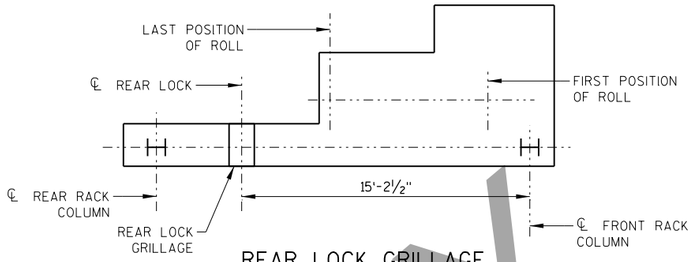
TRACK GIRDER PLAN - TOP FLANGE



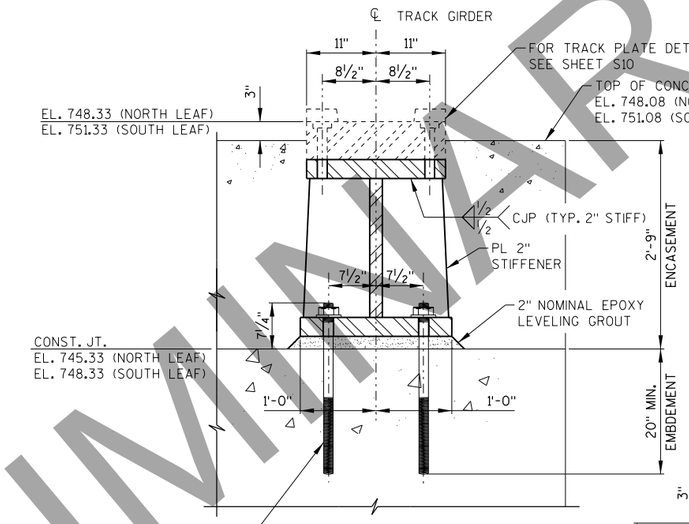
TRACK GIRDER PLAN - BOTTOM FLANGE



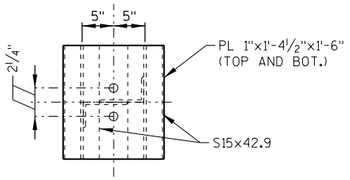
TRACK GIRDER ELEVATION



REAR LOCK GRILLAGE LOCATION SKETCH

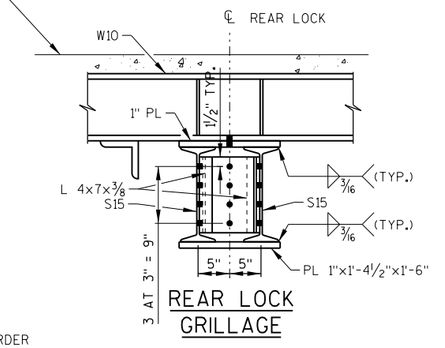


SECTION A-A



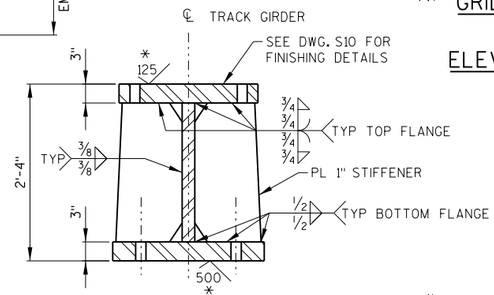
REAR LOCK GRILLAGE

PLAN



REAR LOCK GRILLAGE

ELEVATION



SECTION B-B

* THIS IS THE MACHINED FINISH REQUIRED PRIOR TO BLAST CLEANING TO PROVIDE A 3 MIL MINIMUM FINAL SURFACE PROFILE

NOTES:

1. 1¾" CORED HOLES IN CONCRETE FOR ANCHOR RODS. ANCHOR ROD LENGTH = 2'-3¼". USE HILTI BRAND HIT RE 500 EPOXY ADHESIVE OR APPROVED EQUAL PER MANUFACTURER'S INSTRUCTIONS FOR ANCHOR RODS.
2. PRIOR TO GROUTING, INSTALL TRACK SUCH THAT THE TOP SURFACE IS LEVEL WITHIN 0.002" PER FOOT IN ALL DIRECTIONS. THE FOUR CORNERS AT TWO ENDS OF TRACK SHALL BE LEVEL WITHIN 0.015". ALL LEVELING SCREWS SHALL BE IN CONTACT WITH PIER AND ANCHOR NUTS ON EACH SIDE OF LEVELING SCREWS LIGHTLY TIGHT (35 LB-FT) (USE STEEL PLATE UNDER EACH LEVELING SCREW). REMOVE LEVELING SCREWS AFTER GROUT IS CURED, FILL HOLES WITH GROUT.
3. PAINT NON-CONTACT SURFACES PER THE STRUCTURAL STEEL SPECIFICATIONS.
4. MILL TOP AND BOTTOM OF WEB AND STIFFENERS TO BEAR PRIOR TO ASSEMBLY.
5. BOLT HOLES IN TOP FLANGE SHALL BE LOCATED USING THE TRACK PLATE AS A TEMPLATE.
6. STRESS RELIEVE WELDMENT PRIOR TO MACHINING TOP SURFACE.
7. PROVIDE FOUR 1"Φ LEVELING SCREWS WITH UNF THREADS FOR FIELD ADJUSTMENT AND LEVELING. INSTALL TRACK GIRDER WITH TRACK PLATE ATTACHED PER SHEET "TRACK FORGING AND DETAILS".
8. MACHINE TOP FLANGE WITH FLATNESS OF 0.001" PER FOOT, 0.010" OVERALL.

PRELIMINARY

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STRUCTURE B-70-324

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TRACK GIRDER & REAR LOCK GRILLAGE

DRAWING S56

PRE_231

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DRAFT 3/2/2020

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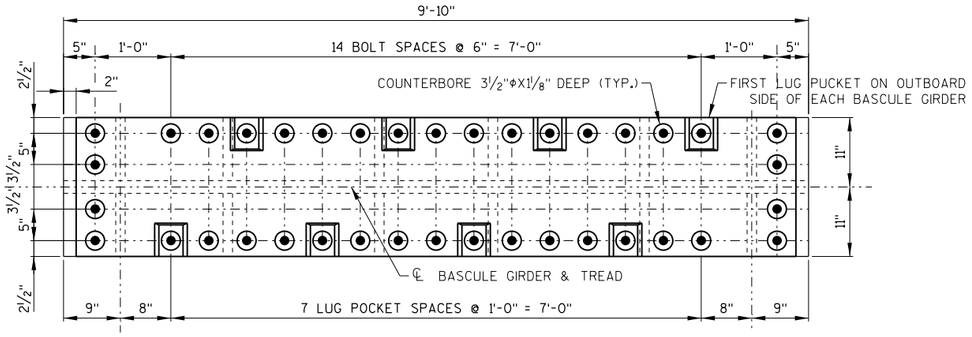
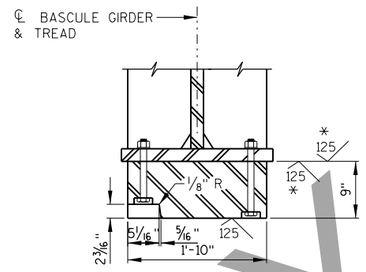
DRAFT
3/2/2020

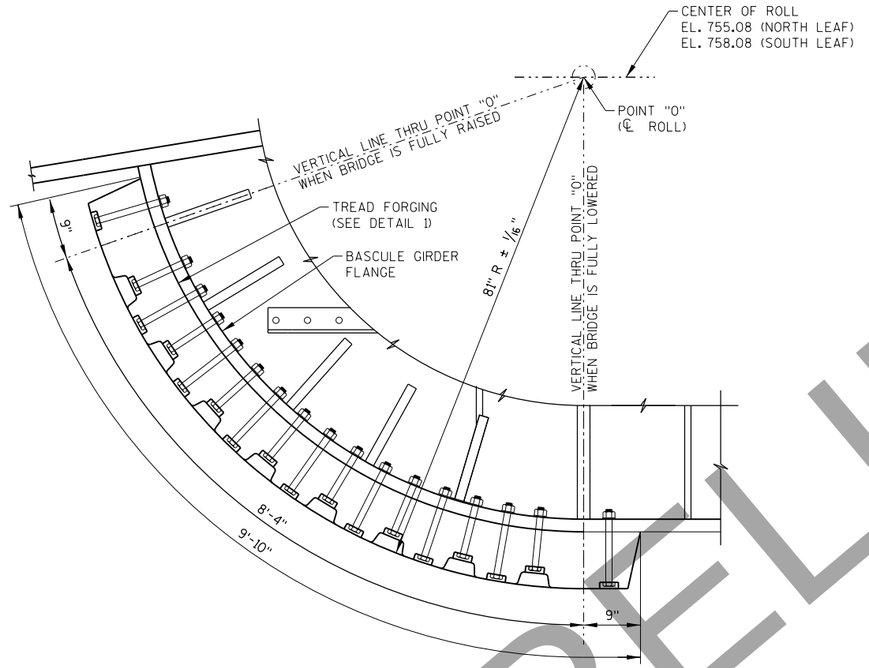


TREAD PLAN - DEVELOPED BOTTOM VIEW



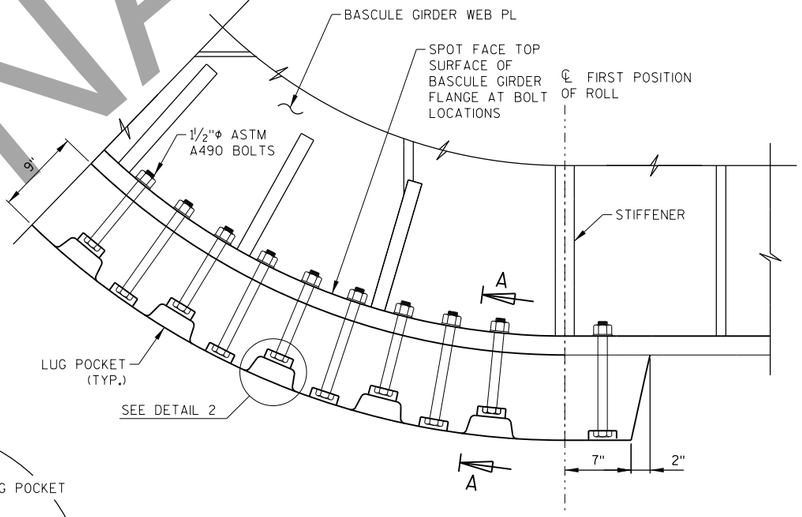
SECTION A-A

* THIS IS THE MACHINED FINISH REQUIRED PRIOR TO BLAST CLEANING TO PROVIDE A 3 MIL MINIMUM FINAL SURFACE PROFILE.

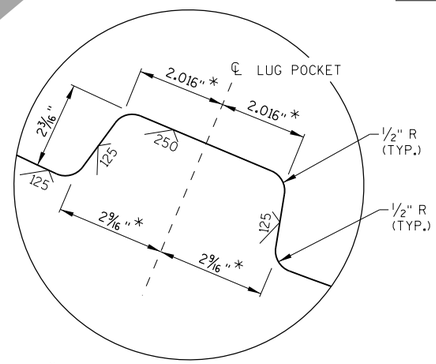


ELEVATION - TREAD FORGING

(4 REQUIRED - 2 RIGHTS & 2 LEFTS)



DETAIL 1



* DIMENSIONS ARE TO INTERSECTION OF TANGENT SURFACES

DETAIL 2

(LUG POCKET)

(DIMENSIONS SHOWN ARE MEASURED ALONG THE FINAL MACHINED SURFACES)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ATM | PLANS CK'D. MAD

TREAD FORGING AND DETAILS

DRAWING S56

PRE_232

8

8

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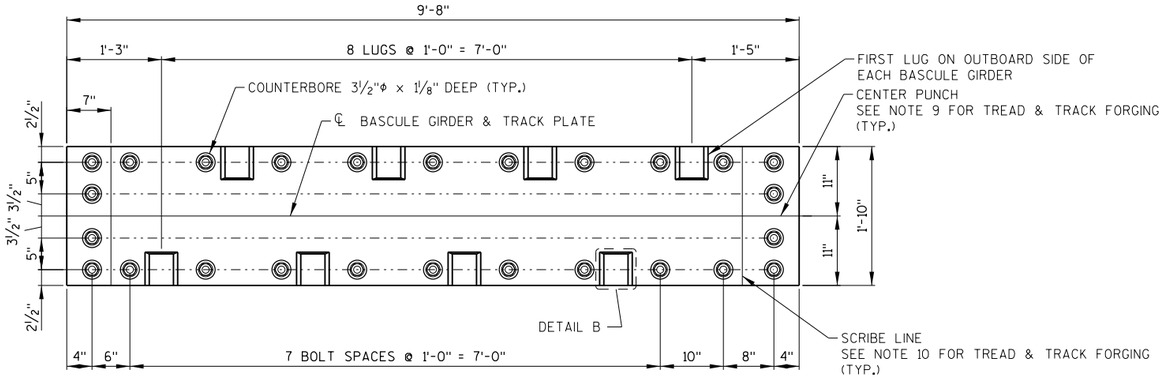
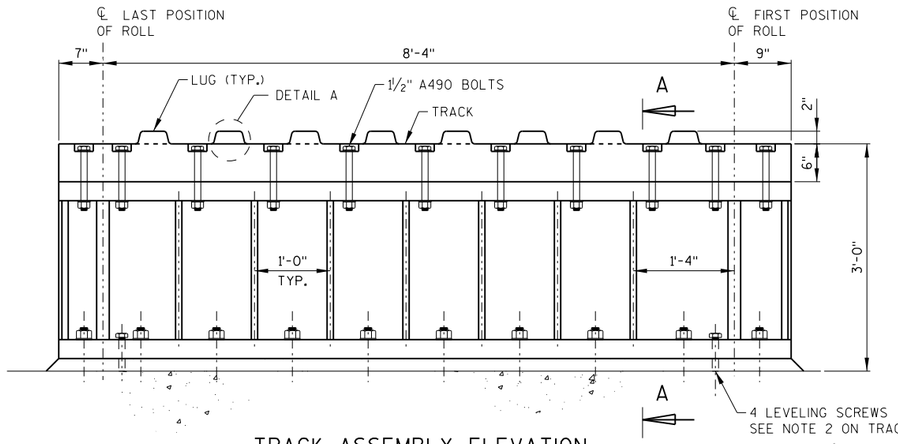
BATCH PRINT SHEET 10 OF 56

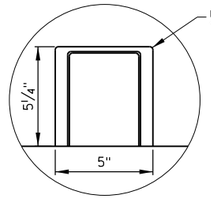
DRAFT 2020



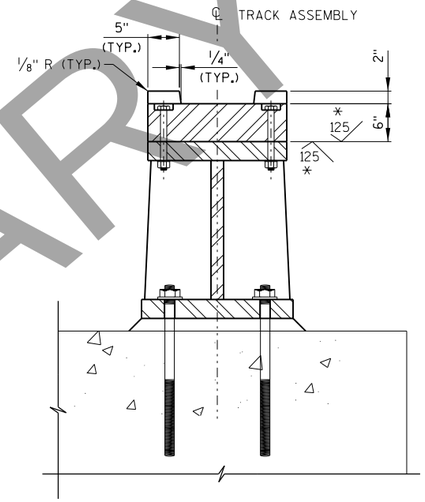
TRACK PLAN



TRACK ASSEMBLY ELEVATION

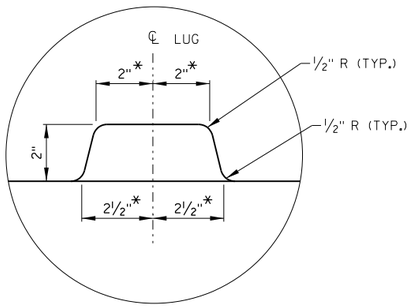


DETAIL B
(LUG)



SECTION A-A

* THIS IS THE MACHINED FINISH REQUIRED PRIOR TO BLAST CLEANING TO PROVIDE A 3 MIL MINIMUM FINAL SURFACE PROFILE



* DIMENSIONS ARE TO INTERSECTION OF TANGENT SURFACES

DETAIL A
(LUG)

GENERAL NOTES FOR TREAD & TRACK FORGINGS:

1. PROVIDE STEEL FORGINGS FOR TREADS AND TRACKS CONFORMING TO ASTM A668 CLASS J HAVING A MINIMUM YIELD STRENGTH OF 65 KSI. A MINIMUM TENSILE STRENGTH OF 90 KSI AND A MINIMUM ELONGATION OF 20%.
2. AFTER FINAL MACHINING OF EACH TREAD AND TRACK FORGING, BLAST CLEAN ITS FAYING SURFACE WHICH MATES TO THE BOTTOM FLANGE OF THE BASCULE GIRDER AND TOP FLANGE OF THE TRACK GIRDER AS WELL AS THE MATING GIRDER FLANGE SURFACES. BLAST CLEAN THIS FAYING SURFACE IN ACCORDANCE WITH SSPC-SP10/NACE NO. 2, "NEAR WHITE BLAST CLEANING" AND PROVIDE A MINIMUM SURFACE PROFILE OF 3.0 MILS.

(2.) MEASURE AND DOCUMENT THIS SURFACE PROFILE IN ACCORDANCE WITH NACE STANDARD RP0287-87 "FIELD MEASUREMENT OF SURFACE PROFILE OF ABRASIVE BLAST CLEANED STEEL SURFACES USING A REPLICA TAPE" IN THE PRESENCE OF THE ENGINEER. PROVIDE DOCUMENTATION OF ACHIEVING THIS SURFACE PROFILE, INCLUDING THE REPLICA TAPES USED. PROVIDE THE ENGINEER A MINIMUM OF TWO WEEKS NOTICE TO ALLOW FOR WITNESSING THIS MEASUREMENT. PROVIDE THIS SAME BLAST CLEANING AND 3 MIL MINIMUM SURFACE PROFILE ON THE MATING FINAL MACHINED FAYING SURFACE OF THE BASCULE GIRDER BOTTOM FLANGE.

3. DO NOT PRIME PAINT THE FINAL BLAST-CLEANED FAYING SURFACES OF THE TREAD FORGINGS AND MATING GIRDER BOTTOM FLANGE AND THE TRACK FORGINGS AND MATING GIRDER TOP FLANGES. ASSURE NO CORROSION DEVELEOPS ON THE FINAL BLAST CLEANED FAYING SURFACES BEFORE MOUNTING AND FINAL BOLTING OF FORGINGS TO GIRDER FLANGES.
4. ATTACH TREAD FORGINGS TO GIRDER FLANGES AND TREAD FORGINGS TO TRACK GIRDER FLANGES USING 1-1/2 INCH DIAMETER A 490 BOLTS WITH ONE HEAVY HEX NUT PER ASTM A 563 AND TWO HARDENED FLAT WASHERS PER ASTM F 436.
5. PROVIDE ADEQUATE PROLONGATIONS WITHIN EACH FORGING FOR REMOVAL OF SPECIMENS FOR TESTING. REMOVE MATERIAL FOR TEST SPECIMENS ONLY AFTER ALL HEAT TREATMENT PROCESSES HAVE BEEN COMPLETED AND ONLY IN THE PRESENCE OF THE ENGINEER. PROVIDE THE ENGINEER A MINIMUM OF TWO WEEKS' NOTICE TO ALLOW FOR WITNESSING OF REMOVAL AND TESTING OF SPECIMENS. TRANSPORT TREADS AND TRACKS FROM FORGING ONLY AFTER TEST REPORTS HAVE BEEN RECEIVED AND APPROVED BY THE ENGINEER.
6. FOLLOW REQUIREMENTS OF MANDATORY NUMERICAL ROLL-THROUGH PROCEDURE FOR ESTABLISHING LOCATION OF CENTERLINE AND FIRST AND LAST POSITIONS OF ROLL ON TRACKS AND TREADS AS SPECIFIED IN SPECIAL PROVISION "STRUCTURAL STEEL BRIDGE".
7. PROVIDE THE MACHINED ROLLING SURFACES OF THE TREADS AND THE MATING SURFACE OF THE TRACKS WITH A CLEAR LACQUER COATING AFTER COMPLETION OF ALL MACHINING AND PLACEMENT OF ALL ALIGNMENT SCRIBE LINE AND BEFORE PLACING OUTSIDE OR TRANSPORTING. ASSURE ALL SCRIBE LINES AND PUNCH MARKS REMAIN VISIBLE FOR FIELD ERECTION AFTER APPLICATION OF COATING.
8. EXCEPT FOR THE ROLLING SURFACES OF TREADS AND TRACKS AND THE CONNECTING FAYING SURFACES OF TREADS, PAINT ALL OTHER SURFACES OF TREAD AND TRACK FORGINGS IN ACCORDANCE WITH SECTION 517 OF THE STANDARD SPECIFICATIONS WITH A THREE COAT SYSTEM.
9. PROVIDE PUNCH MARKS OF THE FIRST AND LAST POSITIONS OF ROLL ON TRACKS AND TREADS.
10. PROVIDE SCRIBE LINES THROUGH THE PUNCH LINES AT RIGHT ANGLES TO THE CENTERLINES THAT EXTEND FULLY TO EACH FACE AND THAT CONTINUE FOR A MINIMUM OF ONE INCH ONTO EACH VERTICAL SIDE FACE. SCRIBE CENTER-LINE WITH V-POINTED TOOL 0.030"/0.060" DEEP.
11. INSTALL AND FULLY SNUG TIGHTEN ALL BOLTS BETWEEN TREAD FORGING AND THE BASCULE GIRDER FLANGE AND BETWEEN TRACK FORGING AND TRACK GIRDER BEFORE FINAL TENSIONING OF BOLTS. FINAL TENSION BOLTS ONLY IN THE PRESENCE OF THE ENGINEER. PROVIDE A MINIMUM OF 2 WEEKS NOTICE TO THE ENGINEER TO ALLOW WITNESSING SNUG TIGHT CONDITION AND FINAL TENSIONING. FINAL TENSION BOLTS INACCORDANCE WITH THE REQUIREMENTS OF SECTION 506.3 OF THE STANDARD SPECIFICATIONS. PROVIDE ⅔ TURN OF NUT ROTATION FROM THE FULLY SNUG CONDITION. ASSURE THE MINIMUM BOLT TENSION OF 148,000 POUNDS SPECIFIED IN TABLE 506-1 OF THE STANDARD SPECIFICATIONS IS ACHIEVED FOR ALL BOLTS AFTER THEY HAVE BEEN FINAL TIGHTENED. PROVIDE ADEQUATE SIZE AND TYPE OF EQUIPMENT TO FULLY ACHIEVE BOLT TENSIONING REQUIREMENT.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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TRACK FORGING AND DETAILS

DRAWING S10 OF S56

PRE_233

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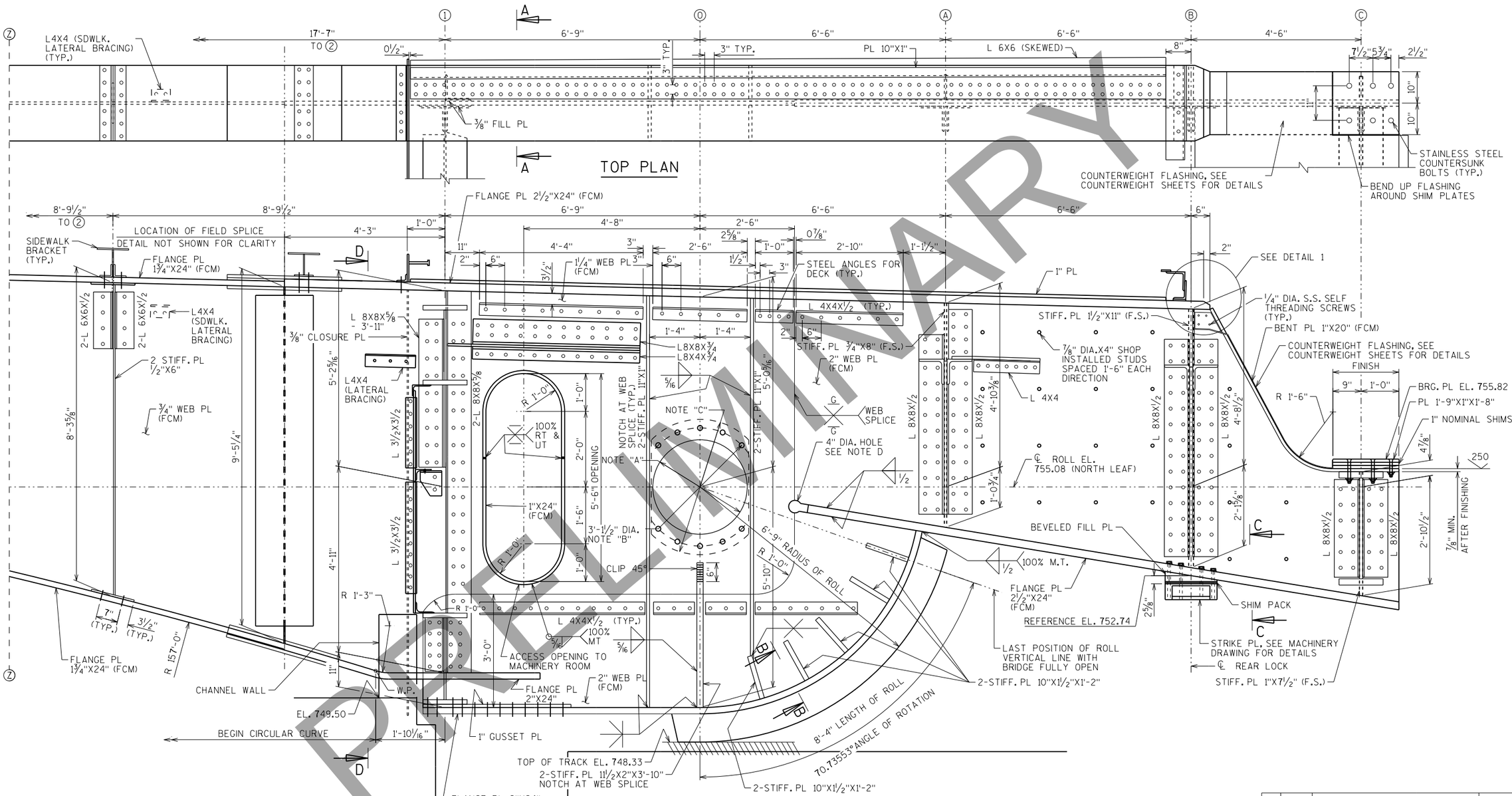
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

NOTES:

SEE "BASCULE GIRDER DETAILS" SHEET FOR BASCULE GIRDER WELDS".

FOR SECTIONS A-A, B-B, C-C AND D-D SEE SHEET "NORTH LEAF BASCULE GIRDER ELEVATION - 2".

IN ADDITION TO NON DESTRUCTIVE TESTING SHOWN FOR SPECIFIC WELDS, ALSO TEST ALL WELDING IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

NOTE A:
30" DIA. BORE WITH RC6 FIT WITH BEARING "A" HOUSING, BEARING MUST BE LOCATED AT EXACT CENTER OF ROLL

NOTE B:
FIELD DRILL HOLES FOR 10-1 3/4" TURNED BOLTS EQUALLY SPACING USING BEARING AS TEMPLATE. TURNED BOLTS TO HAVE LN2 FINAL FIT WITH WEB PLATE.

NOTE C:
COUNTERBORE OUTSIDE FACE OF WEB PL 1/8"X43" DIA. FOR BEARING FLANGE RADIUS REQUIRED, MACHINE 125 BLEND COUNTERBORE 3:1.

NOTE D:
CORE 4" DIA. HOLE AFTER WELDING AND NON DESTRUCTIVE TESTING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

NORTH LEAF BASCULE GIRDER ELEVATION - 1

DRAWING PRE_234

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PLOT DATE: 3/2/2020 PLOT TIME: 9:57:05 AM
BATCH PRINT SHEET 12 OF 56
DRAFT April 20,

STATE PROJECT NUMBER

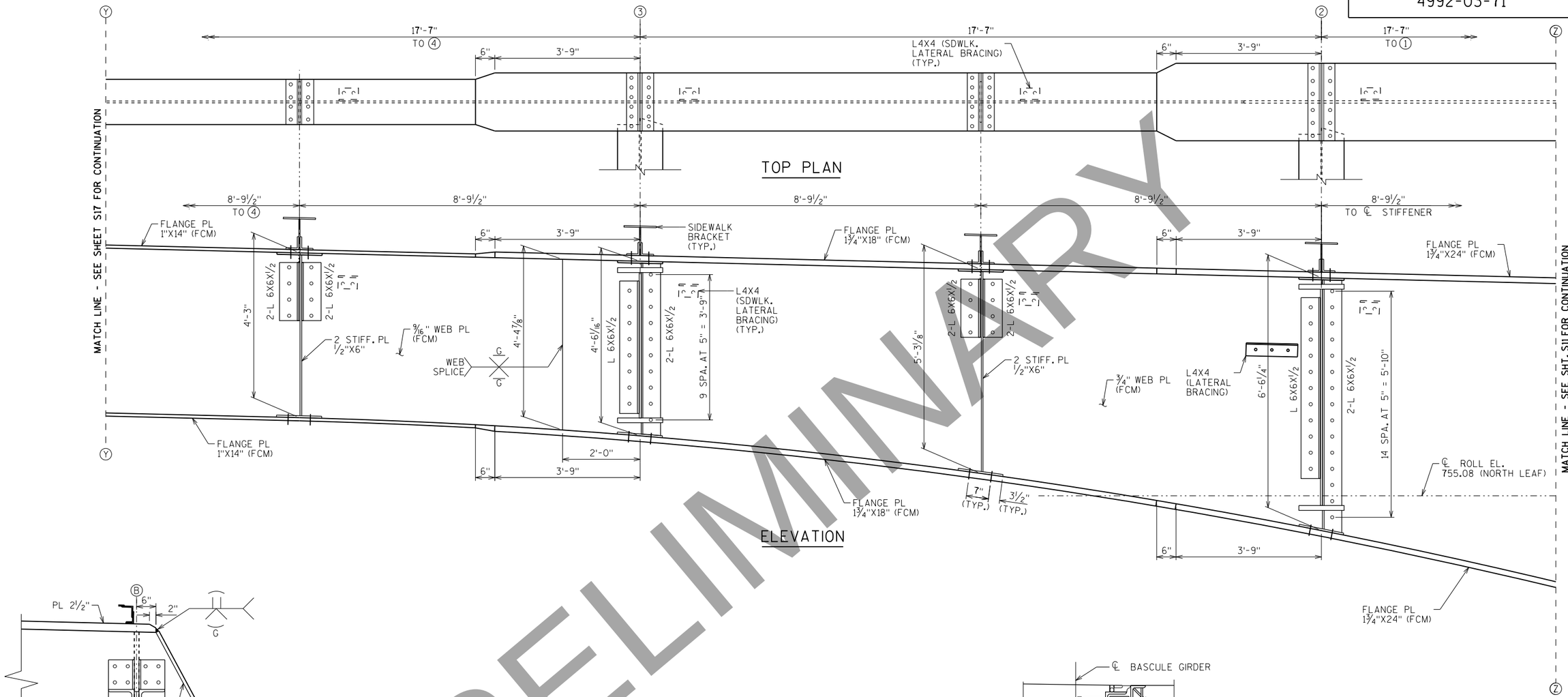
4992-03-71

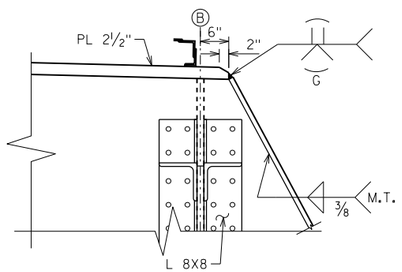
MATCH LINE - SEE SHEET S17 FOR CONTINUATION

MATCH LINE - SEE SHT. S11 FOR CONTINUATION

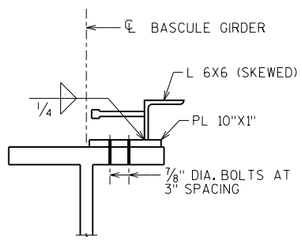
TOP PLAN

ELEVATION

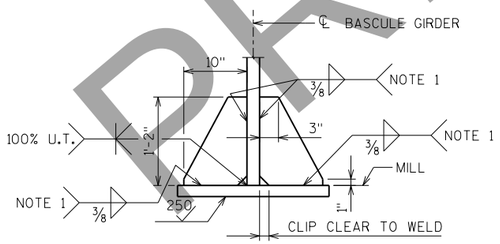




DETAIL 1

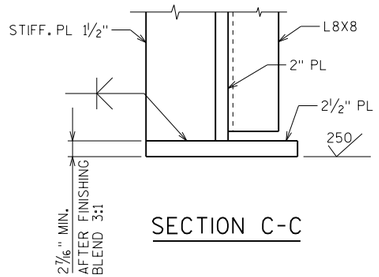


SECTION A-A

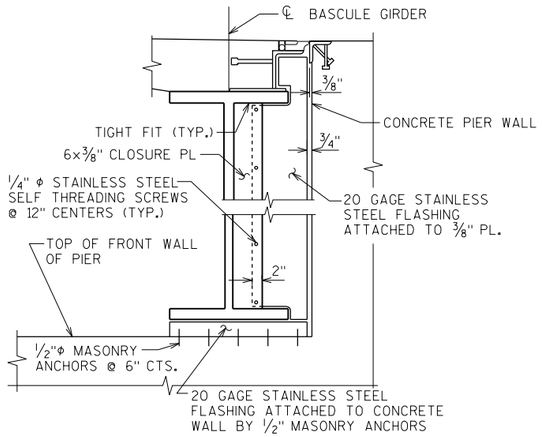


SECTION B-B

NOTE 1: WRAP WELD AROUND END.



SECTION C-C



SECTION D-D

(FLASHING DETAILS)

(THE COST OF STAINLESS STEEL FLASHING IS INCLUDED IN THE PRICE OF BID ITEM "CLOSURES AND SEALS")

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NORTH LEAF BASCULE GIRDER ELEVATION - 2

DRAWING PRE_235

PRELIMINARY

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STATE PROJECT NUMBER

4992-03-71

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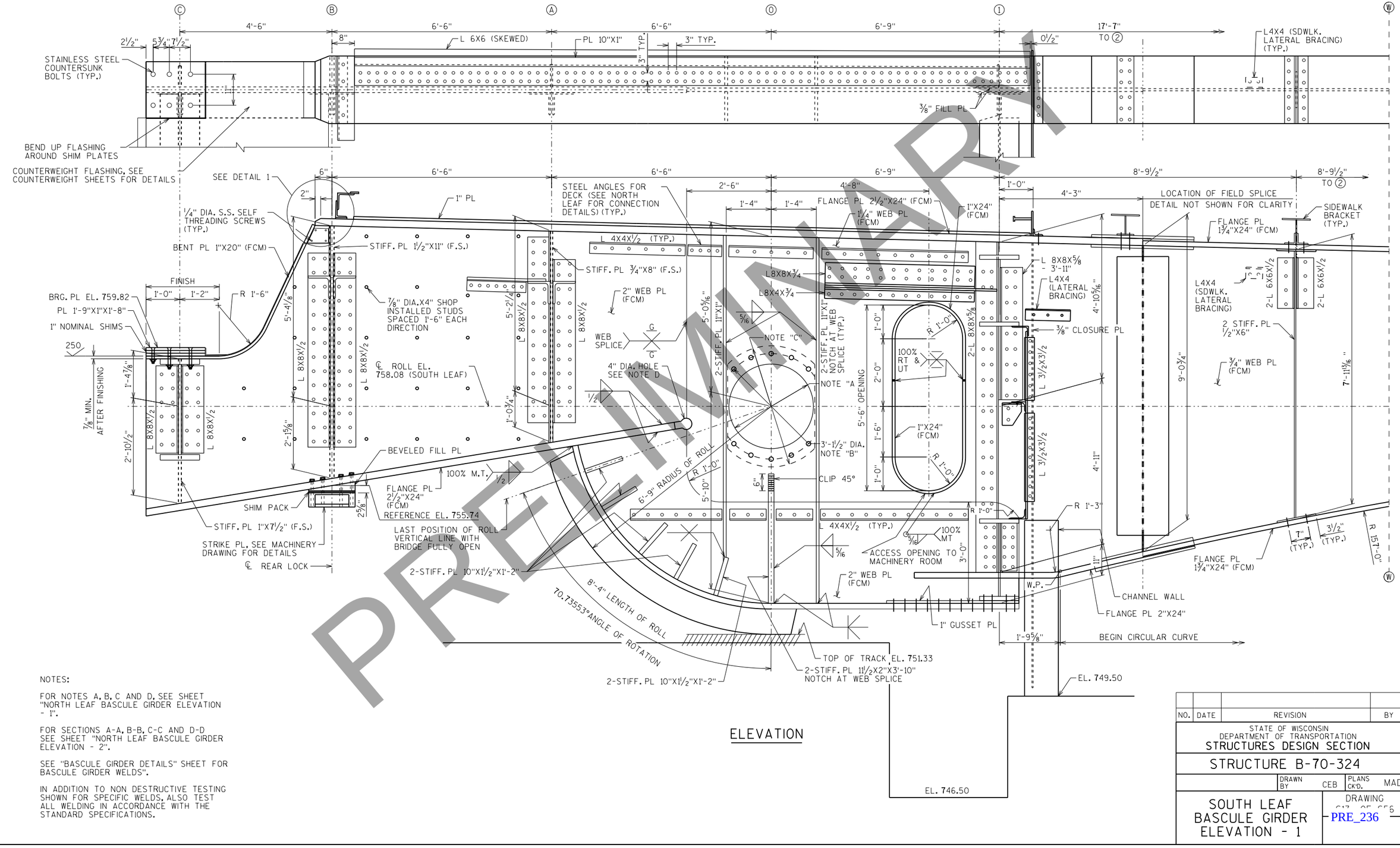
DRAFT April 20, 2020

PRELIMINARY



NOTES:

FOR NOTES A, B, C AND D, SEE SHEET "NORTH LEAF BASCULE GIRDER ELEVATION - 1".

FOR SECTIONS A-A, B-B, C-C AND D-D SEE SHEET "NORTH LEAF BASCULE GIRDER ELEVATION - 2".

SEE "BASCULE GIRDER DETAILS" SHEET FOR BASCULE GIRDER WELDS".

IN ADDITION TO NON DESTRUCTIVE TESTING SHOWN FOR SPECIFIC WELDS, ALSO TEST ALL WELDING IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ELEVATION

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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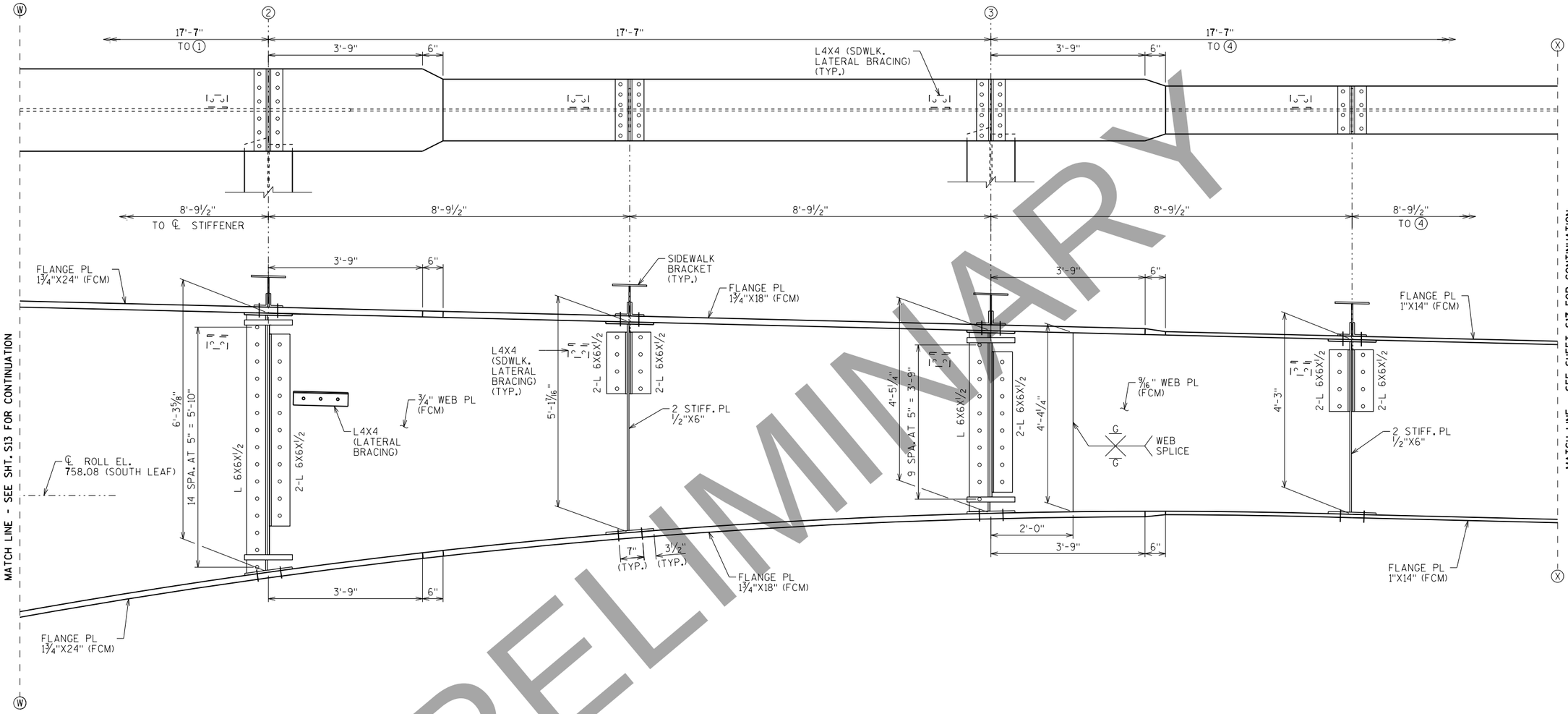
SOUTH LEAF BASCULE GIRDER ELEVATION - 1

DRAWING PRE_236

STATE PROJECT NUMBER

4992-03-71



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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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SOUTH LEAF BASCULE GIRDER ELEVATION - 2

DRAWING S14 OF S56

PRE_237

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DRAFT April 20,

STATE PROJECT NUMBER
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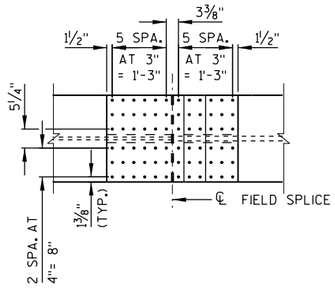
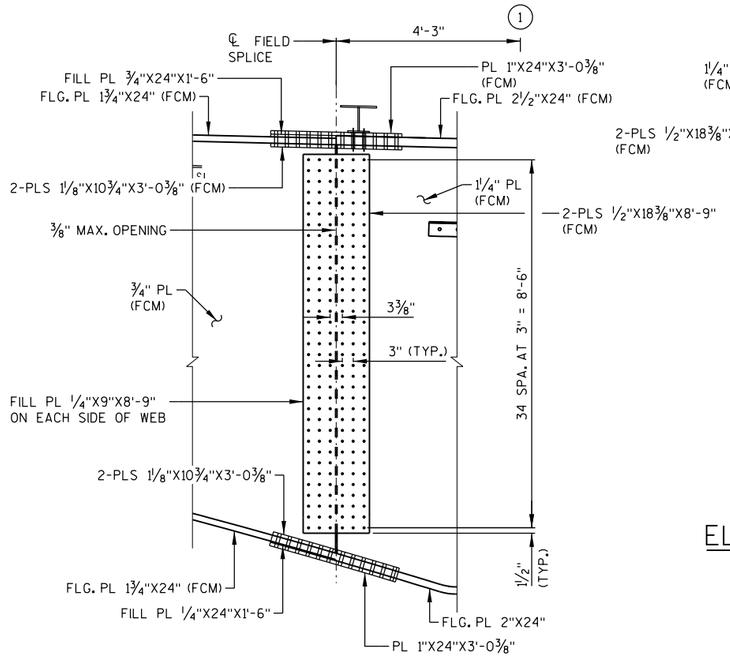
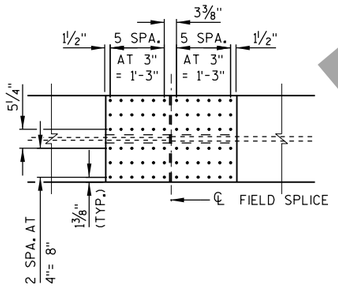


TOP PLAN

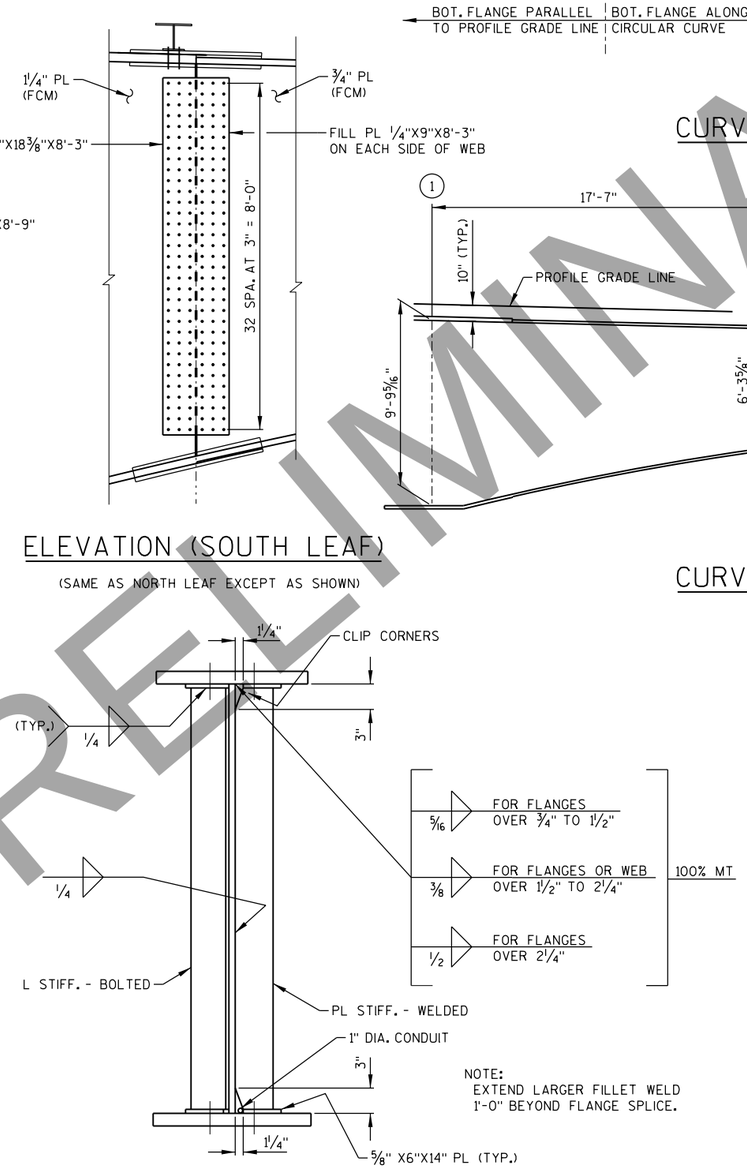


ELEVATION (NORTH LEAF)



BOTTOM PLAN

FIELD SPLICE DETAILS

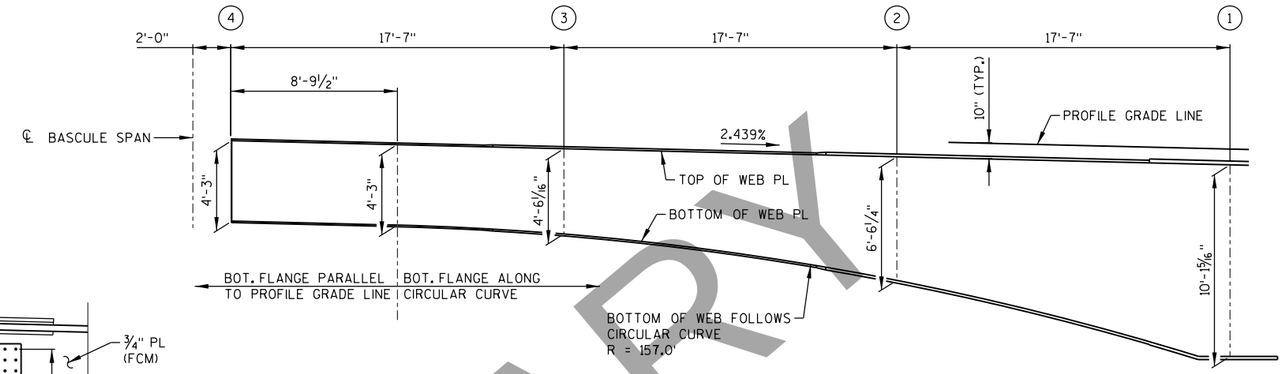


NOTE:
EXTEND LARGER FILLET WELD 1'-0" BEYOND FLANGE SPLICE.

ELEVATION (SOUTH LEAF)

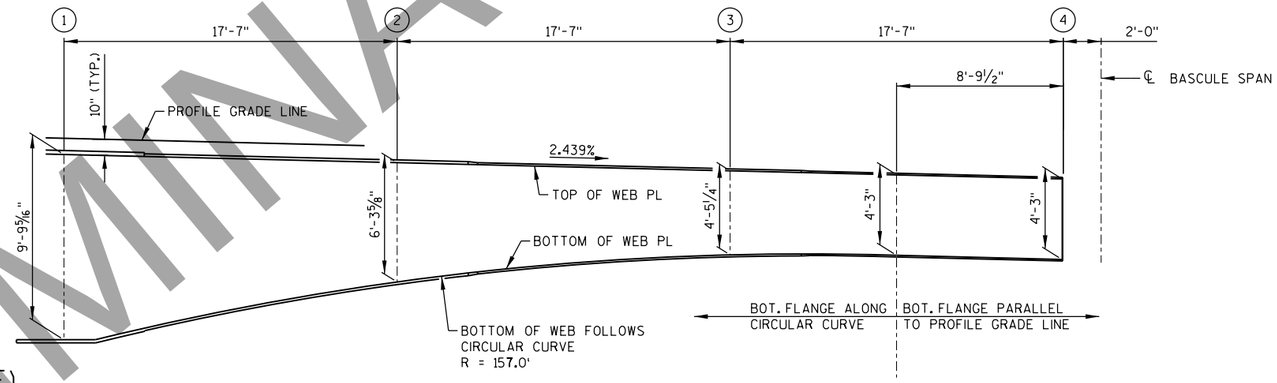
(SAME AS NORTH LEAF EXCEPT AS SHOWN)

GIRDER WELDING DETAILS



CURVE OF NORTH BASCULE WEB PLATE

(NOT TO SCALE)



CURVE OF SOUTH BASCULE WEB PLATE

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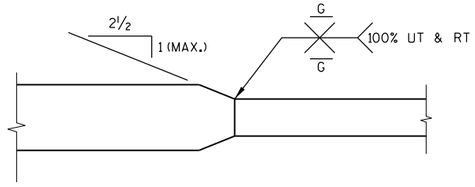
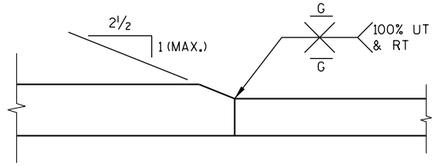


TYPICAL WEB SPLICE



TYPICAL FLANGE SPLICE

(TOP FLANGE SHOWN)
(BOTTOM FLANGE SIMILAR)

SEE SHEETS "NORTH LEAF BASCULE GIRDER ELEVATION - 1" AND "SOUTH LEAF BASCULE GIRDER ELEVATION - 1" FOR LOCATION OF FIELD SPLICES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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BASCULE GIRDER DETAILS

DRAWING S56

PRE_238

PRELIMINARY

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DRAFT 11/20/2020

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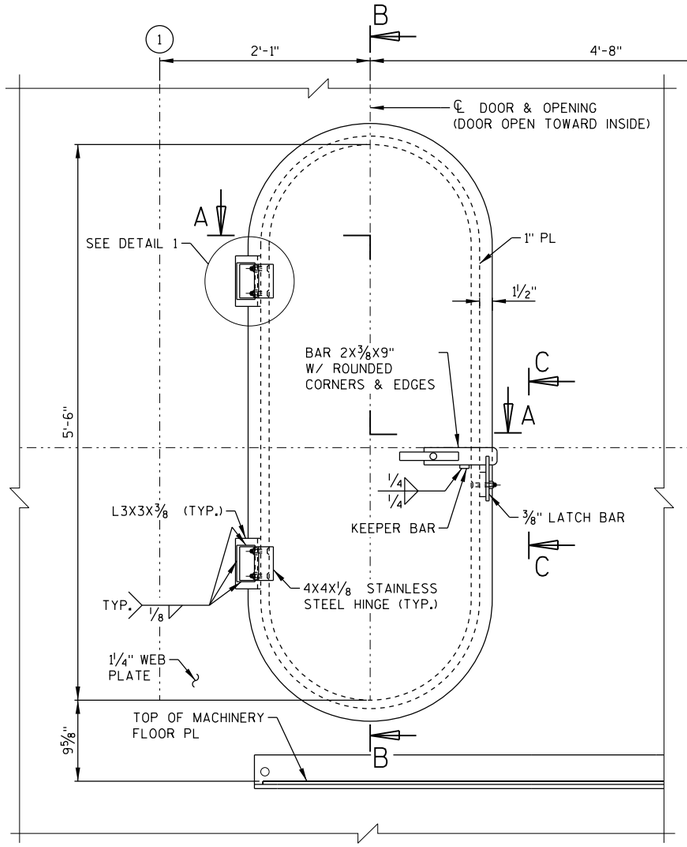
PRELIMINARY

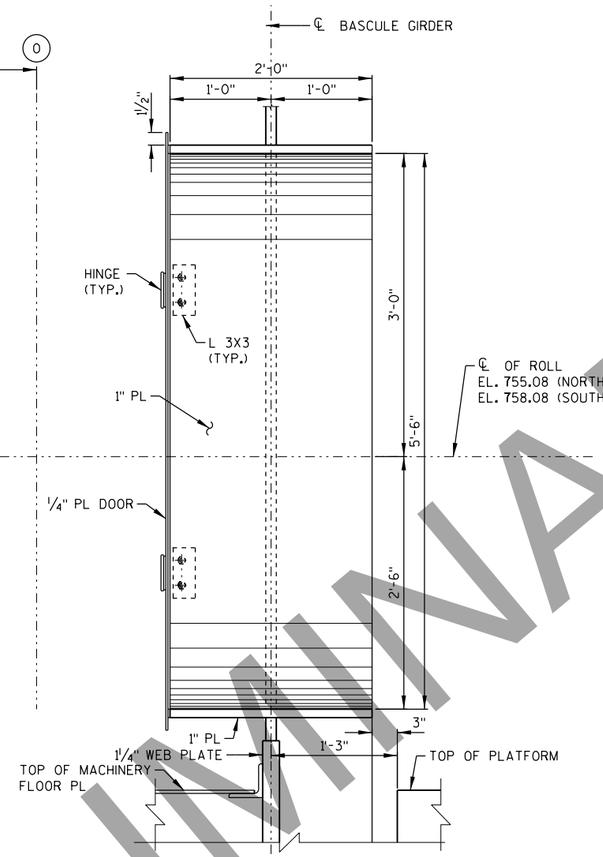
STATE PROJECT NUMBER

4992-03-71

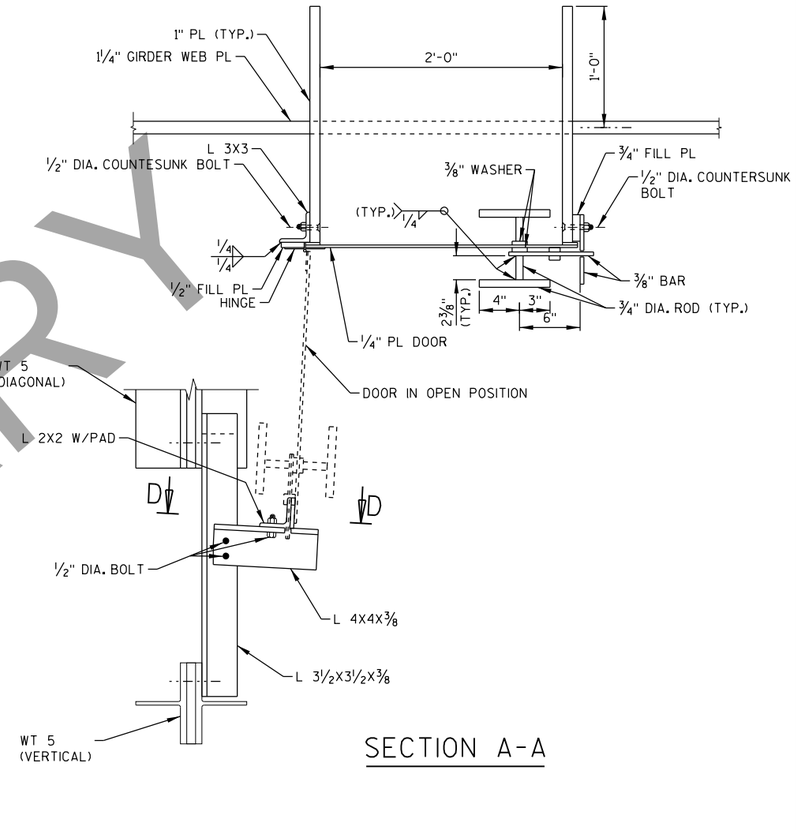


ACCESS DOOR ELEVATION

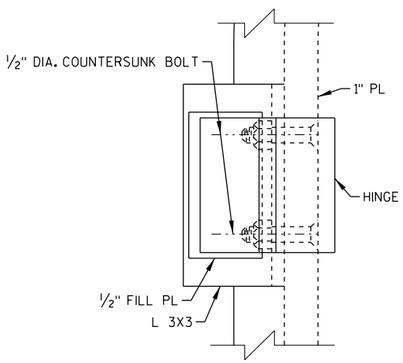
(LOOKING FROM INSIDE OF MACH. ROOM)



SECTION B-B



SECTION A-A



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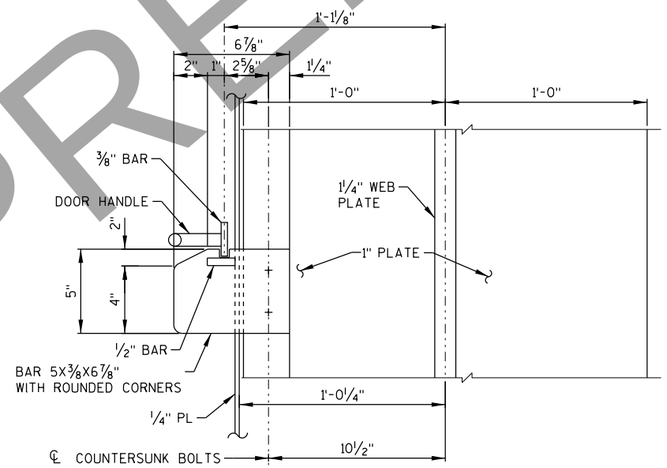
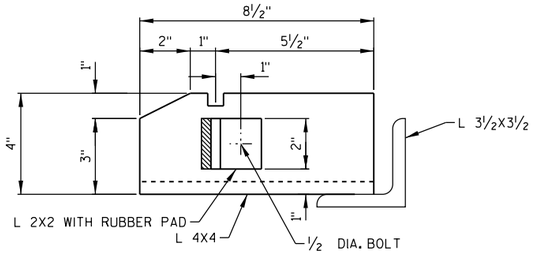


SECTION C-C



SECTION D-D

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

BASCULE ACCESS DOOR

DRAWING S56

PRE_239

8

8

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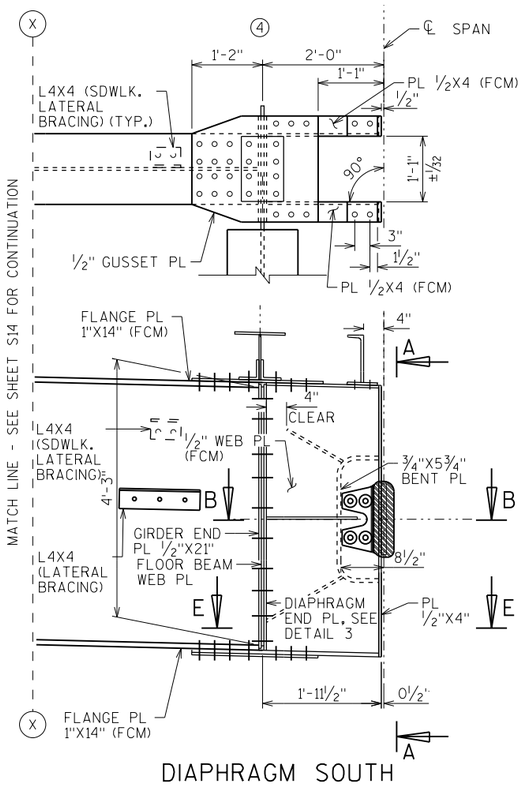
DRAFT 3/2/2020

PRELIMINARY

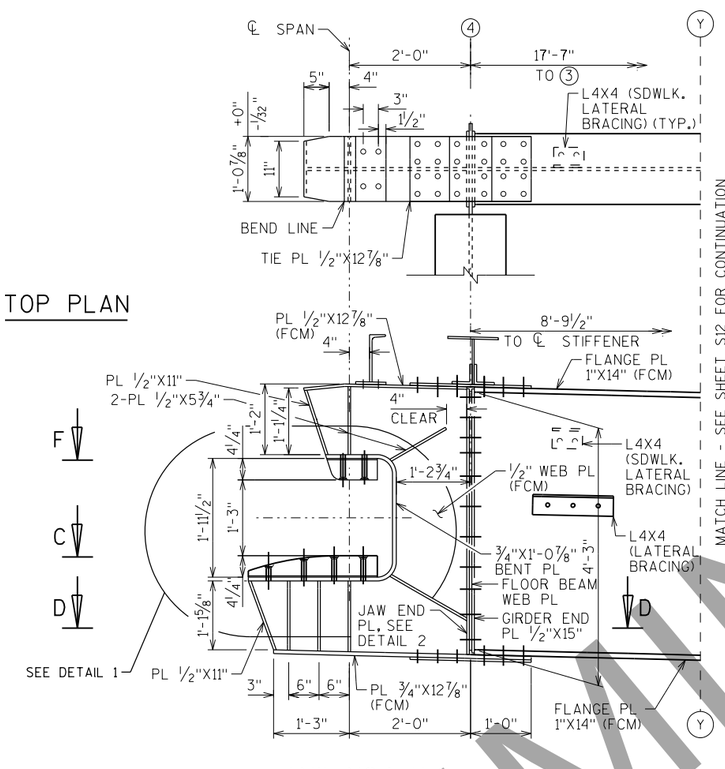
STATE PROJECT NUMBER

4992-03-71



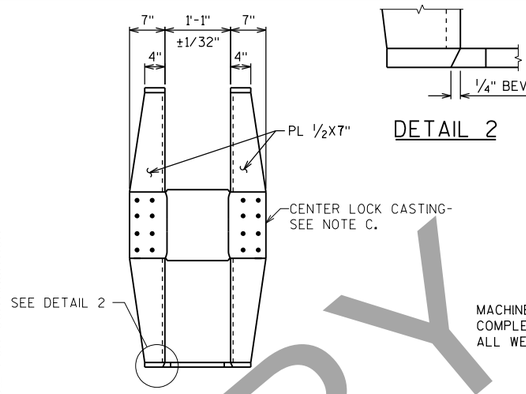
DIAPHRAGM SOUTH LEAF ELEVATION

(INSIDE VIEW)



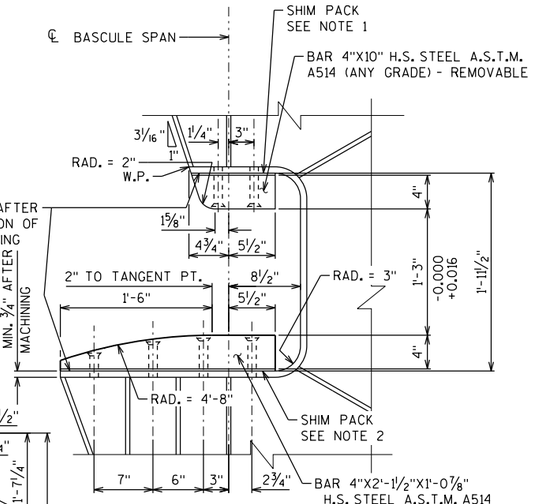
JAW NORTH LEAF ELEVATION

(INSIDE VIEW)



SECTION A-A

DETAIL 2



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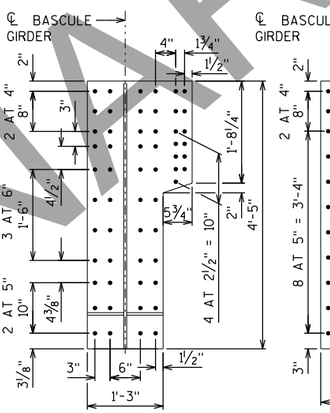

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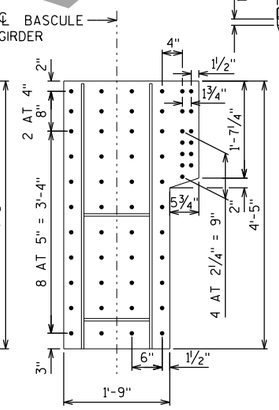

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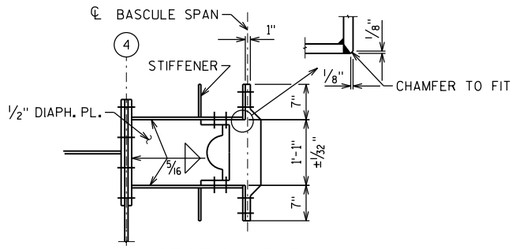
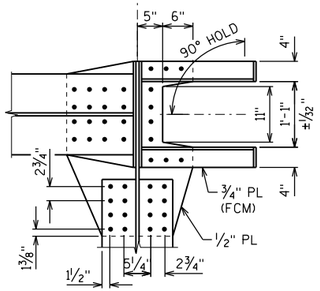


SECTION B-B



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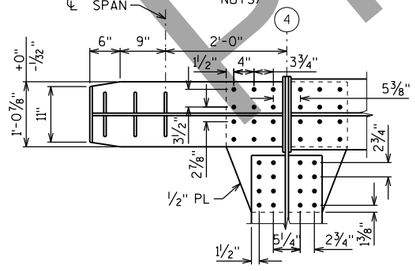

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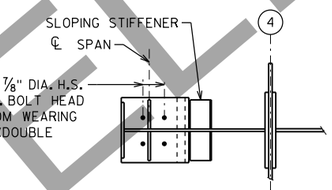

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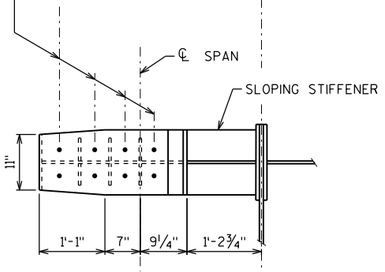
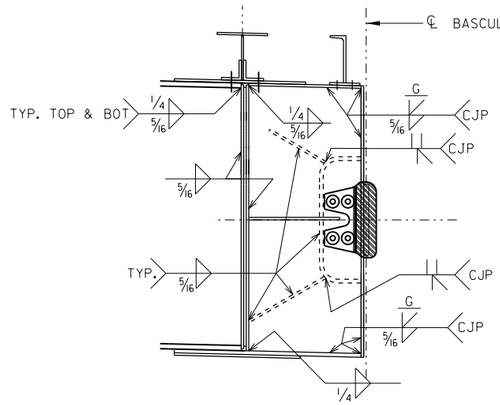
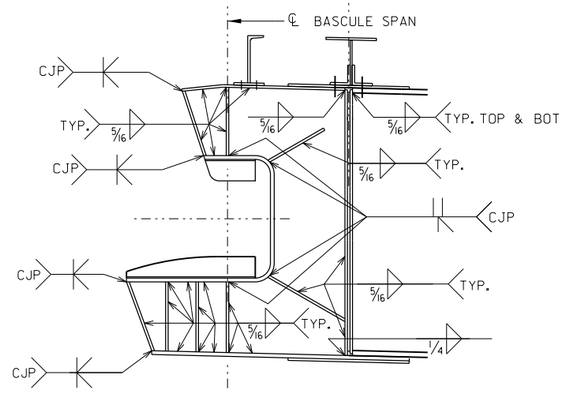


SECTION C-C



DIAPHRAGM WELDING

ALL WELDS ON JAW AND DIAPHRAGM DETAILS TO BE 100% M.T.



JAW WELDING

NOTES:

1. 12⅞" × 10" SHIM PACK REQUIRED. 1-1/64", 1-1/32", 1-1/16", 1-⅛" AND 1-¼"
2. 12⅞" × 2'-1½" SHIM PACK REQUIRED. 1-1/64", 1-1/32", 1-1/16", 1-⅛" AND 1-¼"

NOTE C:

HOLES IN CENTER LOCK CASTING AND DIAPHRAGM TO BE SUB-PUNCHED OR SUB-DRILLED AND REAMED TO SIZE WHILE ASSEMBLED IN THE SHOP. THE CENTER LOCK CASTING AND DIAPHRAGM INCLUDING TOP & BOTTOM CONNECTION PLATES ARE TO BE SHIPPED AS A UNIT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

BASCULE GIRDER AT CENTERLOCK

DRAWING PRE_240 S56

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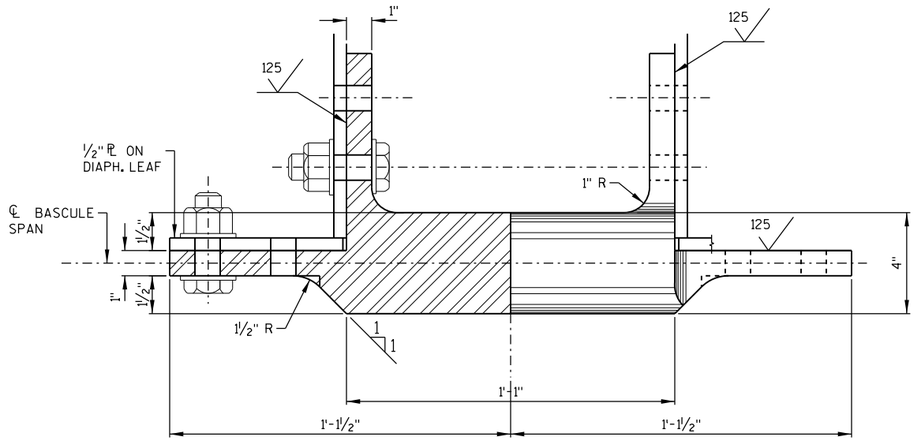
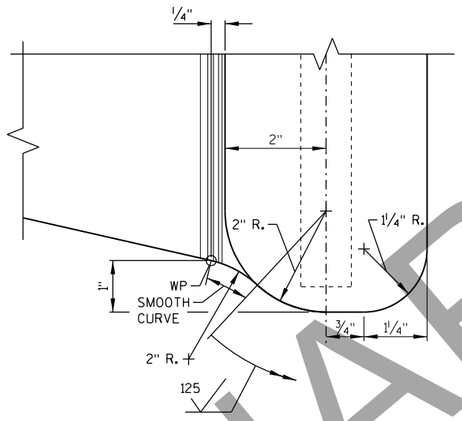
BATCH PRINT SHEET 17 OF 56

STATE PROJECT NUMBER

4992-03-71



SECTION B-B



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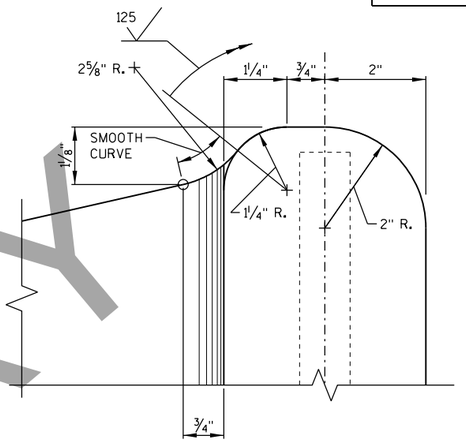

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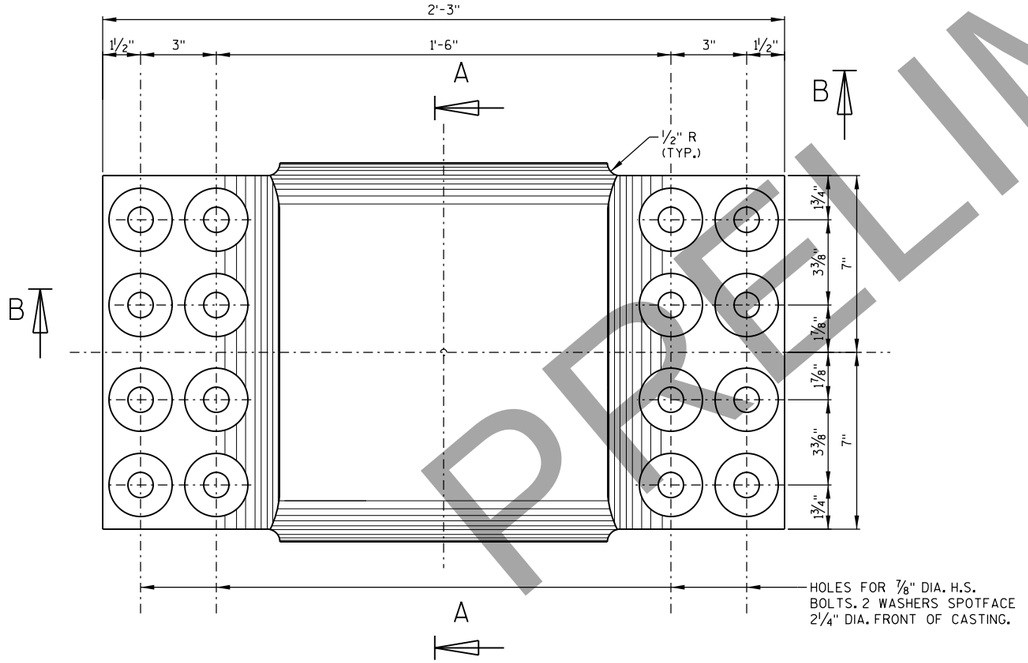
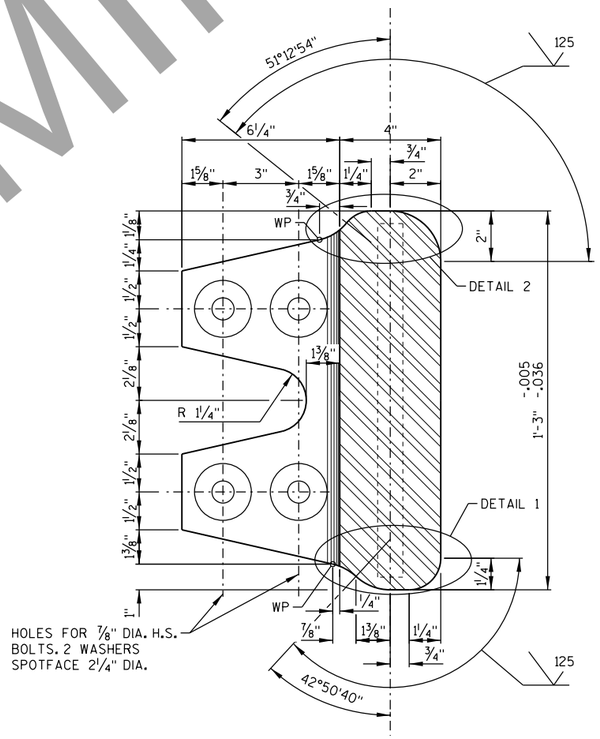


FRONT ELEVATION



SECTION A-A

CENTER LOCK CASTING NOTES

FOR ASSEMBLED VIEW OF CENTER LOCK CASTINGS ON BASCULE GIRDERS AT DIAPHRAGM LEAF, SEE SHEET "BASCULE GIRDER AT CENTERLOCK".

SEE NOTE "C" ON SHEET "BASCULE GIRDER AT CENTERLOCK" FOR SUBDRILLING HOLES AND SHOP ASSEMBLY.

MATERIALS FOR BID ITEM "STEEL TREADS, TRACKS & CENTERLOCKS":
CASTINGS - ASTM 148, GRADE 90/60
WITH CHARPY V - NOTCH VALUE OF
15 FT.-LBS. AT -50°F.

FINISH DESIGNATION SHOWN √ REFERS TO ANSI STANDARD B46.1.

H.S. BOLTS ARE INCIDENTAL TO BID ITEM "STRUCTURAL STEEL BRIDGE."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

CENTER LOCK CASTINGS

DRAWING S56

PRE_241

PRELIMINARY

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DRAFT COLOR 20, 2020

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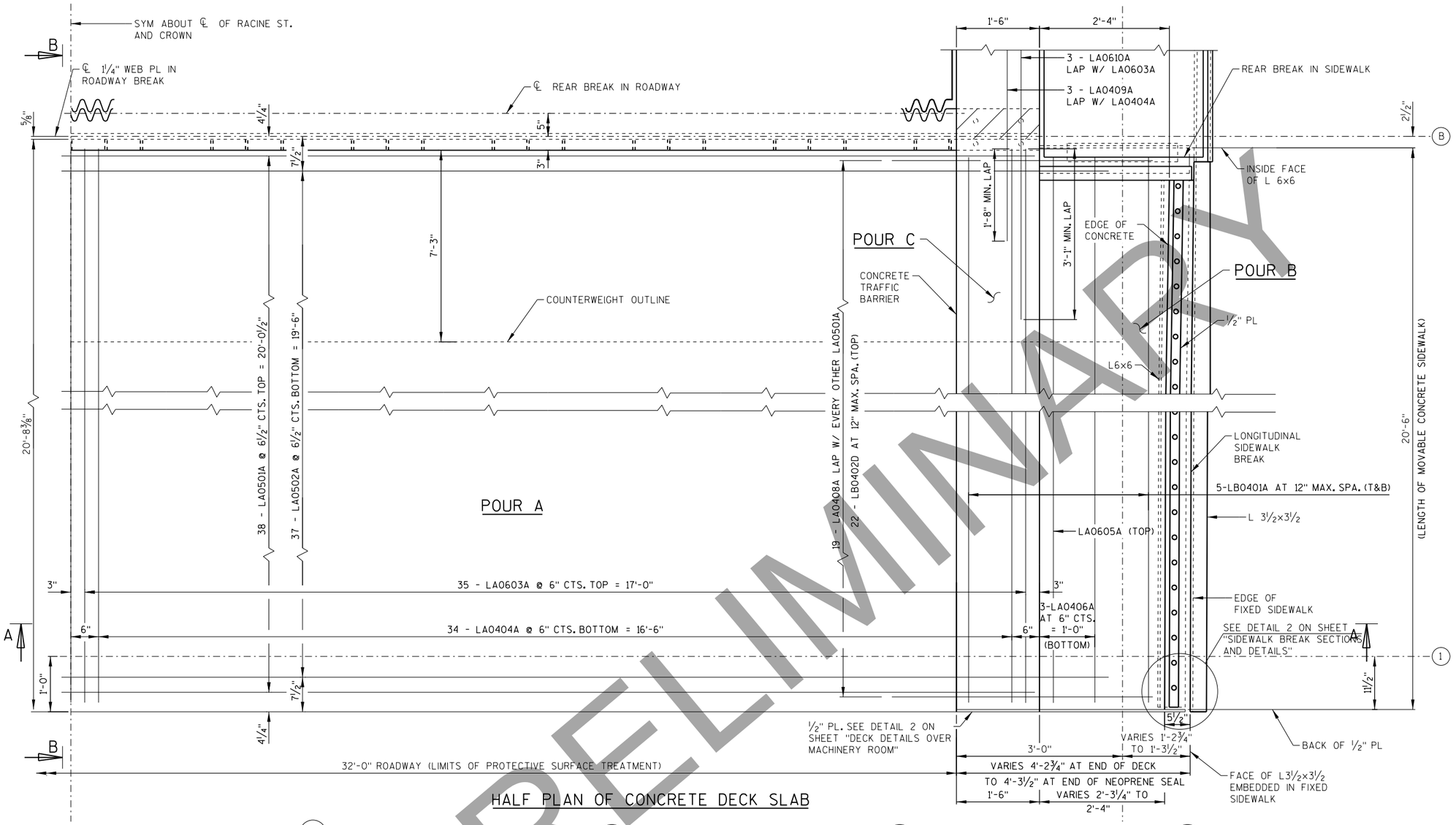
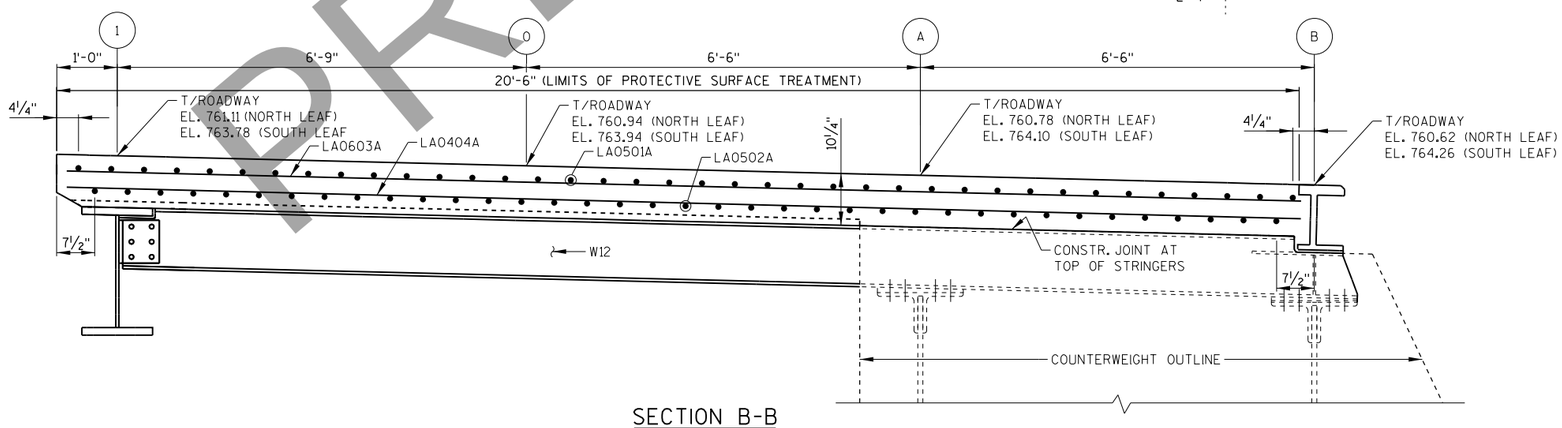
DRAFT
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71



HALF PLAN OF CONCRETE DECK SLAB



SECTION B-B
(AT ℄ RACINE ST.)

NOTES

FOR SECTION VIEW A-A SEE "DECK DETAILS OVER MACHINERY ROOM" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY AJC/CEB | PLANS CK'D. MAD

CONCRETE DECK OVER MACHINERY ROOM

DRAWING S19 OF S56

PRE_242

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8

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DRAFT PLOT DATE: 3/2/2020

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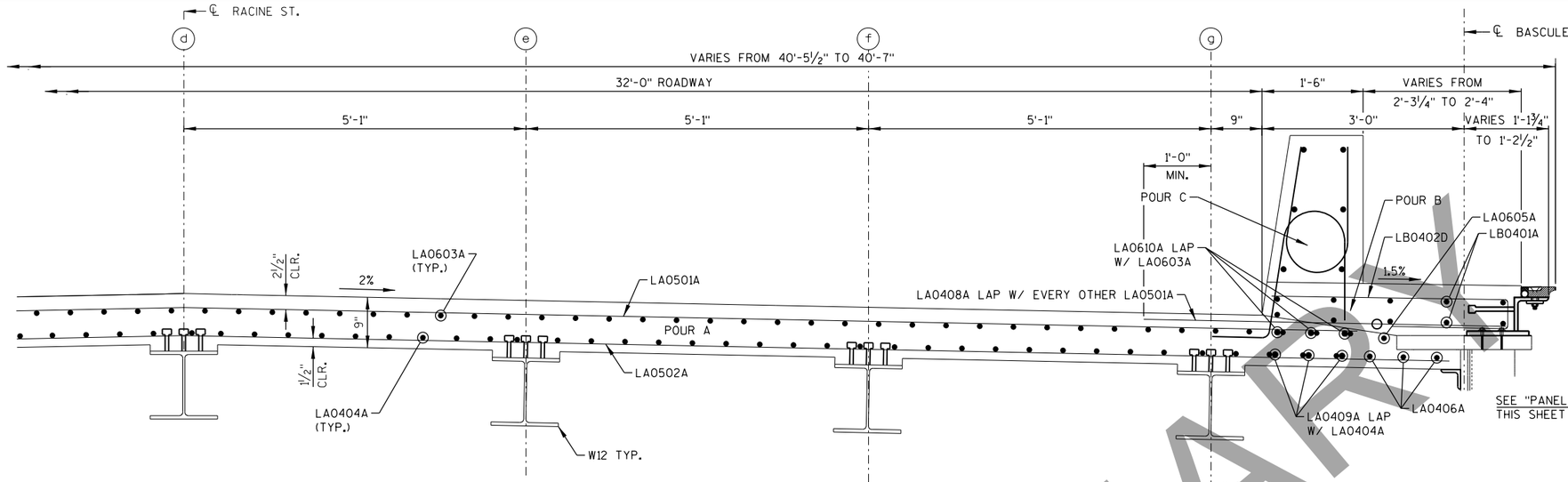
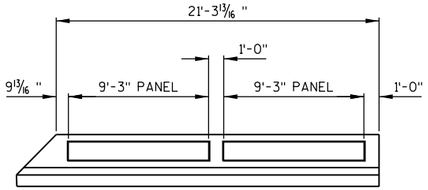
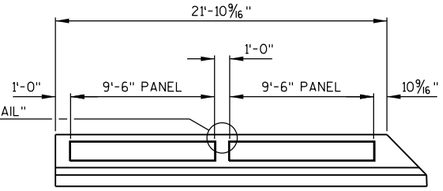


HALF-SECTION A-A



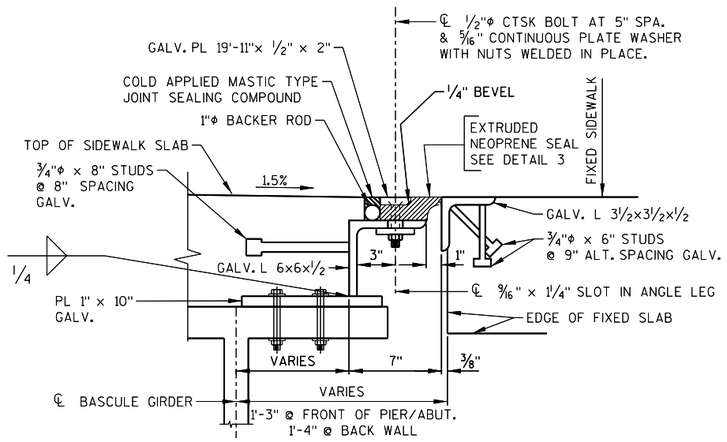
SOUTH BASCULE PIER

(LOOKING FROM SIDEWALK)



NORTH BASCULE ABUTMENT

(LOOKING FROM SIDEWALK)



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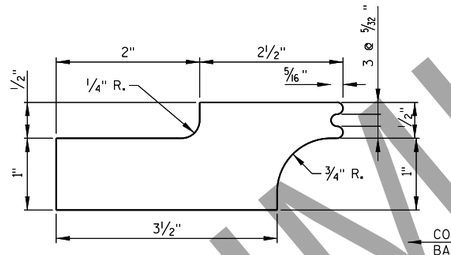

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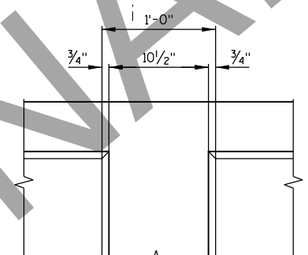

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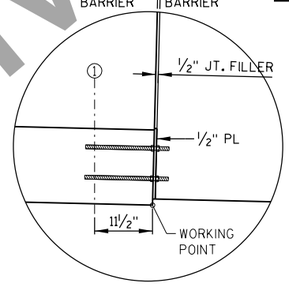

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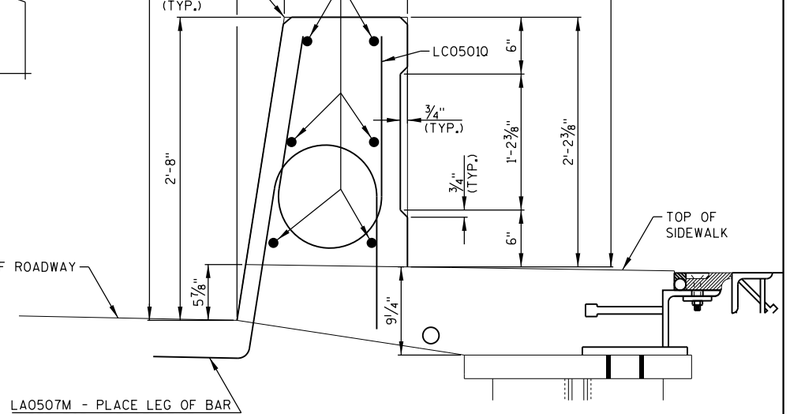
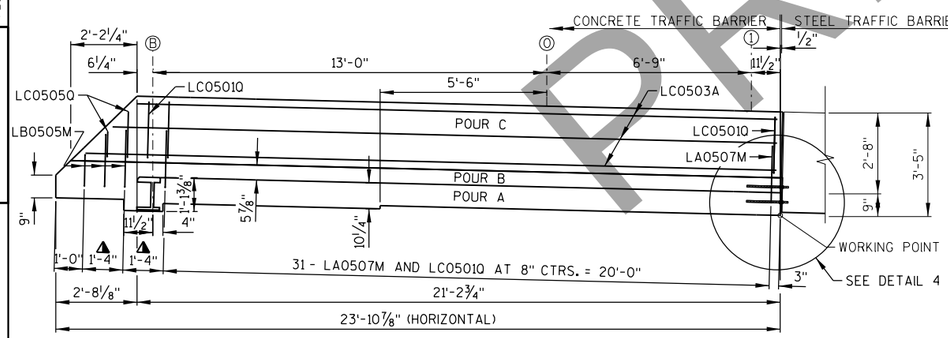
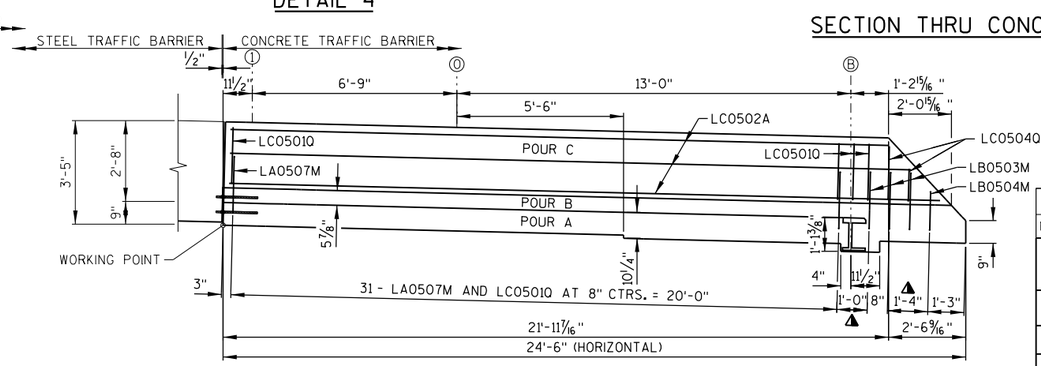


SECTION THRU CONCRETE BARRIER



SOUTH BASCULE PIER



NORTH BASCULE ABUTMENT

CONCRETE TRAFFIC BARRIER ELEVATION

(LOOKING FROM ROADWAY)

NOTE:

THE COST OF THE NEOPRENE SEAL IS INCLUDED IN THE PRICE OF THE BID ITEM "CLOSURES AND SEALS".

▲ 2 EQUAL SPACES

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ/CEB | PLANS CK'D. MAD

DECK DETAILS OVER MACHINERY ROOM

DRAWING S56

PRE_243

PRELIMINARY

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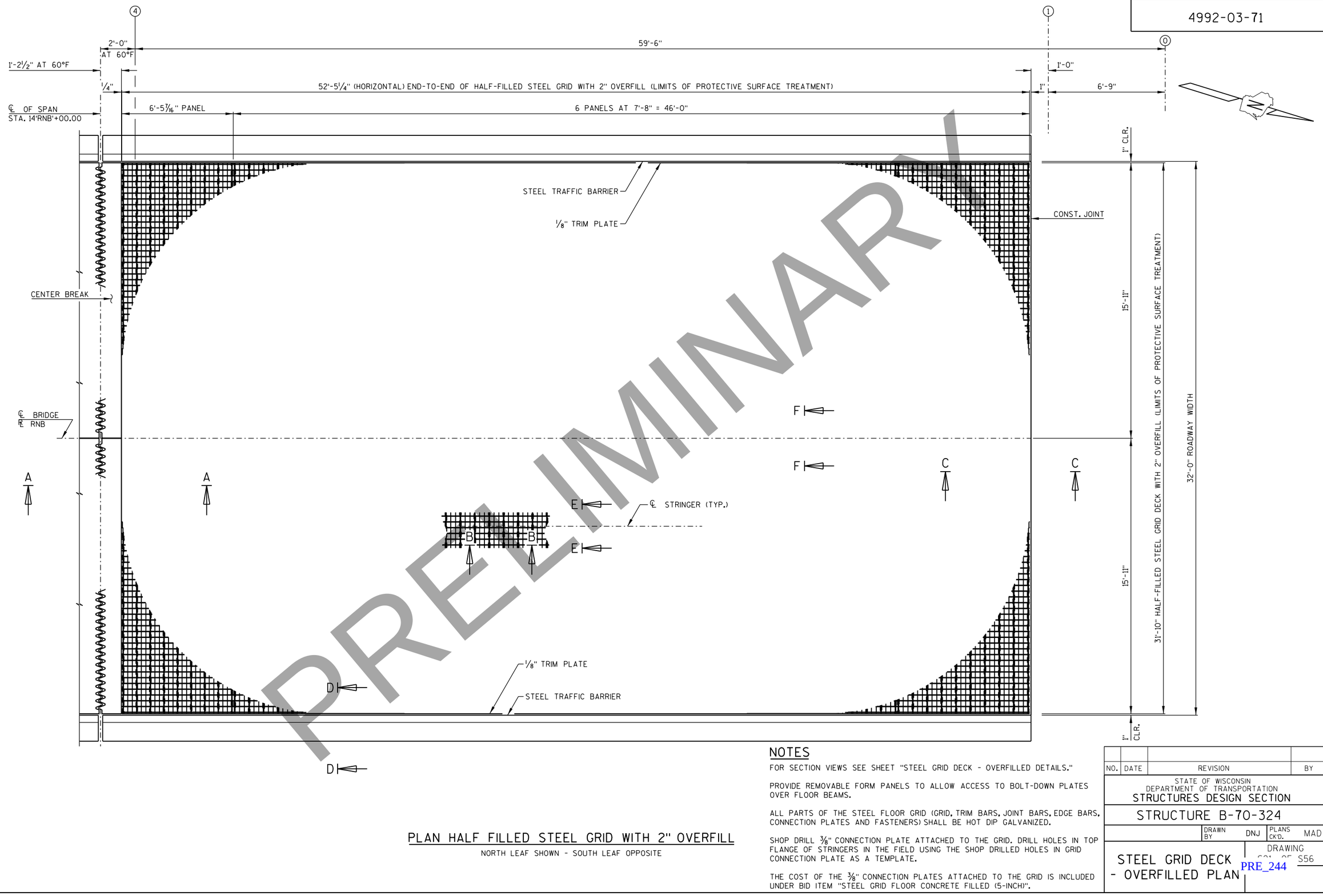
STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

PLAN HALF FILLED STEEL GRID WITH 2" OVERFILL

NORTH LEAF SHOWN - SOUTH LEAF OPPOSITE

NOTES

FOR SECTION VIEWS SEE SHEET "STEEL GRID DECK - OVERFILLED DETAILS."

PROVIDE REMOVABLE FORM PANELS TO ALLOW ACCESS TO BOLT-DOWN PLATES OVER FLOOR BEAMS.

ALL PARTS OF THE STEEL FLOOR GRID (GRID, TRIM BARS, JOINT BARS, EDGE BARS, CONNECTION PLATES AND FASTENERS) SHALL BE HOT DIP GALVANIZED.

SHOP DRILL ⅜" CONNECTION PLATE ATTACHED TO THE GRID. DRILL HOLES IN TOP FLANGE OF STRINGERS IN THE FIELD USING THE SHOP DRILLED HOLES IN GRID CONNECTION PLATE AS A TEMPLATE.

THE COST OF THE ⅜" CONNECTION PLATES ATTACHED TO THE GRID IS INCLUDED UNDER BID ITEM "STEEL GRID FLOOR CONCRETE FILLED (5-INCH)".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MAD

STEEL GRID DECK - OVERFILLED PLAN

DRAWING S56

8

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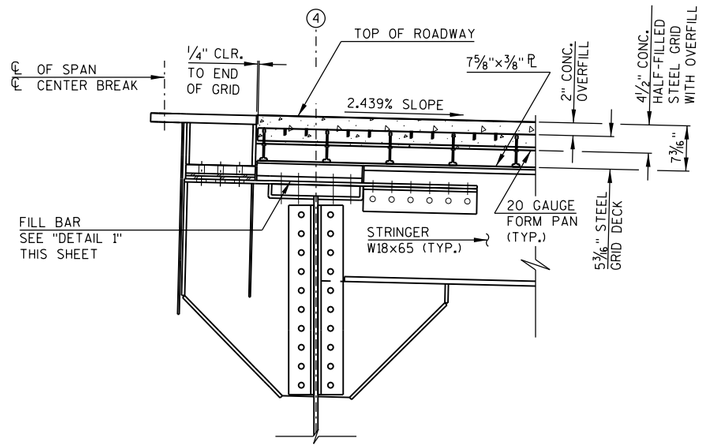
PLOT DATE: 3/2/2020
PLOT TIME: 9:59:21 AM
BATCH PRINT SHEET 22 OF 56

DRAFT COPY 4/1/2020

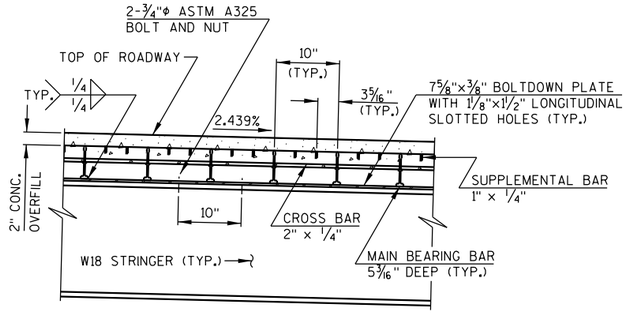
PRELIMINARY

STATE PROJECT NUMBER

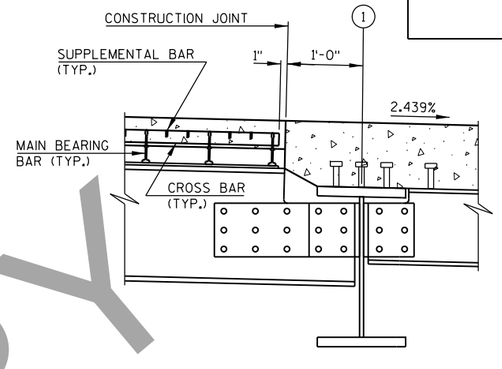
4992-03-71



SECTION A-A



SECTION B-B



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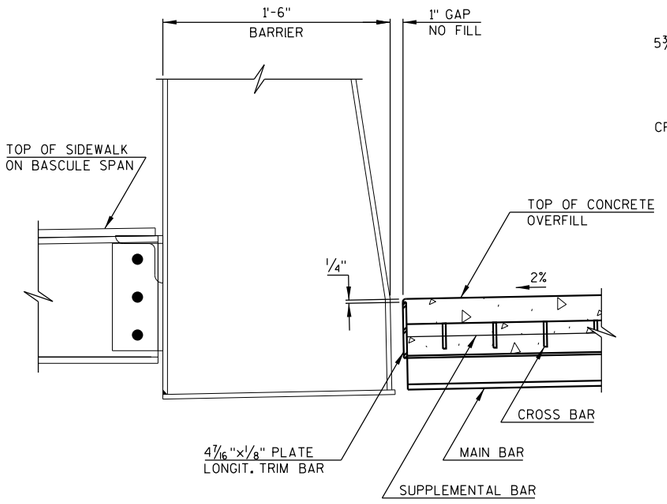

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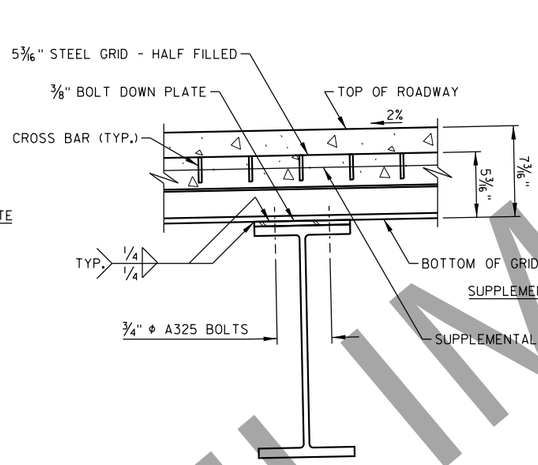

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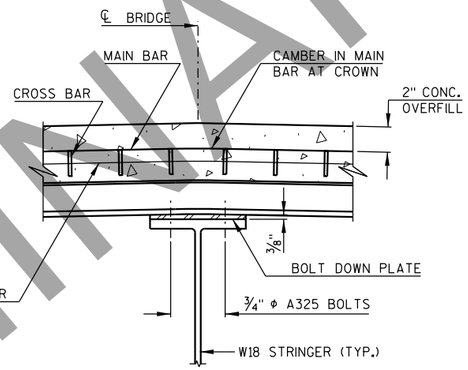
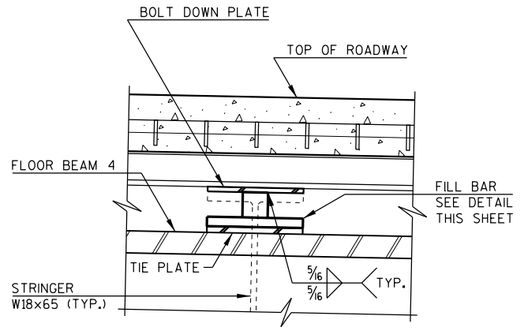
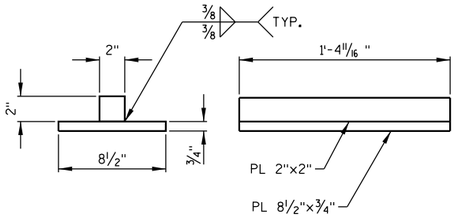


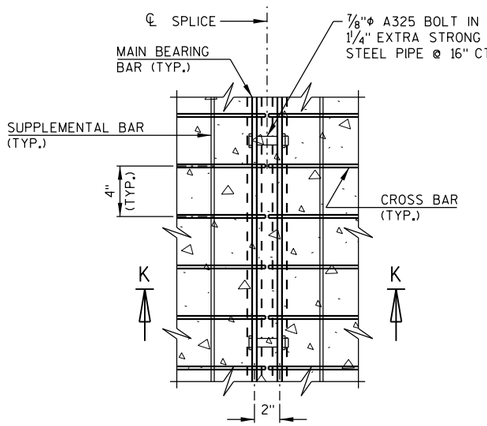
SECTION F-F



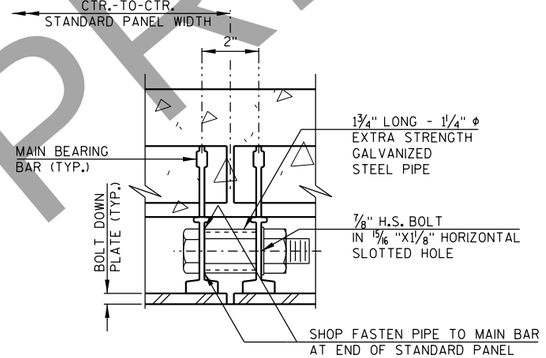
DETAIL 1



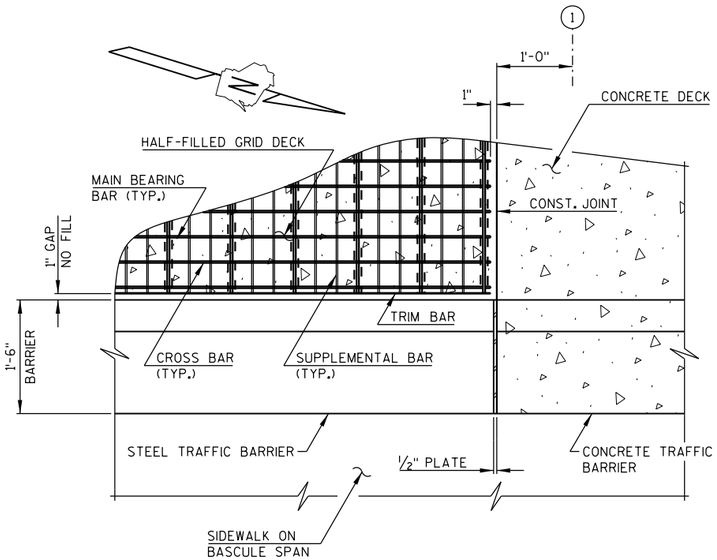
FILL BAR DETAIL



HALF-FILLED STEEL GRID AT TRANSVERSE SPLICE



SECTION K-K



PLAN AT STEEL GRID DECK TRANSITION

NOTES

FOR LOCATIONS OF SECTION VIEWS SEE SHEET "STEEL GRID DECK - OVERFILLED PLAN."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MAD

STEEL GRID DECK- OVERFILLED DETAILS

DRAWING S56

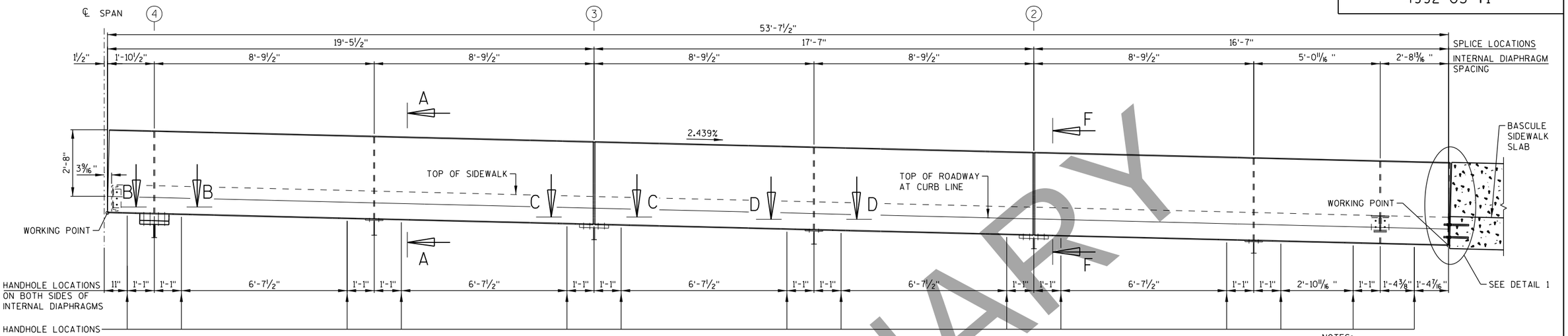
PRE_245

8

8

STATE PROJECT NUMBER

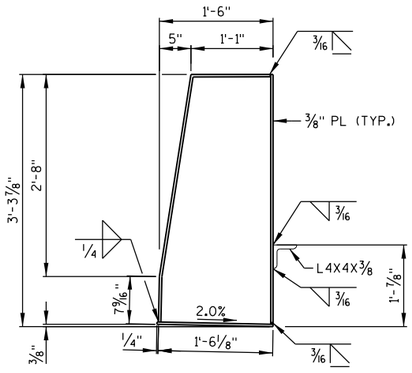
4992-03-71



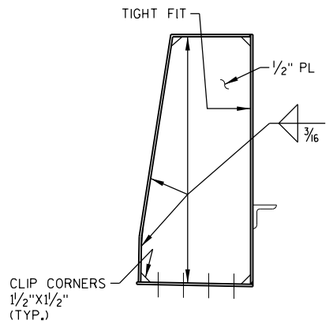
ELEVATION OF CURB TRAFFIC BARRIER

NOTES:

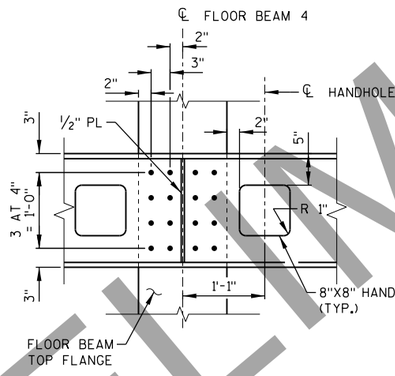
1. THE COST OF FURNISHING AND INSTALLING BIRD SCREENS IS INCLUDED IN THE PAY ITEM "STRUCTURAL STEEL BRIDGE".
2. ALL TRAFFIC BARRIER STEEL SHALL BE GALVANIZED AND PAINTED.



TYPICAL SECTION

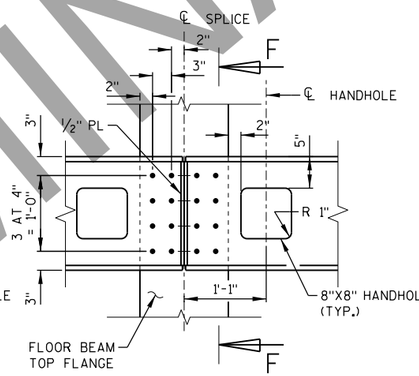


SECTION A-A



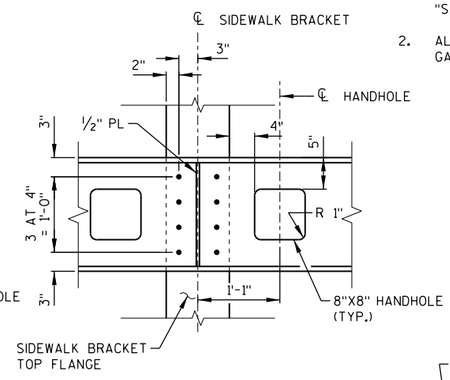
SECTION B-B

TYPICAL AT FLOOR BEAM LOCATIONS



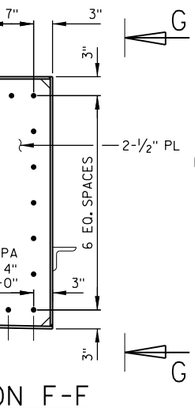
SECTION C-C

TYPICAL AT BARRIER SPLICE LOCATIONS

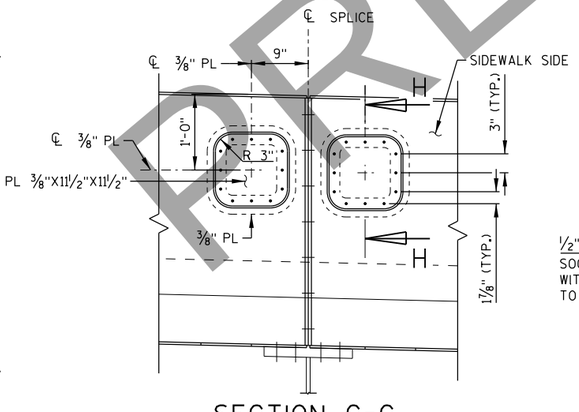


SECTION D-D

TYPICAL AT INTERMEDIATE SIDEWALK BRACKETS

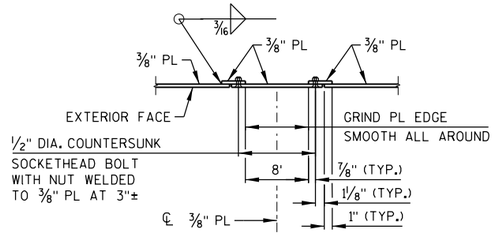


SECTION F-F

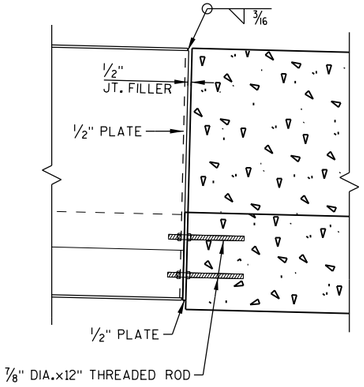


SECTION G-G

TYPICAL AT BARRIER SPLICE LOCATIONS

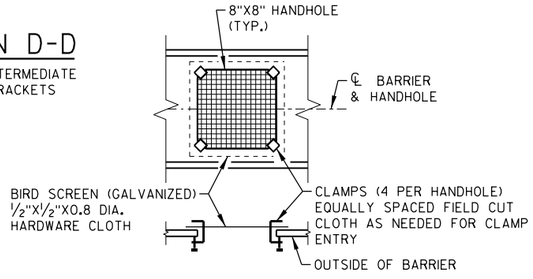


SECTION H-H



DETAIL 1

SEE SHEET "SIDEWALK BREAK SECTIONS AND DETAILS" SECTIONS B-B AND F-F FOR THREADED ROD CONNECTION DETAILS



BIRD SCREEN DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

STEEL TRAFFIC BARRIER

DRAWING S56

PRE_246

PRELIMINARY
DRAFT 2020

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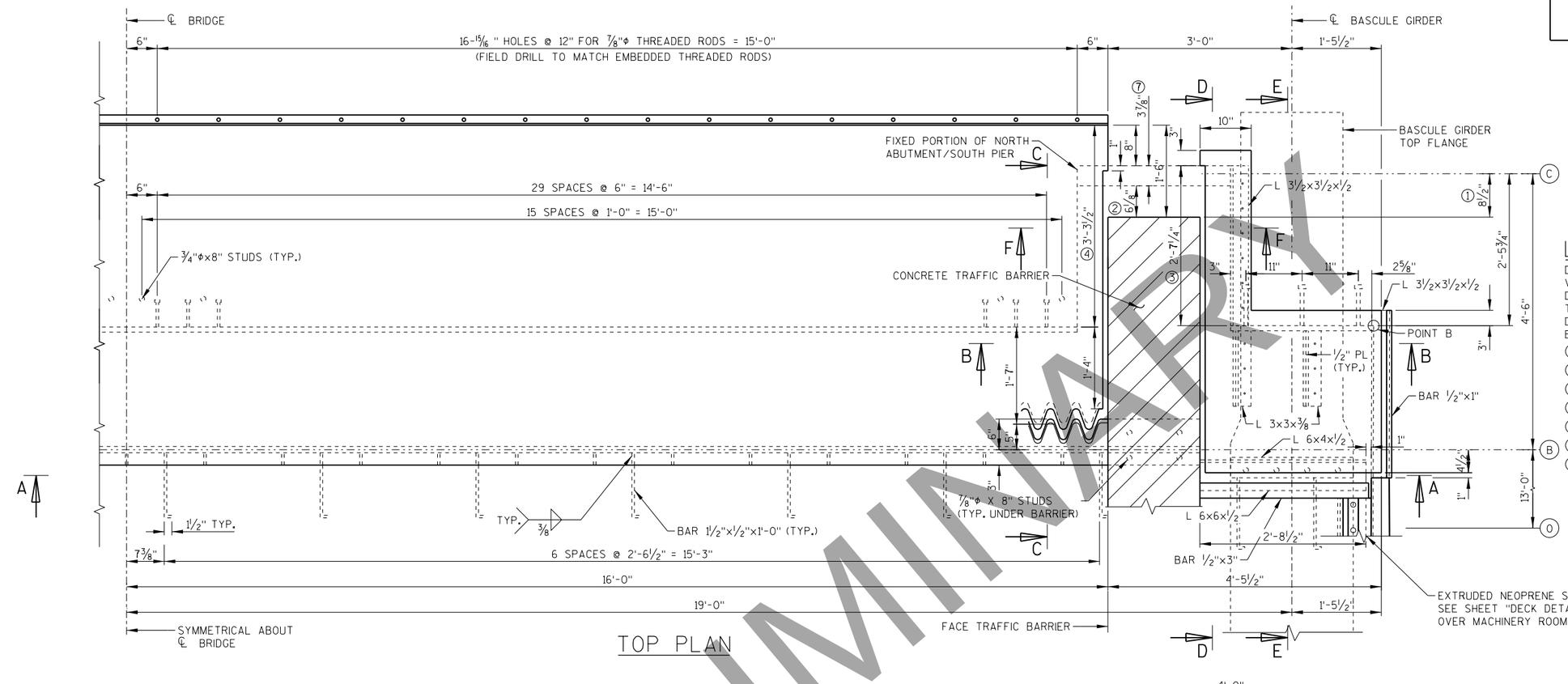
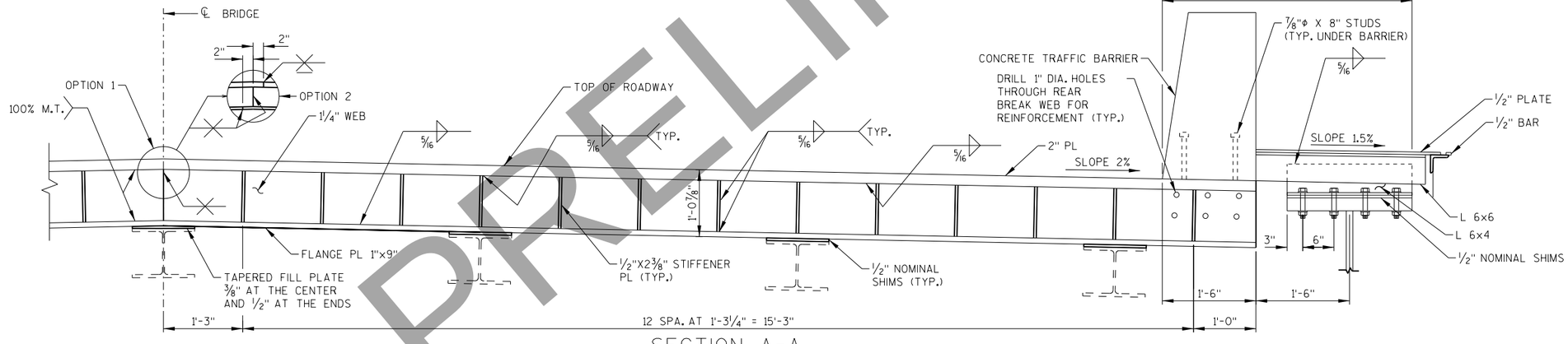
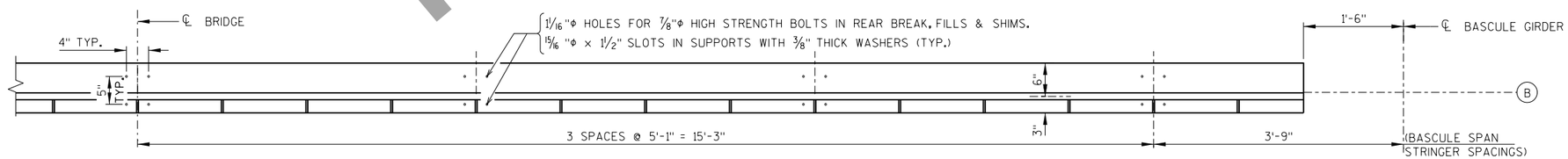
BATCH PRINT SHEET 24 OF 56

DRAFT
3/2/2020

STATE PROJECT NUMBER
4992-03-71







NOTES:

ALL STEEL IN REAR BREAK SHALL BE GALVANIZED.

SEE SHEET "NORTH BASCULE ABUTMENT PLAN AT SIDEWALK LEVEL" FOR POINT B ON THE NORTH ABUTMENT.

SEE SHEET "SOUTH BASCULE PIER PLAN AT SIDEWALK LEVEL" FOR POINT B ON SOUTH PIER.

LEGEND

DIMENSIONS WITH A SYMBOL AS SHOWN BELOW VARY BETWEEN THE NORTH AND SOUTH LEAF. DIMENSIONS SHOWN IN PLAN VIEW ARE FOR THE NORTH LEAF, AND THE SOUTH LEAF DIMENSIONS VARY ACCORDING TO THE KEY BELOW:

1. 1'-3 5/8"
2. 7 3/4"
3. 2'-0 1/8"
4. 2'-8 3/8"
5. 3'-10 1/8"
6. 4'-9 1/4"
7. 2 1/4"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY ALM/CEB | PLANS CK'D. MAD

ROADWAY REAR BREAK

DRAWING S56

PRE_247

PRELIMINARY

8

8

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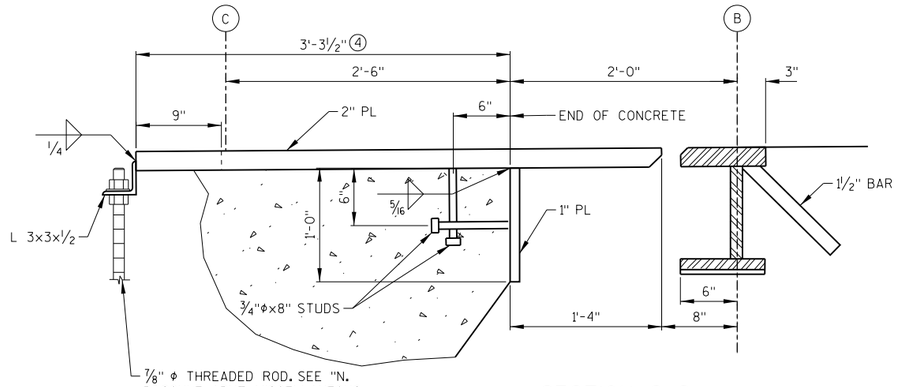
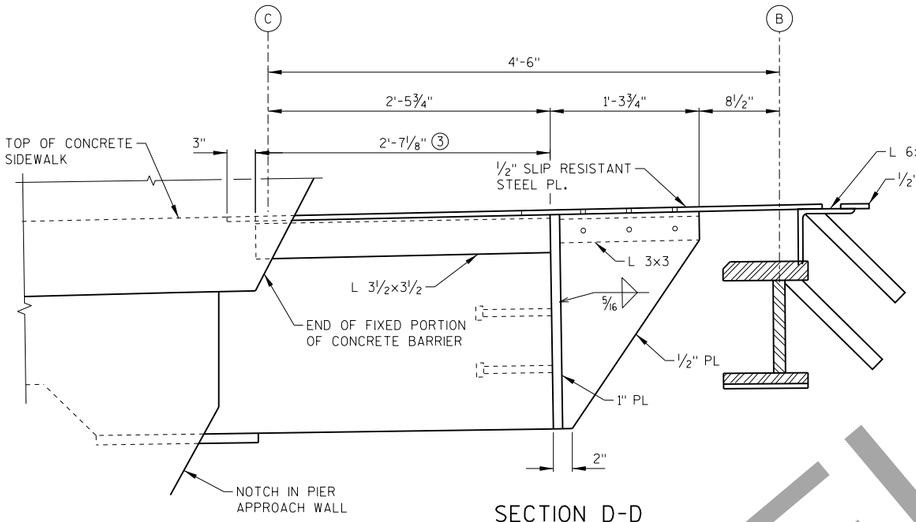
DRAFT 3/2/2020

STATE PROJECT NUMBER

4992-03-71

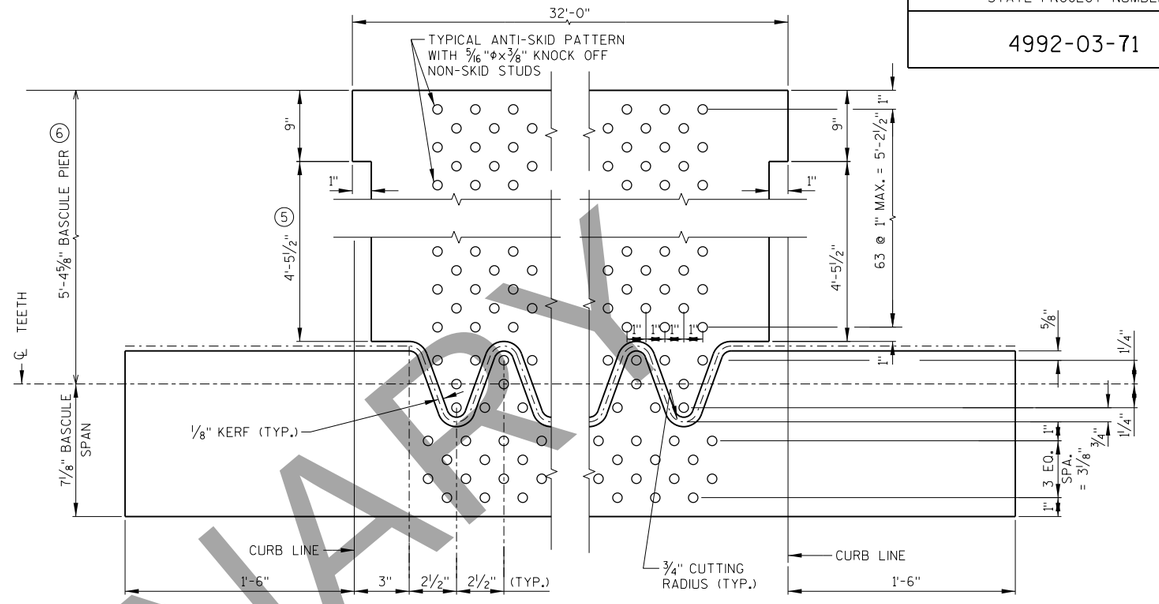


SECTION C-C

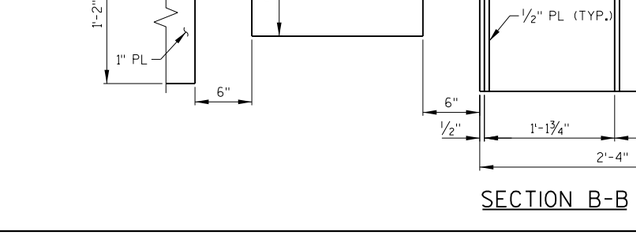


SECTION D-D

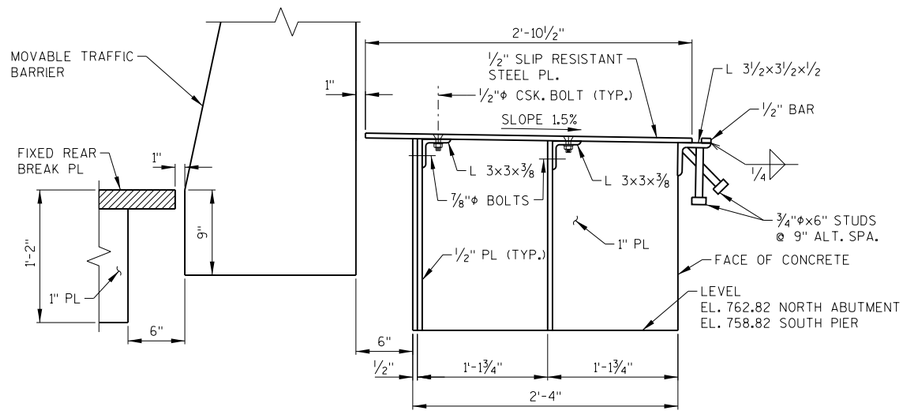
SECTION E-E



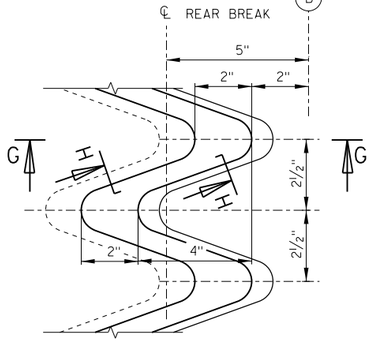
TOOTH CUTTING DETAIL
FOR 2" PL AT REAR BREAK



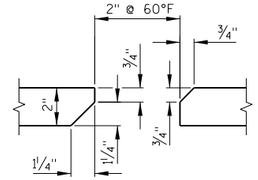
SECTION F-F



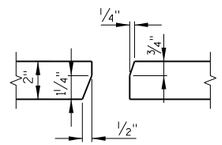
SECTION B-B



TOOTH DETAIL



SECTION G-G



SECTION H-H

SEE SHEET "ROADWAY REAR BREAK" FOR LEGEND AND LOCATIONS OF SECTIONS B-B, C-C, D-D, E-E & F-F.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

ROADWAY REAR BREAK DETAILS

DRAWING S56

PRE_248

PRELIMINARY

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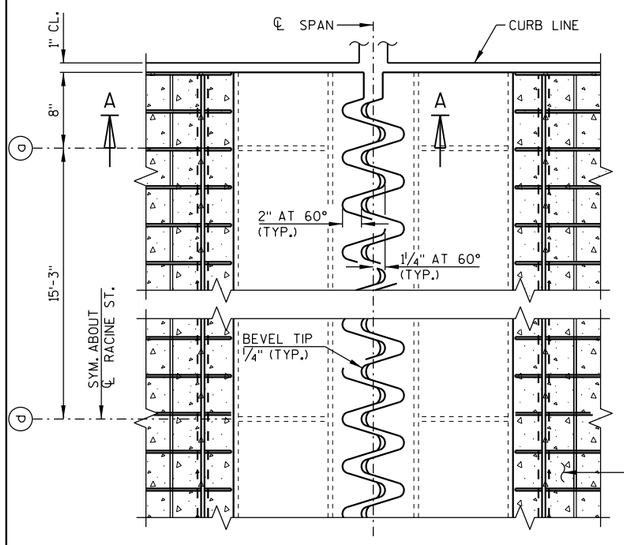
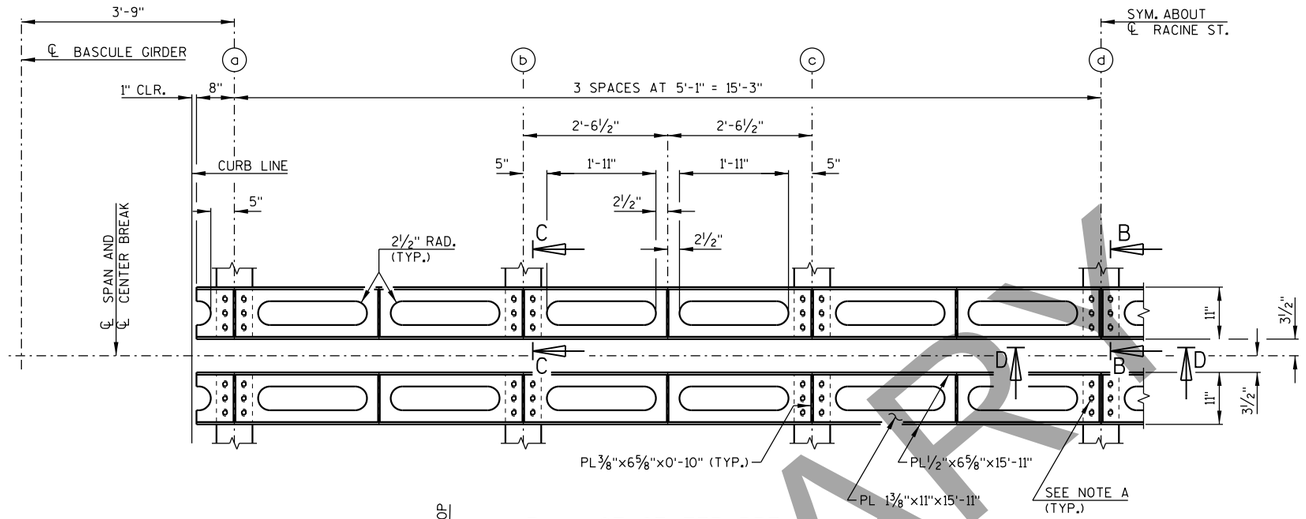
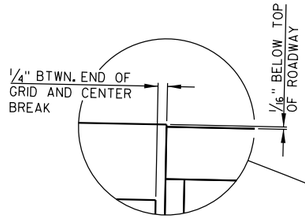
PLOT DATE: 3/2/2020
PLOT TIME: 10:00:15 AM
BATCH PRINT SHEET 26 OF 56
DRAFT 03/20/2020
PLOT DATE: 3/2/2020

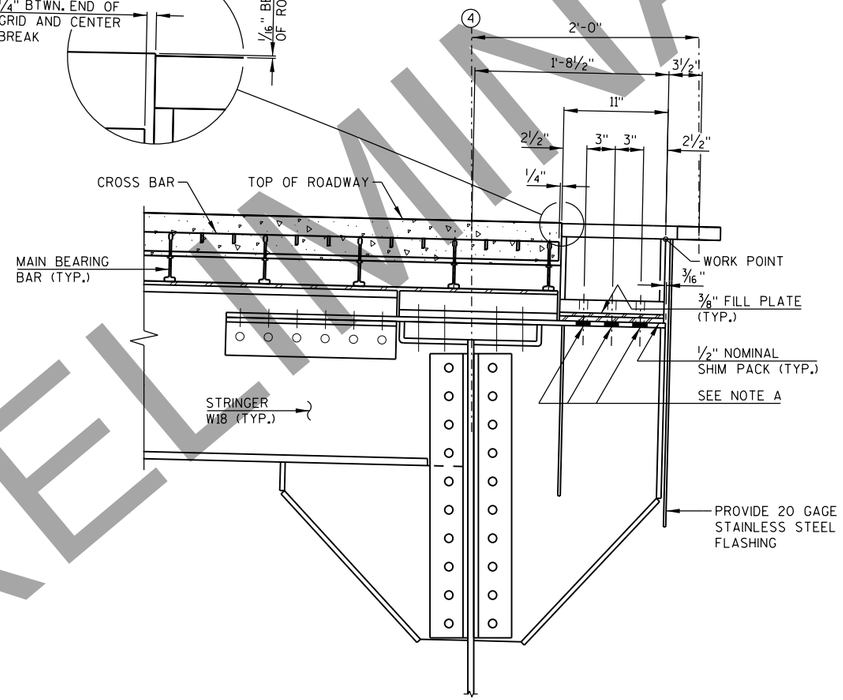


PLAN OF ROADWAY CENTER BREAK

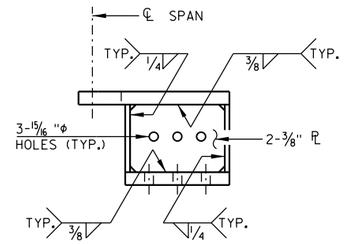




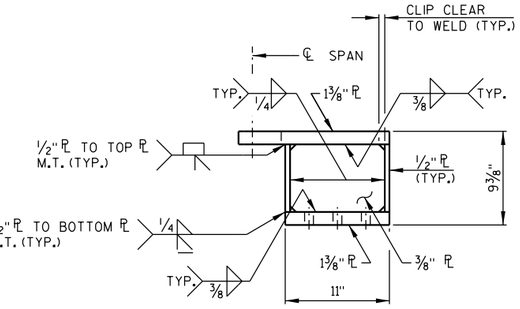
PLAN OF CENTER BREAK BOTTOM PLATE



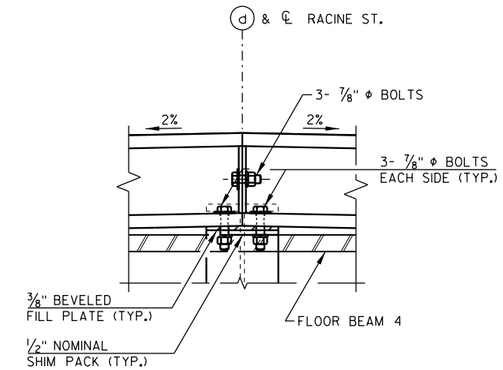
SECTION A-A



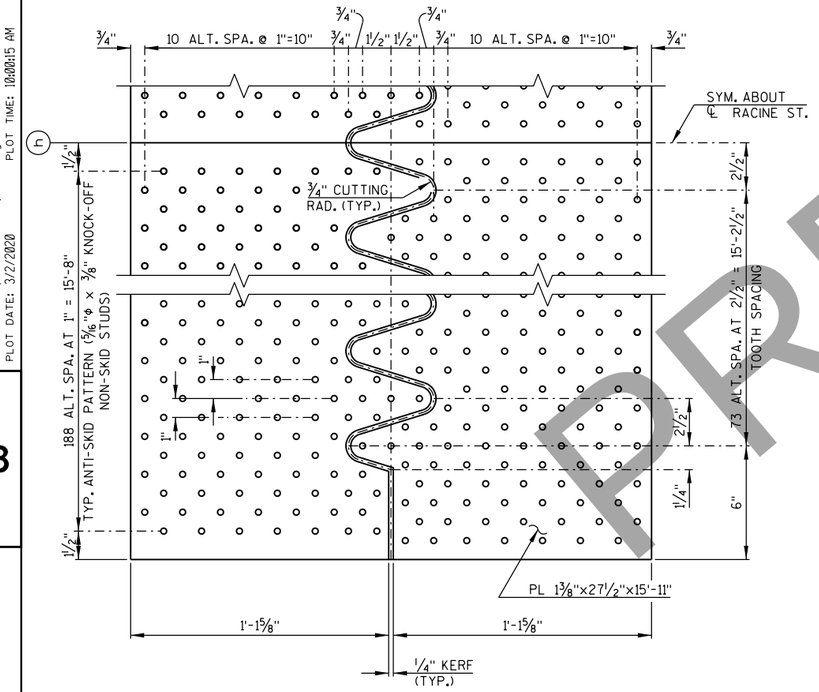
SECTION B-B
(FOR DETAILS NOT SHOWN SEE SECTION D-D)



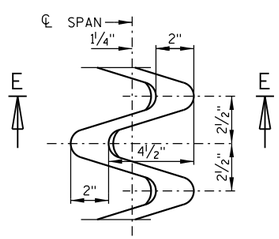
SECTION C-C



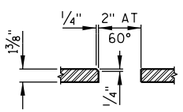
SECTION D-D



TOOTH CUTTING DIAGRAM



TOOTH DETAIL
(CENTER BREAK @ 60°)



SECTION E-E

NOTES

A. USE 15/16 "ϕ HOLES IN CENTER BREAK AND SHIMS. USE 15/16 " × 1½" SLOTTED HOLES IN FLANGE WITH 5/16" WASHERS AT SLOTS.

B. ALL PLATES AND FASTENERS SHALL BE HOT DIP GALVANIZED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MAD

CENTER BREAK DETAILS

DRAWING S56

PRE_249

PRELIMINARY

8

8

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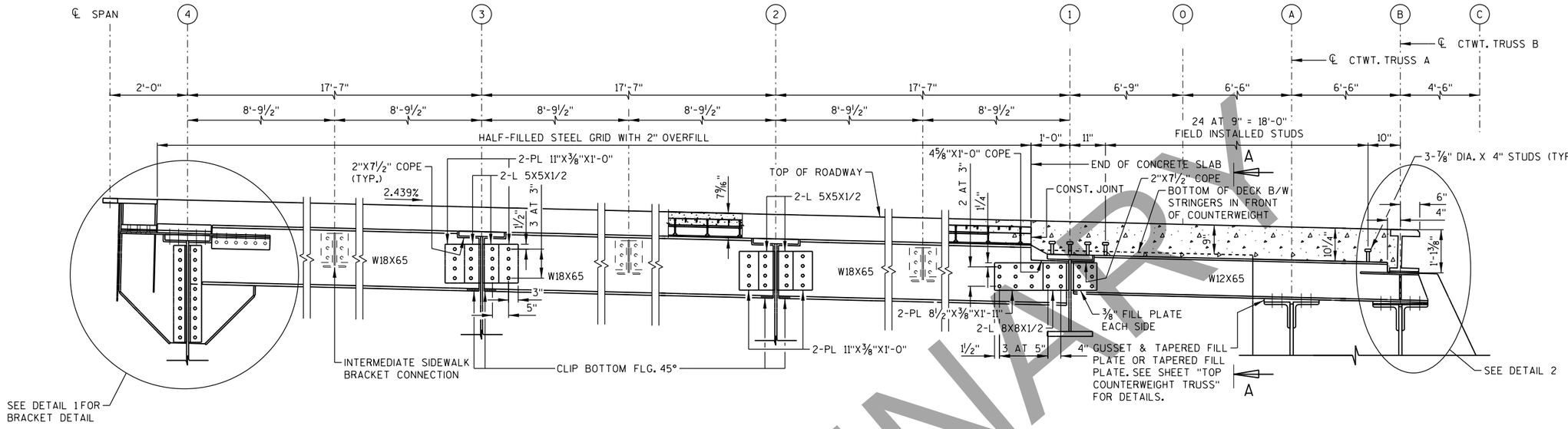
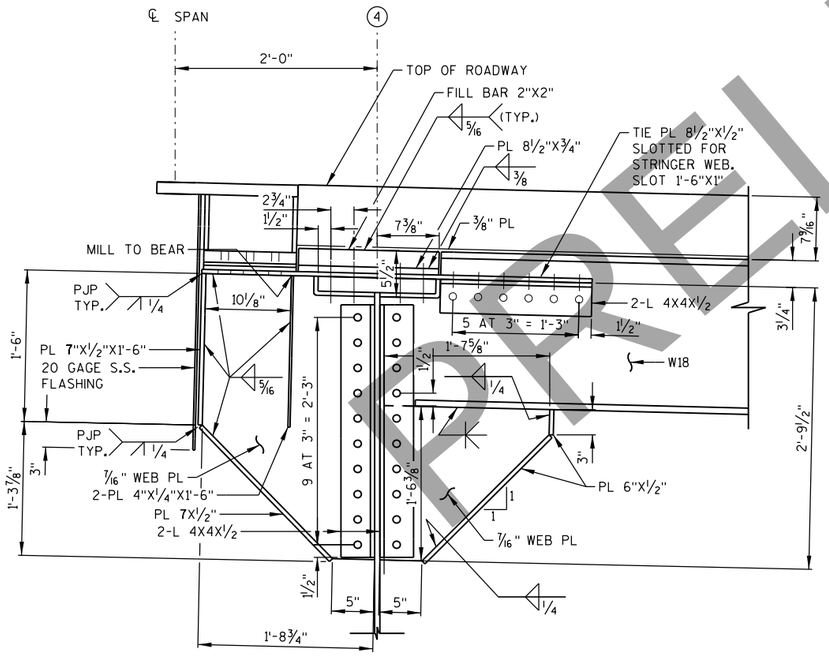
BATCH PRINT SHEET 27 OF 56
DRAFT
PRELIMINARY

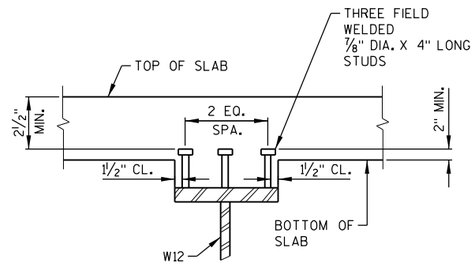
STATE PROJECT NUMBER
4992-03-71



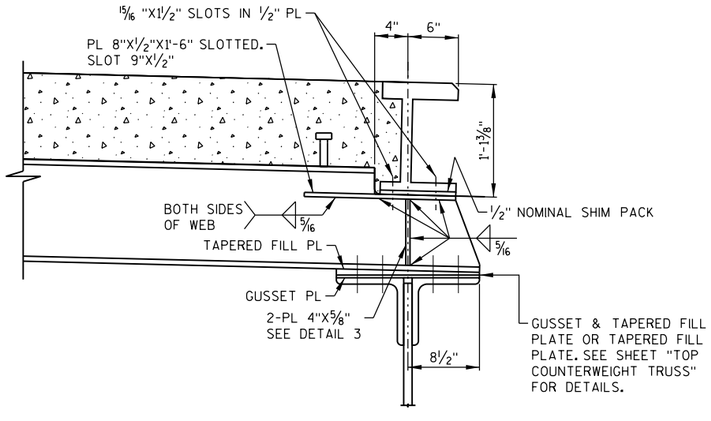
ELEVATION



DETAIL 1



SECTION A-A



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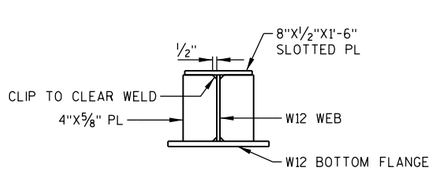

DETAIL 3

NOTES:

1. SEE SHEETS "COUNTERWEIGHT TRUSS A" AND "COUNTERWEIGHT TRUSS B" FOR STRINGER CONNECTION AT TRUSSES A & B.
2. SEE SHEET "CENTER BREAK DETAILS" FOR CENTER BREAK DETAILS.
3. STRINGERS ALONG LINES A & G TO BE GALVANIZED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

BASCULE SPAN LONGITUDINAL STRINGERS

DRAWING PRE_250 S56

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8

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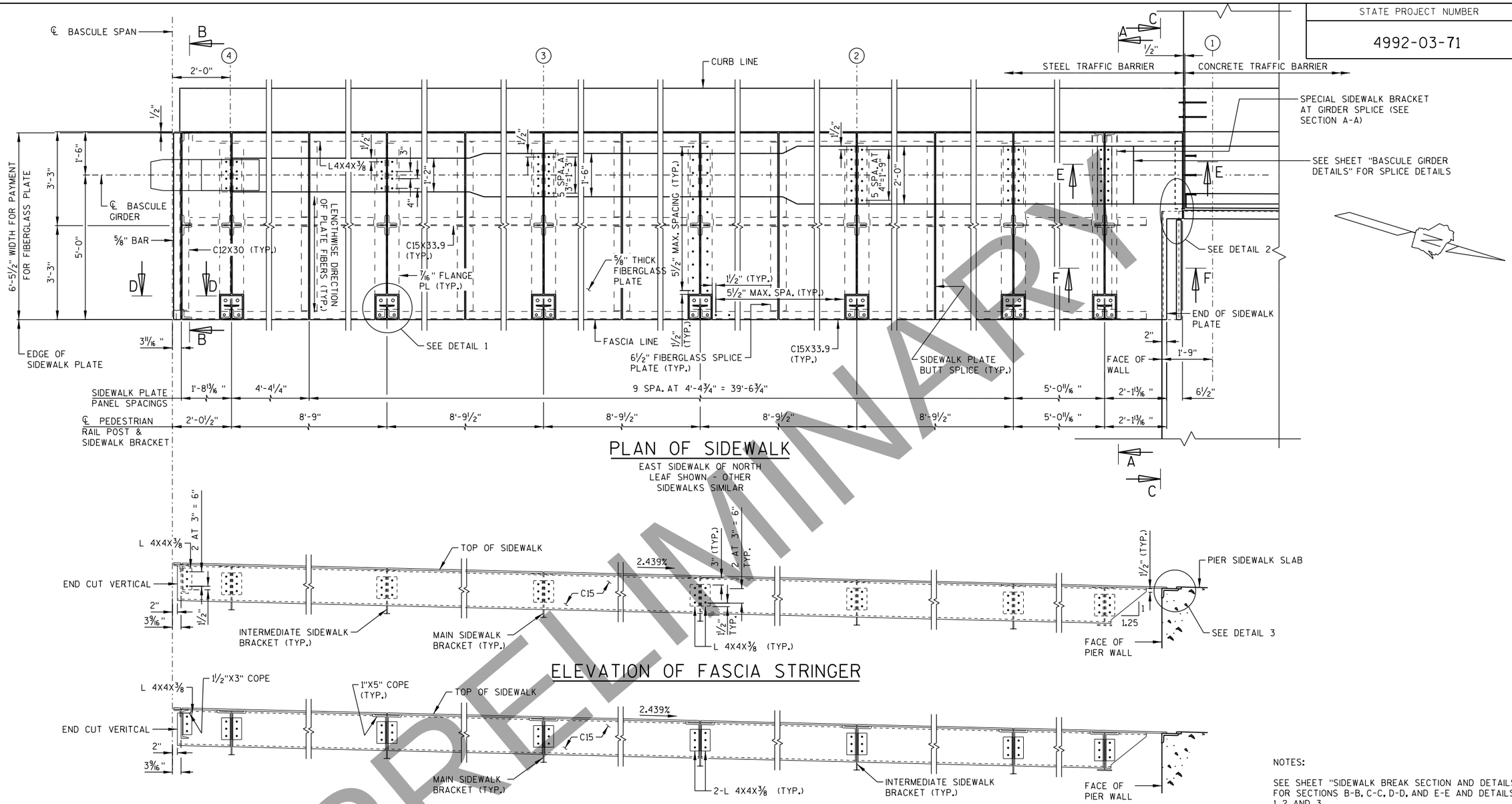
DRAFT 4/1/2020

STATE PROJECT NUMBER

4992-03-71

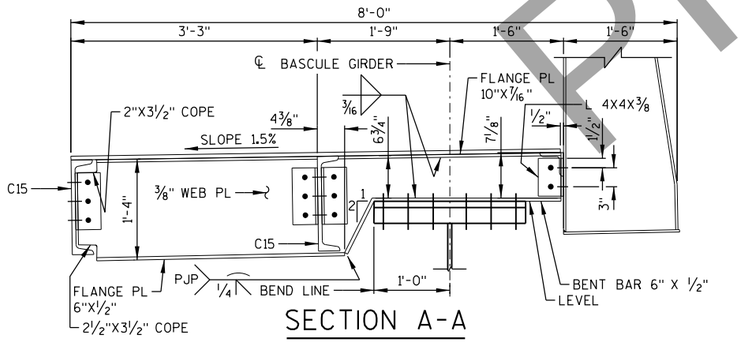


PLAN OF SIDEWALK

EAST SIDEWALK OF NORTH LEAF SHOWN - OTHER SIDEWALKS SIMILAR

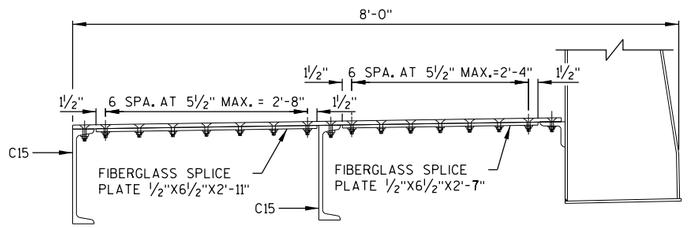
ELEVATION OF FASCIA STRINGER

ELEVATION OF INTERMEDIATE STRINGER



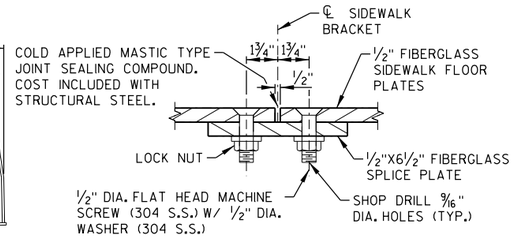
SECTION A-A

NOTE: SEE SHEET "BASCULE GIRDER DETAILS" FOR BOLTED CONNECTION DETAILS AT THE GIRDER



TYPICAL SECTION AT FIBERGLASS SIDEWALK FLOOR PLATE BUTT JOINTS

(MINIMUM EDGE DISTANCE FROM THE HOLE IN THE FIBERGLASS PLATE IS 1 1/2")



FIBERGLASS SIDEWALK FLOOR PLATE SPLICE DETAIL BETWEEN STRINGERS

NOTES:

SEE SHEET "SIDEWALK BREAK SECTION AND DETAILS" FOR SECTIONS B-B, C-C, D-D, AND E-E AND DETAILS 1, 2 AND 3.

SEE FLOOR BEAM SHEETS FOR SIDEWALK BRACKET DETAILS.

FASCIA STRINGER TO BE GALVANIZED.

INTERMEDIATE SIDEWALK PLATE SPLICES ARE OPTIONAL AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

BASCULE SIDEWALK PLAN & ELEVATIONS

DRAWING PRE_251 S56

PRELIMINARY

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BATCH PRINT SHEET 29 OF 56

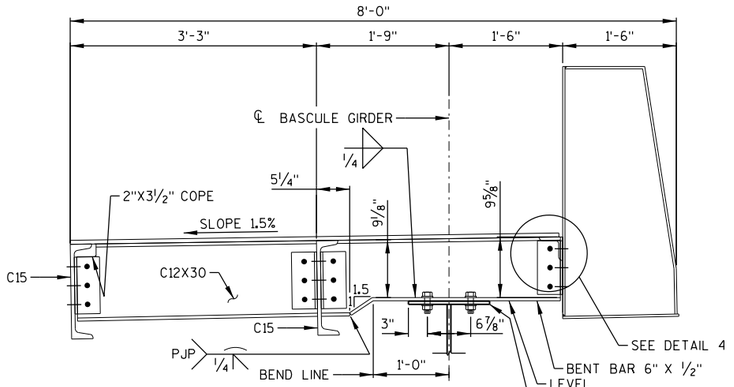
DRAFT FOR REVIEW ONLY
3/2/2020

STATE PROJECT NUMBER

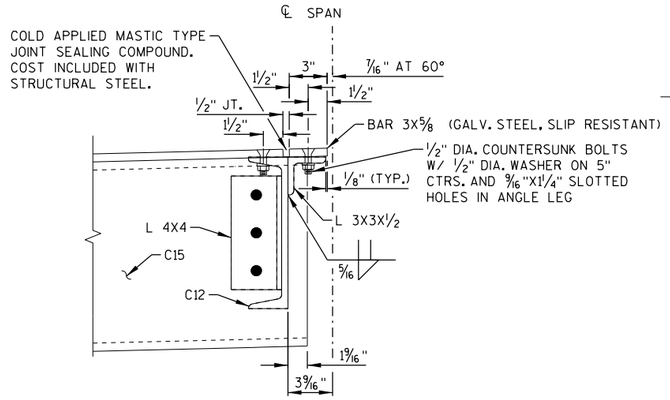
4992-03-71

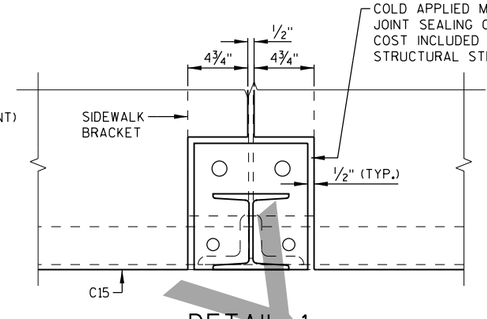
SECTION B-B

(JAW LEAF SHOW - DIAPHRAGM LEAF SIMILAR)

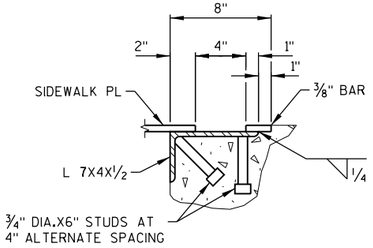


SECTION D-D

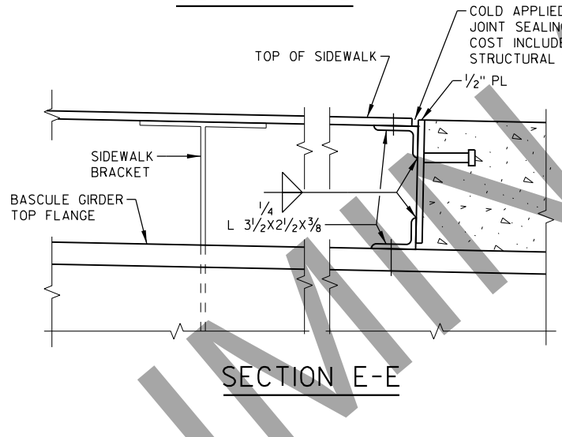




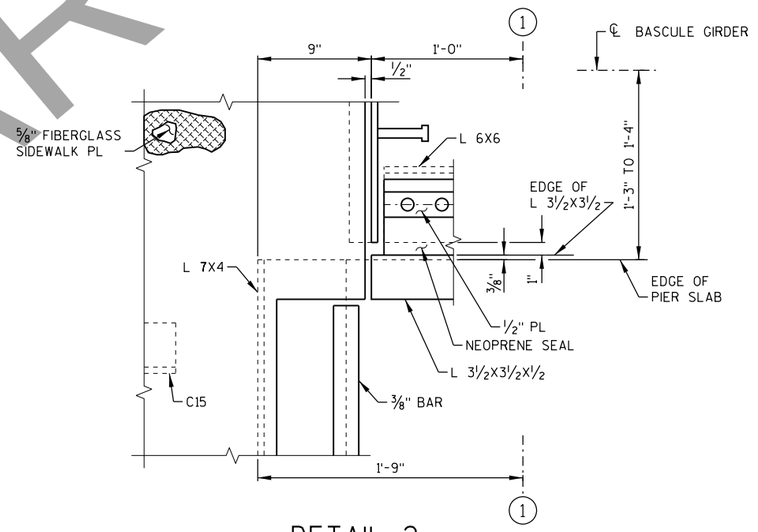
DETAIL 1



DETAIL 3



SECTION E-E



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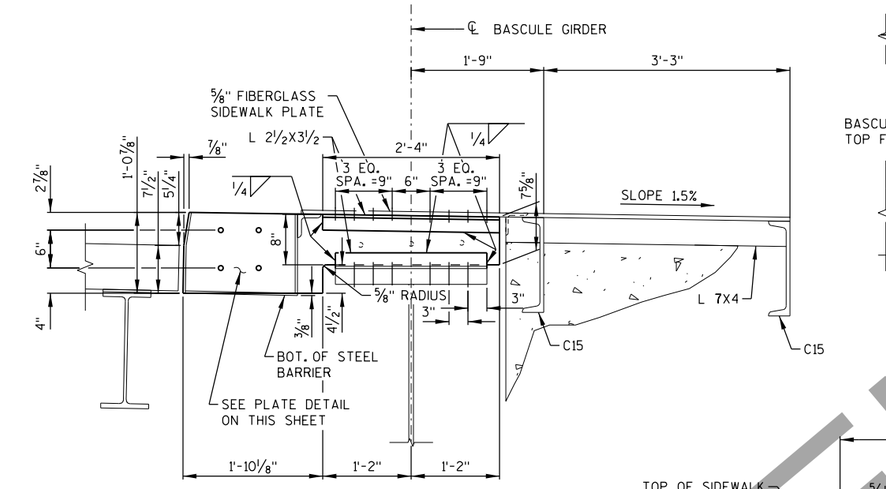
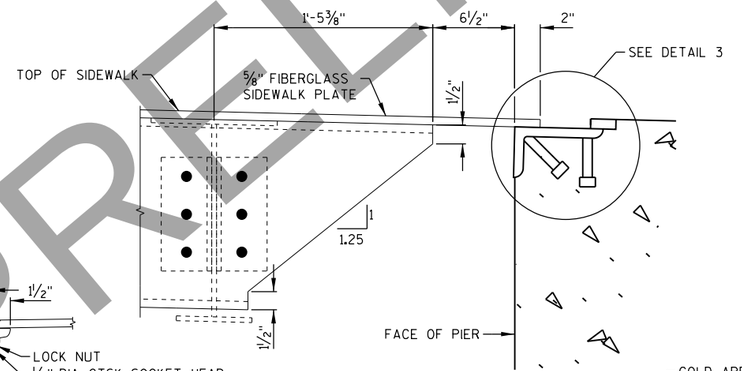


SECTION C-C



SECTION F-F

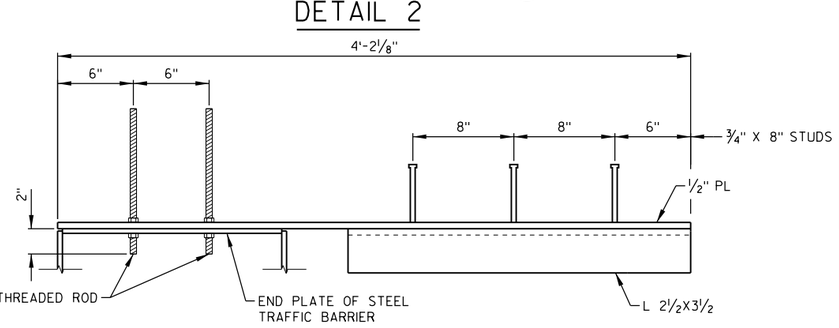
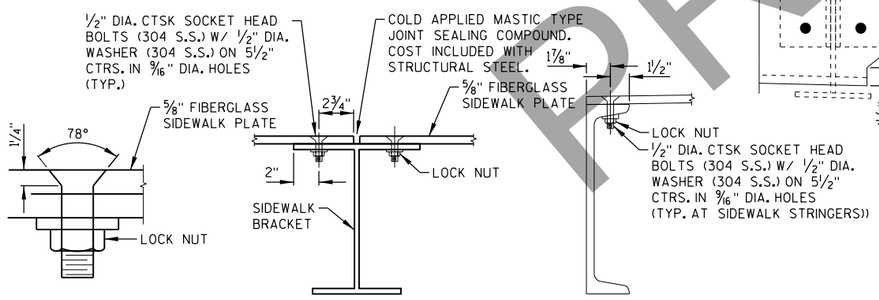
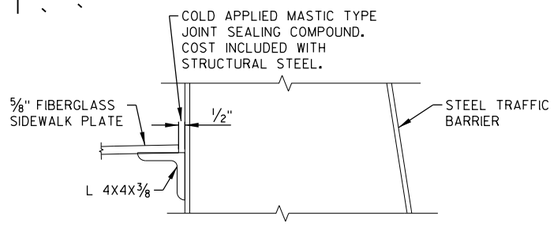


PLATE DETAIL



COUNTERSUNK BOLT CONNECTION DETAILS

NOTE: (S.S. DENOTES STAINLESS STEEL)



DETAIL 4

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

SIDEWALK BREAK SECTIONS AND DETAILS

DRAWING S56

PRE_252

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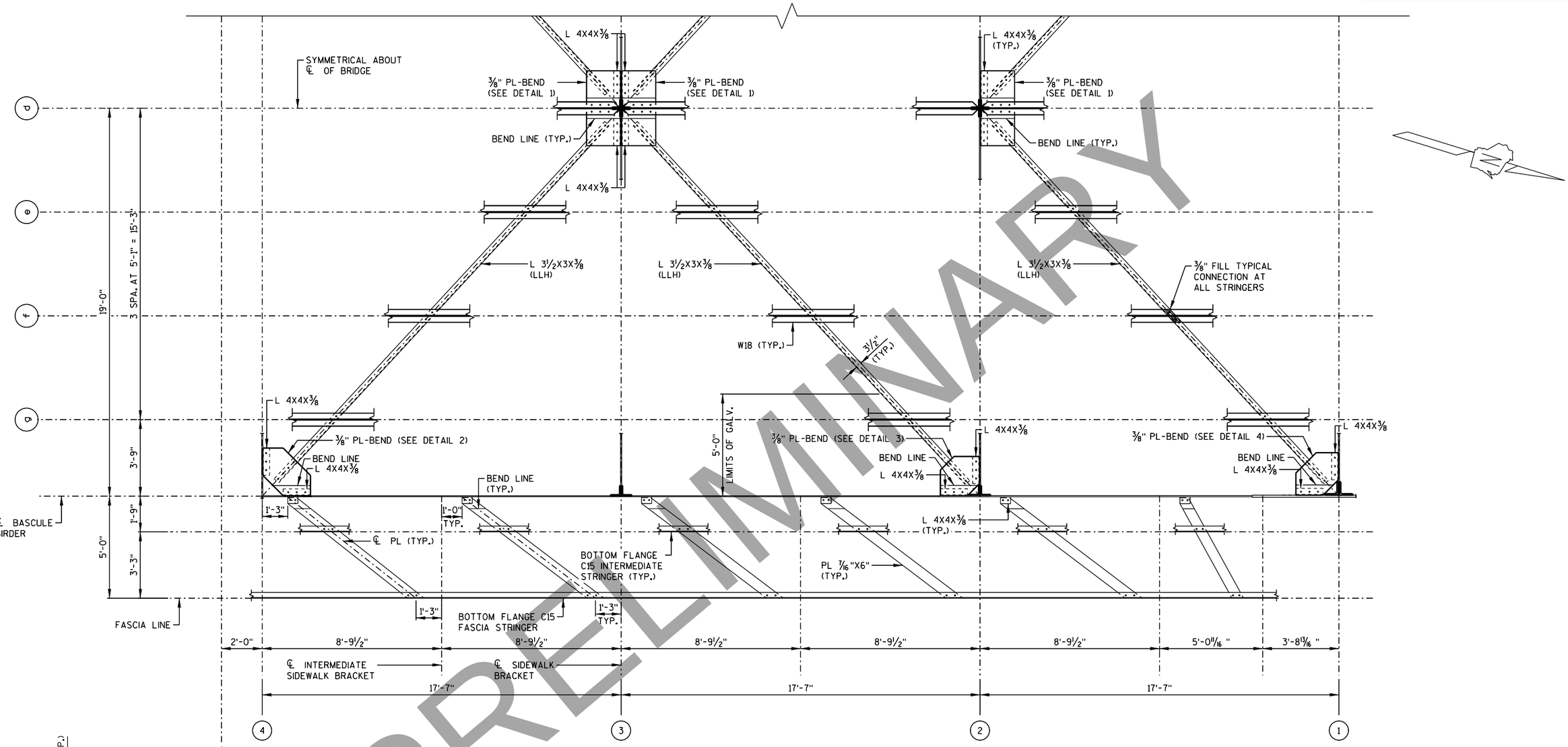
BATCH PRINT SHEET 30 OF 56

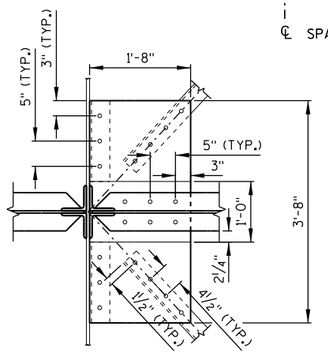
PRELIMINARY
3/2/2020

STATE PROJECT NUMBER

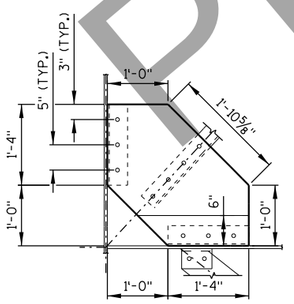
4992-03-71



PLAN



DETAIL 1



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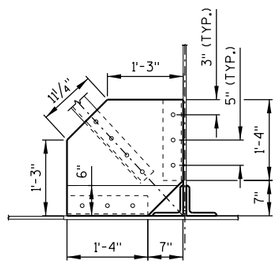
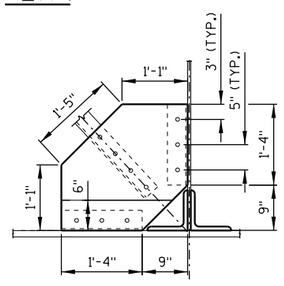


DETAIL 3



DETAIL 4

NOTES:

1. DRILL HOLES IN ROADWAY LATERALS AND BOTTOM FLANGES OF STRINGERS IN PANEL 3-4 IN THE FIELD AFTER THE MOVABLE LEAVES HAVE BEEN LOWERED AND PROPERLY ALIGNED.
2. BOLTS FOR LATERAL BRACING ANGLES IN PANELS 1-2, 2-3 & 3-4 ARE 7/8" DIA. BOLTS IN 1" ϕ HOLES.
3. GALVANIZE LATERAL BRACING STEEL WITHIN 5'-0" OF THE BASCULE GIRDER.
4. LLH = LONG LEG HORIZONTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

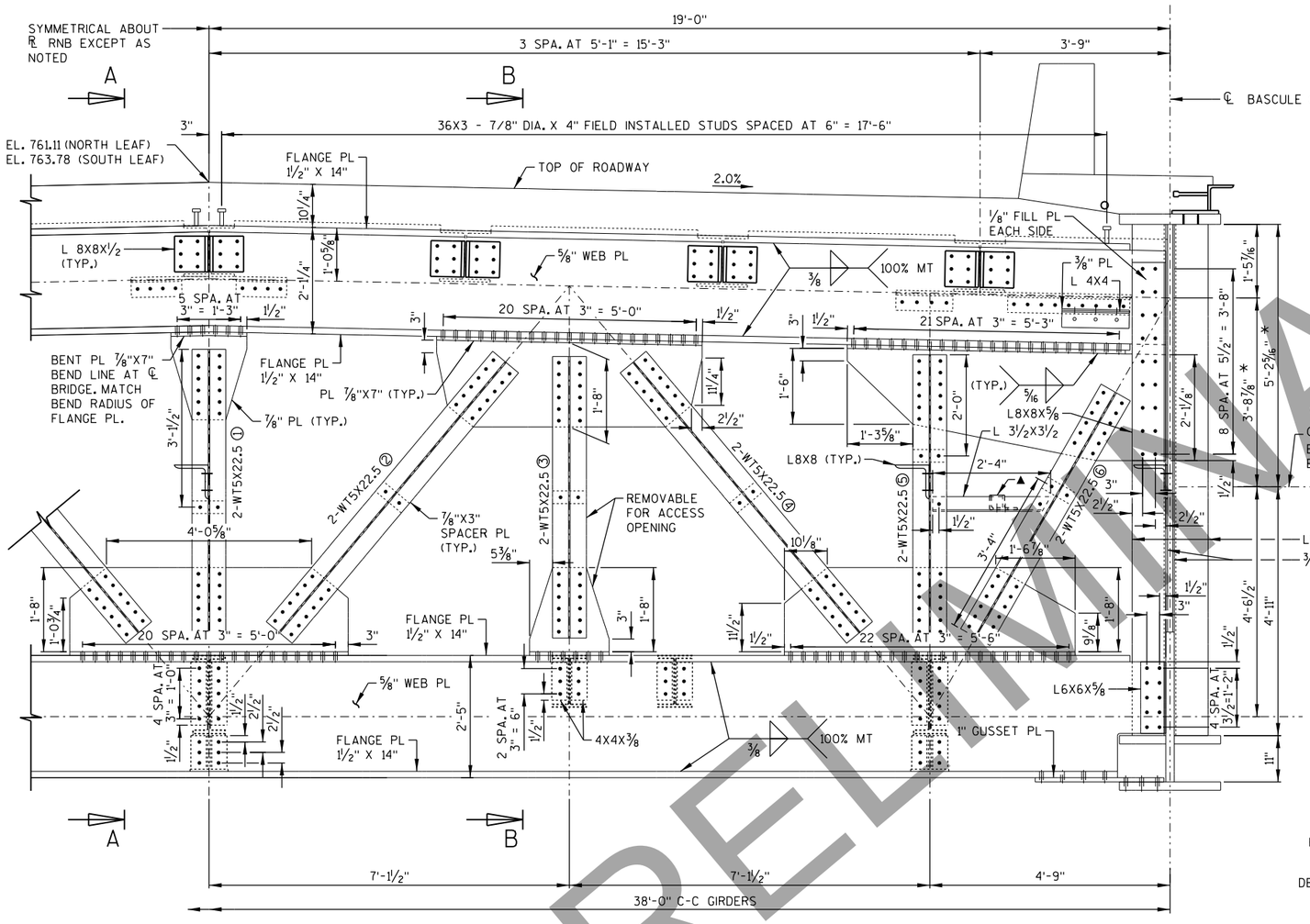
LATERAL BRACING PLAN

DRAWING S56

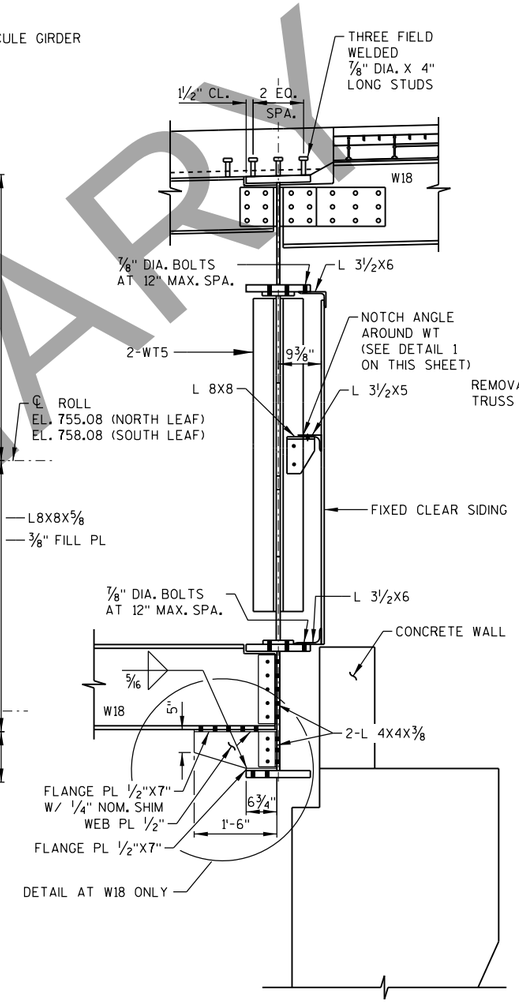
PRE_253

STATE PROJECT NUMBER

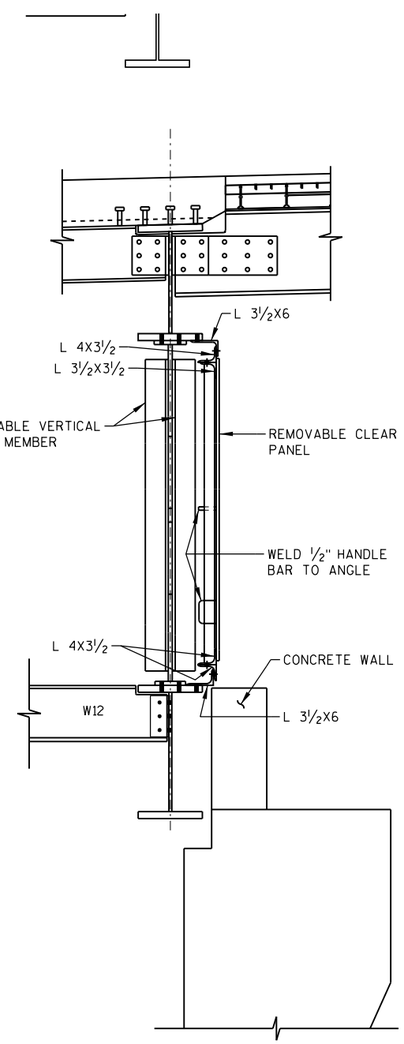
4992-03-71



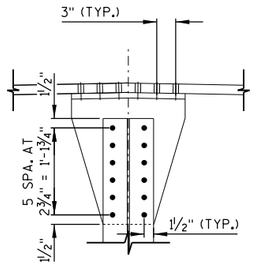
FLOOR BEAM TRUSS 1



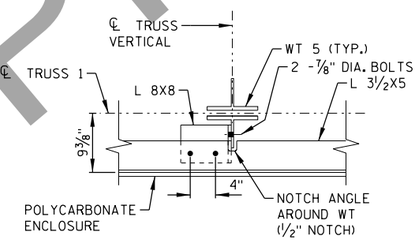
SECTION A-A



SECTION B-B



TYPICAL GUSSET CONNECTION



DETAIL 1

LEGEND

* DIMENSION SHOWN IS FOR THE NORTH LEAF, AND THE DIMENSION AT THE SOUTH LEAF IS 4" SHORTER.

① 5'-8½" (NORTH LEAF)
5'-4½" (SOUTH LEAF)

② 6'-11⅝" (NORTH LEAF)
6'-8⅝" (SOUTH LEAF)

③ 5'-6⅞" (NORTH LEAF)
5'-2⅞" (SOUTH LEAF)

④ 6'-11⅝" (NORTH LEAF)
6'-8⅝" (SOUTH LEAF)

⑤ 5'-7¼" (NORTH LEAF)
5'-3¼" (SOUTH LEAF)

⑥ 5'-7" (NORTH LEAF)
5'-3¼" (SOUTH LEAF)

▲ SEE SHEET "BASCULE ACCESS DOOR" FOR DETAILS.

NOTES:

1. DIMENSIONS AND ELEVATIONS SHOWN ARE AT THE ℄ OF THE FLOOR BEAM.
2. WT SPACER PL CONNECTED AT MIDPOINT OF WT SECTION, UNLESS SHOWN OTHERWISE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

FLOOR BEAM TRUSS 1

DRAWING PRE_254 S56

PRELIMINARY

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DRAFT 3/2/2020

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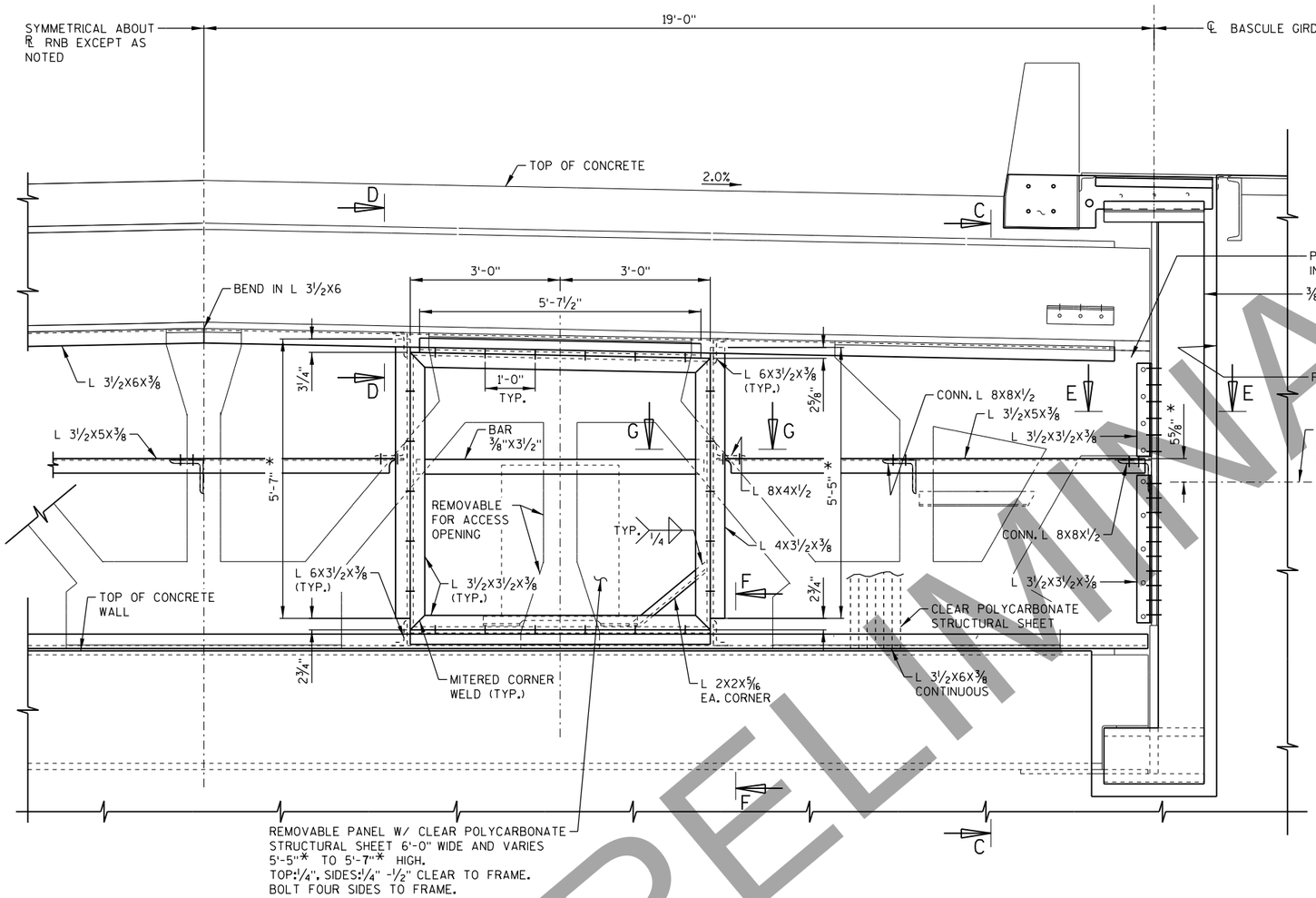
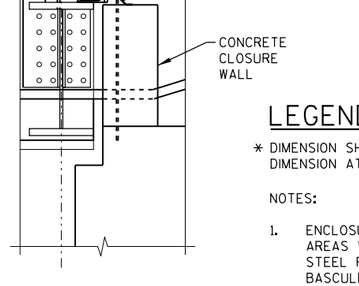
DRAFT
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71



MACHINERY ROOM ENCLOSURE FRAMING AT FLOOR BEAM TRUSS 1



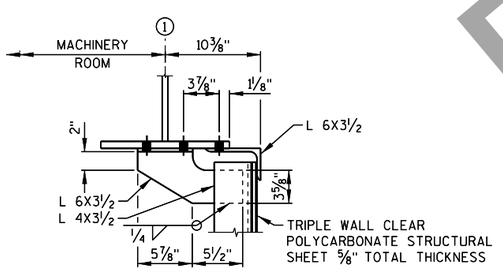
SECTION C-C

LEGEND

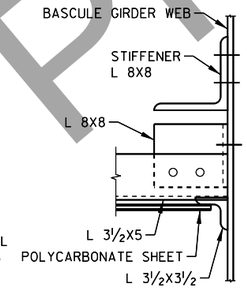
* DIMENSION SHOWN IS FOR THE NORTH LEAF, AND THE DIMENSION AT THE SOUTH LEAF IS 4" SHORTER.

NOTES:

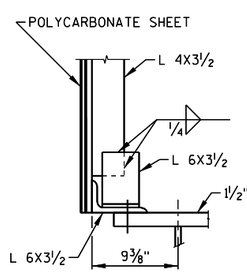
1. ENCLOSURE IS TO BE BIRDPROOF. SEAL OPEN AREAS WITH JOINT FILLER AND/OR STAINLESS STEEL FLASHING. NO WELDED CONNECTION TO BASCULE GIRDERS PERMITTED.
2. PROVIDE 20 GAGE STAINLESS STEEL FLASHING. PROVIDE A CONTINUOUS LINE OF CAULK ALONG THE TOP EDGE OF FLASHING.
3. INSTALL BOLT HEADS AND SEALING WASHERS ON EXTERIOR SIDE OF ENCLOSURE.
4. POLYCARBONATE SHEETING SHALL BE TRIPLE WALL POLYCARBONATE SHEETING ⅝" TOTAL THICKNESS.



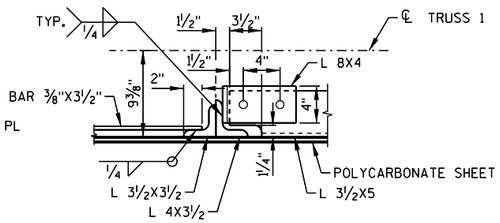
SECTION D-D



SECTION E-E



SECTION F-F



SECTION G-G

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

MACHINERY ROOM ENCLOSURE

DRAWING S56

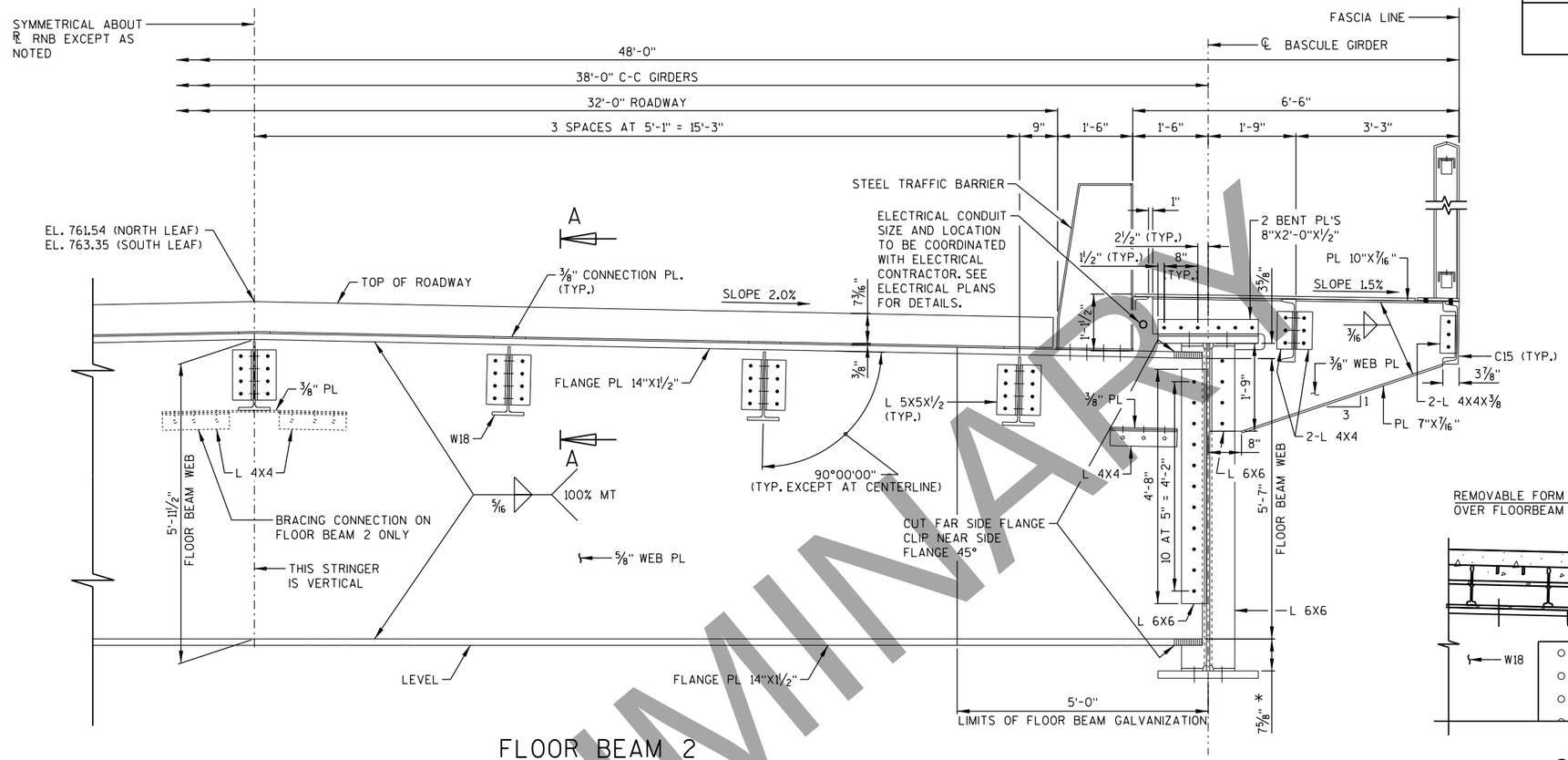
PRE_255

8

8

STATE PROJECT NUMBER

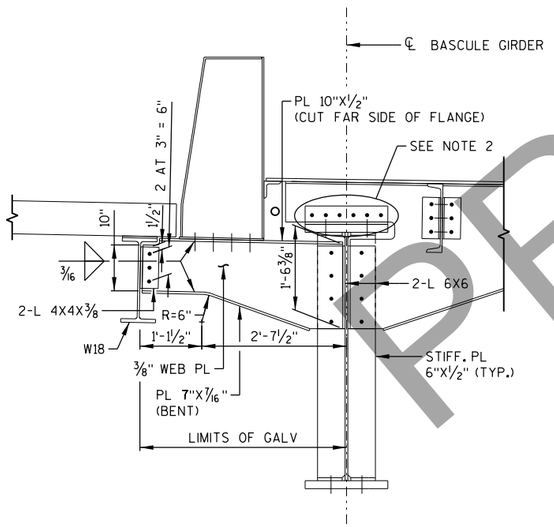
4992-03-71



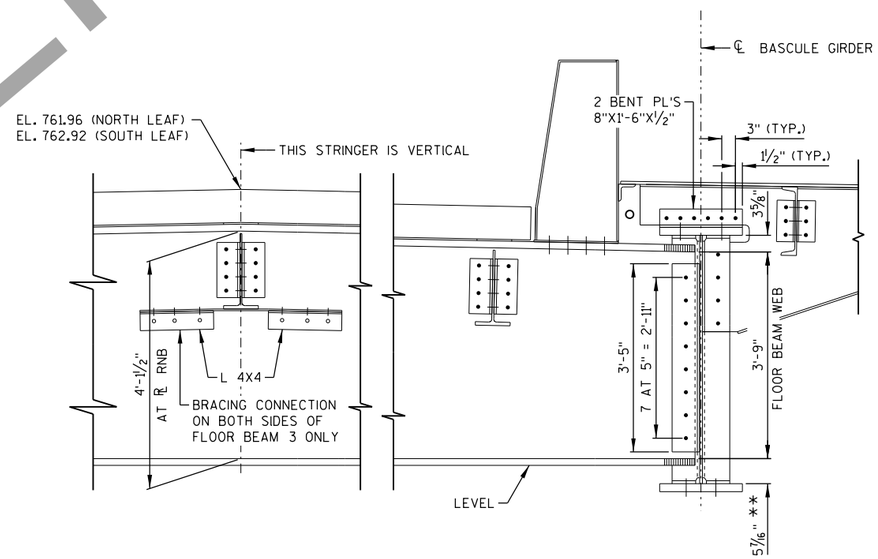
FLOOR BEAM 2

(DIMENSIONS AND ELEVATIONS SHOWN ARE AT THE ℄ OF THE FLOOR BEAM)

SECTION A-A



INTERMEDIATE SIDEWALK BRACKET CONNECTION



FLOOR BEAM 3

(SAME AS FLOOR BEAM 2 EXCEPT AS SHOWN)

LEGEND

* DIMENSION SHOWN IS FOR THE NORTH LEAF, AND THE DIMENSION AT THE SOUTH LEAF IS 2 5/8" SHORTER.

** DIMENSION SHOWN IS FOR THE NORTH LEAF, AND THE DIMENSION AT THE SOUTH LEAF IS 13/16 " SHORTER.

NOTES:

1. DIMENSIONS AND ELEVATIONS SHOWN ARE AT THE ℄ OF THE FLOOR BEAM.
2. SIDEWALK BRACKET CONNECTION BETWEEN FLOOR BEAMS 3 AND 4 MATCH THE SIDEWALK BRACKET CONNECTION AT FLOOR BEAM 4. SIDEWALK BRACKET CONNECTION BETWEEN FLOOR BEAMS 2 AND 3 MATCH THE SIDEWALK BRACKET CONNECTION AT FLOOR BEAM 3. SIDEWALK BRACKET CONNECTION BETWEEN FLOOR BEAMS 1 AND 2 MATCH THE SIDEWALK BRACKET CONNECTION AT FLOOR BEAM 2.
3. EXTERIOR 5'-0" OF FLOOR BEAM TO BE GALVANIZED.
4. INTERMEDIATE SIDEWALK BRACKET BETWEEN BASCULE GIRDER AND EXTERIOR STRINGER TO BE GALVANIZED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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BASCULE SPAN FLOOR BEAMS 2 & 3

DRAWING S56

PRE_256

PRELIMINARY
DRAFT COPY 4/20/2020

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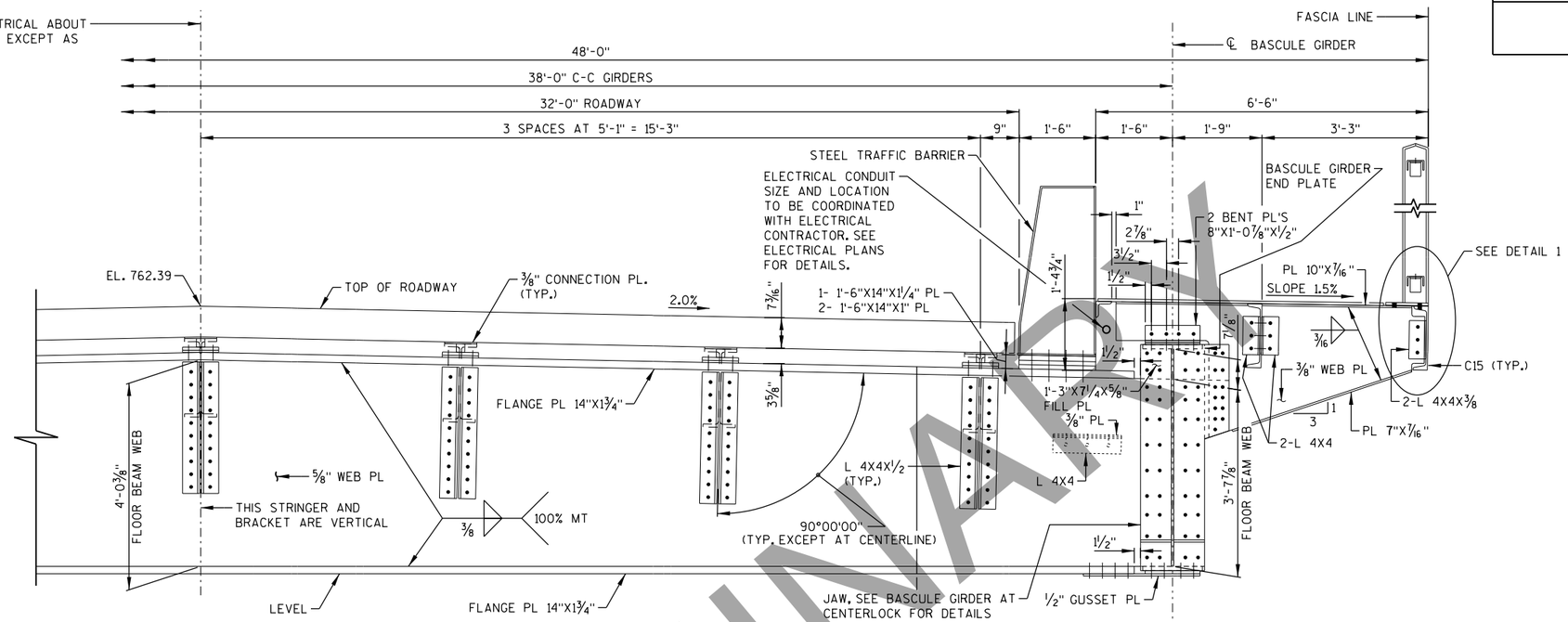
BATCH PRINT SHEET 34 OF 56

DRAFT 2020

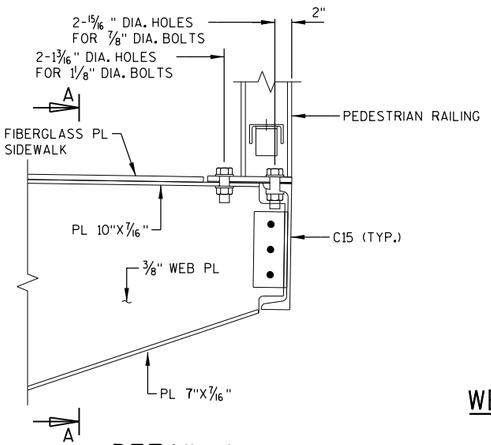
STATE PROJECT NUMBER

4992-03-71



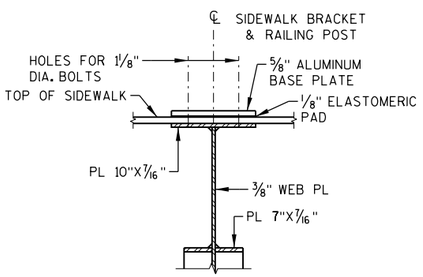
FLOOR BEAM 4 (JAW NORTH LEAF)

(LOOKING NORTH)

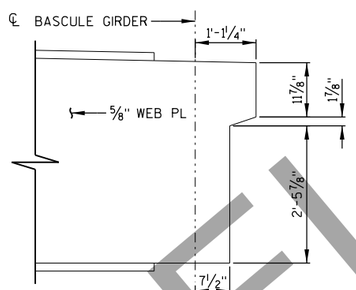


DETAIL 1

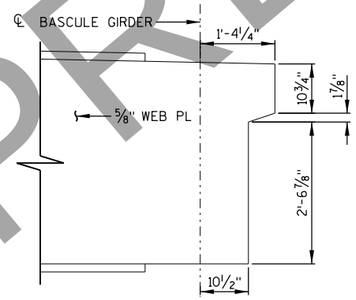
(SEE SHEET "PEDESTRIAN RAILING DETAILS" FOR POST MOUNTING DETAILS)



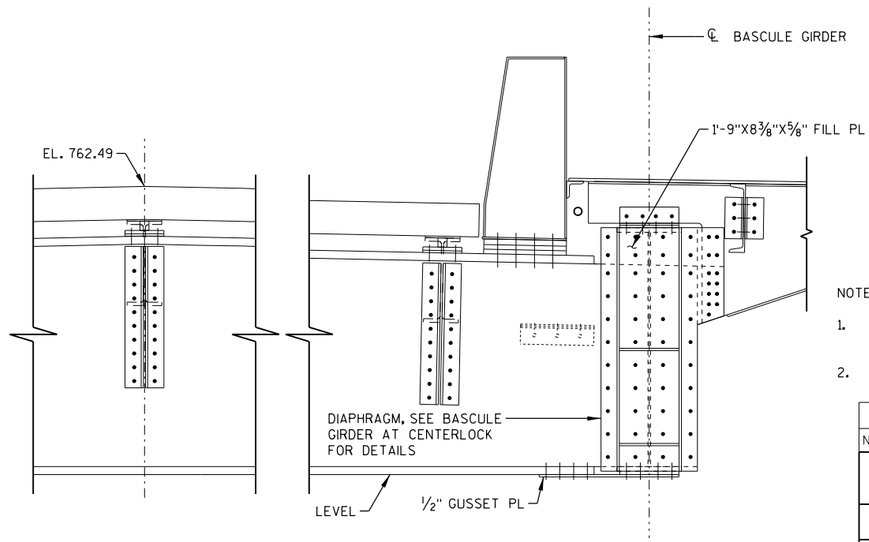
SECTION A-A



WEB END DETAIL (JAW NORTH LEAF)



WEB END DETAIL (DIAPHRAGM SOUTH LEAF)



FLOOR BEAM 4 (DIAPHRAGM SOUTH LEAF)

(LOOKING SOUTH)
(SAME AS JAW NORTH LEAF EXCEPT AS SHOWN)

NOTES:

1. DIMENSIONS AND ELEVATIONS SHOWN ARE AT THE ℄ OF THE FLOOR BEAM.
2. EXTERIOR 5'-0" OF FLOOR BEAM TO BE GALVANIZED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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FLOOR BEAM 4 — DRAWING S56

PRE_257

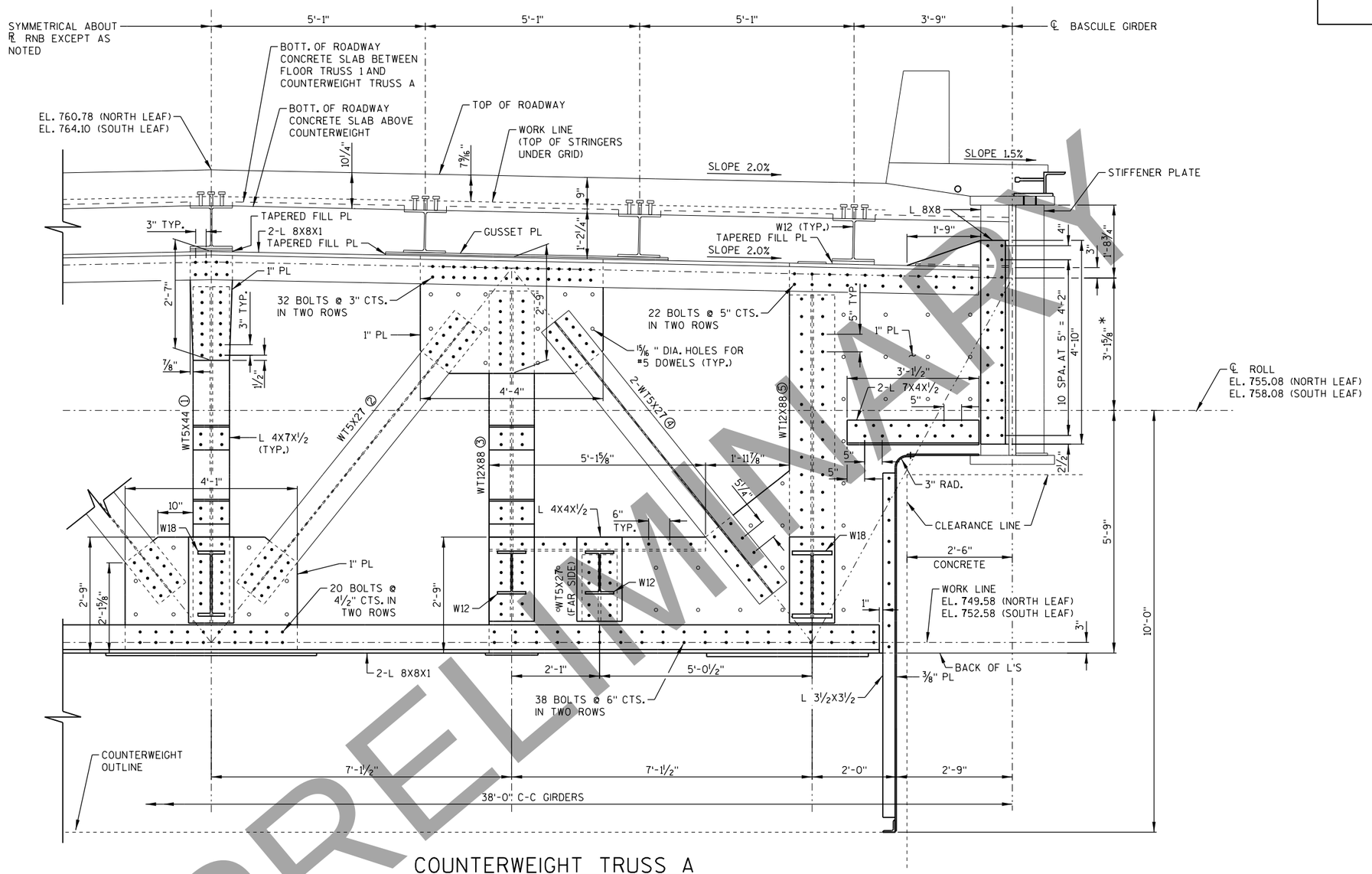
PRELIMINARY

8

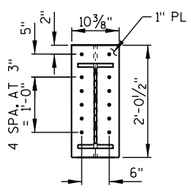
8

STATE PROJECT NUMBER

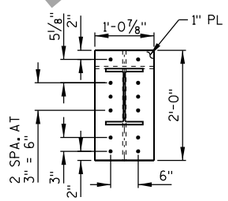
4992-03-71



COUNTERWEIGHT TRUSS A



TYPICAL W18 CONNECTION



TYPICAL W12 CONNECTION

LEGEND

* DIMENSION SHOWN IS FOR THE NORTH LEAF, AND THE DIMENSION AT THE SOUTH LEAF IS 3⅞" LONGER.

① 7'-11¾" (NORTH LEAF)
8'-3⅝" (SOUTH LEAF)

② 8'-3⅛" (NORTH LEAF)
8'-6⅛" (SOUTH LEAF)

③ 7'-10" (NORTH LEAF)
8'-1⅞" (SOUTH LEAF)

④ 8'-3⅛" (NORTH LEAF)
8'-6⅛" (SOUTH LEAF)

⑤ 7'-9⅜" (NORTH LEAF)
8'-1¼" (SOUTH LEAF)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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COUNTERWEIGHT TRUSS A

DRAWING S56

PRE_258

PRELIMINARY

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PLOT TIME: 10:02:20 AM
BATCH PRINT SHEET 35 OF 56
DRAWN 3/2/2020

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PLOT DATE: 3/2/2020
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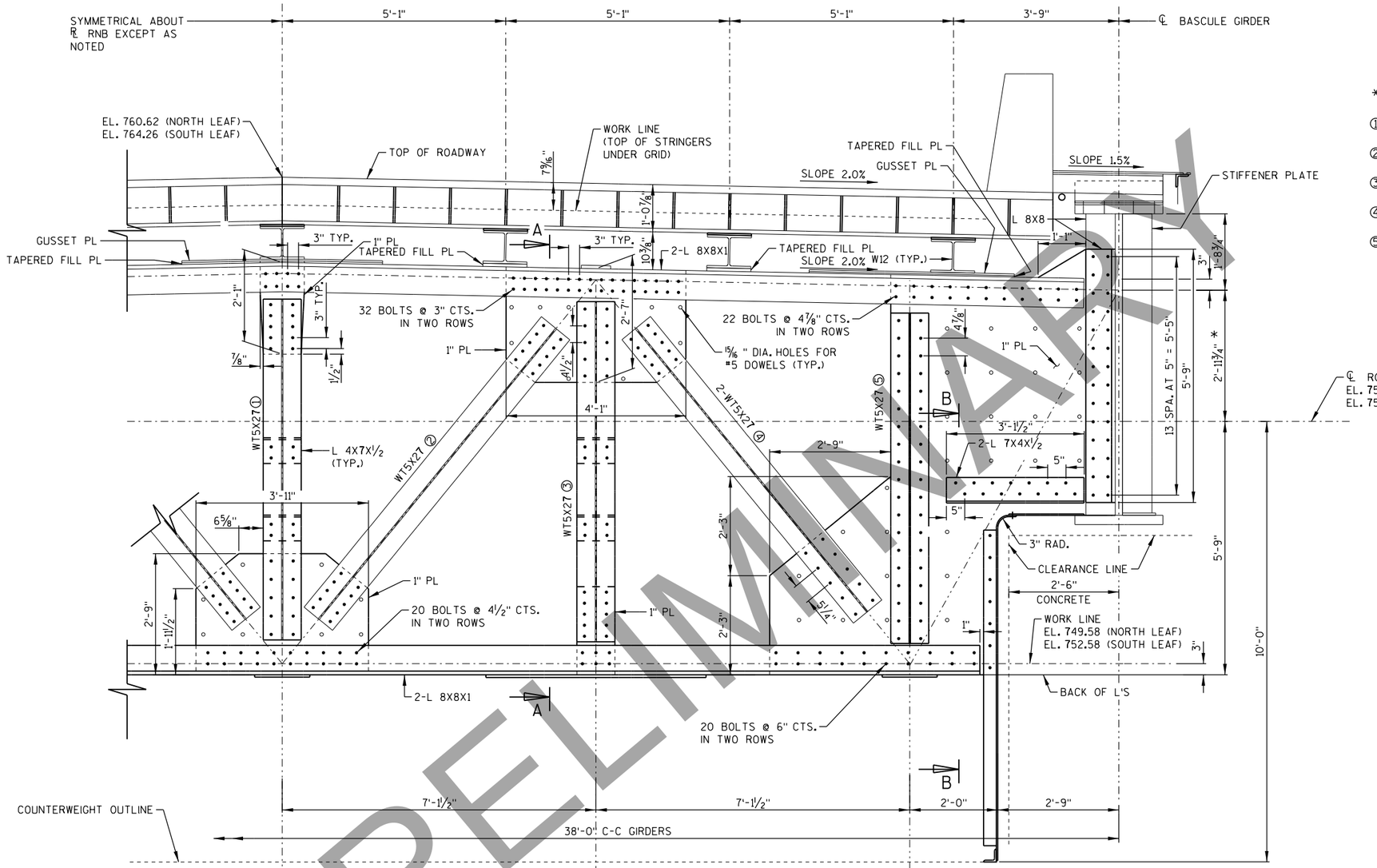
DRAFT 11/20/2020

STATE PROJECT NUMBER

4992-03-71



COUNTERWEIGHT TRUSS B

LEGEND

* DIMENSION SHOWN IS FOR THE NORTH LEAF, AND THE DIMENSION AT THE SOUTH LEAF IS 7⅝" LONGER.

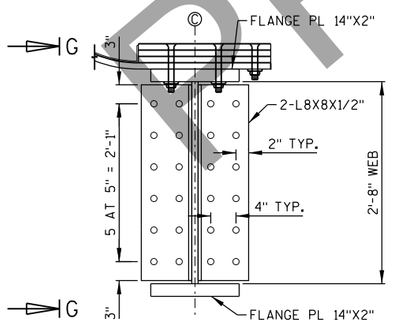
① 7'-8⅞" (NORTH LEAF)
8'-4½" (SOUTH LEAF)

② 8'-6¼" (NORTH LEAF)
9'-0¼" (SOUTH LEAF)

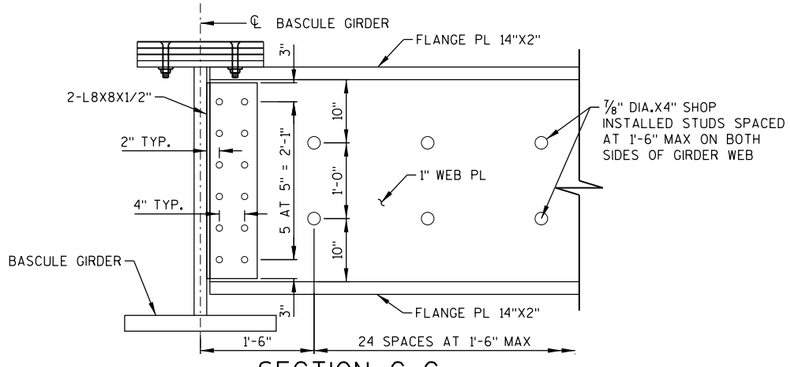
③ 7'-8⅝" (NORTH LEAF)
8'-4¼" (SOUTH LEAF)

④ 8'-3¾" (NORTH LEAF)
8'-9½" (SOUTH LEAF)

⑤ 7'-6" (NORTH LEAF)
8'-1⅝" (SOUTH LEAF)



SECTION OF GIRDER C AT BASCULE GIRDER



SECTION G-G

SEE SHEET "COUNTERWEIGHT CROSS FRAMES & END PLATES" FOR SECTIONS A-A & B-B.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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COUNTERWEIGHT TRUSS B & GIRDER C

DRAWING S36 OF

PRE_259

PRELIMINARY

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BATCH PRINT SHEET 37 OF 56

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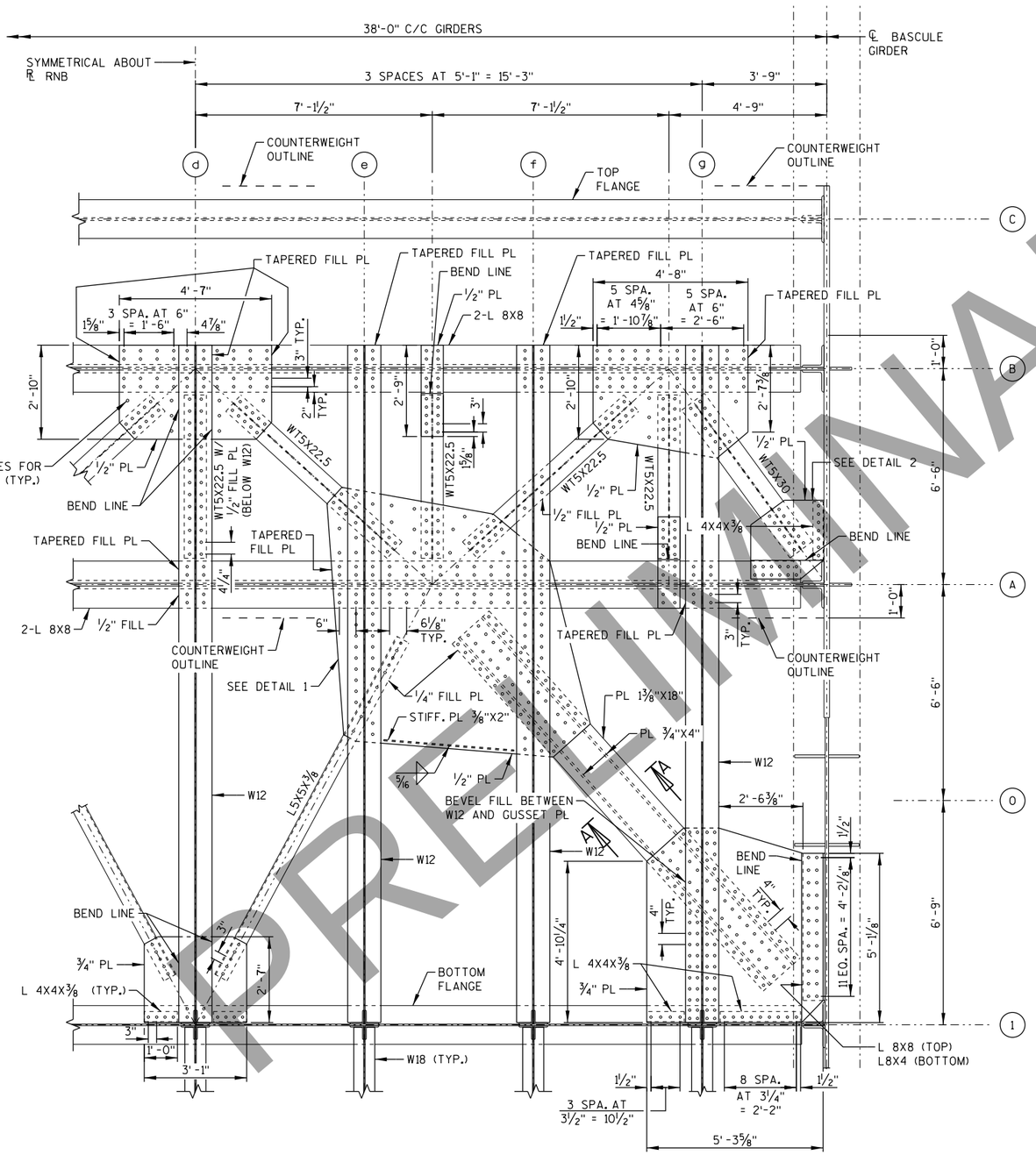
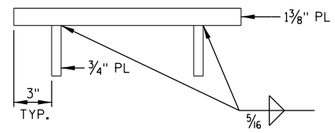
PRELIMINARY

STATE PROJECT NUMBER

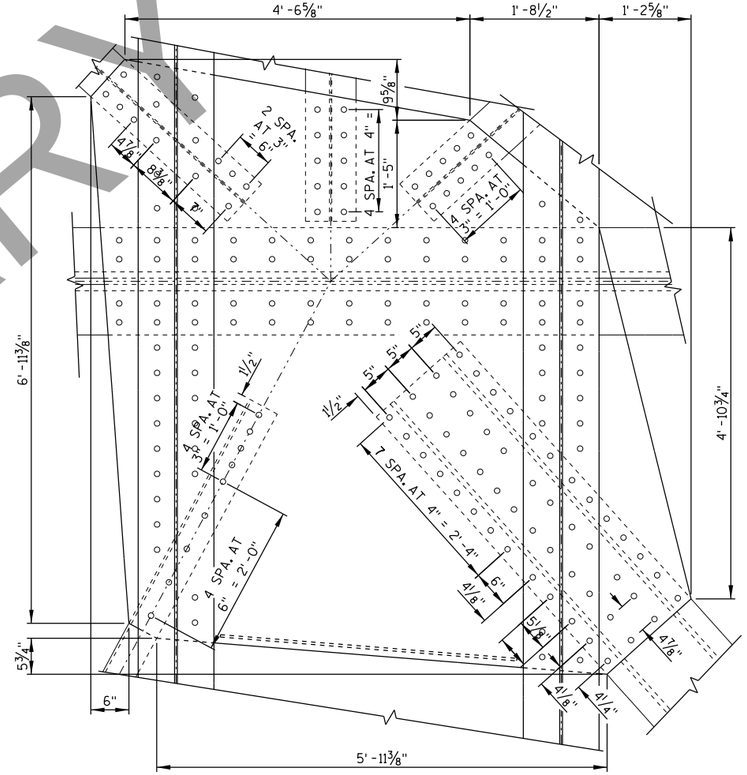
4992-03-71



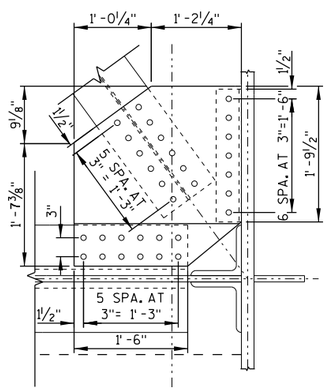
PLAN - TOP COUNTERWEIGHT TRUSS



SECTION A-A



DETAIL 1



DETAIL 2

NOTE
WHERE DOWELS THRU GUSSET PLATE INTERFERE WITH COUNTERWEIGHT POCKETS AT TOP BETWEEN STRINGERS, EXTEND THE DOWELS ONLY IN BOTTOM SIDE OF GUSSET PLATE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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TOP COUNTERWEIGHT TRUSS

DRAWING S37 OF S56

PRE_260

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8

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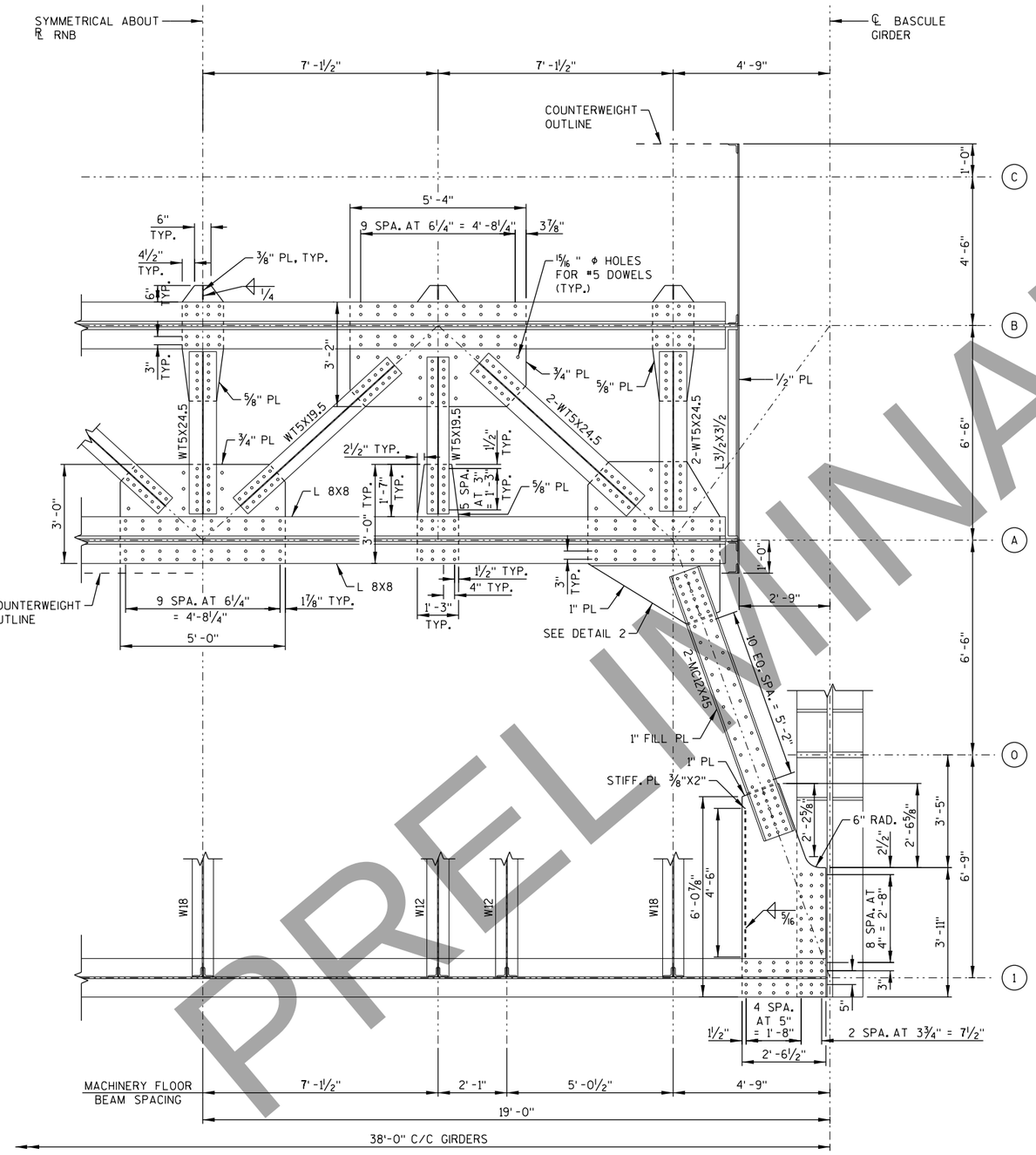
PLOT DATE: 3/2/2020 PLOT TIME: 10:03:02 AM BATCH PRINT SHEET 38 OF 56

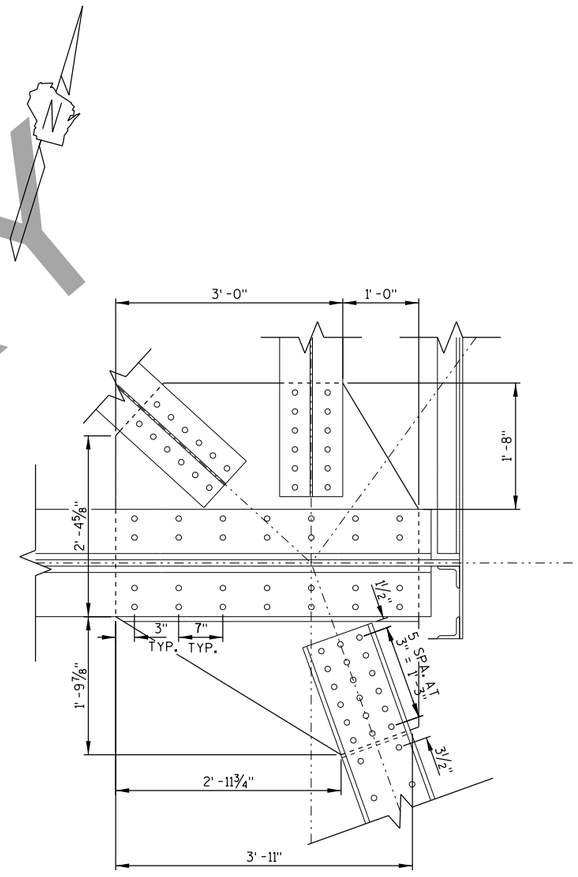
DRAFT 2020

STATE PROJECT NUMBER

4992-03-71



PLAN - BOTTOM COUNTERWEIGHT TRUSS



DETAIL 2

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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BOTTOM COUNTERWEIGHT TRUSS

DRAWING S56

PRE_261

8

8

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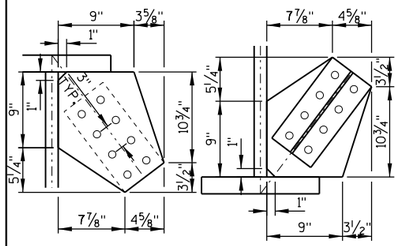
PLOT DATE: 3/2/2020
BATCH PRINT SHEET 39 OF 56
PLOT TIME: 10:03:16 AM

DRAFT
PRELIMINARY

STATE PROJECT NUMBER

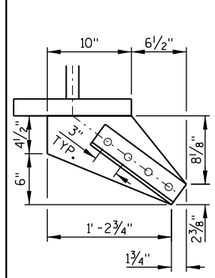
4992-03-71

NOTE 1:
OPTIONAL FIELD SPLICE LOCATIONS PROVIDED TO ALLOW FORM PLATE PLACEMENT FLEXIBILITY. FIELD SPLICE TO BE COMPLETE JOINT PENETRATION FIELD WELD. FABRICATOR SHALL COORDINATE WITH STEEL ERECTOR TO DETERMINE EXACT SPLICE LOCATIONS PRIOR TO FABRICATION. WELD LOCATIONS SHALL BE PROVIDED ON SHOP DRAWINGS TO BE APPROVED BY ENGINEER. PLATES SHALL BE FABRICATED WITH A MAXIMUM OF 1/8" GAP PRIOR TO FIELD WELDING. SPLICE LOCATIONS SHALL RESULT IN A MAXIMUM OF 3 PIECES. AFTER WELDING, REPAIR THE SHOP APPLIED EPOXY PAINT SYSTEM PER SECTION 517.3.1.8.2 OF THE STANDARD SPECIFICATIONS. PAYMENT FOR FABRICATION OF SEPARATE PLATES AND FIELD WELDING OF SPLICE INCLUDED WITH BID ITEM "STRUCTURAL STEEL BRIDGE".



DETAIL 8

DETAIL 9



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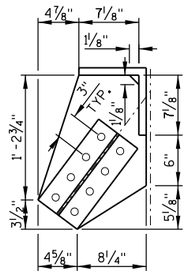

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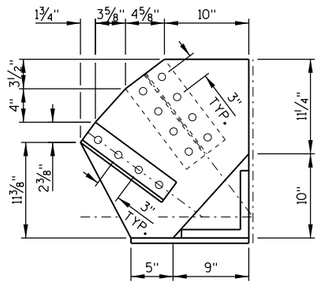
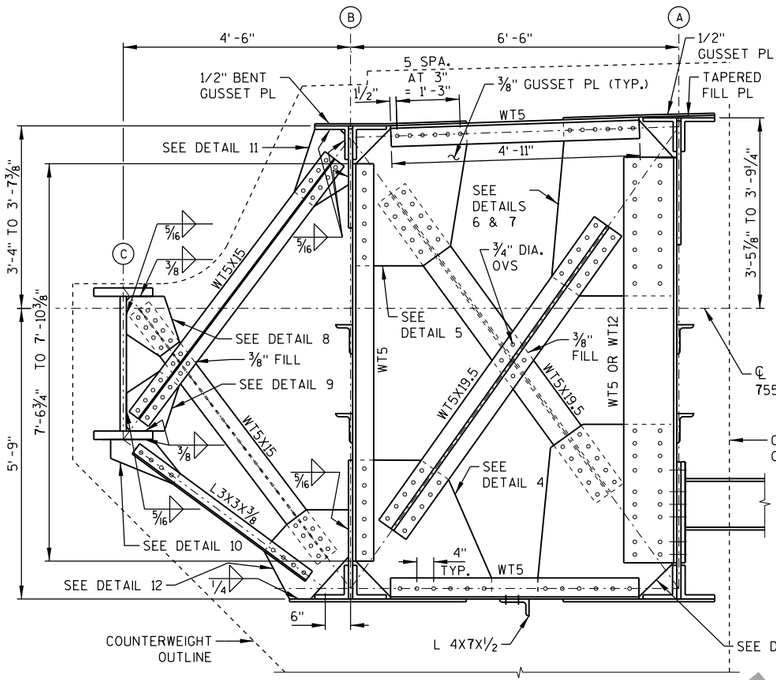


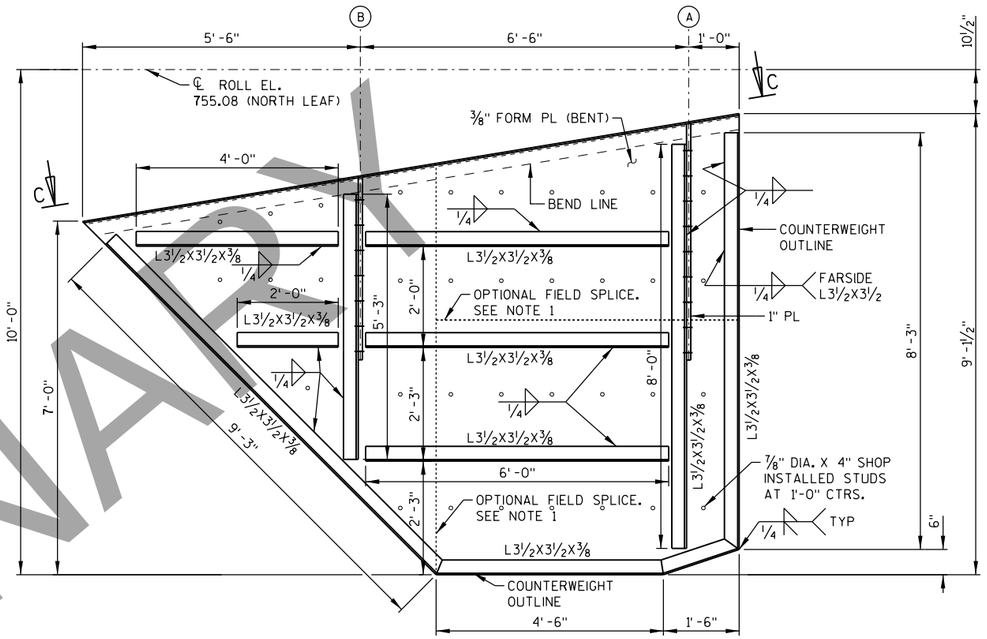
DETAIL 12



SECTION A-A

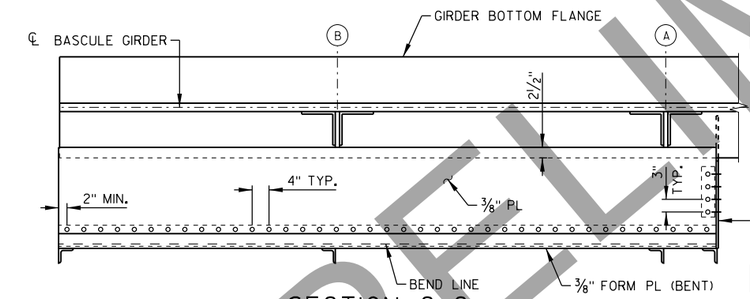
(TYPICAL CROSS-FRAME)

NOTE 1:
OPTIONAL FIELD SPLICE LOCATIONS PROVIDED TO ALLOW FORM PLATE PLACEMENT FLEXIBILITY. FIELD SPLICE TO BE COMPLETE JOINT PENETRATION FIELD WELD. FABRICATOR SHALL COORDINATE WITH STEEL ERECTOR TO DETERMINE EXACT SPLICE LOCATIONS PRIOR TO FABRICATION. WELD LOCATIONS SHALL BE PROVIDED ON SHOP DRAWINGS TO BE APPROVED BY ENGINEER. PLATES SHALL BE FABRICATED WITH A MAXIMUM OF 1/8" GAP PRIOR TO FIELD WELDING. SPLICE LOCATIONS SHALL RESULT IN A MAXIMUM OF 3 PIECES. AFTER WELDING, REPAIR THE SHOP APPLIED EPOXY PAINT SYSTEM PER SECTION 517.3.1.8.2 OF THE STANDARD SPECIFICATIONS. PAYMENT FOR FABRICATION OF SEPARATE PLATES AND FIELD WELDING OF SPLICE INCLUDED WITH BID ITEM "STRUCTURAL STEEL BRIDGE".

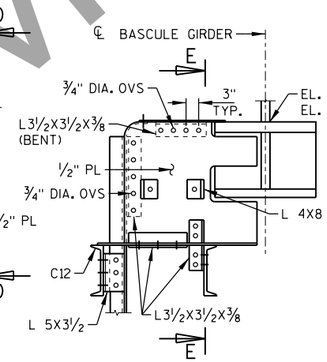


SECTION B-B

(END FORM PLATE)



SECTION C-C



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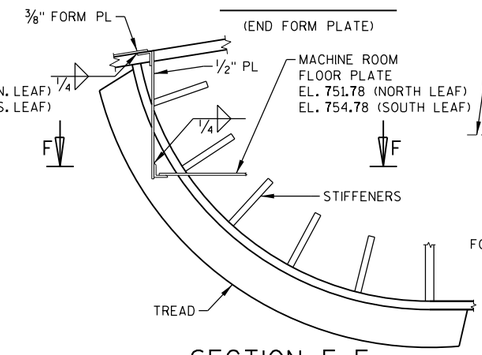

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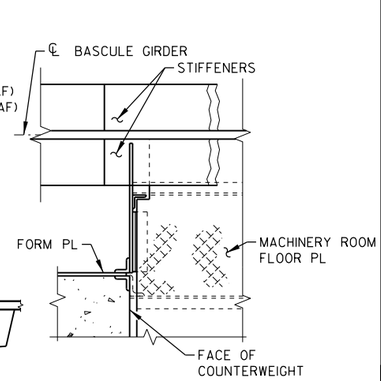

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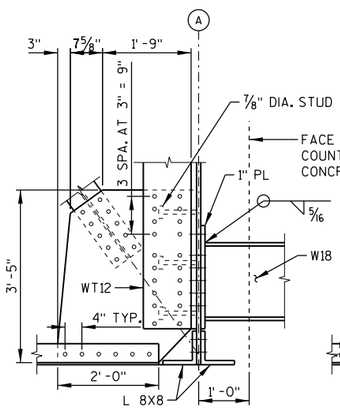
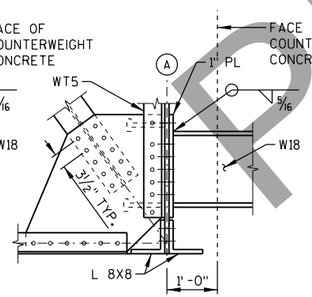


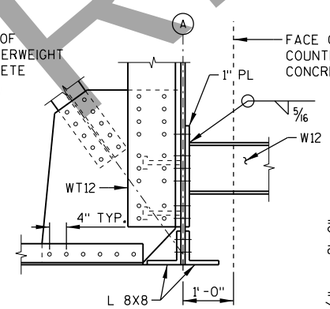
DETAIL 1

(W18 TO W12 CONNECTION)



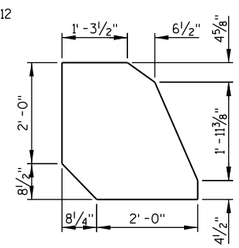
DETAIL 2

(W18 TO W5 CONNECTION)



DETAIL 3

(W12 TO W12 CONNECTION)
(SEE DETAIL 1 FOR INFORMATION NOT SHOWN)



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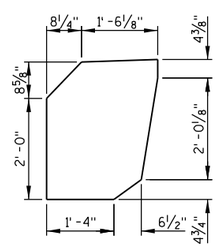

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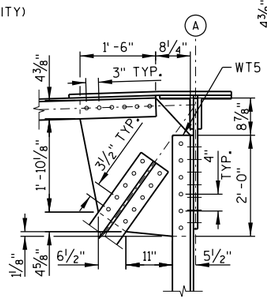

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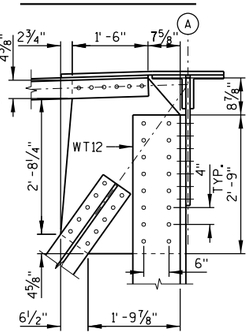

DETAIL 7

SEE SHEET "COUNTERWEIGHT TRUSS B" FOR LOCATIONS OF SECTIONS A-A & B-B.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

NORTH LEAF CTWT. CROSS FRAMES & END PLATES

DRAWING S56

PRE_262

8

8

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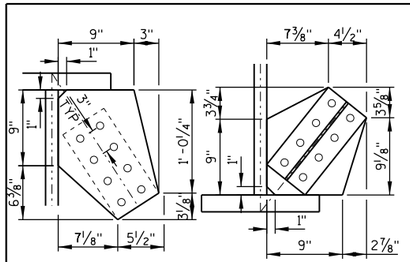
PLOT TIME: 10:03:29 AM
BATCH PRINT SHEET 40 OF 56

DRAFT 4/1/2020

STATE PROJECT NUMBER

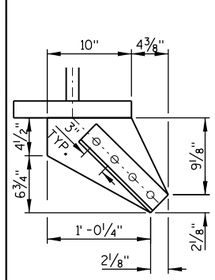
4992-03-71

NOTE 1:
OPTIONAL FIELD SPLICE LOCATIONS PROVIDED TO ALLOW FORM PLATE PLACEMENT FLEXIBILITY. FIELD SPLICE TO BE COMPLETE JOINT PENETRATION FIELD WELD. FABRICATOR SHALL COORDINATE WITH STEEL ERECTOR TO DETERMINE EXACT SPLICE LOCATIONS PRIOR TO FABRICATION. WELD LOCATIONS SHALL BE PROVIDED ON SHOP DRAWINGS TO BE APPROVED BY ENGINEER. PLATES SHALL BE FABRICATED WITH A MAXIMUM OF 1/8" GAP PRIOR TO FIELD WELDING. SPLICE LOCATIONS SHALL RESULT IN A MAXIMUM OF 3 PIECES. AFTER WELDING, REPAIR THE SHOP APPLIED EPOXY PAINT SYSTEM PER SECTION 517.3.1.8.2 OF THE STANDARD SPECIFICATIONS. PAYMENT FOR FABRICATION OF SEPARATE PLATES AND FIELD WELDING OF SPLICE INCLUDED WITH BID ITEM "STRUCTURAL STEEL BRIDGE".

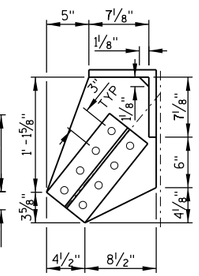


DETAIL 8

DETAIL 9



DETAIL 10



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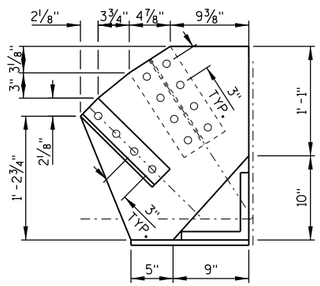

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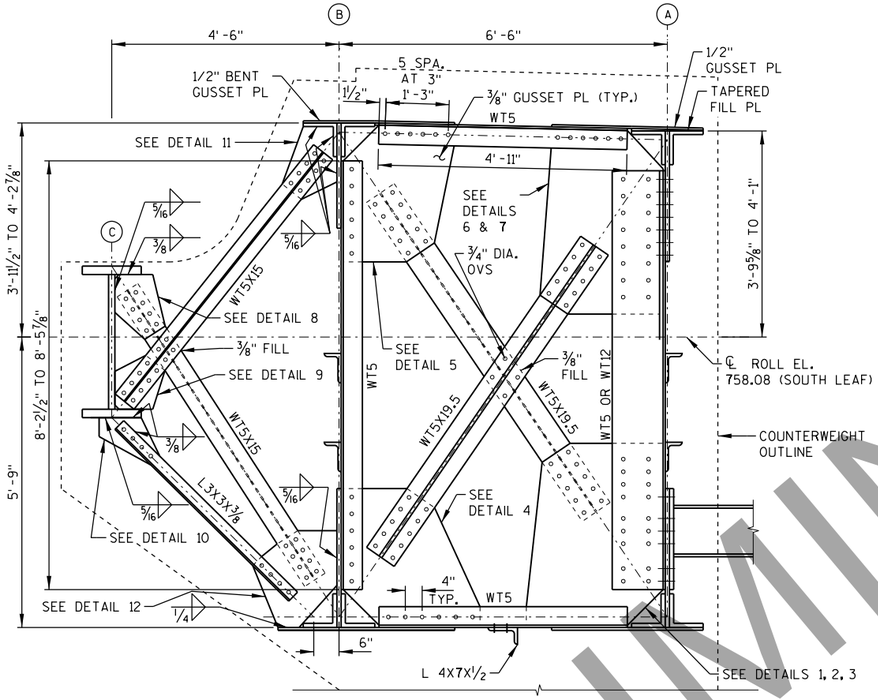
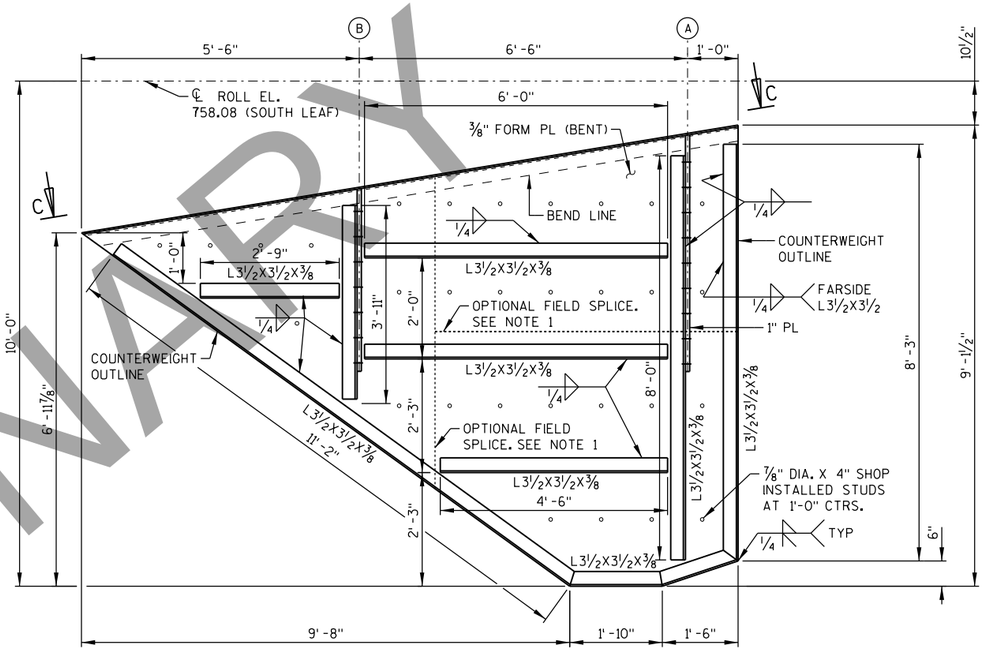


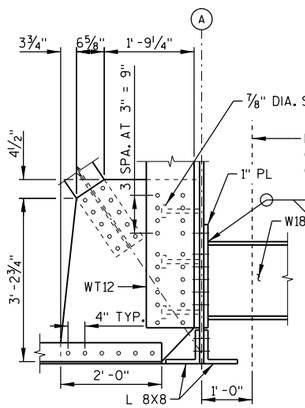
SECTION A-A

(TYPICAL CROSS-FRAME)



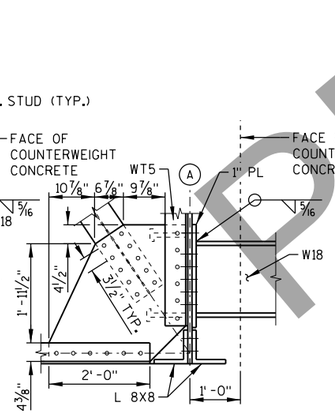
SECTION B-B

(END FORM PLATE)



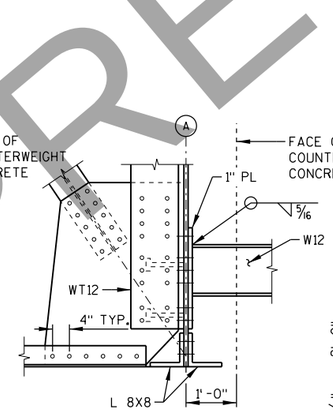
DETAIL 1

(W18 TO W12 CONNECTION)



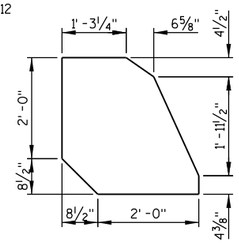
DETAIL 2

(W18 TO W5 CONNECTION)



DETAIL 3

(W12 TO W12 CONNECTION)
(SEE DETAIL 1 FOR INFORMATION NOT SHOWN)



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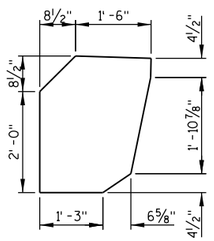

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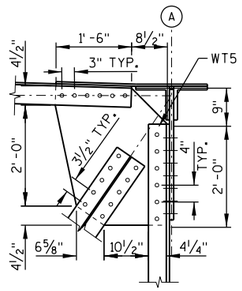

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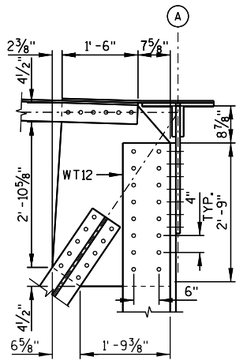

DETAIL 7

SEE SHEET "COUNTERWEIGHT TRUSS B" FOR LOCATIONS OF SECTIONS A-A & B-B.

SEE SHEET "NORTH LEAF CTWT. CROSS FRAMES & END PLATES" FOR SECTION C-C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

SOUTH LEAF CTWT. CROSS FRAMES & END PLATES

DRAWING S56

PRE_263

PRELIMINARY

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BATCH PRINT SHEET 41 OF 56
DRAFT 4/20/2020

STATE PROJECT NUMBER

4992-03-71

BASCULE SUPERSTRUCTURE REBARS

BAR MARK	COATED	NOS. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
LA0501A	X	76	35'-8"								35'-8"	2827	DECK OVER MACHINERY ROOM - TOP (TRANS.)
LA0502A	X	74	37'-6"								37'-6"	2894	DECK OVER MACHINERY ROOM - BOTTOM (TRANS.)
LA0603A	X	140	20'-3"								20'-3"	4274	DECK OVER MACHINERY ROOM - TOP (LONG.)
LA0404A	X	138	20'-3"								20'-3"	1873	DECK OVER MACHINERY ROOM - BOTTOM (LONG.)
LA0605A	X	4	20'-2"								20'-2"	121	DECK OVER MACHINERY ROOM - TOP (LONG.)
LA0406A	X	12	20'-2"								20'-2"	162	DECK OVER MACHINERY ROOM - BOTTOM (LONG.)
LA0507M	X	124	1'-2"	1'-2"	1'-6"	0'-10"					4'-7"	587	CONCRETE BARRIER (VERT.)
LA0408A	X	76	5'-5"								5'-5"	275	DECK OVER MACHINERY ROOM - TOP (TRANS.)
LA0409A	X	12	5'-7"								5'-7"	45	DECK OVER MACHINERY ROOM - BOTTOM (THRU REAR BREAK)
LA0610A	X	12	7'-0"								7'-0"	126	DECK OVER MACHINERY ROOM - TOP (THRU REAR BREAK)
LB0401A	X	40	20'-2"								20'-2"	539	SIDEWALK OVER MACHINERY ROOM - TOP (LONG.)
LB0402D	X	88	3'-3"	0'-5"	1'-8"						5'-2"	304	SIDEWALK OVER MACHINERY ROOM - TOP (TRANS.)
LB0503M	X	6	1'-2"	1'-2"	1'-6"	0'-10"					4'-7"	28	CONCRETE BARRIER
LB0504M	X	2	0'-9"	1'-2"	0'-10"	0'-10"					3'-6"	7	CONCRETE BARRIER - NORTH LEAF (VERT.)
LB0505M	X	6	1'-2"	1'-2"	1'-2"	0'-10"				X	4'-3"	26	CONCRETE BARRIER - SOUTH LEAF (VERT.)
LC0501Q	X	130	1'-5"	1'-4"	1'-5"						4'-2"	565	CONCRETE BARRIER (VERT.)
LC0502A	X	12	22'-6"							X	22'-7"	282	CONCRETE BARRIER - NORTH LEAF (LONGIT.)
LC0503A	X	12	21'-10"							X	21'-11"	274	CONCRETE BARRIER - SOUTH LEAF (LONGIT.)
LC0504Q	X	4	1'-0"	1'-4"	1'-0"					X	3'-4"	14	CONCRETE BARRIER - NORTH LEAF (VERT.)
LC0505Q	X	4	0'-8"	1'-4"	0'-8"					X	2'-8"	11	CONCRETE BARRIER - SOUTH LEAF (VERT.)
LD1001A	X	32	32'-0"								32'-0"	4406	NORTH COUNTERWEIGHT TRANSVERSE BOTTOM
LD0402V	X	35	3'-1"	1'-3"	1'-4"	0'-5"	1'-8"				6'-0"	140	N CTWT LONGITUDINAL BOTTOM FRONT
LD0403G	X	35	3'-1"	4'-1"	5'-9"						8'-10"	207	N CTWT LONGITUDINAL BOTTOM BACK
LD0404G	X	35	3'-3"	4'-1"	5'-9"						9'-0"	210	N CTWT LONGITUDINAL BACK FACE
LD1005A	X	20	37'-6"								37'-6"	3227	N CTWT TRANSVERSE BACK FACE
LD0406R	X	39	0'-7"	2'-4"							6'-4"	165	N CTWT STIRRUP AT GIRDER C
LD0407G	X	39	3'-1"	1'-4"	1'-6"						4'-7"	119	N CTWT LONGITUDINAL BACK FACE
LD0408G	X	39	3'-1"	0'-10"	1'-10"						4'-10"	126	N CTWT LONGITUDINAL BACK FACE
LD0409A	X	24	4'-8"								4'-8"	75	N CTWT TRANSVERSE TOP
LD0410A	X	6	32'-0"								32'-0"	128	N CTWT TRANSVERSE BOTTOM FRONT
LD0411A	X	2	13'-10"								13'-10"	18	N CTWT TRANSVERSE FRONT FACE
LD0412A	X	6	1'-6"								1'-6"	6	N CTWT TRANSVERSE FRONT FACE
LD0413A	X	2	6'-9"								6'-9"	9	N CTWT TRANSVERSE FRONT FACE
LD0414A	X	2	4'-8"								4'-8"	6	N CTWT TRANSVERSE FRONT FACE
LD0415D	X	12	1'-8"	1'-6"	1'-8"						4'-8"	37	N CTWT STIRRUP AT POCKETS E & F
LD0416A	X	2	5'-2"								5'-2"	7	N CTWT TRANSVERSE FRONT FACE
LD0417A	X	2	5'-8"								5'-8"	8	N CTWT TRANSVERSE FRONT FACE
LD0418A	X	1	6'-10"								6'-10"	5	N CTWT TRANSVERSE FRONT FACE
LD0419A	X	1	7'-10"								7'-10"	5	N CTWT TRANSVERSE FRONT FACE
LD0420A	X	4	37'-6"								37'-6"	100	N CTWT TRANSVERSE FRONT FACE
LD0421A	X	4	5'-6"								5'-6"	15	N CTWT TRANSVERSE FRONT FACE
LD0422A	X	4	6'-7"								6'-7"	18	N CTWT TRANSVERSE FRONT FACE
LD0423A	X	1	4'-3"								4'-3"	3	N CTWT VERTICAL FRONT FACE
LD0424A	X	1	6'-8"								6'-8"	4	N CTWT VERTICAL FRONT FACE
LD0425A	X	14	12'-9"								12'-9"	119	N CTWT VERTICAL FRONT FACE
LD0426A	X	16	9'-5"								9'-5"	101	N CTWT VERTICAL FRONT FACE
LD0427A	X	12	6'-5"								6'-5"	51	N CTWT VERTICAL FRONT FACE
LD0428A	X	24	4'-0"								4'-0"	64	N CTWT VERTICAL FRONT FACE
LD0429D	X	8	2'-11"	1'-6"	1'-8"						5'-11"	32	N CTWT STIRRUP AT POCKETS
LD0430B	X	12	7'-6"	1'-5"							8'-10"	71	N CTWT HORIZONTAL AT POCKETS

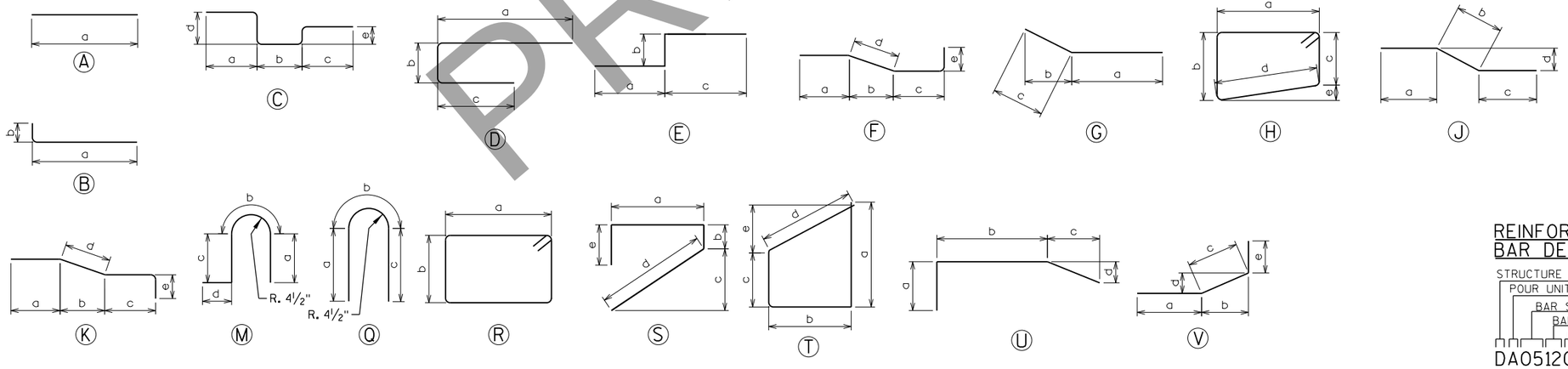
BASCULE SUPERSTRUCTURE REBARS (CONT'D)

BAR MARK	COATED	NOS. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
LD0431B	X	20	6'-0"	1'-8"							7'-7"	101	N CTWT HORIZONTAL AT POCKETS
LD0432A	X	32	6'-8"								6'-8"	143	N CTWT HORIZONTAL AT POCKETS
LD0433B	X	20	8'-0"	0'-8"							8'-7"	115	N CTWT VERTICAL AT POCKETS
LD0434D	X	48	2'-7"	5'-7"	2'-7"						10'-7"	339	N CTWT VERTICAL AT POCKETS
LD0435B	X	20	6'-0"	1'-0"							6'-11"	92	N CTWT HORIZONTAL AT POCKETS
LD0436B	X	4	7'-6"	2'-0"							9'-5"	25	N CTWT HORIZONTAL AT POCKETS
LD0437B	X	4	7'-6"	1'-8"							9'-1"	24	N CTWT HORIZONTAL AT POCKETS
LD0438B	X	56	7'-6"	0'-8"							8'-1"	302	N CTWT HORIZONTAL AT POCKETS
LD0439D	X	28	0'-8"	6'-4"	0'-8"						7'-6"	140	N CTWT HORIZONTAL AT POCKETS
LD0440D	X	28	0'-8"	4'-8"	0'-8"						5'-10"	109	N CTWT HORIZONTAL AT POCKETS
LD0441A	X	22	3'-3"								3'-3"	48	N CTWT HORIZONTAL TOP
LD0442B	X	40	2'-2"	0'-8"							2'-9"	73	N CTWT VERTICAL AT REAR BREAK
LD1043B	X	44	3'-8"	3'-8"							7'-3"	1373	N CTWT TRANSVERSE BOTTOM AT GIRDER
LD0444G	X	6	11'-2"	0'-3"	1'-8"						12'-9"	51	N CTWT LONGITUDINAL BOTTOM AT GIRDER
LD0445A	X	6	5'-0"								5'-0"	20	N CTWT VERTICAL FRONT FACE AT GIRDER
LD0446B	X	6	6'-10"	1'-8"							8'-5"	34	N CTWT LONGITUDINAL TOP AT GIRDER
LD0447D	X	48	2'-3"	5'-6"	2'-3"						9'-10"	315	N CTWT HORIZONTAL AT POCKETS
LD0448A	X	30	4'-8"								4'-8"	94	N CTWT TRANSVERSE AT POCKETS A, B & G
LD0449D	X	49	1'-9"	1'-5"	1'-9"						4'-9"	155	N CTWT STIRRUPS AT STRINGERS
LD0450A	X	28	6'-10"								6'-10"	128	N CTWT HORIZONTAL AT STRINGERS
LD0451D	X	8	2'-7"	1'-6"	1'-8"						5'-7"	30	N CTWT TRANSVERSE AT POCKETS C & D
LD0452D	X	448	0'-6"	0'-5"	0'-6"						1'-3"	374	N CTWT ADJUSTMENT BLOCK HANDLE
LD0453D	X	4	3'-9"	1'-6"	3'-9"						8'-10"	24	N CTWT STIRRUP AT W18
LD0654A	X	20	4'-6"								4'-6"	135	N CTWT HORIZONTAL AT W18
LD0555B	X	256	2'-4"	0'-10"							3'-1"	823	**
LD0456D	X	8	2'-10"	1'-6"	2'-10"						7'-0"	37	N CTWT STIRRUP AT W18

** CTWT DOWELS THROUGH GUSSET PLATES:
TRUSS A 90 BARS; TRUSS B 82 BARS;
TOP TRUSS 40 BARS; AND BOT. TRUSS 44 BARS
SEE COUNTERWEIGHT TRUSS SHEETS FOR LOCATIONS

BAR SERIES TABLE

BAR MARK	NO. REQUIRED	VARYING LEG	LEG LENGTH
LB0505M	2 SERIES OF 3	A & C	0'-10" TO 1'-6"
LC0502A	2 SERIES OF 3	A	21'-8" TO 23'-5"
LC0503A	4 SERIES OF 3	A	21'-1" TO 22'-9"
LC0504Q	2 SERIES OF 2	A & C	6" TO 1'-2"
LC0505Q	2 SERIES OF 2	A & C	4" TO 1'-0"



NOTES:

ALL BEND IN REINFORCING STEEL TO BE MADE ABOUT A PIN OF THE MINIMUM DIAMETER ALLOWED BY THE STANDARD SPECIFICATIONS.

TOLERANCES IN CUTTING AND BENDING BARS ARE AS ESTABLISHED IN MANUAL OF STANDARD PRACTICE OF THE REINFORCING STEEL INSTITUTE AND DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE.

REINFORCEMENT SHALL BE BUNDLED AND TAGGED AS TO THE LOCATION AS SHOWN ON THIS SHEET.

REINFORCEMENT BAR DESIGNATION

STRUCTURE UNIT DESIGNATOR
POUR UNIT DESIGNATOR
BAR SIZE
BAR SEQUENCE
BENT TYPE

DA0512C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

DECK OVER MACH. ROOM AND CTWT. BILL OF BARS - 1

DRAWING S56

PRE_264

PRELIMINARY

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PLOT DATE: 3/2/2020 PLOT TIME: 10:04:18 AM BATCH PRINT SHEET 42 OF 56
DRAFT 3/2/2020

STATE PROJECT NUMBER

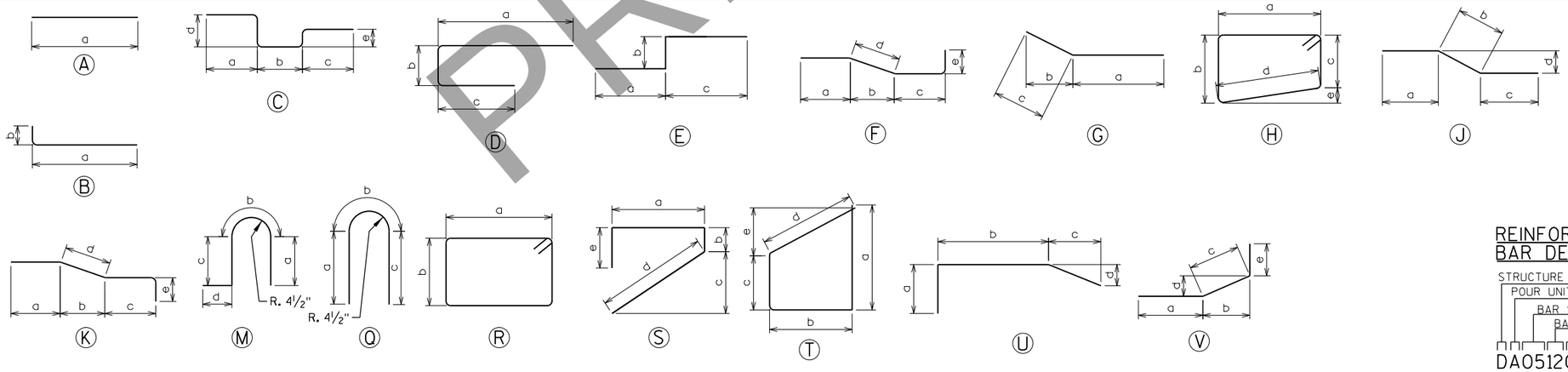
4992-03-71

BASCULE SUPERSTRUCTURE REBARS (CONT'D)

BAR MARK	COATED	NOS. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
LE1001A	X	31	32'-0"								32'-0"	4269	SOUTH COUNTERWEIGHT TRANSVERSE BOTTOM
LE0402V	X	35	1'-9"	1'-3"	1'-4"	0'-5"	1'-8"				4'-8"	109	S CTWT LONGITUDINAL BOTTOM FRONT
LE0403G	X	35	1'-9"	5'-5"	6'-9"						8'-6"	199	S CTWT LONGITUDINAL BOTTOM BACK
LE0404G	X	35	4'-2"	4'-0"	6'-9"						10'-11"	255	S CTWT LONGITUDINAL BACK FACE
LE1005A	X	22	37'-6"								37'-6"	3550	S CTWT TRANSVERSE BACK FACE
LE0406R	X	39	0'-7"	2'-4"							6'-4"	165	S CTWT STIRRUP AT GIRDER C
LE0407G	X	39	2'-9"	1'-4"	1'-6"						4'-3"	111	S CTWT LONGITUDINAL BACK FACE
LE0408G	X	39	2'-9"	0'-8"	1'-10"						4'-6"	117	S CTWT LONGITUDINAL BACK FACE
LE0409A	X	24	4'-8"								4'-8"	75	S CTWT TRANSVERSE TOP
LE0410A	X	6	32'-0"								32'-0"	128	S CTWT TRANSVERSE BOTTOM FRONT
LE0411A	X	2	13'-10"								13'-10"	18	S CTWT TRANSVERSE FRONT FACE
LE0412A	X	6	1'-6"								1'-6"	6	S CTWT TRANSVERSE FRONT FACE
LE0413A	X	2	6'-9"								6'-9"	9	S CTWT TRANSVERSE FRONT FACE
LE0414A	X	2	4'-8"								4'-8"	6	S CTWT TRANSVERSE FRONT FACE
LE0415D	X	12	1'-8"	1'-6"	1'-8"						4'-8"	37	S CTWT STIRRUP AT POCKETS E & F
LE0416A	X	2	5'-2"								5'-2"	7	S CTWT TRANSVERSE FRONT FACE
LE0417A	X	2	5'-8"								5'-8"	8	S CTWT TRANSVERSE FRONT FACE
LE0418A	X	1	6'-10"								6'-10"	5	S CTWT TRANSVERSE FRONT FACE
LE0419A	X	1	7'-10"								7'-10"	5	S CTWT TRANSVERSE FRONT FACE
LE0420A	X	4	37'-6"								37'-6"	100	S CTWT TRANSVERSE FRONT FACE
LE0421A	X	4	5'-6"								5'-6"	15	S CTWT TRANSVERSE FRONT FACE
LE0422A	X	4	6'-7"								6'-7"	18	S CTWT TRANSVERSE FRONT FACE
LE0423A	X	1	4'-3"								4'-3"	3	S CTWT VERTICAL FRONT FACE
LE0424A	X	1	6'-11"								6'-11"	5	S CTWT VERTICAL FRONT FACE
LE0425A	X	14	13'-0"								13'-0"	122	S CTWT VERTICAL FRONT FACE
LE0426A	X	16	9'-9"								9'-9"	104	S CTWT VERTICAL FRONT FACE
LE0427A	X	12	6'-5"								6'-5"	51	S CTWT VERTICAL FRONT FACE
LE0428A	X	24	4'-3"								4'-3"	68	S CTWT VERTICAL FRONT FACE
LE0429D	X	8	2'-11"	1'-6"	1'-8"						5'-11"	32	S CTWT STIRRUP AT POCKETS
LE0430B	X	12	7'-6"	1'-5"							8'-10"	71	S CTWT HORIZONTAL AT POCKETS
LE0431B	X	20	6'-0"	1'-8"							7'-7"	101	S CTWT HORIZONTAL AT POCKETS
LE0432A	X	32	6'-8"								6'-8"	143	S CTWT HORIZONTAL AT POCKETS
LE0433B	X	20	8'-4"	0'-8"							8'-11"	119	S CTWT VERTICAL AT POCKETS
LE0434D	X	48	2'-7"	5'-7"	2'-7"						10'-7"	339	S CTWT VERTICAL AT POCKETS
LE0435B	X	20	6'-0"	1'-0"							6'-11"	92	S CTWT HORIZONTAL AT POCKETS
LE0436B	X	4	7'-6"	2'-0"							9'-5"	25	S CTWT HORIZONTAL AT POCKETS
LE0437B	X	4	7'-6"	1'-8"							9'-1"	24	S CTWT HORIZONTAL AT POCKETS
LE0438B	X	56	7'-6"	1'-0"							8'-5"	315	S CTWT HORIZONTAL AT POCKETS
LE0439D	X	28	0'-8"	6'-4"	0'-8"						7'-6"	140	S CTWT HORIZONTAL AT POCKETS
LE0440D	X	28	0'-8"	4'-8"	0'-8"						5'-10"	109	S CTWT HORIZONTAL AT POCKETS
LE0441A	X	22	3'-3"								3'-3"	48	S CTWT HORIZONTAL TOP
LE0442B	X	40	2'-2"	0'-8"							2'-9"	73	S CTWT VERTICAL AT REAR BREAK
LE1043A	X	52	7'-4"								7'-4"	1641	S CTWT TRANSVERSE BOTTOM AT GIRDER
LE0444G	X	6	12'-10"	0'-3"	1'-8"						14'-5"	58	S CTWT LONGITUDINAL BOTTOM AT GIRDER
LE0445A	X	6	5'-3"								5'-3"	21	S CTWT VERTICAL FRONT FACE AT GIRDER
LE0446B	X	6	6'-10"	1'-8"							8'-5"	34	S CTWT LONGITUDINAL TOP AT GIRDER
LE0447D	X	48	2'-3"	5'-6"	2'-3"						9'-10"	315	S CTWT HORIZONTAL AT POCKETS
LE0448A	X	30	4'-8"								4'-8"	94	S CTWT TRANSVERSE AT POCKETS A, B & C
LE0449D	X	49	1'-9"	1'-5"	1'-9"						4'-9"	155	S CTWT STIRRUPS AT STRINGERS
LE0450A	X	28	6'-10"								6'-10"	128	S CTWT HORIZONTAL AT STRINGERS
LE0451D	X	8	2'-7"	1'-6"	1'-8"						5'-7"	30	S CTWT TRANSVERSE AT POCKETS C & D
LE0452D	X	448	0'-6"	0'-5"	0'-6"						1'-3"	374	S CTWT ADJUSTMENT BLOCK HANDLE
LE0453D	X	4	3'-9"	1'-6"	3'-9"						8'-10"	24	S CTWT STIRRUP AT W18
LE0654A	X	20	4'-6"								4'-6"	135	S CTWT HORIZONTAL AT W18
LE0555B	X	256	2'-4"	0'-10"							3'-1"	823	**
LE0456D	X	8	2'-10"	1'-6"	2'-10"						7'-0"	37	S CTWT STIRRUP AT W18
										TOTAL COATED BOTH LEAVES		44948	LBS.

** CTWT DOWELS THROUGH GUSSET PLATES:
TRUSS A 90 BARS; TRUSS B 82 BARS;
TOP TRUSS 40 BARS; AND BOT. TRUSS 44 BARS
SEE COUNTERWEIGHT TRUSS SHEETS FOR LOCATIONS

PRE-LIMINARY



NOTES:

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REINFORCEMENT BAR DESIGNATION

STRUCTURE UNIT DESIGNATOR
POUR UNIT DESIGNATOR
BAR SIZE
BAR SEQUENCE
BENT TYPE

DA0512C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

DECK OVER MACH. ROOM AND CTWT. BILL OF BARS - 2

DRAWING S56

PRE_265

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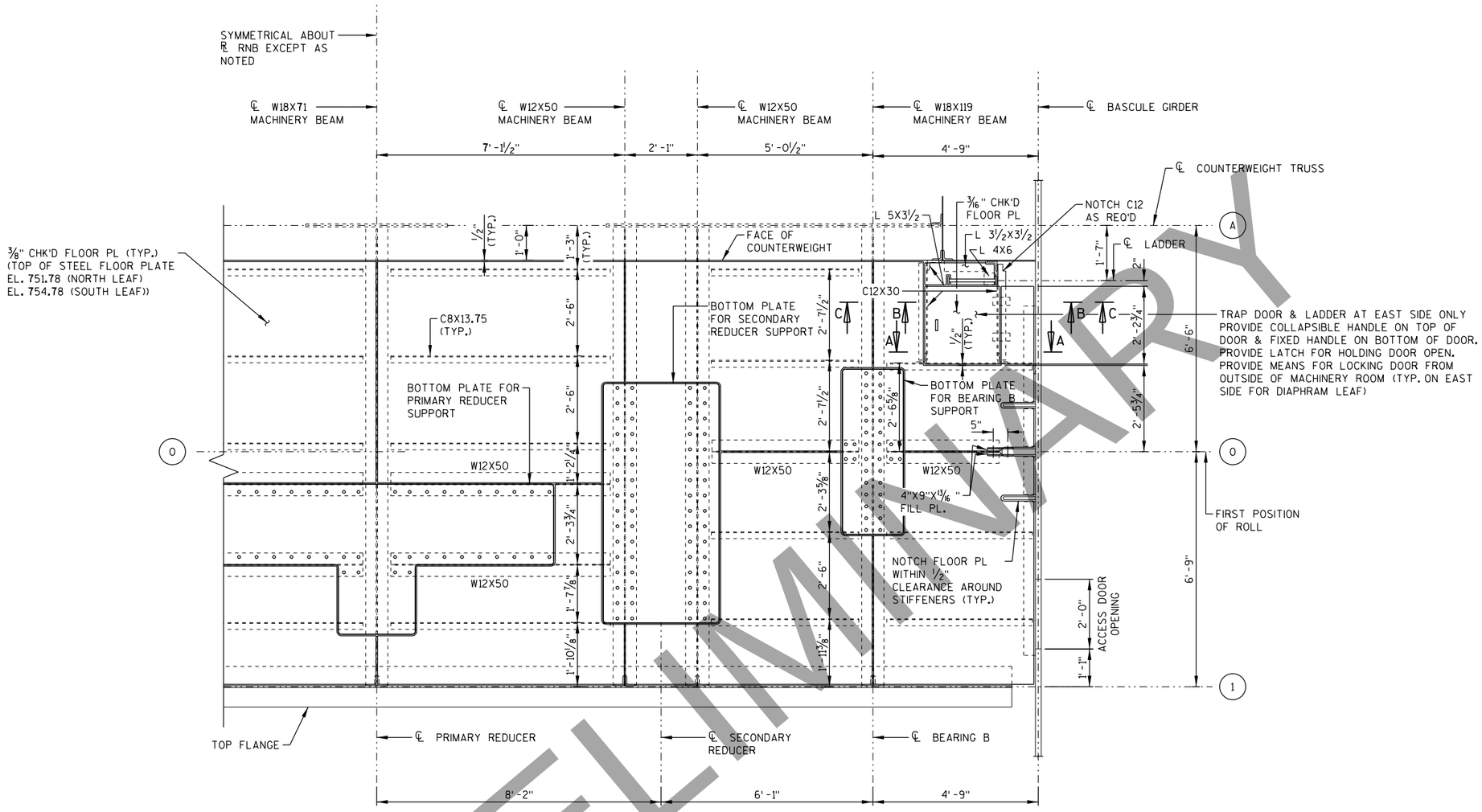
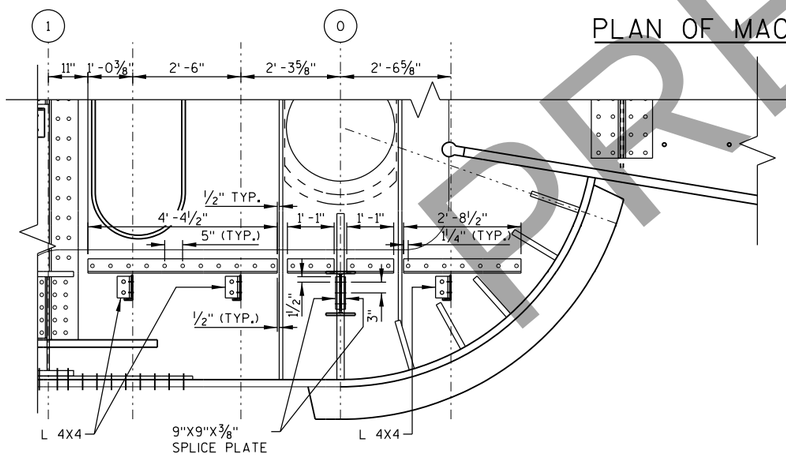
DRAFT 2020

STATE PROJECT NUMBER

4992-03-71



PLAN OF MACHINERY ROOM FLOOR



MACHINERY ROOM FRAMING CONNECTION TO BASCULE GIRDER

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

MACHINERY ROOM FLOOR FRAMING PLAN

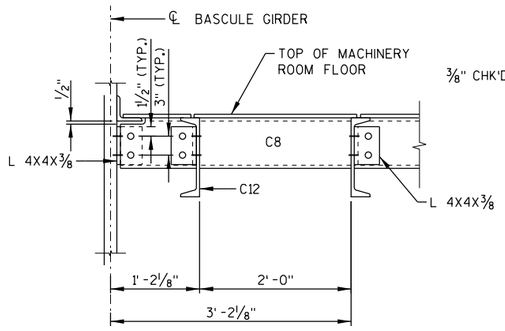
DRAWING S56

PRE_266

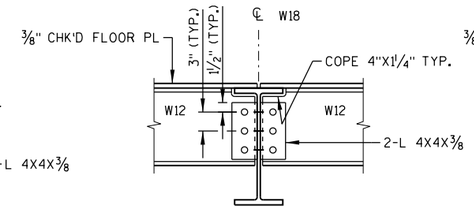
8

8

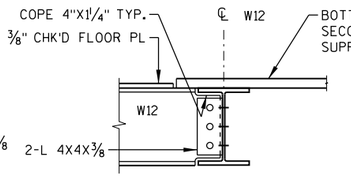
STATE PROJECT NUMBER
4992-03-71



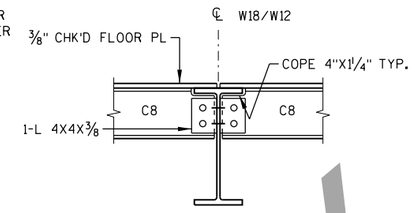
SECTION A-A



TYPICAL W12 TO W18 CONNECTION

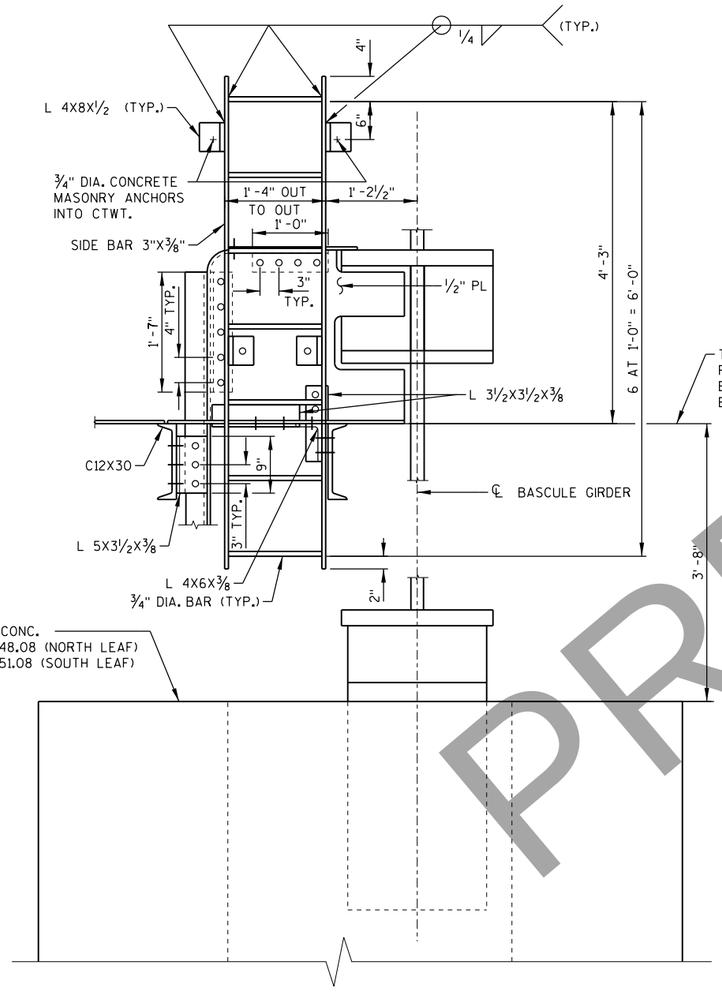


TYPICAL W12 TO W12 CONNECTION



TYPICAL C8 TO W18/W12 CONNECTION

(W18 SHOWN, W12 CONNECTION SIMILAR)



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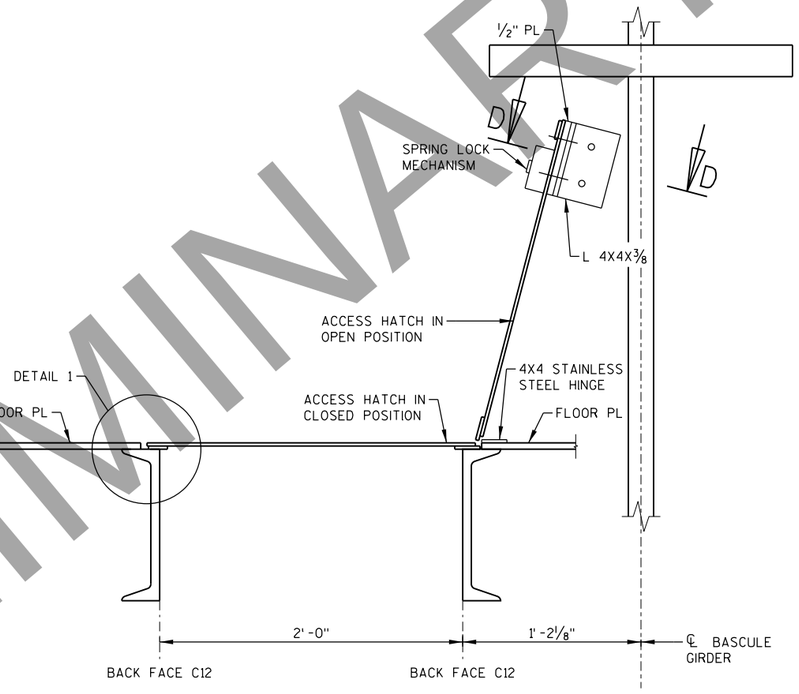

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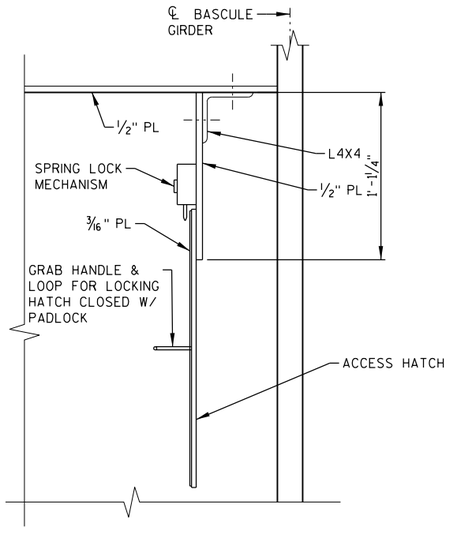

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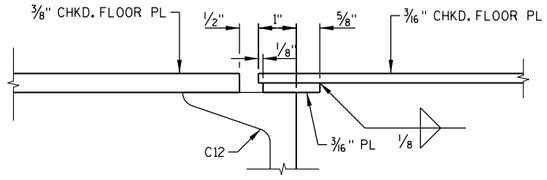
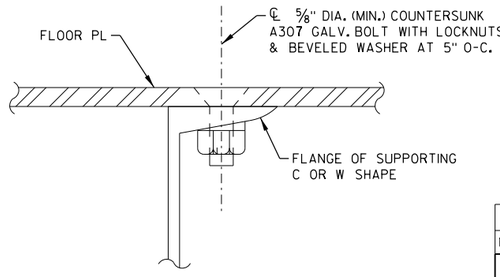


DETAIL 1



TYPICAL FLOOR PLATE CONNECTION DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

MACHINERY ROOM SECTIONS & DETAILS

DRAWING S56

PRE_267

PRELIMINARY
DRAFT 2020

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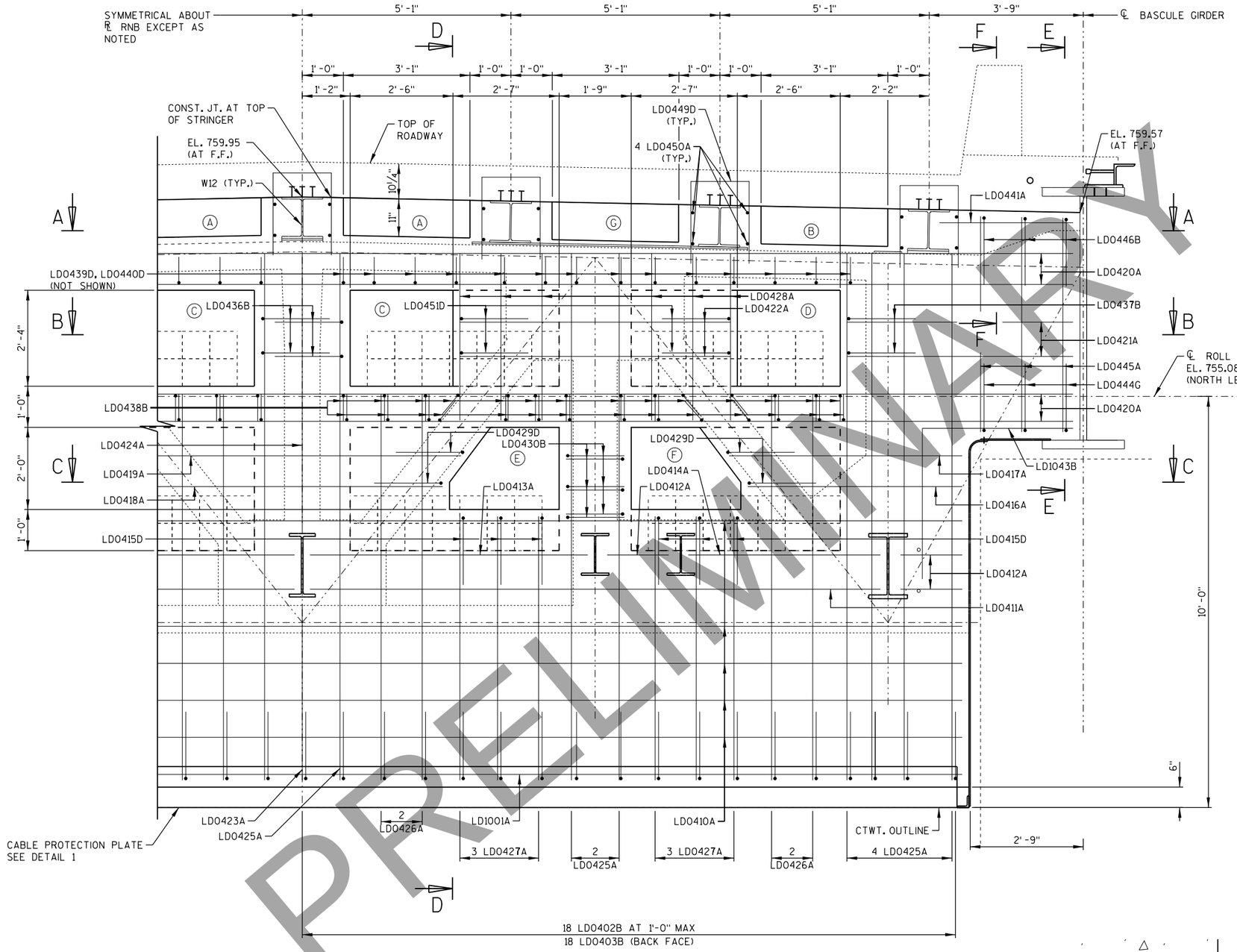
DRAFT 4/20/2020



FRONT ELEVATION - COUNTERWEIGHT

CONCRETE COUNTERWEIGHT NOTES:

1. THE OUTLINE SHOWN IS BASED ON THE FOLLOWING:

   BALANCE WEIGHTS SHOWN ON PLANS ARE BASED ON NORMAL WEIGHT AIR-ENTRAINED CONCRETE FOR ALL CONCRETE ON MOVABLE SPAN EXCEPT NON AIR-ENTRAINED COUNTERWEIGHT AND LIGHTWEIGHT CONCRETE FOR DECK.

   AIR-ENTRAINED CONCRETE UNIT WEIGHT = 141.5 PCF

   LIGHTWEIGHT CONCRETE UNIT WEIGHT = 115.0 PCF

   NON AIR-ENTRAINED CONCRETE UNIT WEIGHT = 149.0 PCF

   CONC. ADJUSTMENT BLOCKS = 62#/BLOCK

   5" STEEL GRID = 15.8 psf.

2. REINFORCING BARS ARE TO HAVE 2" MIN. CLEAR COVER AND ARE TO BE BENT IN THE FIELD WHERE REQUIRED.

3. ALL NO. 4 BARS ARE TO BE SPACED AT 1'-0"± CTRS. UNLESS SHOWN OTHERWISE.

4. ALL NO. 10 BARS ARE TO BE SPACED AT 0'-6"± CTRS.

5. DRAINS FOR THE POCKETS SHALL BE 4"ϕ.

6. DOWEL BARS ARE TO BE PLACED THROUGH HOLES IN CTWT. TRUSS GUSSETS. SEE SHEETS S35 THRU S38 FOR PLACEMENT OF 256 LD0555B BARS.

7. CARE SHALL BE TAKEN TO PREVENT VOIDS IN THE CONCRETE DURING POURING.

8. THE CTWT. FORMS MUST BE ADEQUATELY SUPPORTED DURING THE POURING OF THE CONCRETE. SEE SPECIAL PROVISIONS.

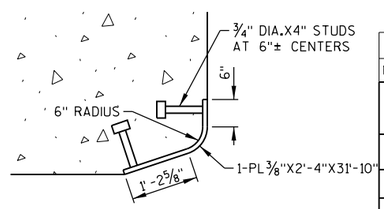
9. ANY DOWELS REQUIRED BETWEEN SUCCESSIVE LAYERS OF CONCRETE ARE INCIDENTAL TO THE ITEM "CONCRETE COUNTERWEIGHT."

10. THE REAR AND BOTTOM CONCRETE SURFACES OF THE COUNTERWEIGHT SHALL BE GIVEN A PROTECTIVE SURFACE TREATMENT.

LEGEND

CONCRETE ADJUSTMENT BLOCKS

SEE SHEET "COUNTERWEIGHT SECTION & BALANCING DIAG." FOR SECTION A-A.
SEE SHEET "COUNTERWEIGHT SECTIONS & DETAILS - I" FOR SECTION B-B.
SEE SHEET "COUNTERWEIGHT SECTIONS & DETAILS - 2" FOR SECTION C-C.
SEE SHEET "NORTH LEAF COUNTERWEIGHT SECTIONS" FOR SECTIONS D-D.



DETAIL 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

NORTH LEAF CTWT. CONC. FRONT ELEVATION

DRAWING S56

PRE_268

PRELIMINARY

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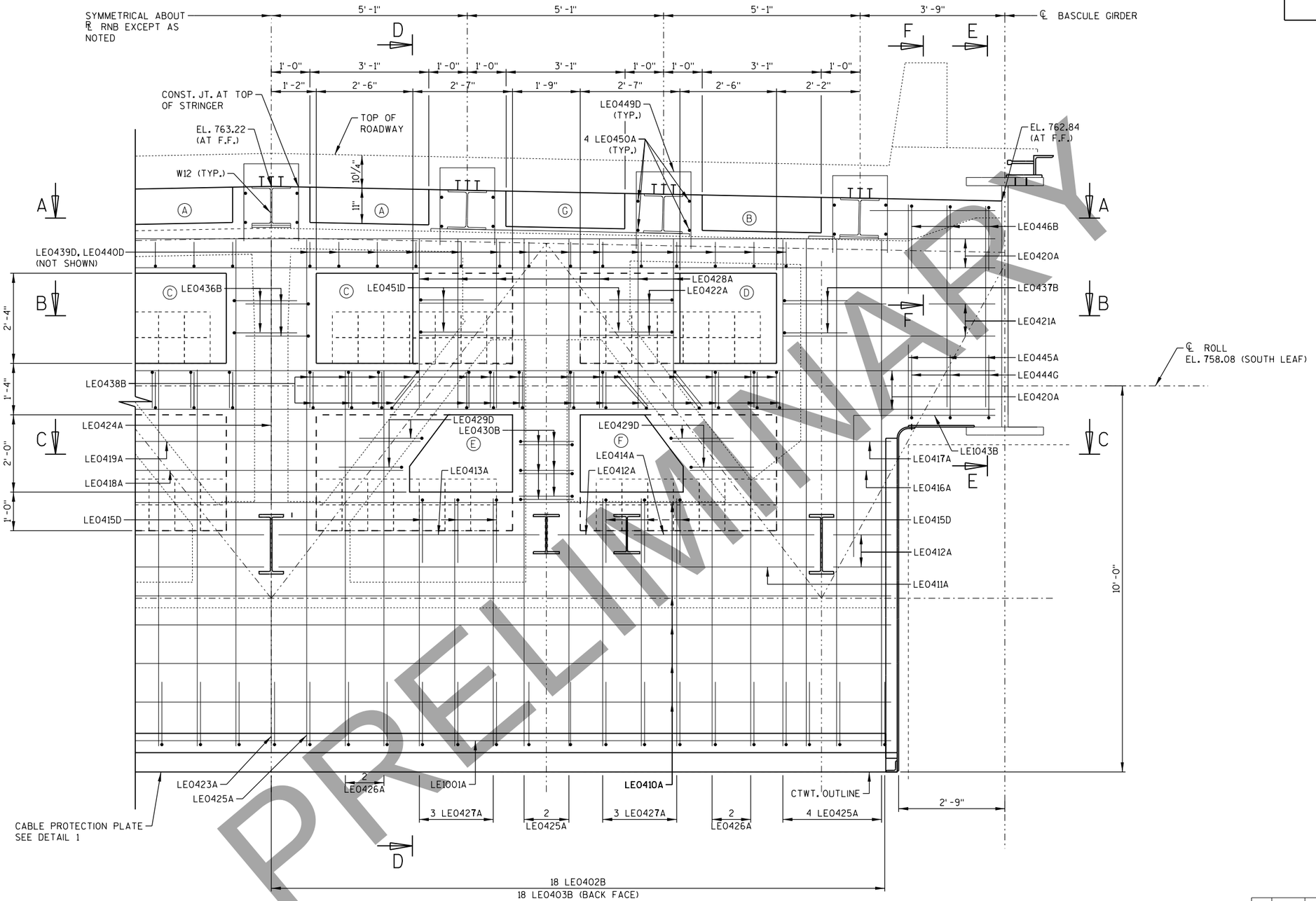
8

STATE PROJECT NUMBER

4992-03-71



LEGEND

CONCRETE ADJUSTMENT BLOCKS

FRONT ELEVATION - COUNTERWEIGHT

SEE SHEET "COUNTERWEIGHT SECTION & BALANCING DIAG." FOR SECTION A-A.
SEE SHEET "COUNTERWEIGHT SECTIONS & DETAILS - 1" FOR SECTION B-B.
SEE SHEET "COUNTERWEIGHT SECTIONS & DETAILS - 2" FOR SECTION C-C.
SEE SHEET "SOUTH LEAF COUNTERWEIGHT SECTIONS" FOR SECTIONS D-D.
SEE SHEET "NORTH LEAF CTWT. FRONT ELEVATION" FOR CONCRETE COUNTERWEIGHT NOTES

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

SOUTH LEAF CTWT. CONC. FRONT ELEVATION

DRAWING S56

PRE_269

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DRAFT
PLOT DATE: 3/20/2020

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8

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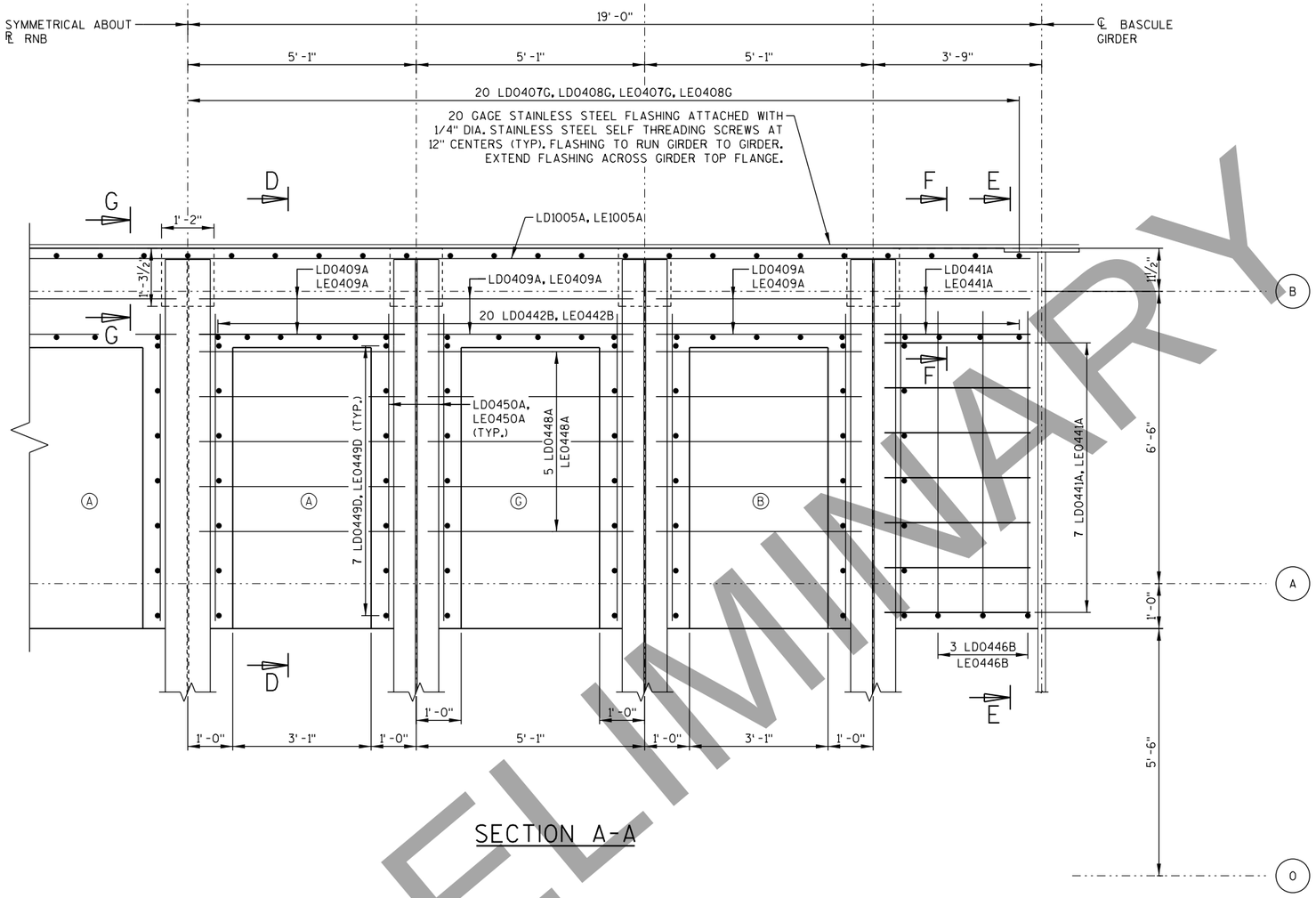
PLOT DATE: 3/2/2020
PLOT TIME: 10:05:26 AM
BATCH PRINT SHEET 47 OF 56

DRAFT 2020

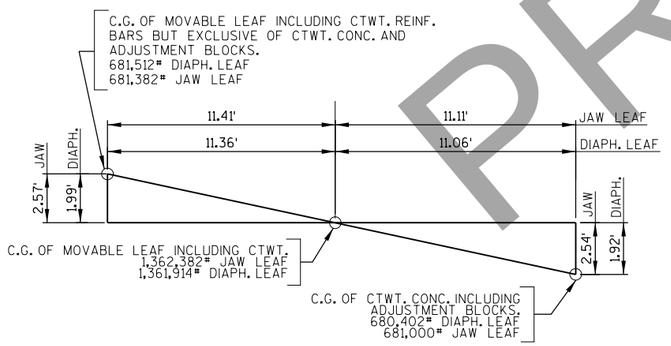
STATE PROJECT NUMBER

4992-03-71

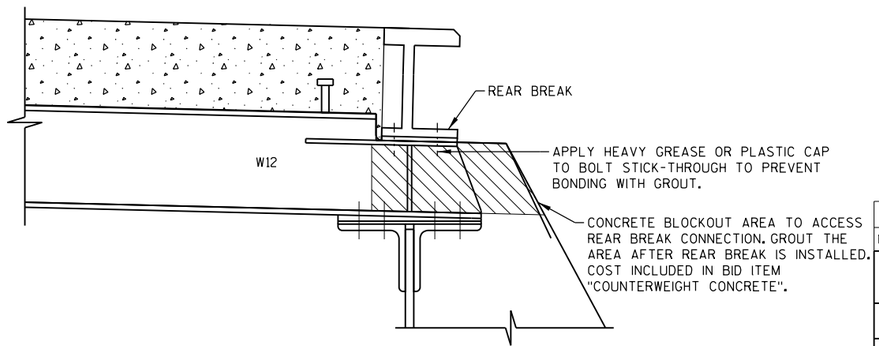
NOTE:
WHERE REBAR INTERFERES WITH STRUCTURAL STEEL, TRIM TO FIT. USE PORTION OF REMAINING TRIMMED BAR ON OPPOSITE SIDE OF STEEL IF TRIMMED PIECE IS LONGER THAN 1'-0". CONTRACTOR TO TOUCH UP ALL CUT EPOXY BARS. WORK INCLUDED IN BID ITEM "BAR STEEL REINFORCEMENT HS COATED STRUCTURES".



SECTION A-A



COUNTERWEIGHT BALANCING DIAGRAM



SECTION G-G
(TYPICAL AT EACH STRINGER)

LEGEND

INDICATES CONCRETE BLOCKOUT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

COUNTERWEIGHT SECTION & BALANCING DIAG.

DRAWING S56

PRE_270

PRELIMINARY

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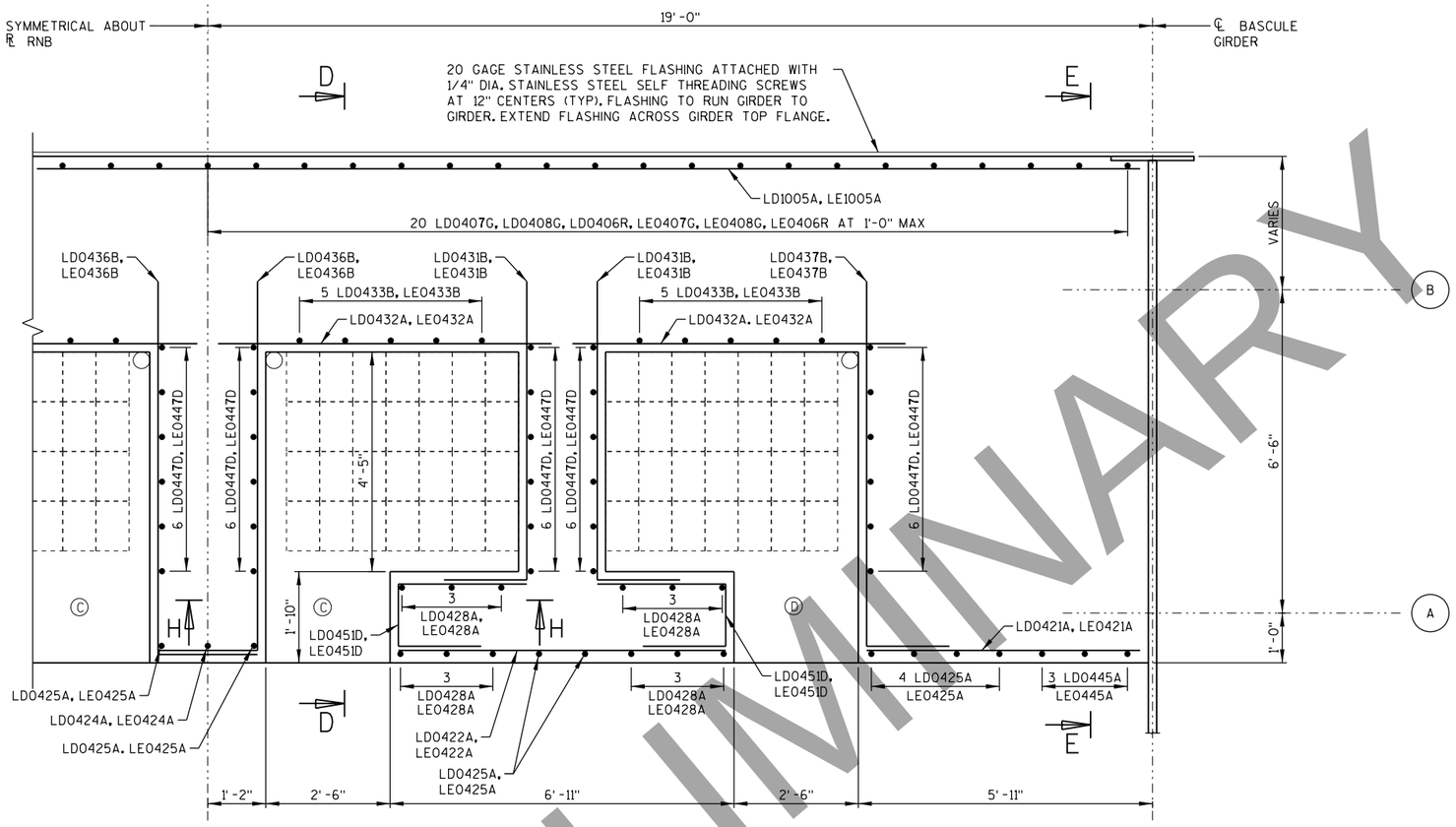
PLOT DATE: 3/2/2020
PLOT TIME: 10:05:42 AM
BATCH PRINT SHEET 48 OF 56

DRAFT 4/1/2020

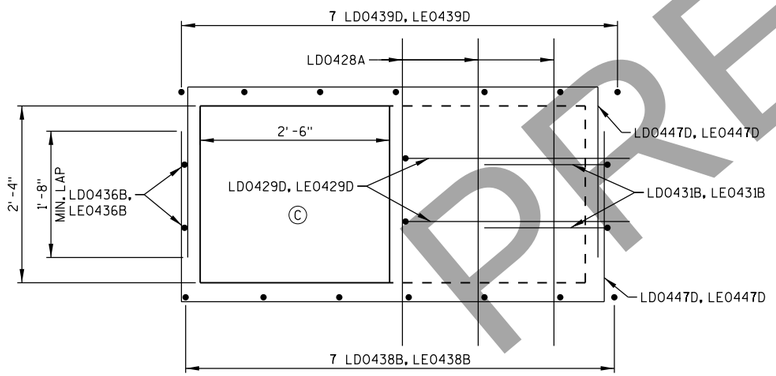
STATE PROJECT NUMBER

4992-03-71

NOTE:
WHERE REBAR INTERFERES WITH STRUCTURAL STEEL, TRIM TO FIT. USE PORTION OF REMAINING TRIMMED BAR ON OPPOSITE SIDE OF STEEL IF TRIMMED PIECE IS LONGER THAN 1'-0". CONTRACTOR TO TOUCH UP ALL CUT EPOXY BARS. WORK INCLUDED IN BID ITEM "BAR STEEL REINFORCEMENT HS COATED STRUCTURES".

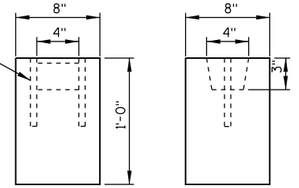


SECTION B-B



SECTION H-H

(POCKET (D) SIMILAR BUT OPPOSITE)



CONCRETE ADJUSTMENT BLOCKS

POCKETS		NO. OF BLOCKS DIAPH. LEAF	NO. OF BLOCKS JAW LEAF
EAST	(A)	-	-
	(B)	-	-
	(C)	56	56
	(D)	56	56
	(E)	56	56
	(F)	56	56
	(G)	-	-
WEST	(A)	-	-
	(B)	-	-
	(C)	56	56
	(D)	56	56
	(E)	56	56
	(F)	56	56
	(G)	-	-
SUBTOTAL		448	448
ADDITIONAL BLOCKS PROVIDED			600
TOTAL BLOCKS PROVIDED			1048

QUANTITIES	
COUNTERWEIGHT CONCRETE (CU. YDS.)	
LOCATION	EACH LEAF
JAW LEAF	169.3
DIAPH. LEAF	169.1
BRIDGE TOTAL	338.4

NOTE: COUNTERWEIGHT CONCRETE QUANITITIES INCLUDE COUNTERWEIGHT AND TOTAL ADJUSTMENT BLOCKS NOTED ABOVE

LEGEND

CONCRETE ADJUSTMENT BLOCKS

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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COUNTERWEIGHT SECTIONS & DETAILS - 1

DRAWING S56

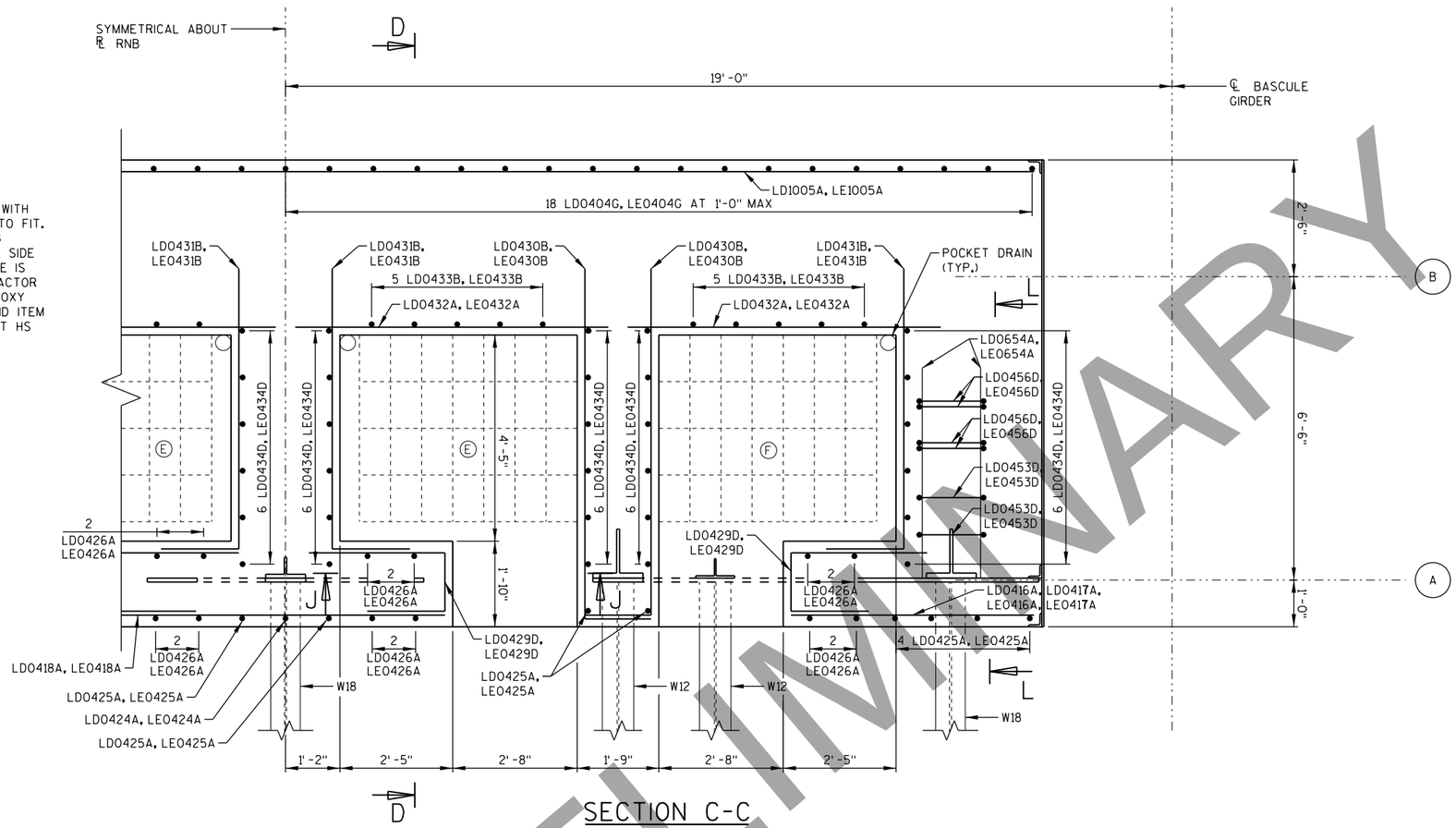
PRE_271

8

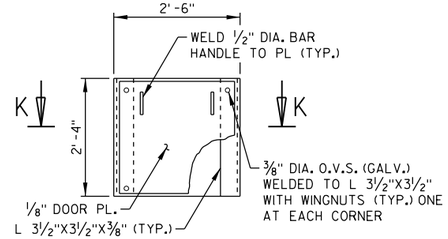
8

STATE PROJECT NUMBER
4992-03-71

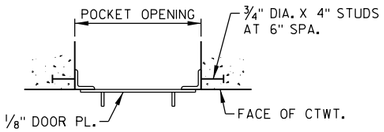
NOTE:
WHERE REBAR INTERFERES WITH STRUCTURAL STEEL, TRIM TO FIT. USE PORTION OF REMAINING TRIMMED BAR ON OPPOSITE SIDE OF STEEL IF TRIMMED PIECE IS LONGER THAN 1'-0". CONTRACTOR TO TOUCH UP ALL CUT EPOXY BARS. WORK INCLUDED IN BID ITEM "BAR STEEL REINFORCEMENT HS COATED STRUCTURES".



SECTION C-C

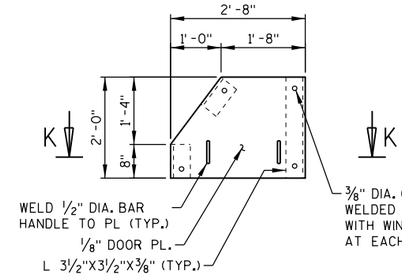


ELEVATION

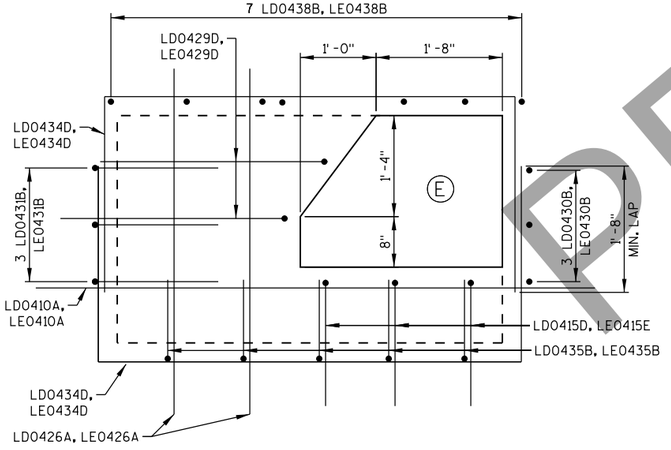


SECTION K-K

TYPICAL POCKET OPENING COVER
(FOR POCKETS C & D)

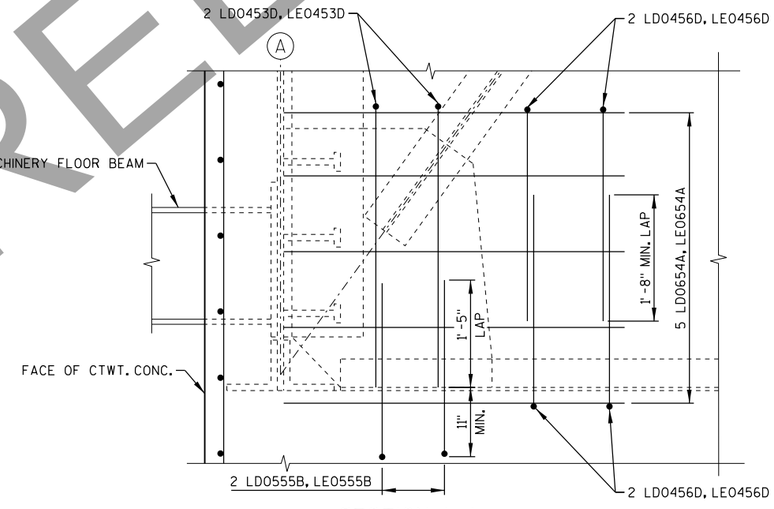


POCKET OPENING COVER FOR POCKETS E & F



SECTION J-J

(POCKET (F) SIMILAR BUT OPPOSITE)



SECTION L-L

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

COUNTERWEIGHT SECTIONS & DETAILS - 2

DRAWING S49 OF S56

PRE_272

PRELIMINARY
DRAFT 04/20/2020

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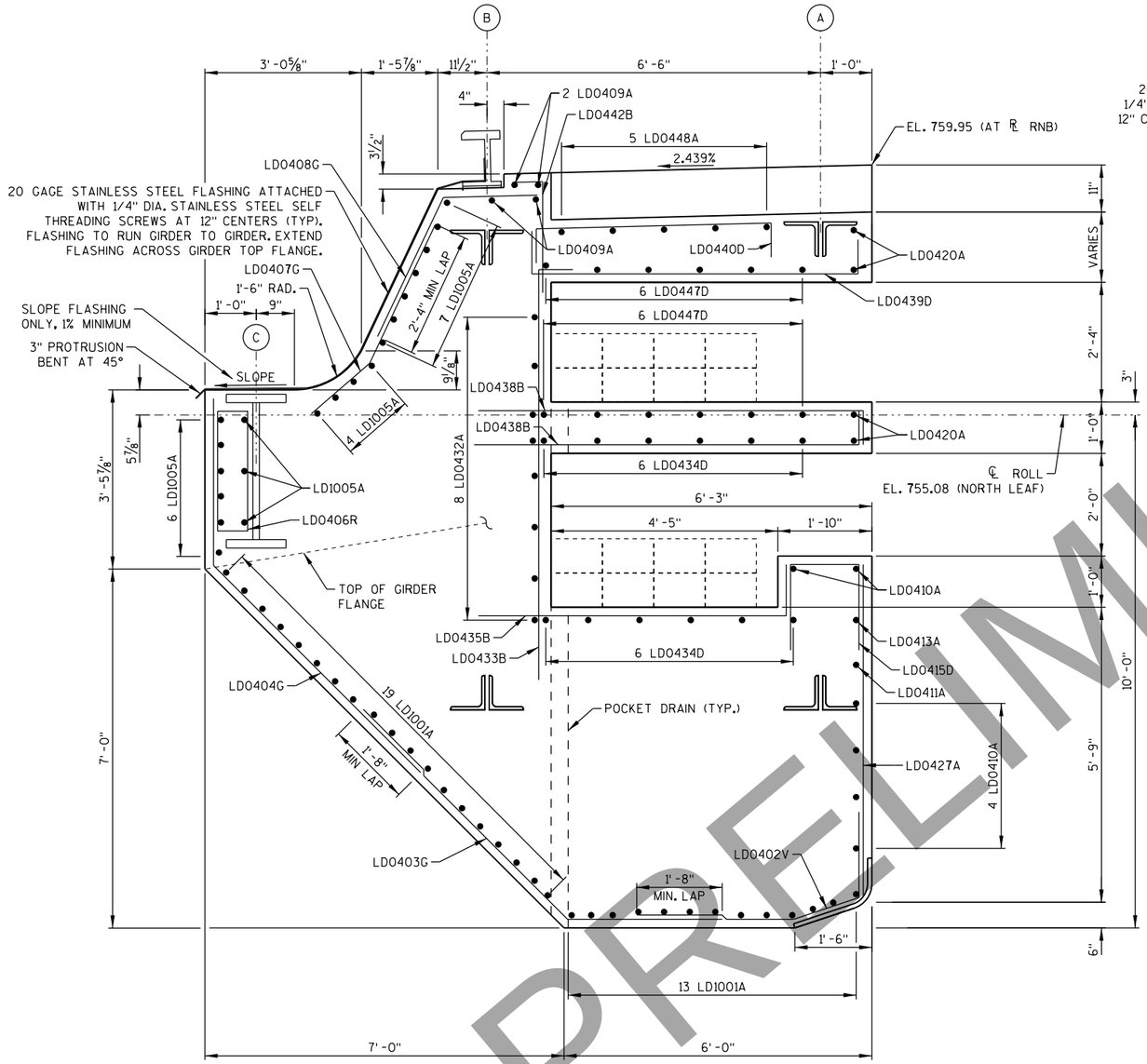
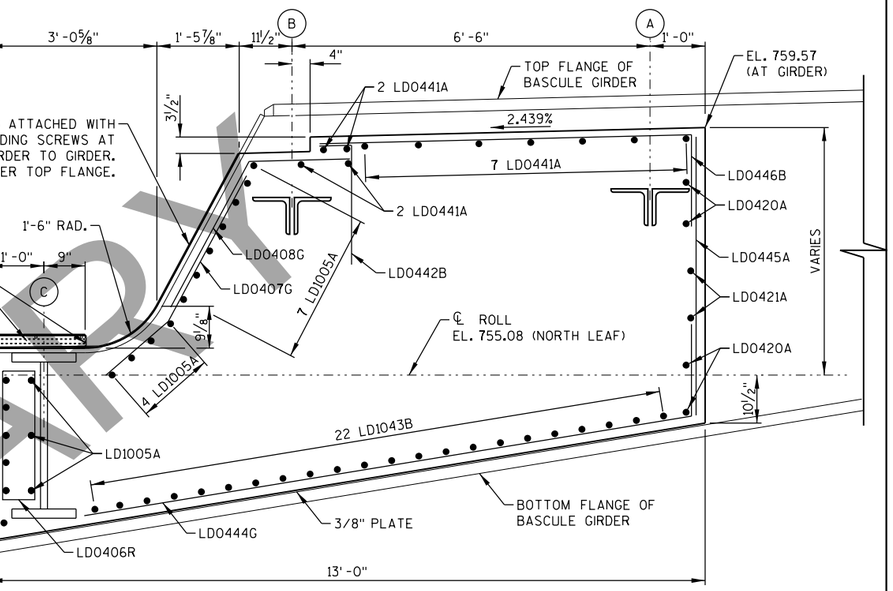
BATCH PRINT SHEET 49 OF 56

STATE PROJECT NUMBER

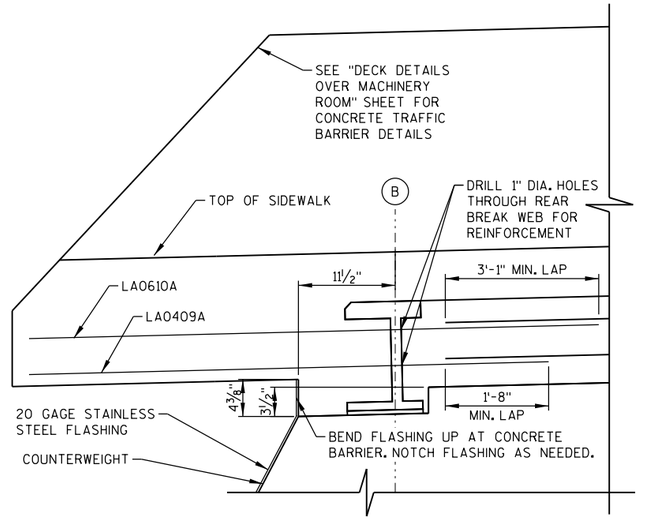
4992-03-71



SECTION D-D



SECTION E-E



SECTION F-F

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

NORTH LEAF COUNTERWEIGHT SECTIONS

DRAWING S56

PRE_273

8

8

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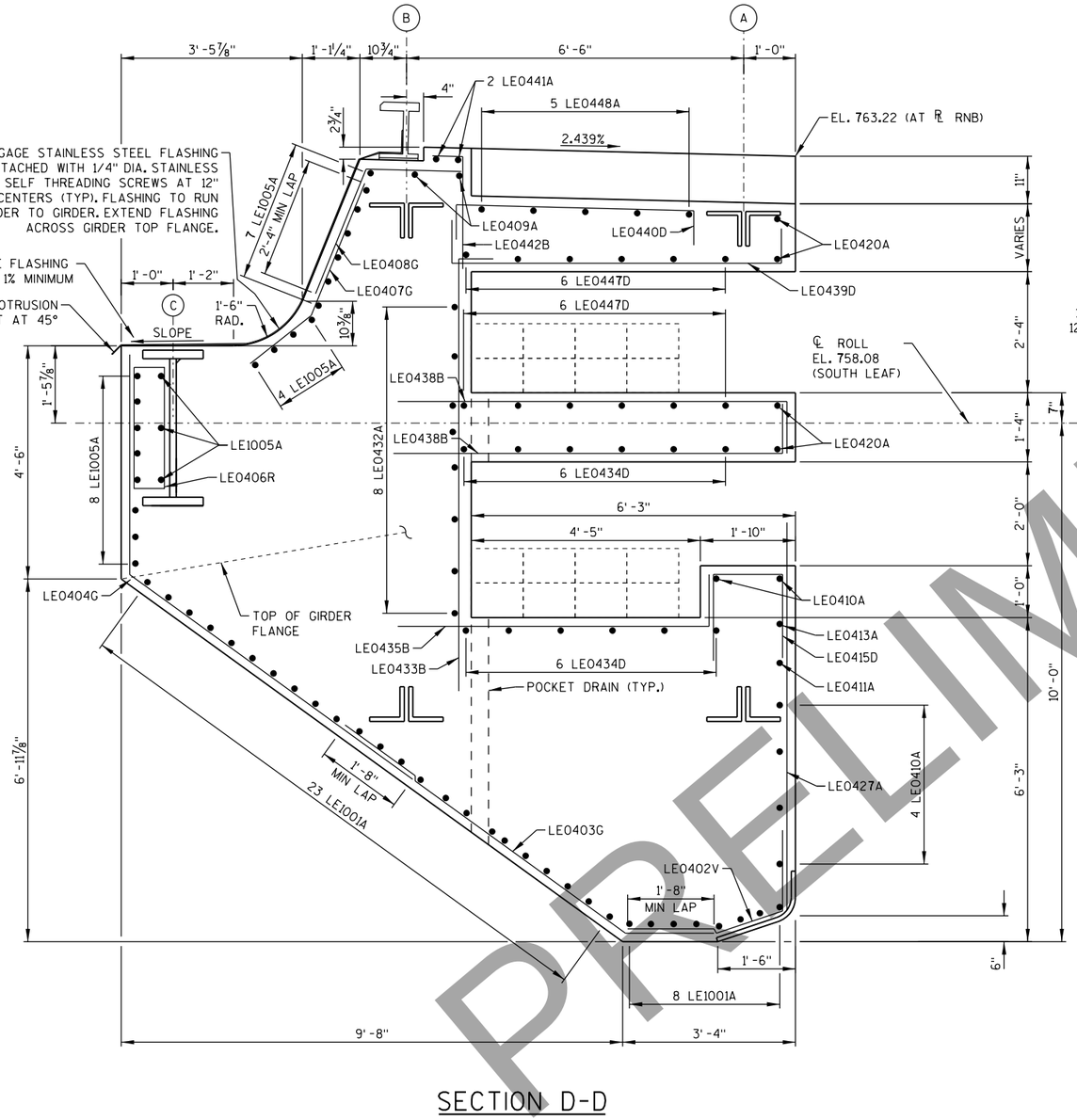
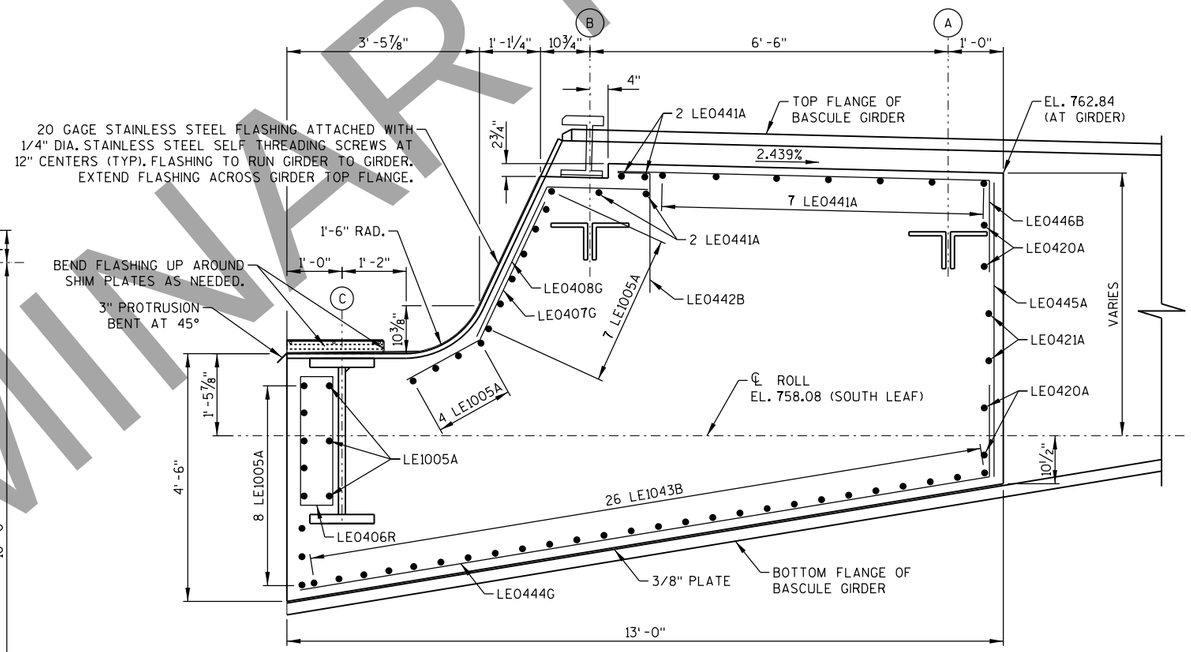
PLOT DATE: 3/2/2020
PLOT TIME: 10:06:17 AM
BATCH PRINT SHEET 50 OF 56
DRAFT 4/1/2020

STATE PROJECT NUMBER

4992-03-71



SECTION D-D



SECTION E-E

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MAD

SOUTH LEAF COUNTERWEIGHT SECTIONS

DRAWING S56

PRE_274

8

8

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BATCH PRINT SHEET 51 OF 56

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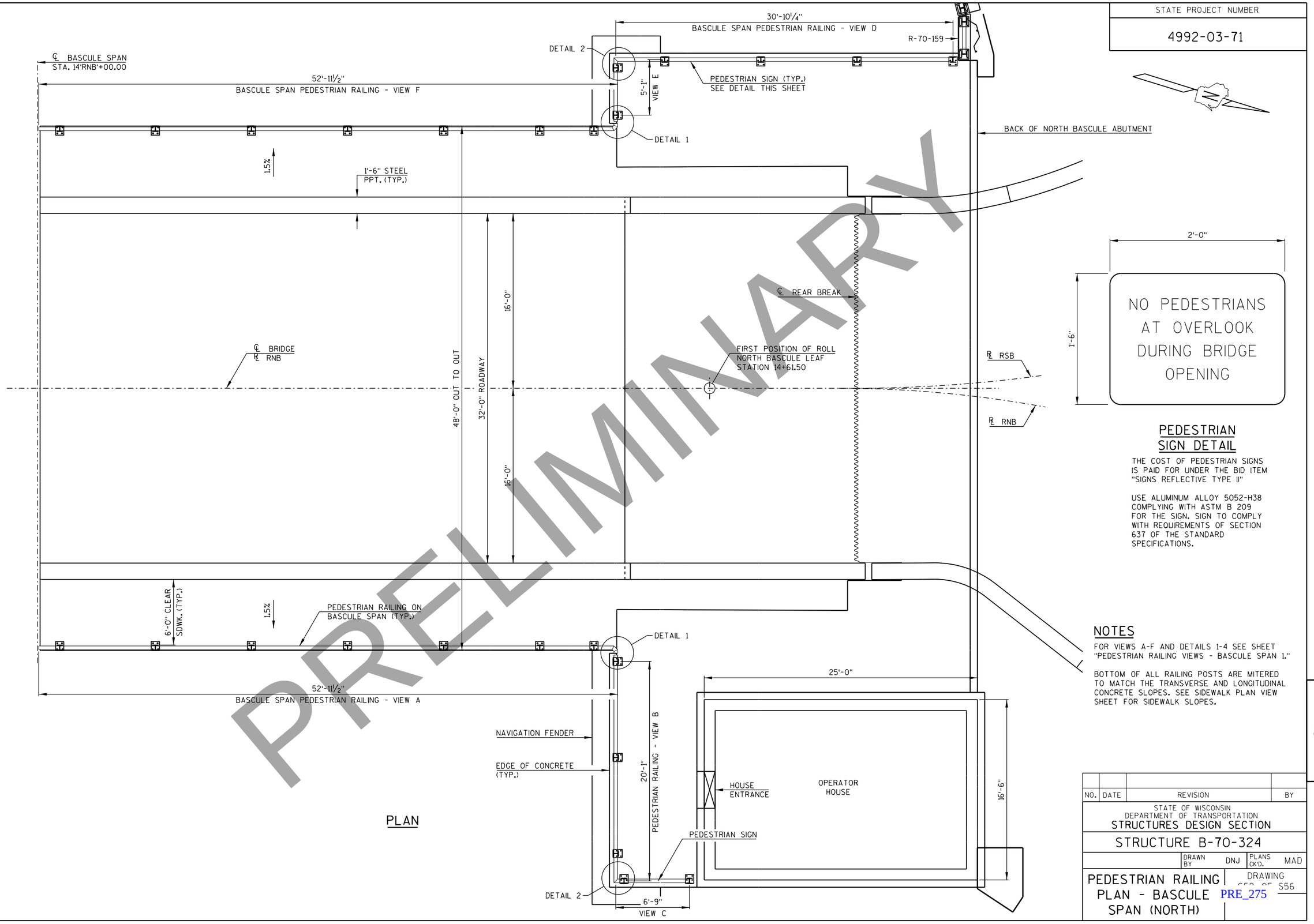
PLOT TIME: 10:06:52 AM
BATCH PRINT SHEET 52 OF 56
DRAFT
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71



PLAN

2'-0"

1'-6"

NO PEDESTRIANS
AT OVERLOOK
DURING BRIDGE
OPENING

PEDESTRIAN SIGN DETAIL

THE COST OF PEDESTRIAN SIGNS IS PAID FOR UNDER THE BID ITEM "SIGNS REFLECTIVE TYPE II"

USE ALUMINUM ALLOY 5052-H38 COMPLYING WITH ASTM B 209 FOR THE SIGN. SIGN TO COMPLY WITH REQUIREMENTS OF SECTION 637 OF THE STANDARD SPECIFICATIONS.

NOTES

FOR VIEWS A-F AND DETAILS 1-4 SEE SHEET "PEDESTRIAN RAILING VIEWS - BASCULE SPAN 1."

BOTTOM OF ALL RAILING POSTS ARE MITERED TO MATCH THE TRANSVERSE AND LONGITUDINAL CONCRETE SLOPES. SEE SIDEWALK PLAN VIEW SHEET FOR SIDEWALK SLOPES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	DNJ	PLANS CK'D.	MAD

PEDESTRIAN RAILING PLAN - BASCULE SPAN (NORTH)

DRAWING S56

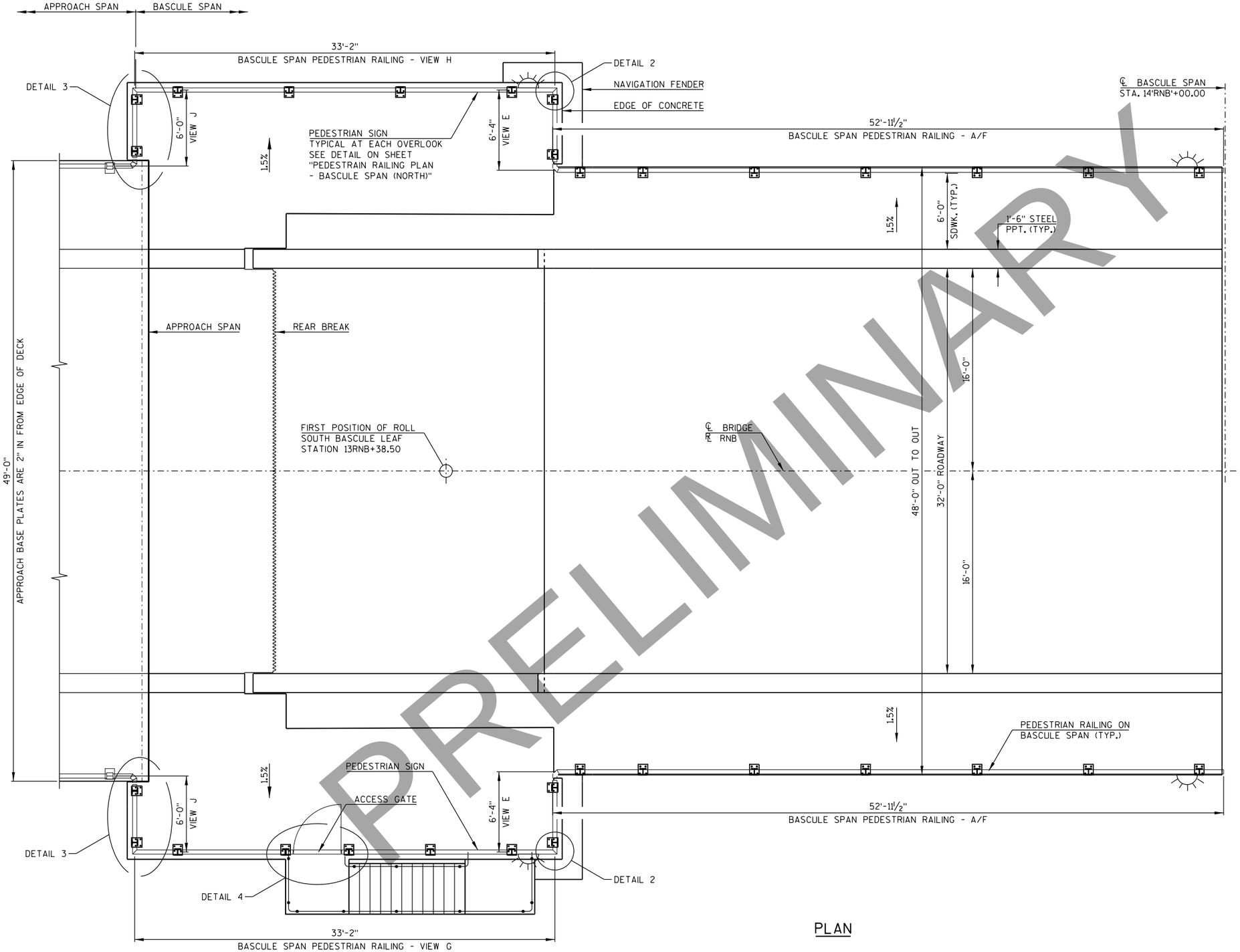
PRE_275

8

8

STATE PROJECT NUMBER

4992-03-71



PLAN

NOTES

FOR VIEWS A, F AND E SEE SHEET
"PEDESTRIAN RAILING VIEWS - BASCULE SPAN 1."

FOR VIEWS G-K AND DETAILS 5, 6 SEE SHEET
"PEDESTRIAN RAILING VIEWS - BASCULE SPAN 2."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MAD

PEDESTRIAN RAILING PLAN - BASCULE SPAN (SOUTH)

DRAWING S53 OF S56

PRE_276

PRELIMINARY

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PLOT DATE: 3/2/2020
PLOT TIME: 10:07:11 AM
BATCH PRINT SHEET 53 OF 56
DRAFT 2020

PRINTER DRIVER: S:\..acm-CADstds..Libraries\WISDOT_MicroStation_Resources\WS_Printing\Printer_Drivers\AE_PDF.ill x 17.plt
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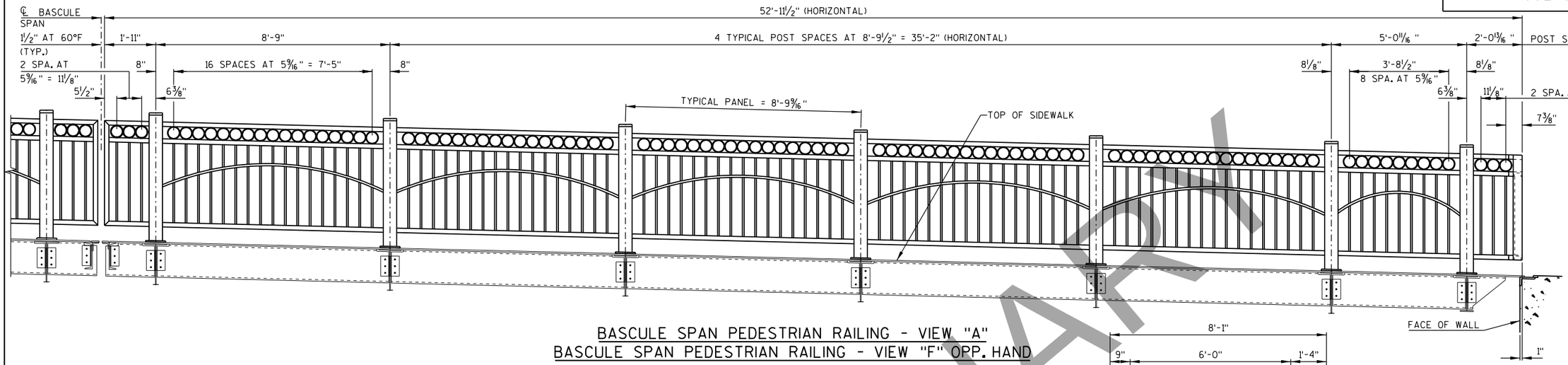
PLOT TIME: 10:07:29 AM
BATCH PRINT SHEET 54 OF 56

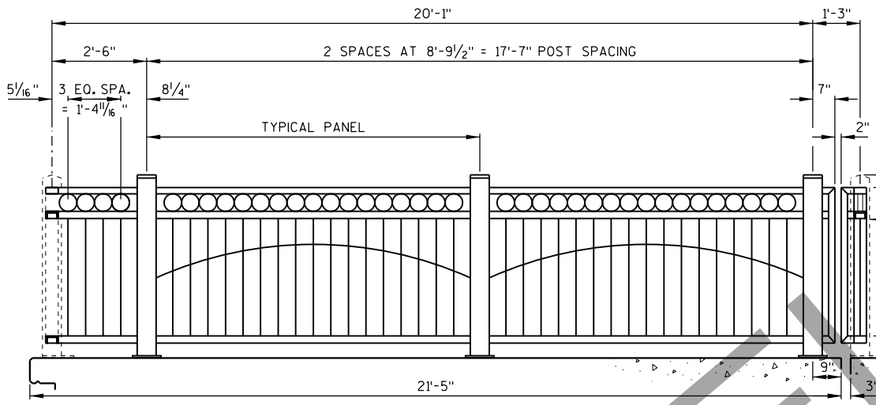
STATE PROJECT NUMBER

4992-03-71



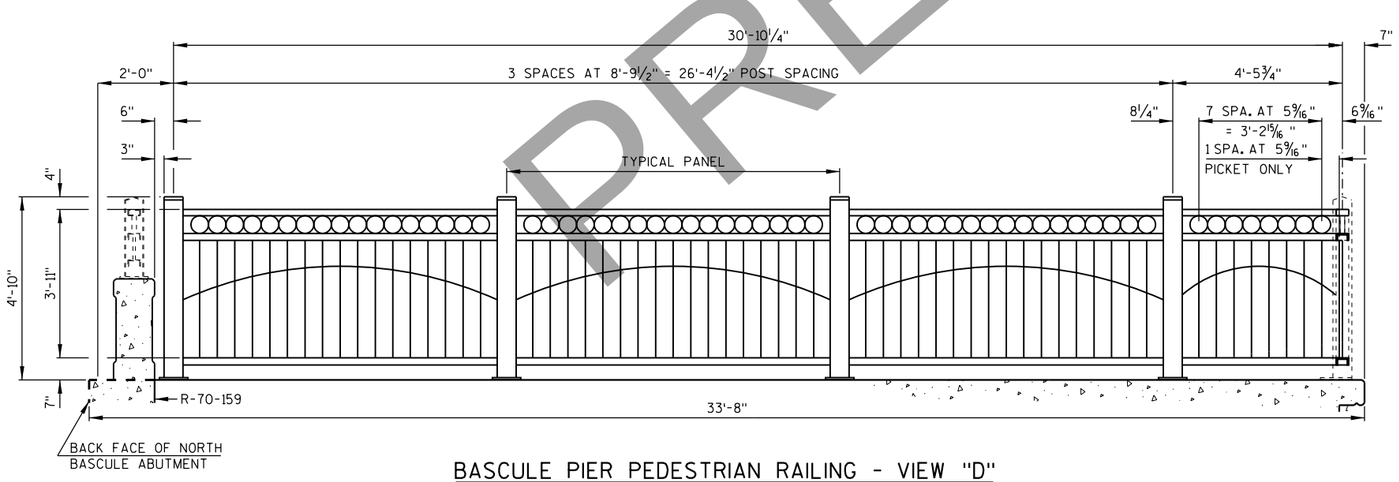
BASCULE SPAN PEDESTRIAN RAILING - VIEW "A"
BASCULE SPAN PEDESTRIAN RAILING - VIEW "F" OPP. HAND

NORTH BASCULE SPAN SHOWN - SOUTH BASCULE SPAN IS SIMILAR.



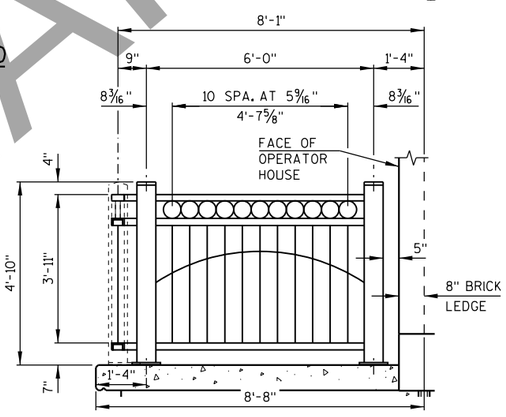
BASCULE PIER PEDESTRIAN RAILING - VIEW "B"

(SLOPE NOT SHOWN)



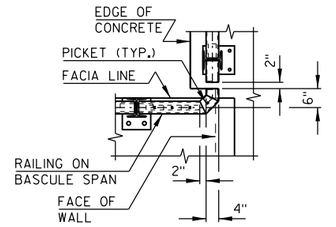
BASCULE PIER PEDESTRIAN RAILING - VIEW "D"

(SLOPE NOT SHOWN)



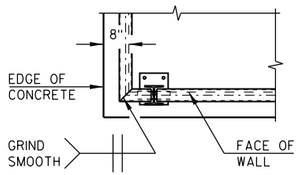
BASCULE PIER PEDESTRIAN RAILING - VIEW "C"

(SLOPE NOT SHOWN)



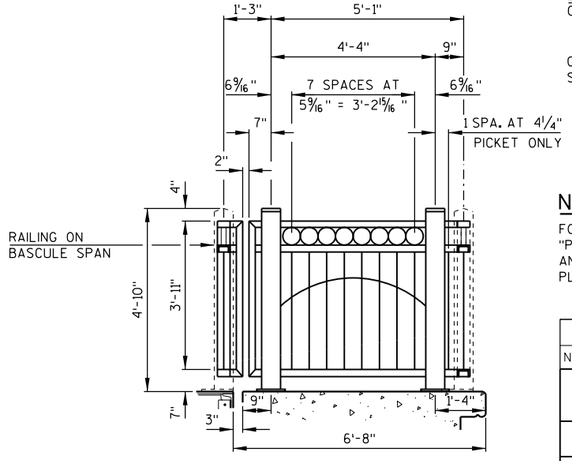
DETAIL 1

WEST EDGE SHOWN - OTHER LOCATIONS SIMILAR



DETAIL 2

EDGE NEAR OPERATOR HOUSE SHOWN - OTHER LOCATIONS SIMILAR



BASCULE PIER PEDESTRIAN RAILING - VIEW "E"

NORTHWEST QUADRANT SHOWN - SW AND SE LOCATIONS SIMILAR (SLOPE NOT SHOWN)

NOTES

FOR VIEW AND DETAIL LOCATIONS SEE SHEETS "PEDESTRIAN RAILING PLAN - NORTH BASCULE SPAN" AND "PEDESTRIAN RAILING PLAN - SOUTH BASCULE PLAN."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MAD

PEDESTRIAN RAILING VIEWS - BASCULE SPAN 1

DRAWING S54 OF S56

PRE_277

PRELIMINARY
DRAFT
DO NOT USE FOR CONSTRUCTION
12/2020

PRINTER DRIVER: S:\..acm-CADstds.Libraries\WISDOT\Configuration Resources\Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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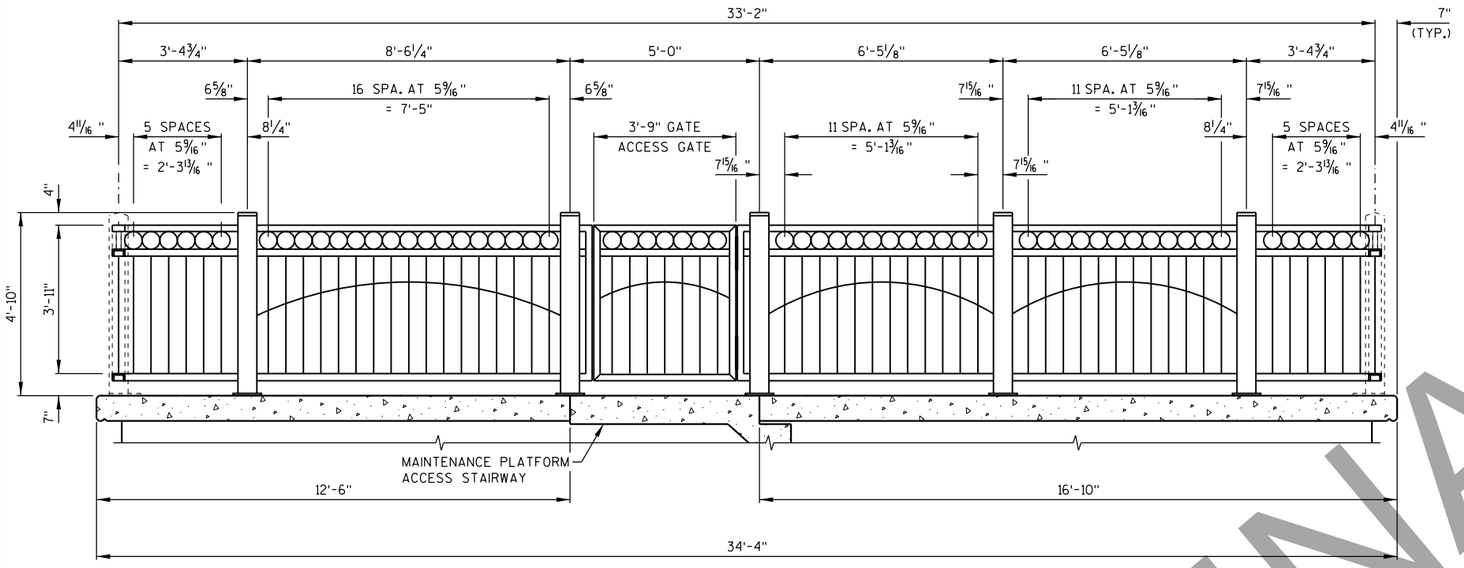
PLOT DATE: 3/2/2020
PLOT TIME: 10:07:45 AM
BATCH PRINT SHEET 55 OF 56

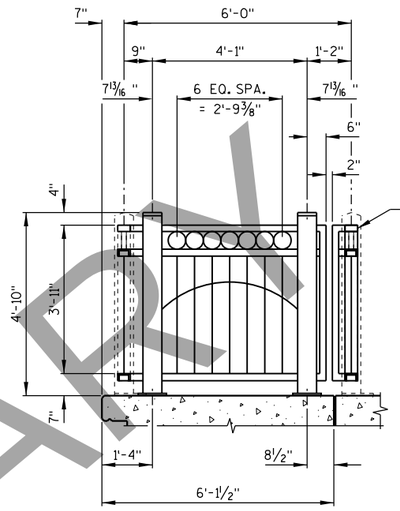
STATE PROJECT NUMBER

4992-03-71



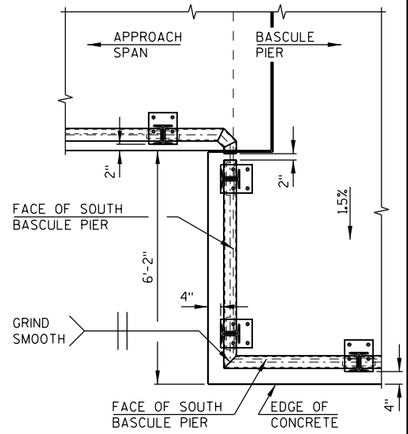
BASCULE PIER PEDESTRIAN RAILING - VIEW "G"

(SLOPE NOT SHOWN)



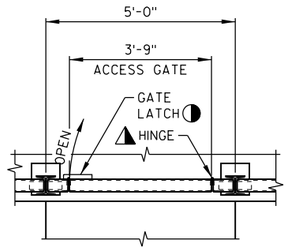
BASCULE PIER PEDESTRIAN RAILING - VIEW "J"

EAST SHOWN - WEST SIDE MIRROR IMAGE
(SLOPE NOT SHOWN)

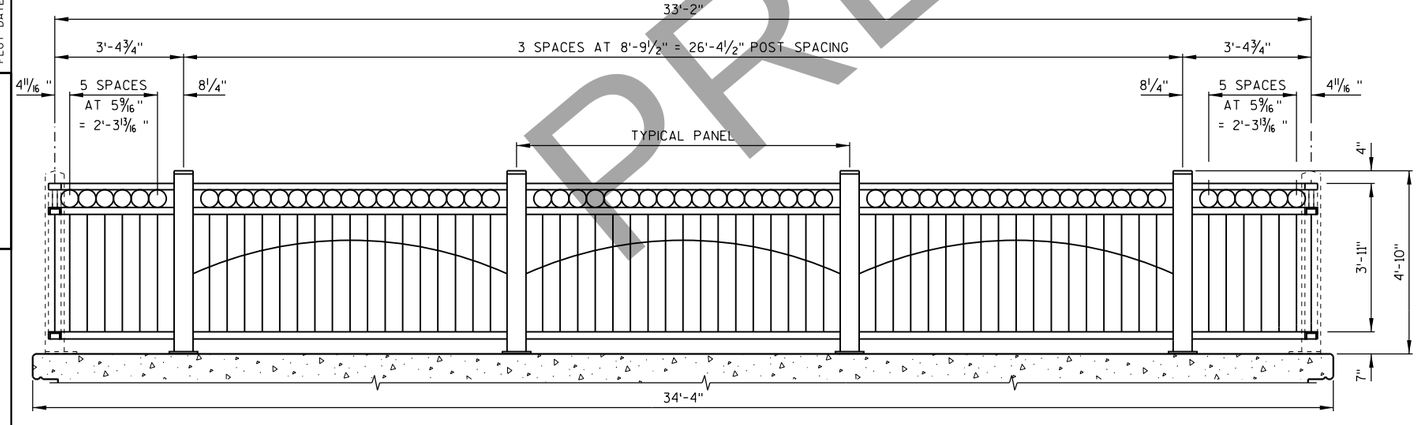


DETAIL 3

EAST SHOWN, WEST MIRROR SIMILAR

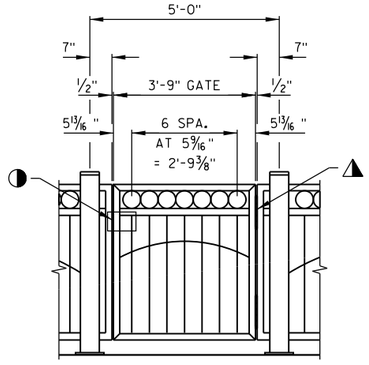


DETAIL 4



BASCULE PIER PEDESTRIAN RAILING - VIEW "H"

(SLOPE NOT SHOWN)



ACCESS GATE DETAILS

(SLOPE NOT SHOWN)

NOTES

FOR VIEW AND DETAIL LOCATIONS SEE SHEETS "PEDESTRIAN RAILING PLAN - BASCULE SPAN (NORTH)" AND "PEDESTRIAN RAILING PLAN - BASCULE SPAN (SOUTH)."

◭ PROVIDE TWO HEAVY DUTY STAINLESS STEEL HINGES ON VERTICAL CHANNEL PORTION OF THE GATE WELDMENT.

◑ PROVIDE A STAINLESS STEEL LATCH AND STOP ON OPPOSITE VERTICAL CHANNEL PORTION OF THE GATE WELDMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MAD

PEDESTRIAN RAILING VIEWS - BASCULE SPAN 2

DRAWING S56

PRE_278

PRELIMINARY
DRAFT 4/1/2020

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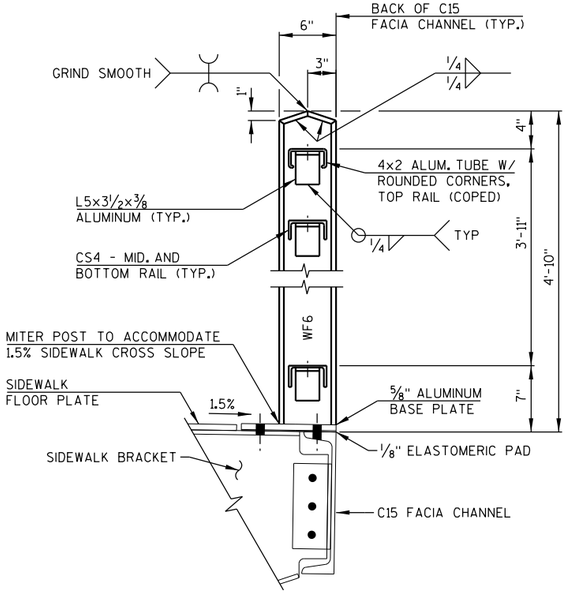
PLOT DATE: 3/2/2020
PLOT TIME: 10:08:02 AM
BATCH PRINT SHEET 56 OF 56

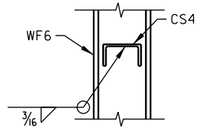
DRAFT
PRELIMINARY

STATE PROJECT NUMBER

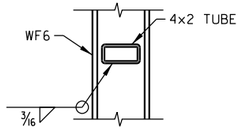
4992-03-71



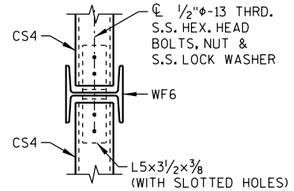
POST DETAIL ON BASCULE LEAF



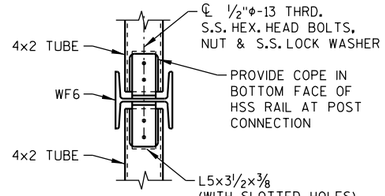
CHANNEL RAIL TO POST CONNECTION DETAIL FOR CANTILEVER SECTIONS



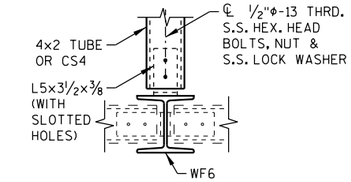
TUBE RAIL TO POST CONNECTION DETAIL FOR CANTILEVER SECTIONS



CHANNEL RAIL TO POST CONNECTION DETAIL FOR SIMPLE SPAN SECTIONS

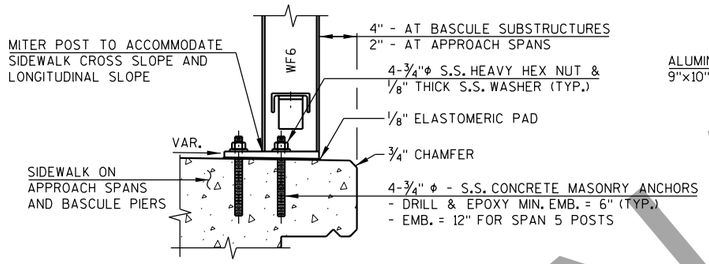


TUBE RAIL TO POST CONNECTION FOR SIMPLE SPAN SECTIONS
(VIEW FROM BELOW)



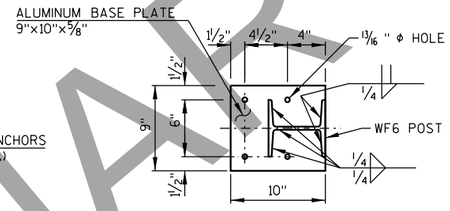
RAIL TO POST FLANGE CONNECTION FOR SIMPLE SPAN SECTIONS

SEE "POST DETAIL ON BASCULE LEAF" FOR L5x3 1/2x3/8 WELD DETAILS



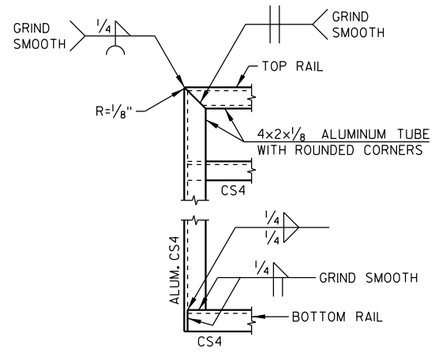
POST DETAIL ON CONCRETE

FOR ADDITIONAL DETAILS SEE "POST DETAIL ON BASCULE LEAF"

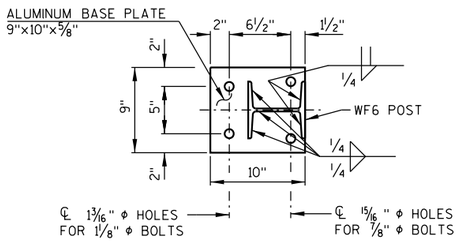


POST BASE PLATE DETAIL

(CONCRETE ATTACHMENT DETAIL)

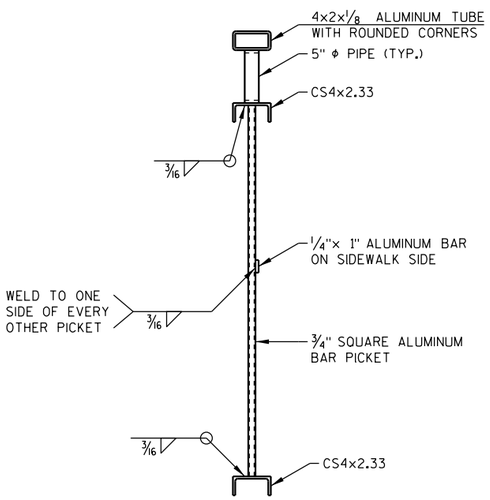


RAIL DETAIL AT CANTILEVERED ENDS

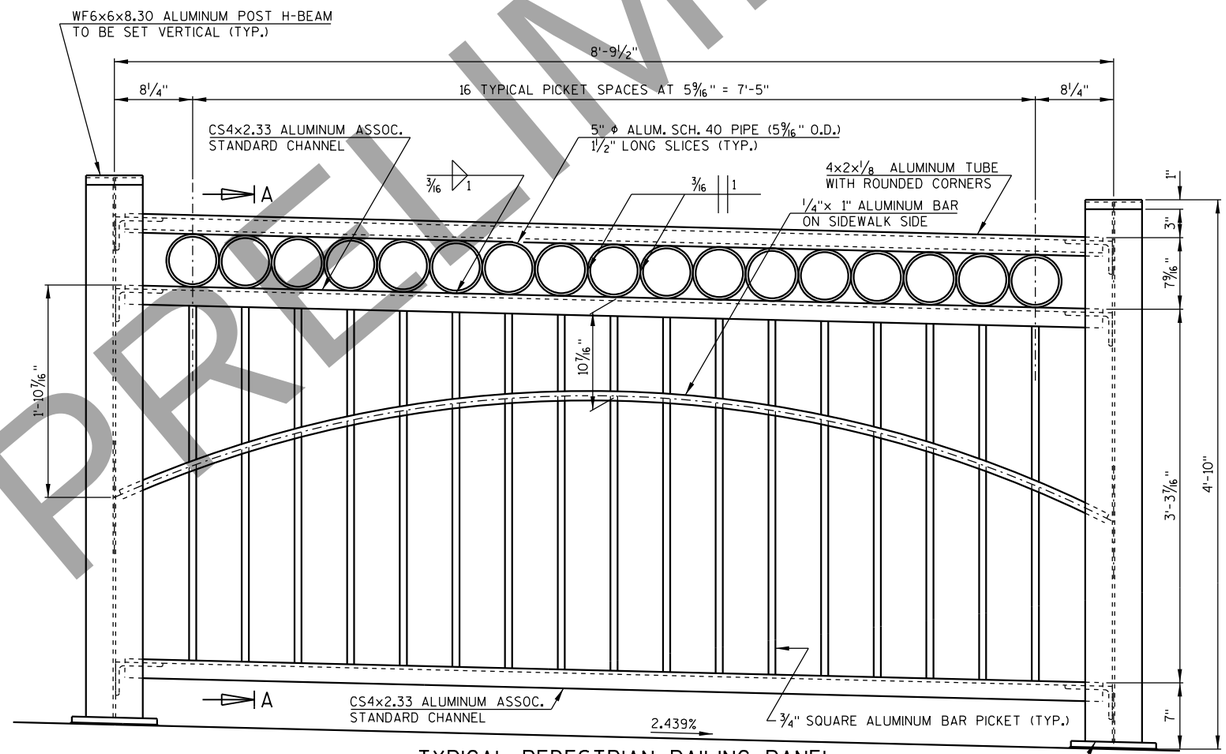


POST BASE PLATE DETAIL

(ATTACHMENT DETAIL ON BASCULE SPAN)



SECTION A-A



TYPICAL PEDESTRIAN RAILING PANEL

(LOOKING FROM SIDEWALK)

NOTES:

BID ITEM SHALL BE "RAILING ALUMINUM SPECIAL B-70-324," WHICH SHALL INCLUDE ALL ALUMINUM ITEMS SHOWN AND ASSOCIATED CONNECTIONS AND ANCHORS.

ENDS OF ALUMINUM SECTIONS ARE TO BE SAWED OR MILLED. CUT ENDS ARE TO BE TRUE, SMOOTH AND FREE FROM BURRS OR RAGGED EDGES. ALL JOINED CORNERS SHALL BE ROUNDED TO A MIN. 1/8" RADIUS.

S.S. DENOTES STAINLESS STEEL.

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

CAULK AROUND THE PERIMETER OF POST BASE PLATE WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

AFTER FABRICATION, ANODIZE ALL POSTS, RAILINGS, AND APPURTENANT PARTS WITH "STATUARY BRONZE" COLOR.

ALL ANCHOR BOLTS SHALL BE SET TO A TEMPLATE.

FURNISH TWO SPARE PEDESTRIAN RAILING SECTIONS MEASURING 8'-9 1/2" EACH. LENGTH IS INCLUDED IN THE ESTIMATED QUANITITY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MAD

PEDESTRIAN RAILING DETAILS

DRAWING S56

PRE_279

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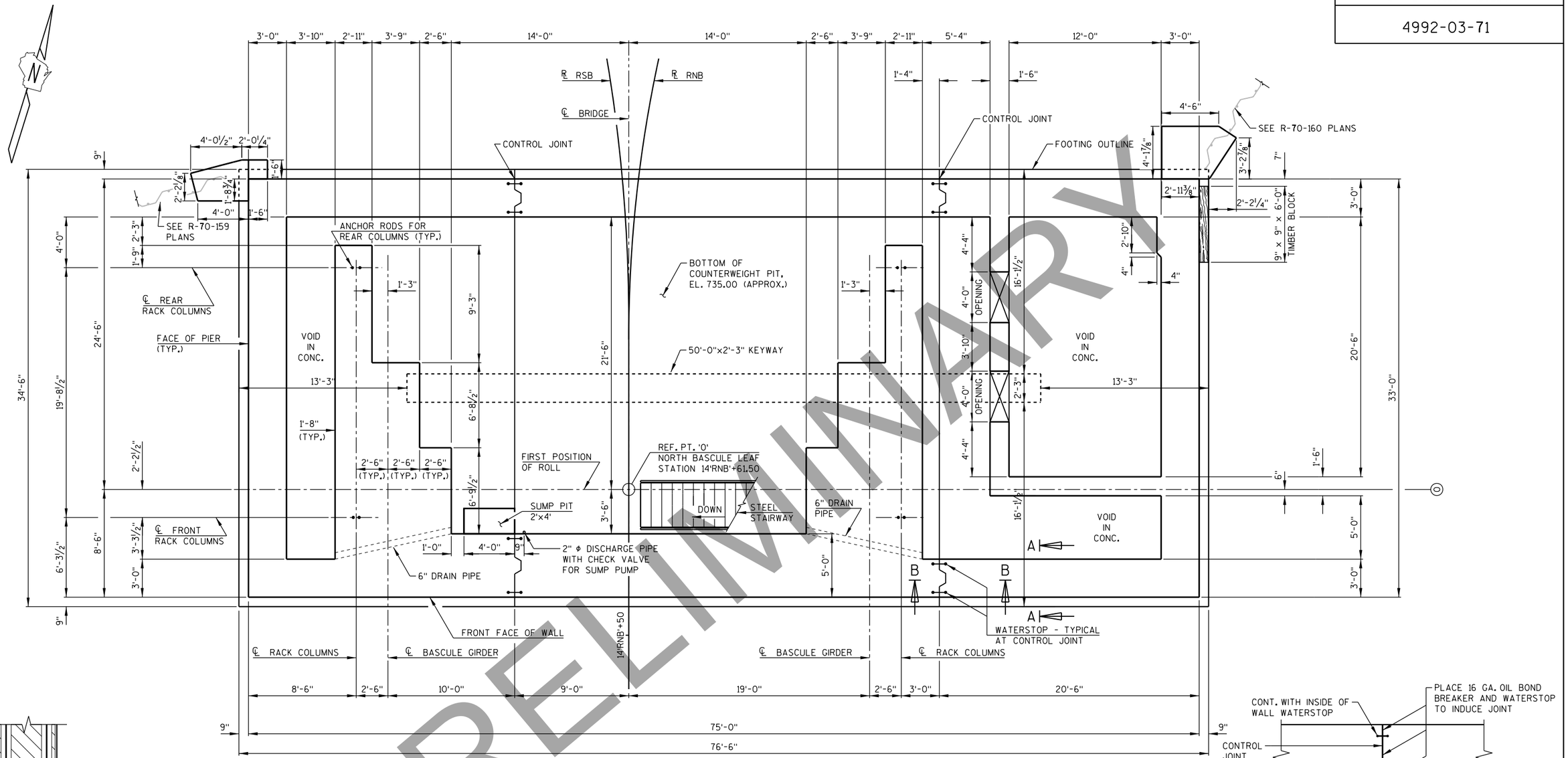
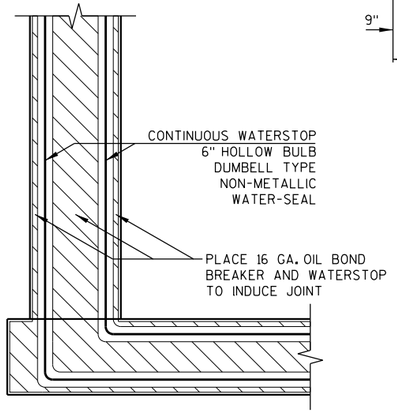
PRELIMINARY

STATE PROJECT NUMBER

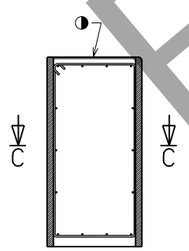
4992-03-71



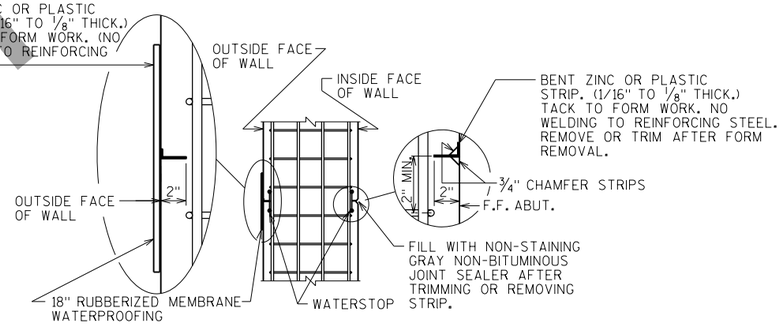
PLAN OF NORTH BASCULE ABUTMENT AT PIT LEVEL



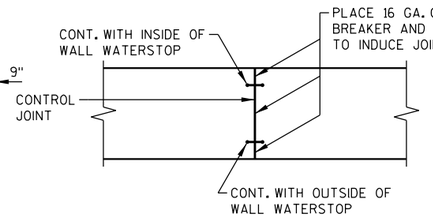
WATERSTOP DETAIL IN FOOTING AND WALL (SECTION A-A)



SECTION THRU WALL CONSTRUCTION JOINT



SECTION C-C
ALTERNATE CONSTRUCTION JOINT THRU WALLS AND FOOTING



CONTROL JOINT DETAIL IN FOOTING (SECTION B-B)

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NORTH BASCULE ABUTMENT PLAN AT PIT LEVEL

DRAWING PRE_280 P93

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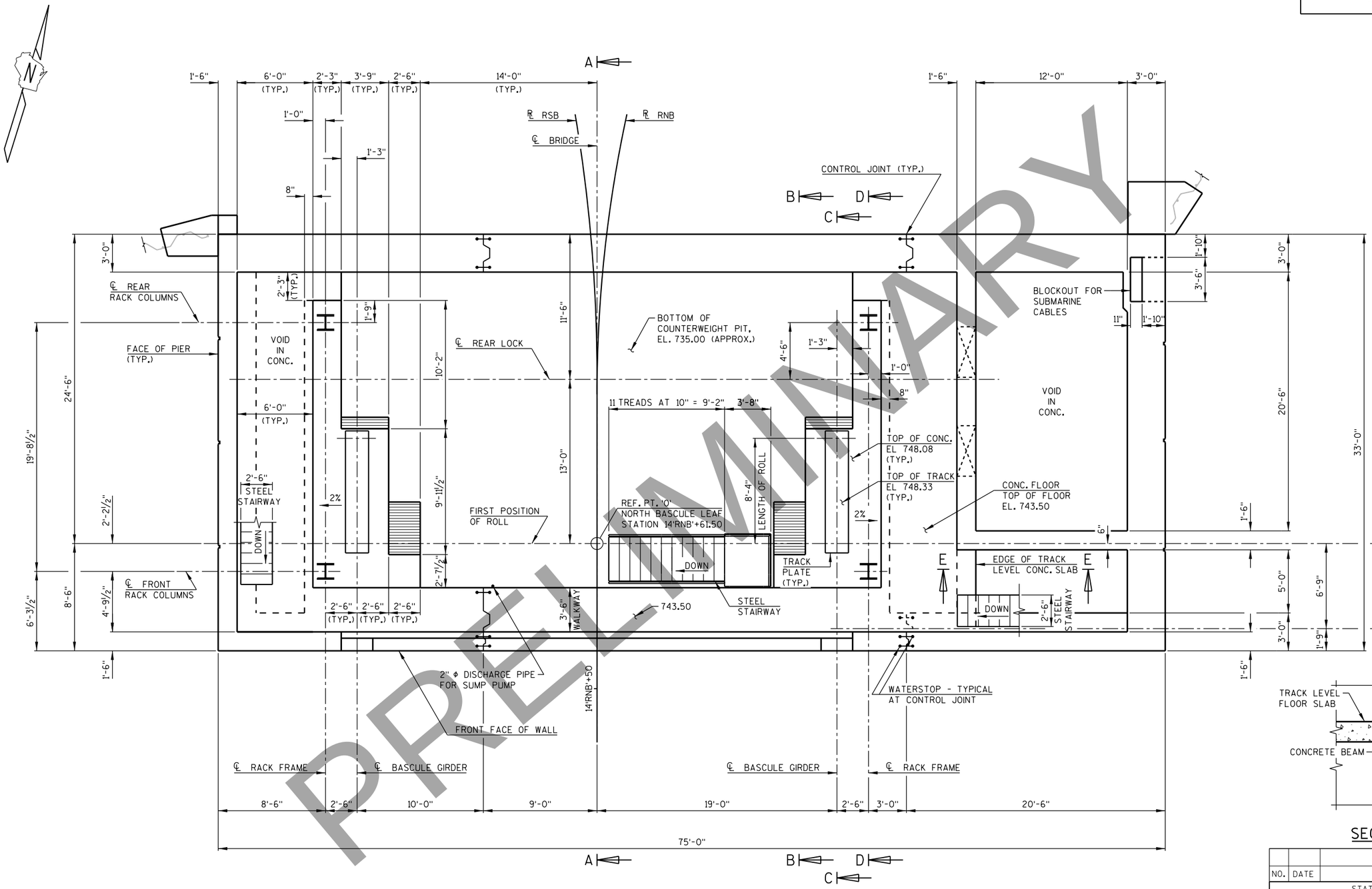
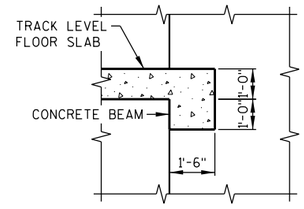
STATE PROJECT NUMBER

4992-03-71



PLAN OF NORTH BASCULE ABUTMENT AT TRACK LEVEL



SECTION E-E

NOTES:

SEE SHEET "N. BASCULE ABUT. GENERAL SECTIONS AT ROADWAY & BARRIER" FOR SECTIONS A-A & B-B.

SEE SHEET "N. BASCULE ABUT. GENERAL SECTIONS AT RACK FRAME & BASCULE GIRDER" FOR SECTIONS C-C & D-D.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NORTH BASCULE ABUTMENT PLAN AT TRACK LEVEL

DRAWING P93

PRE_281

PRELIMINARY
DRAFT 2020

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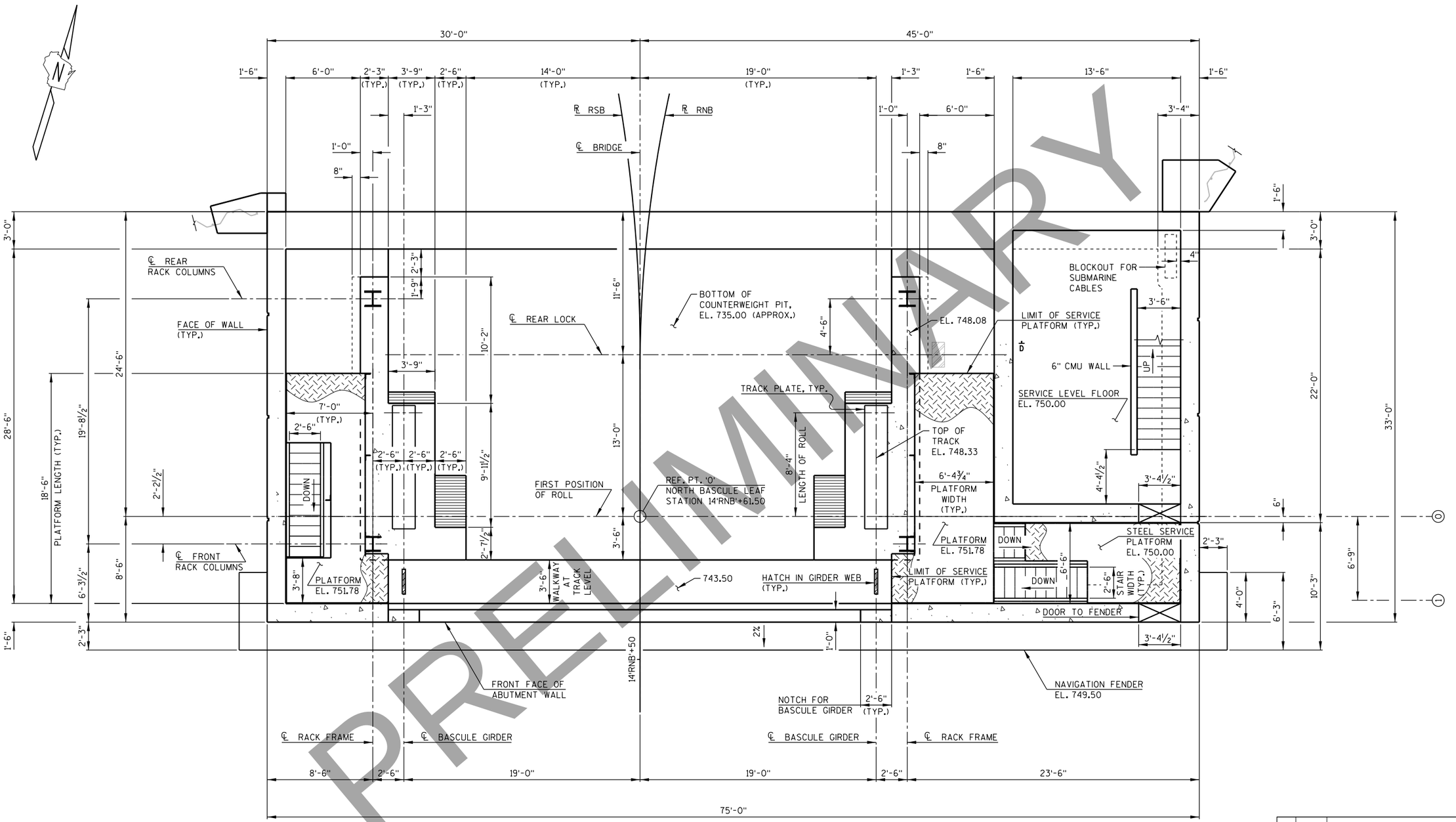
4992-03-71



PRELIMINARY

PLAN OF NORTH BASCULE ABUTMENT AT MACHINERY LEVEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	DNJ	PLANS CK'D.	MJA

NORTH BASCULE ABUTMENT PLAN AT MACHINERY LEVEL

DRAWING P93

PRE_282

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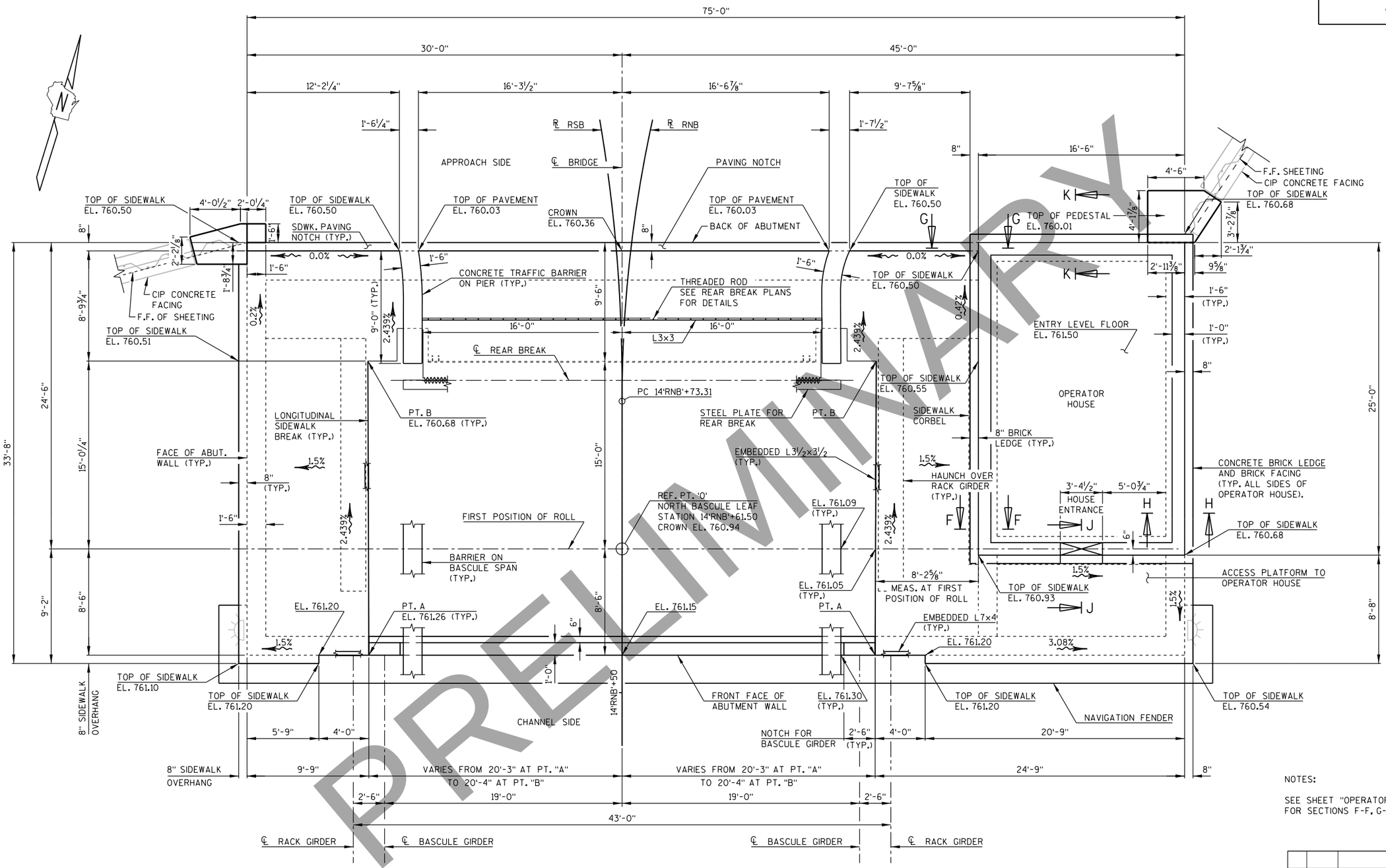
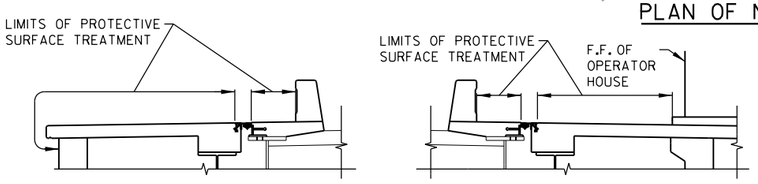
DRAFT 3/2/2020

STATE PROJECT NUMBER

4992-03-71



PLAN OF NORTH BASCULE ABUTMENT AT SIDEWALK LEVEL



SIDEWALK LIMITS OF PROTECTIVE SURFACE TREATMENT

NOTES:

SEE SHEET "OPERATOR HOUSE REINF. DETAILS" FOR SECTIONS F-F, G-G, H-H, J-J AND K-K.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NORTH BASCULE ABUTMENT PLAN AT SIDEWALK LEVEL

DRAWING PRE_283 P93

PRELIMINARY
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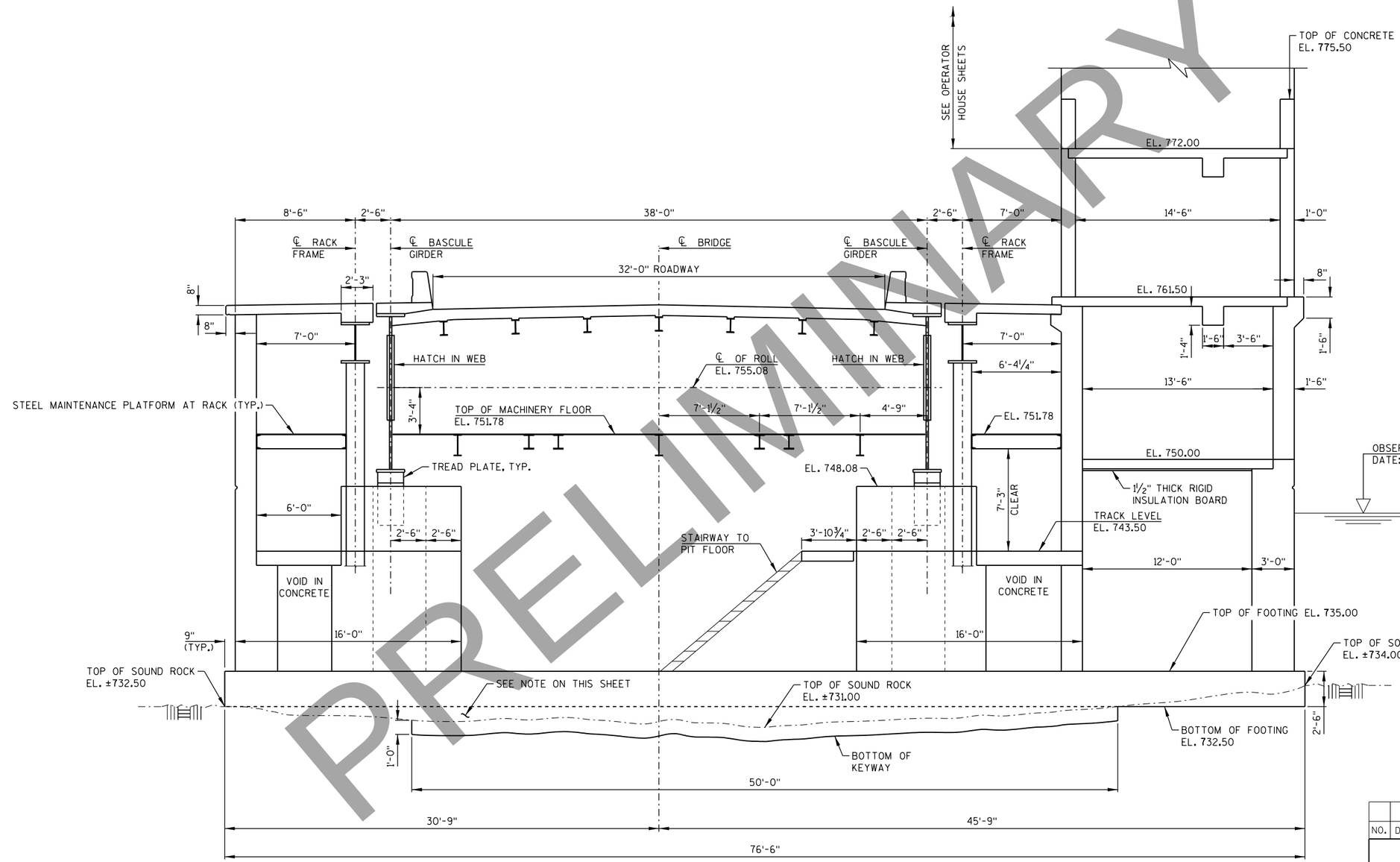
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

NOTE:
POUR ADDITIONAL CONCRETE AS NEEDED BETWEEN THEORETICAL BOTTOM OF FOOTING AND TOP OF SOUND ROCK. HORIZONTAL CONSTRUCTION JOINTS WILL NOT BE ALLOWED IN THE FOOTING. MAINTAIN A MAXIMUM FOOTING ELEVATION OF 732.50.

NORTH BASCULE ABUTMENT SECTION AT FIRST POSITION OF ROLL

(LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. SECTION AT FIRST POSITION OF ROLL

DRAWING PRE_284

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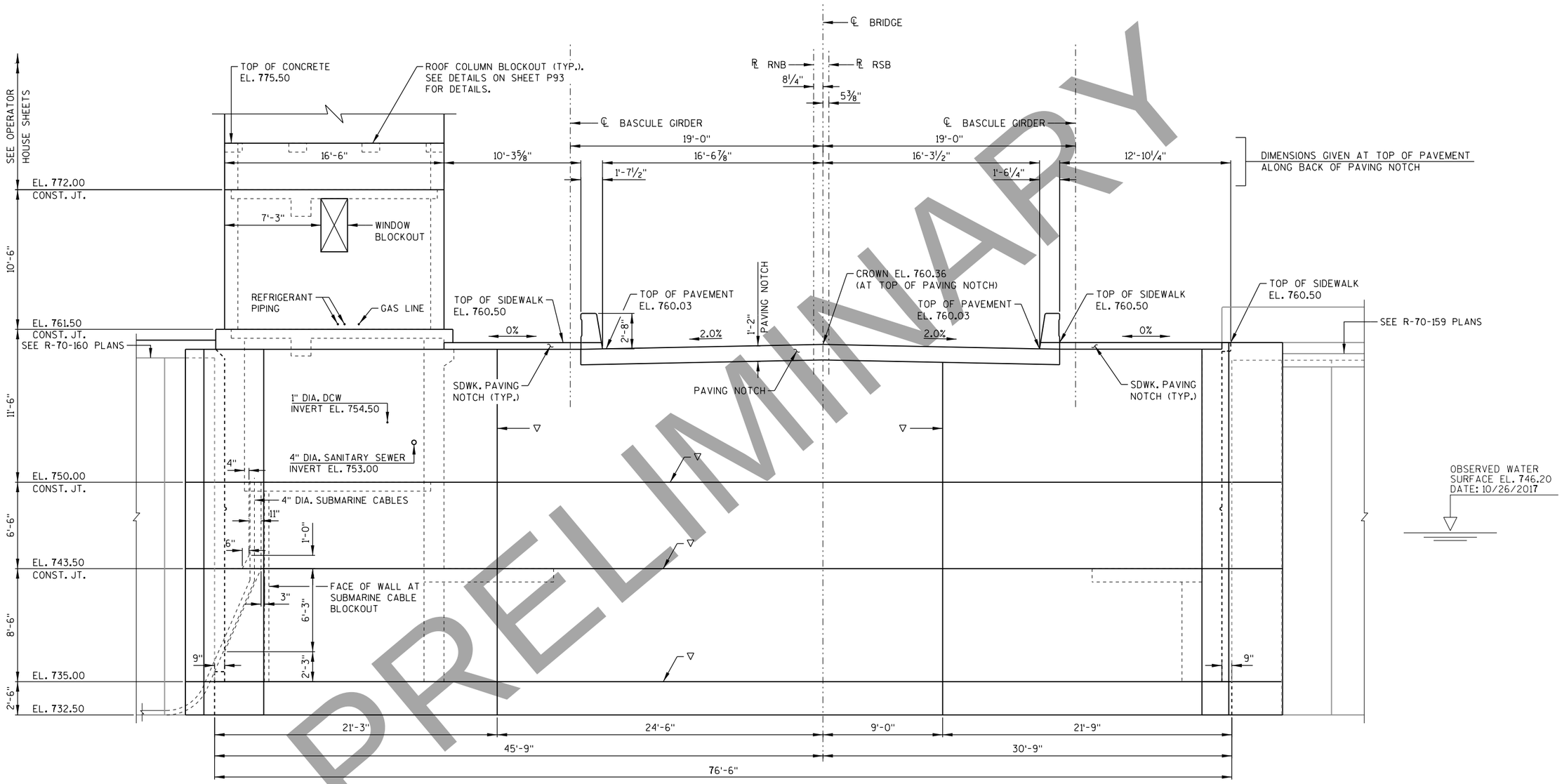
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

NORTH BASCULE ABUTMENT NORTH ELEVATION

(APPROACH SIDE - LOOKING SOUTH)

LEGEND

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. GENERAL APPROACH ELEVATION

DRAWING PRE_285

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STATE PROJECT NUMBER
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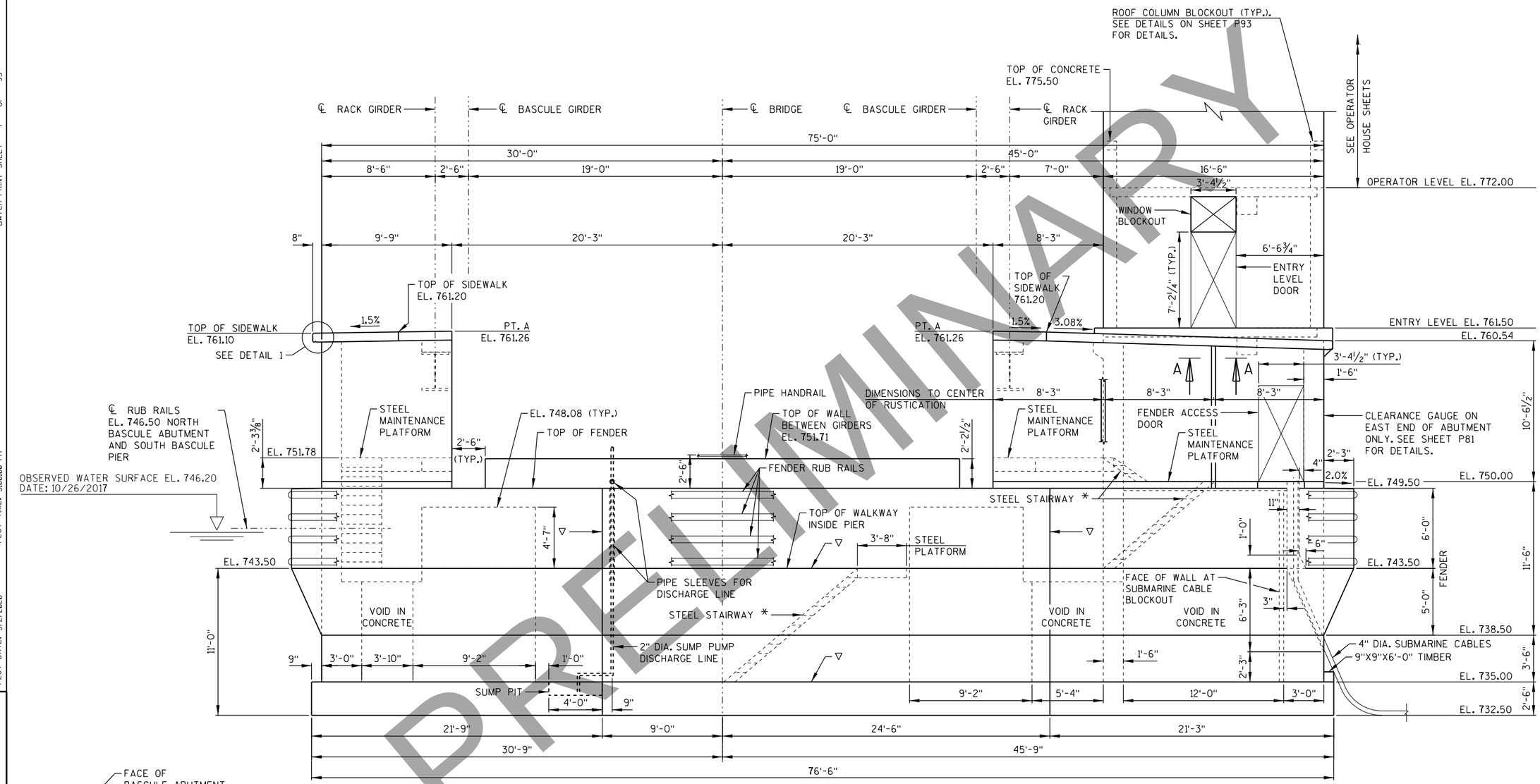
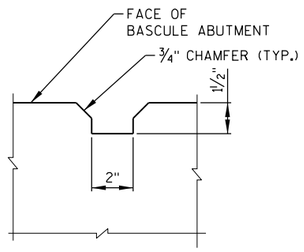


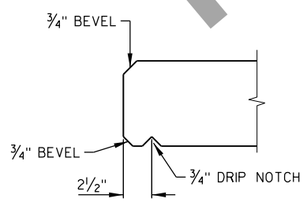
PRELIMINARY

NORTH BASCULE ABUTMENT ELEVATION AT CHANNEL WALL

(LOOKING NORTH)



SECTION A-A



DETAIL 1

LEGEND

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS BELOW WATER LINE.

* FOR DETAILS, SEE SHEETS "STEEL STAIR PLAN & ELEVATION NORTH BASCULE ABUTMENT - 1", "STEEL STAIR PLAN & ELEVATION NORTH BASCULE ABUTMENT - 2" AND "STEEL STAIR DETAILS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUT. GENERAL CHANNEL ELEVATION

DRAWING PRE_286

PRINTER DRIVER: S:\..acm-CADstds.Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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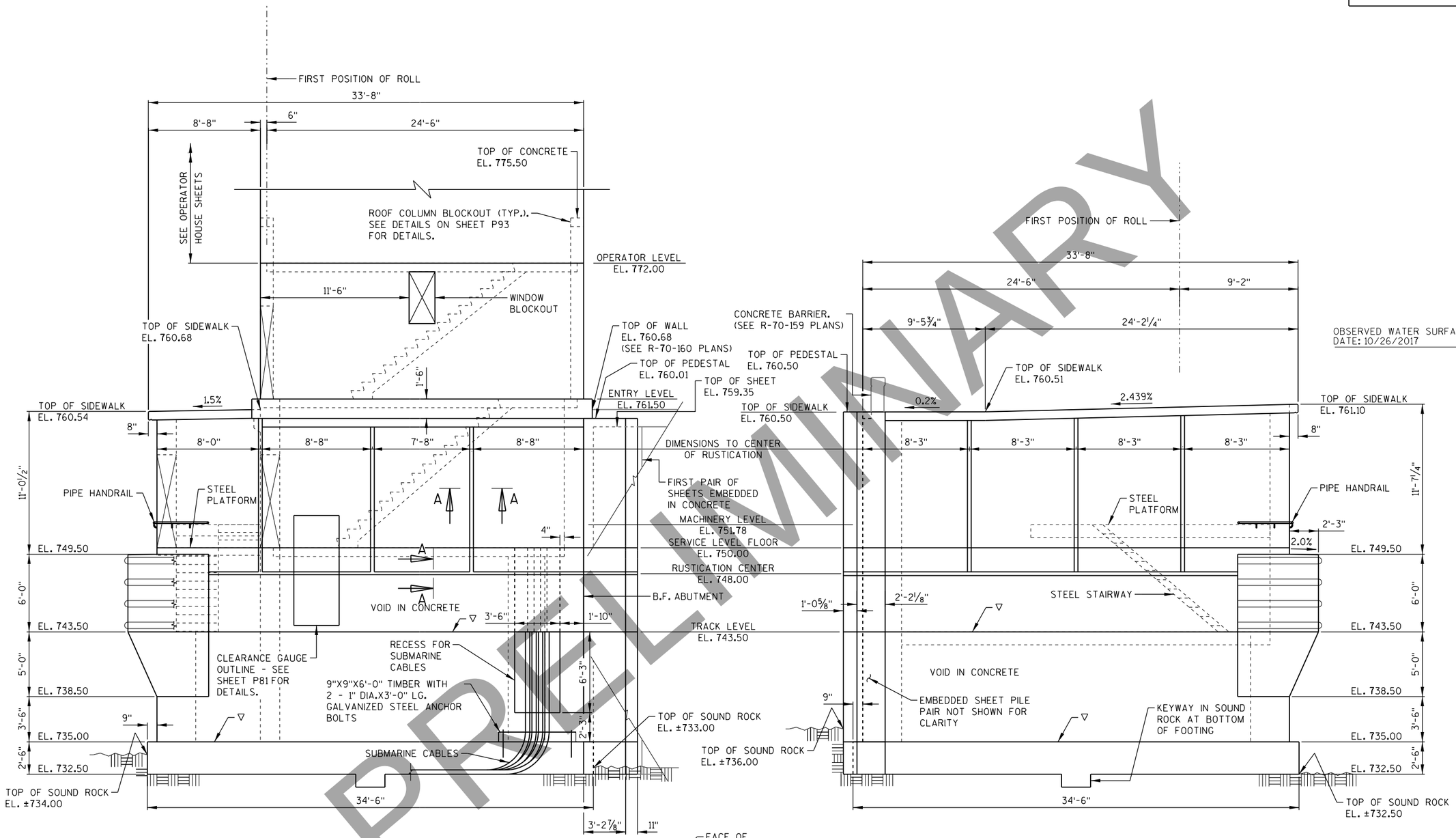
PLOT DATE: 3/2/2020
PLOT TIME: 5:20:17 PM
BATCH PRINT SHEET 8 OF 93
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71

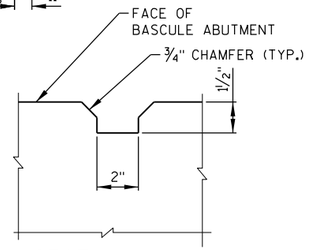


NORTH BASCULE ABUTMENT - EAST ELEVATION

(LOOKING WEST)

NORTH BASCULE ABUTMENT - WEST ELEVATION

(LOOKING EAST)



SECTION A-A

LEGEND

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS BELOW WATER LINE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUT. GENERAL EAST & WEST ELEVATIONS

DRAWING PRE_287

PRELIMINARY

8

8

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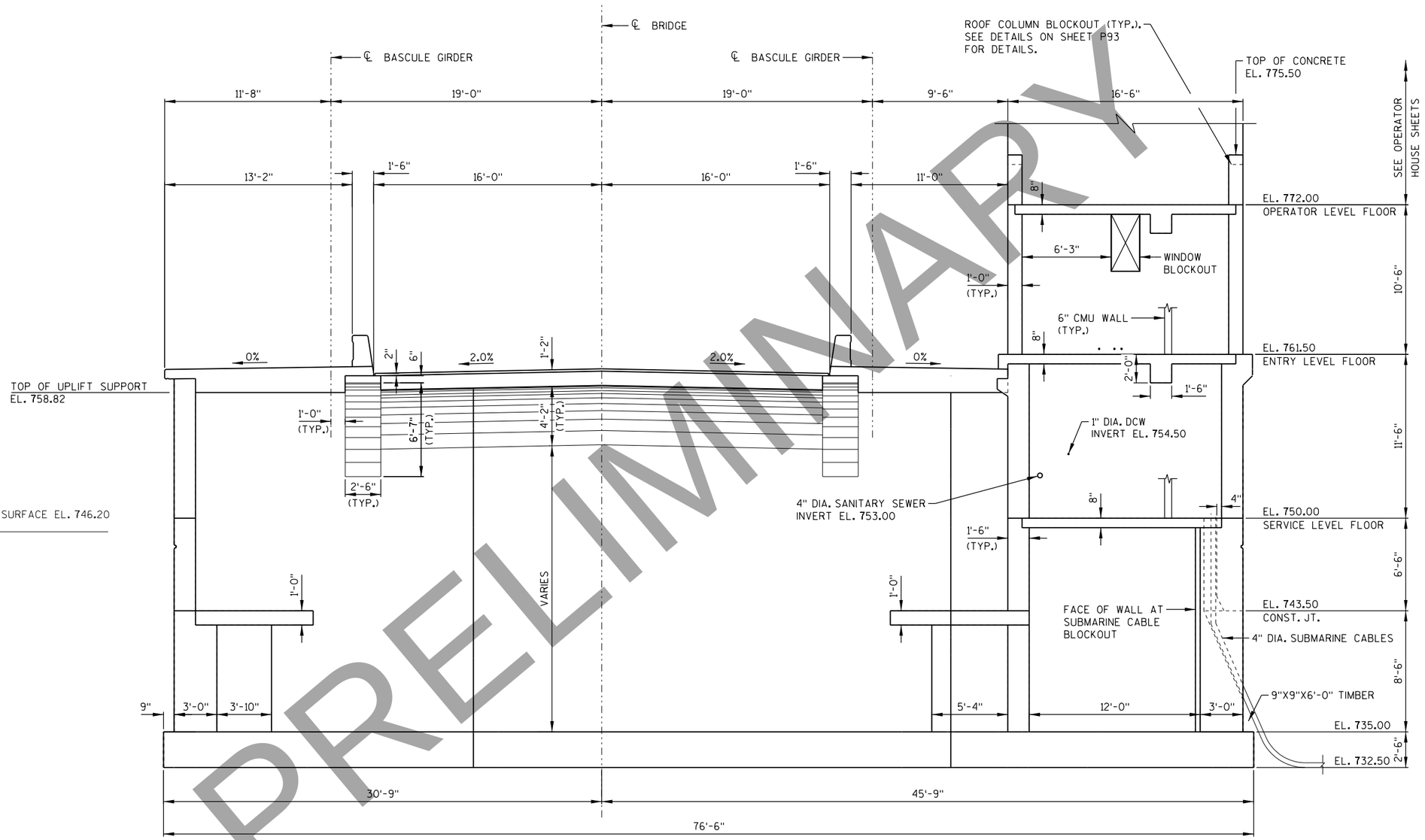
BATCH PRINT SHEET 9 OF 93
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



NORTH BASCULE ABUTMENT NORTH WALL

(APPROACH SIDE - LOOKING NORTH)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUT. GENERAL INTERIOR APPROACH WALL ELEVATION

DRAWING PRE_288

8

8

PRINTER DRIVER: S:\..acm-CADstds.Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF.11 x 17.plt
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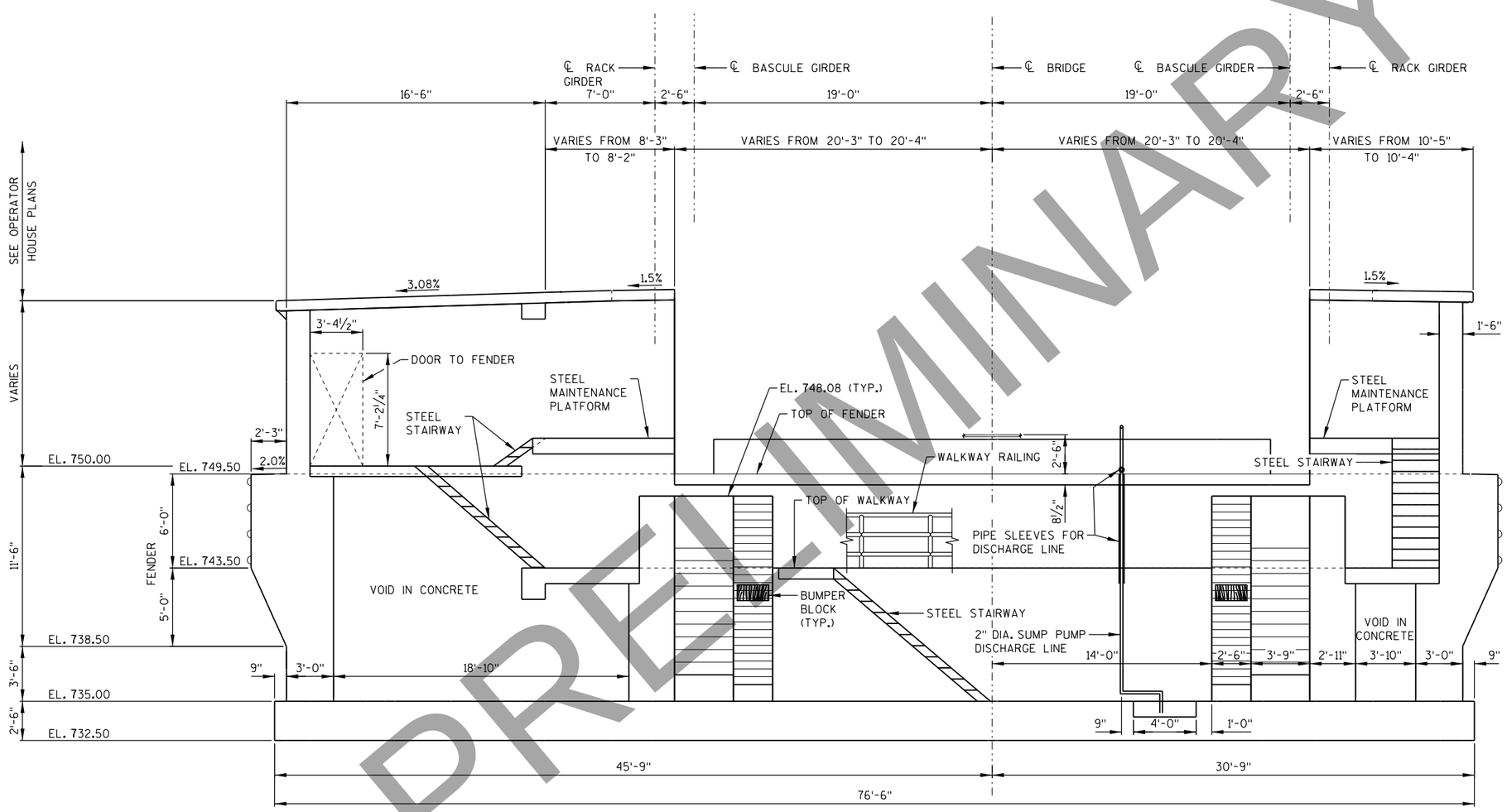
STATE PROJECT NUMBER
4992-03-71



OBSERVED WATER SURFACE EL. 746.20
DATE: 10/26/2017

PRELIMINARY

NORTH BASCULE ABUTMENT SOUTH WALL

(LOOKING SOUTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUT. GENERAL INTERIOR CHANNEL WALL ELEVATION

DRAWING PRE_289

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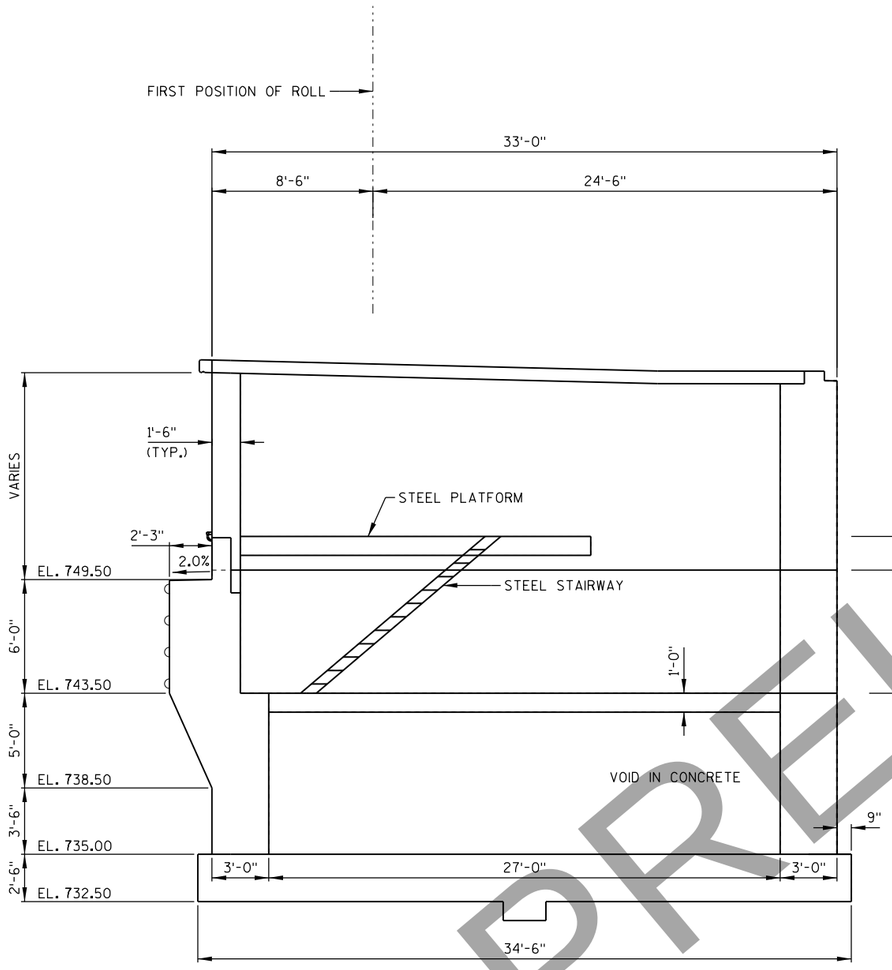
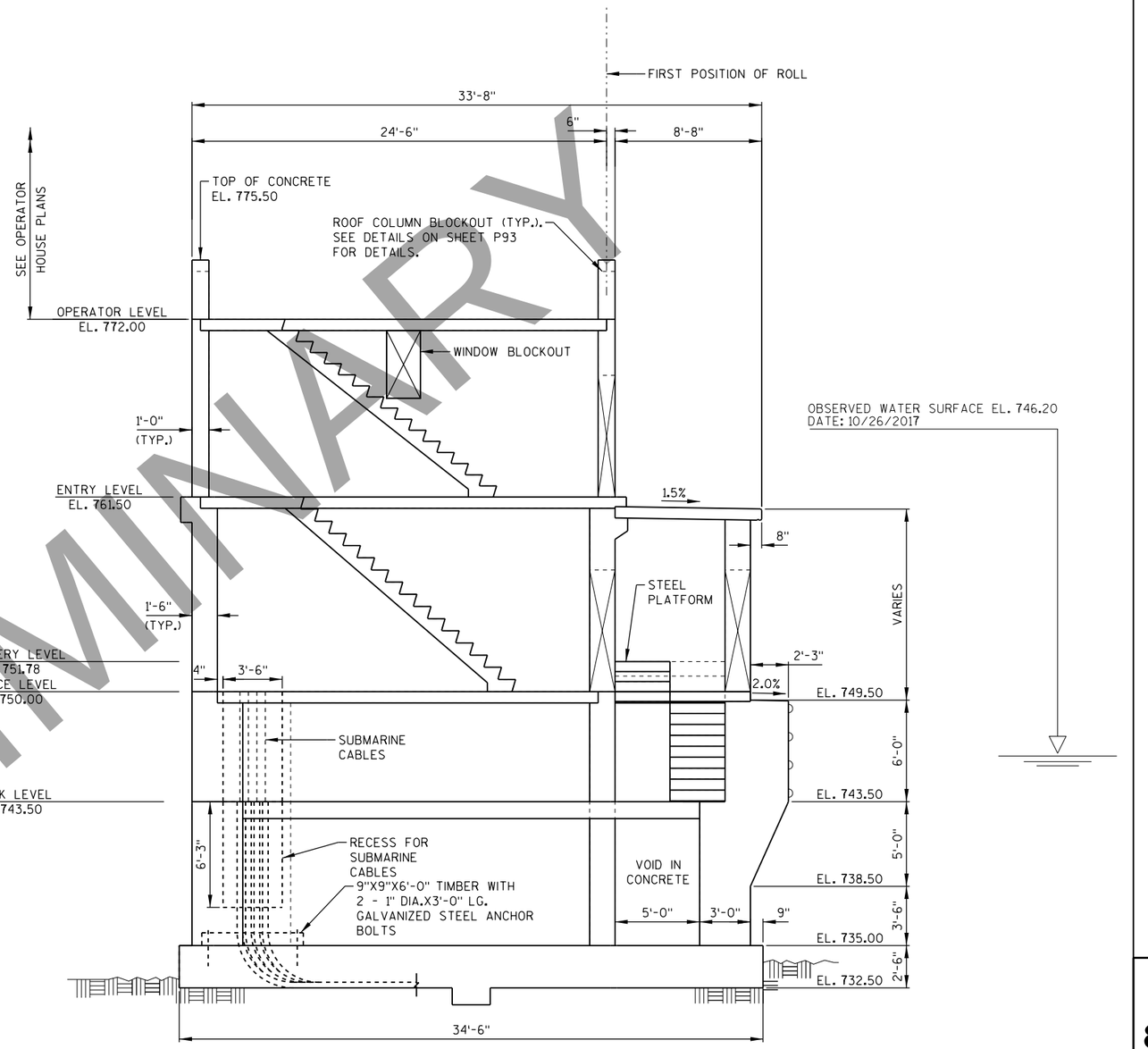
BATCH PRINT SHEET 11 OF 93
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



NORTH BASCULE ABUTMENT - WEST WALL
(LOOKING WEST)



NORTH BASCULE ABUTMENT - EAST WALL
(LOOKING EAST)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. GENERAL EAST & WEST INTERIOR ELEVATIONS

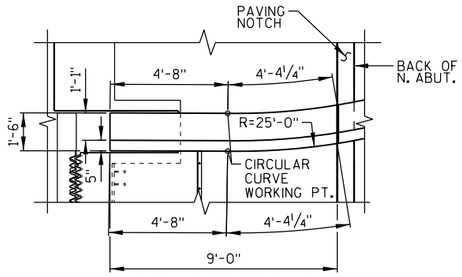
DRAWING PRE_290

8

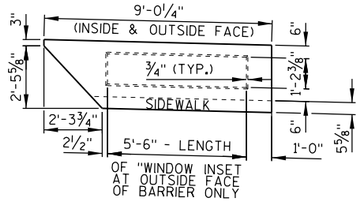
8

PRELIMINARY

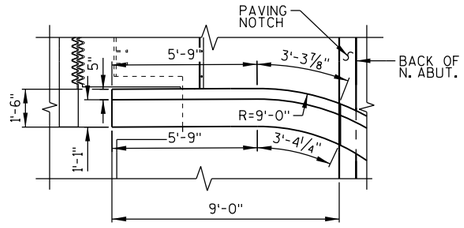
STATE PROJECT NUMBER
4992-03-71



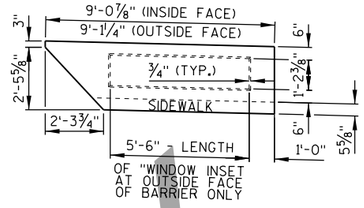
WEST BARRIER PLAN



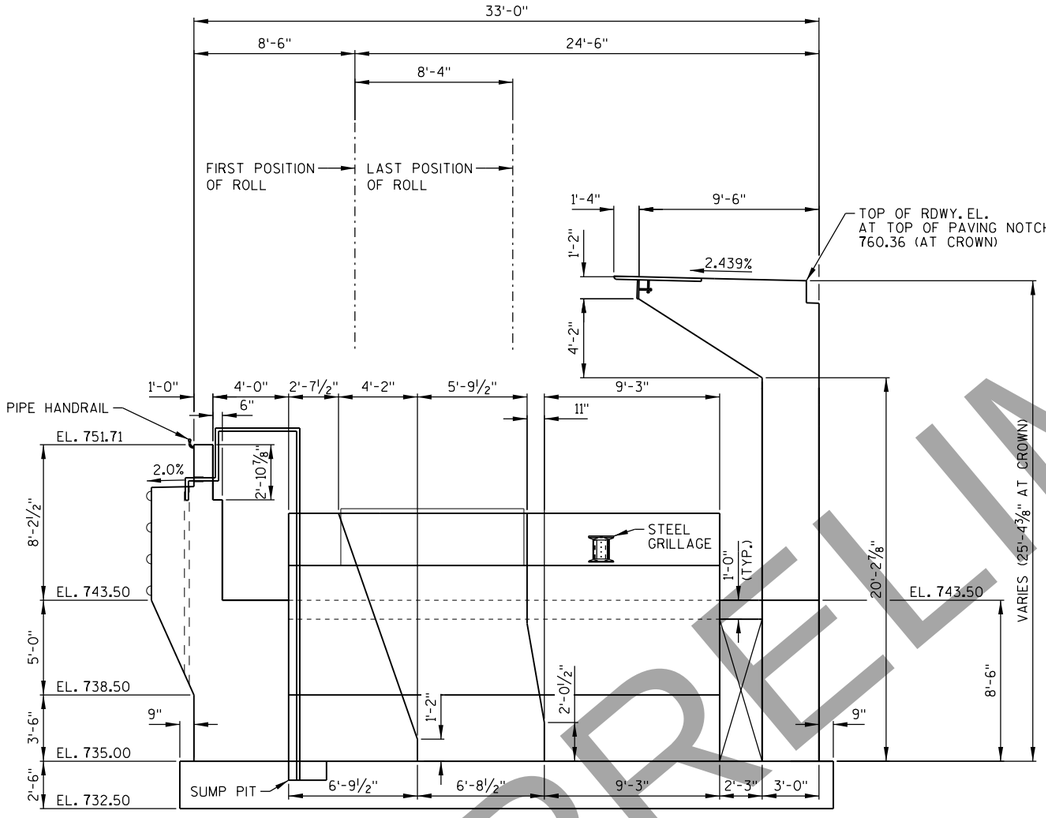
INSIDE ELEVATION OF WEST BARRIER



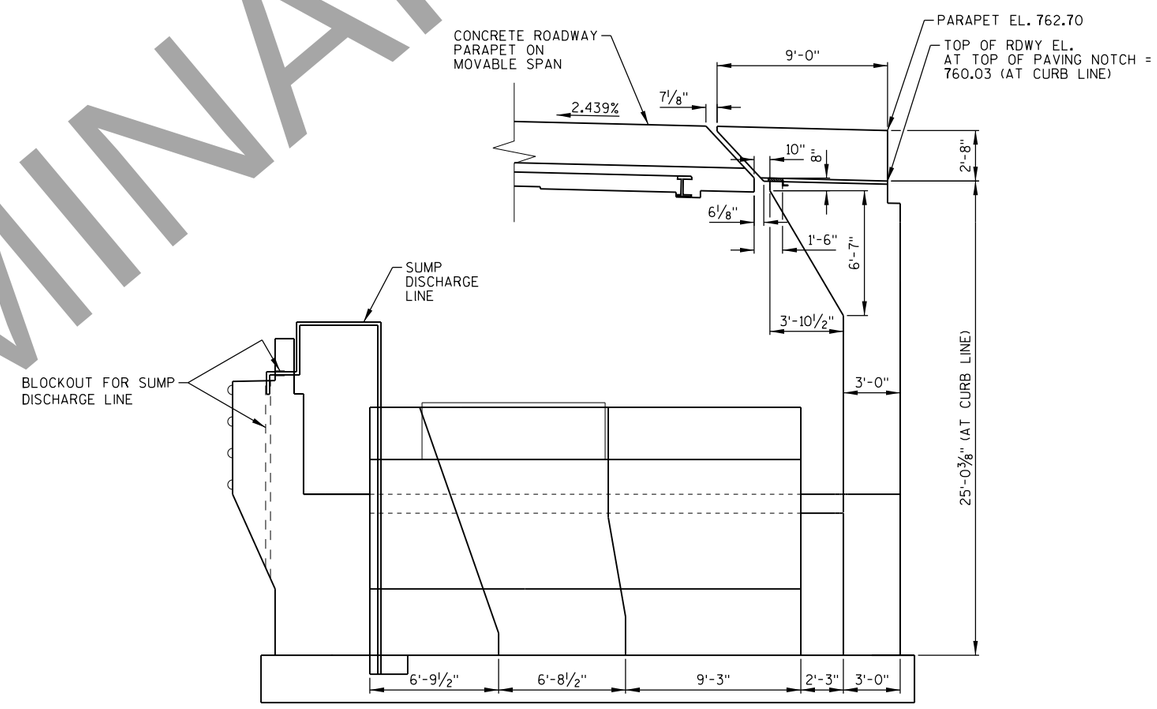
EAST BARRIER PLAN



INSIDE ELEVATION OF EAST BARRIER



SECTION A-A



SECTION B-B

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)

NOTES

SEE "NORTH BASCULE ABUTMENT PLAN AT TRACK LEVEL" FOR LOCATION OF SECTIONS A-A & B-B.

FOR LIMITS OF PIGMENTED SURFACE SEALER ON BARRIER, SEE DETAIL "SECTION THRU CONCRETE BARRIER" ON SHEET "DECK DETAILS OVER MACHINERY ROOM".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. GENERAL SECTIONS AT ROADWAY & BARRIER

DRAWING PRE_291

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BATCH PRINT SHEET 12 OF 93
DRAFT April 20, 2020

8

8

PRINTER DRIVER: S:\..acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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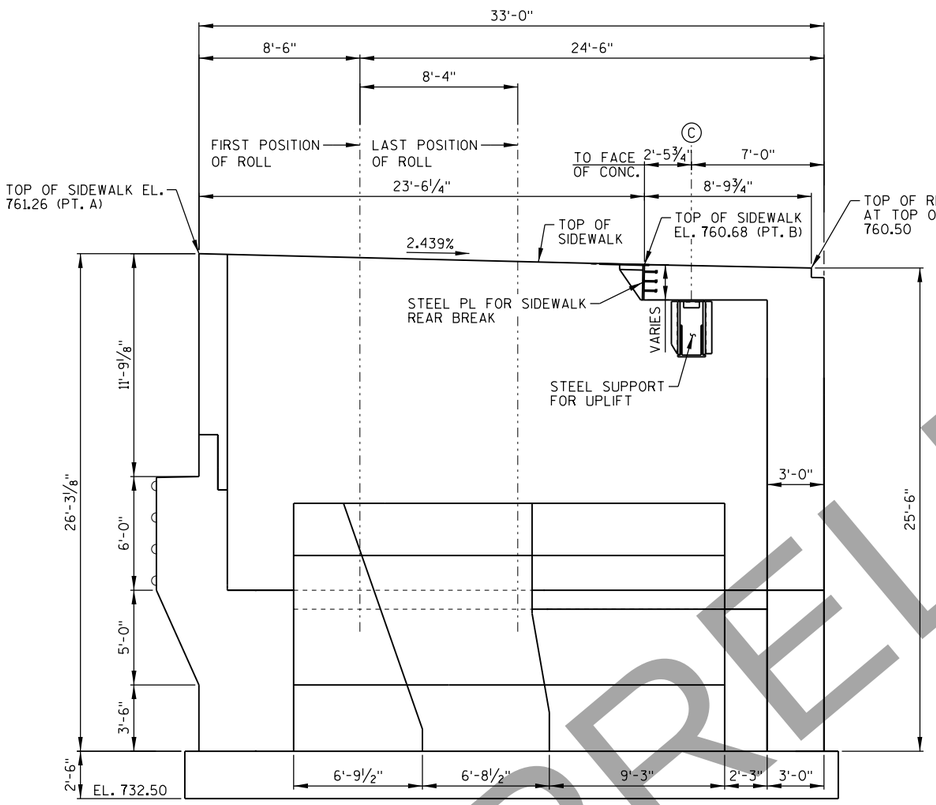
DRAFT April 20,

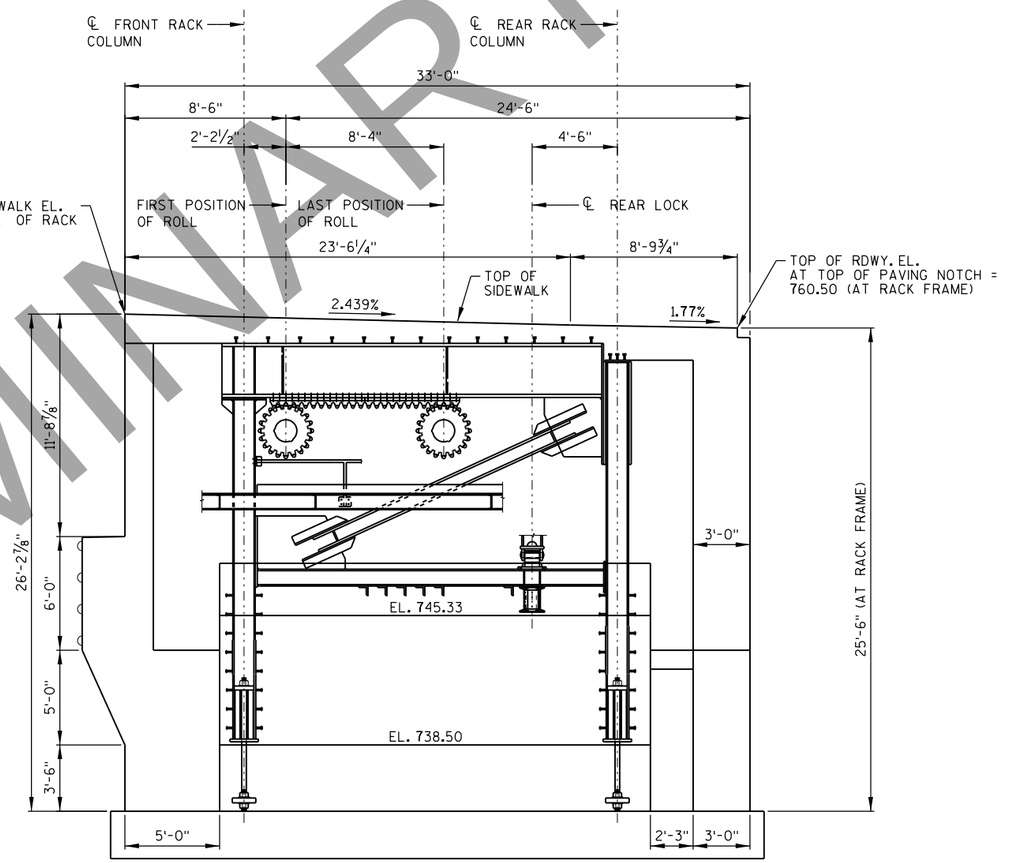
STATE PROJECT NUMBER

4992-03-71



SECTION C-C

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)



SECTION D-D

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)

PRELIMINARY

NOTES

SEE "NORTH BASCULE ABUTMENT PLAN AT TRACK LEVEL" FOR LOCATION OF SECTIONS C-C & D-D.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUT. GENERAL SECTIONS AT RACK FRAME & BASCULE GIRDER

DRAWING PRE_292

8

8

PRINTER DRIVER: S:_acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF 11 x 17.plt
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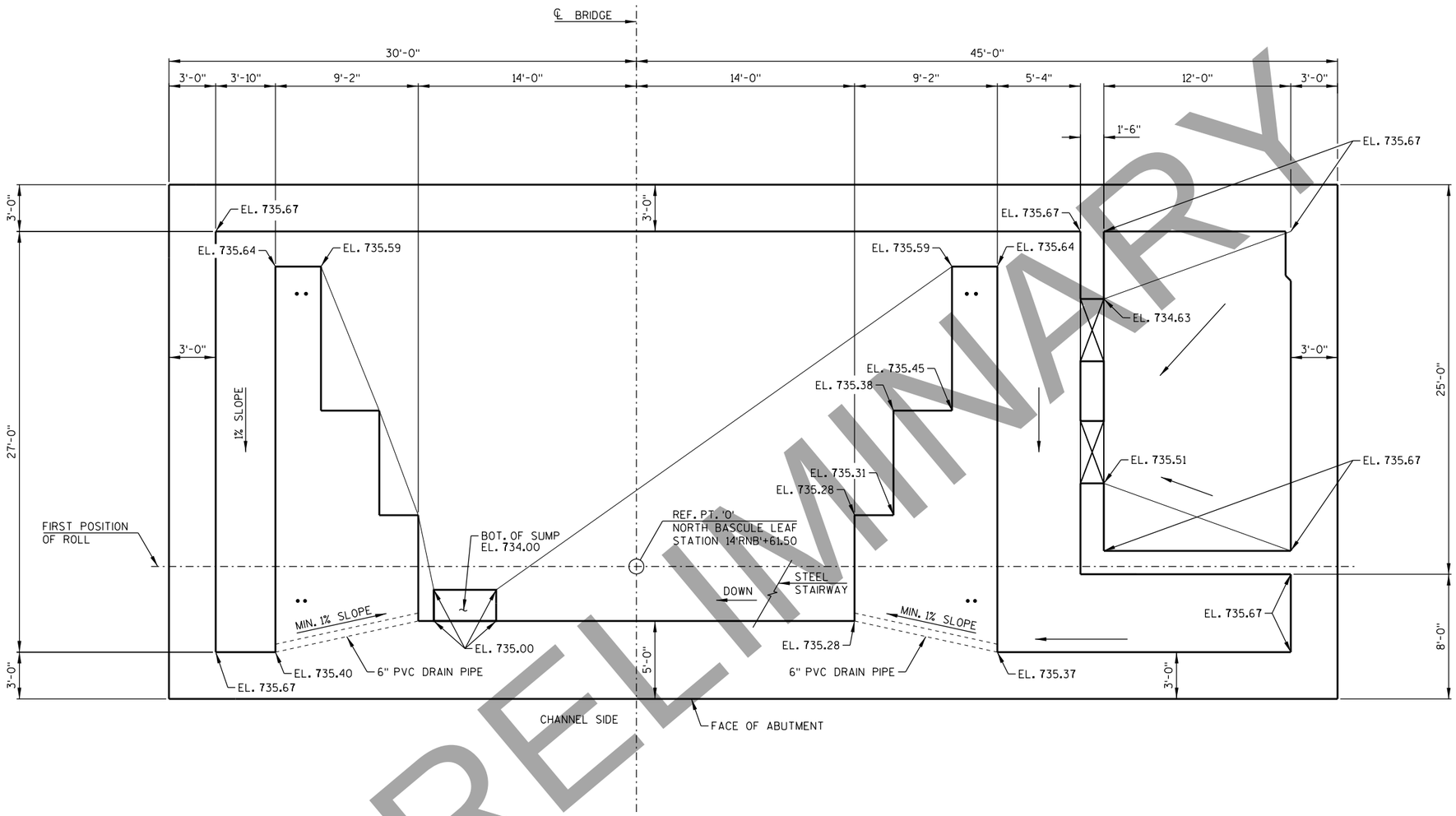
BATCH PRINT SHEET 14 OF 93
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



PLAN

BASCULE ABUTMENT AT PIT FLOOR

NOTE:

COST OF DRAIN PIPES INCLUDED IN BID ITEM "CONCRETE MASONRY BRIDGES".

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUT. DRAINAGE PLAN AT PIT FLOOR

DRAWING PRE_293

8

8

PRINTER DRIVER: S:_acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF 11 x 17.plt
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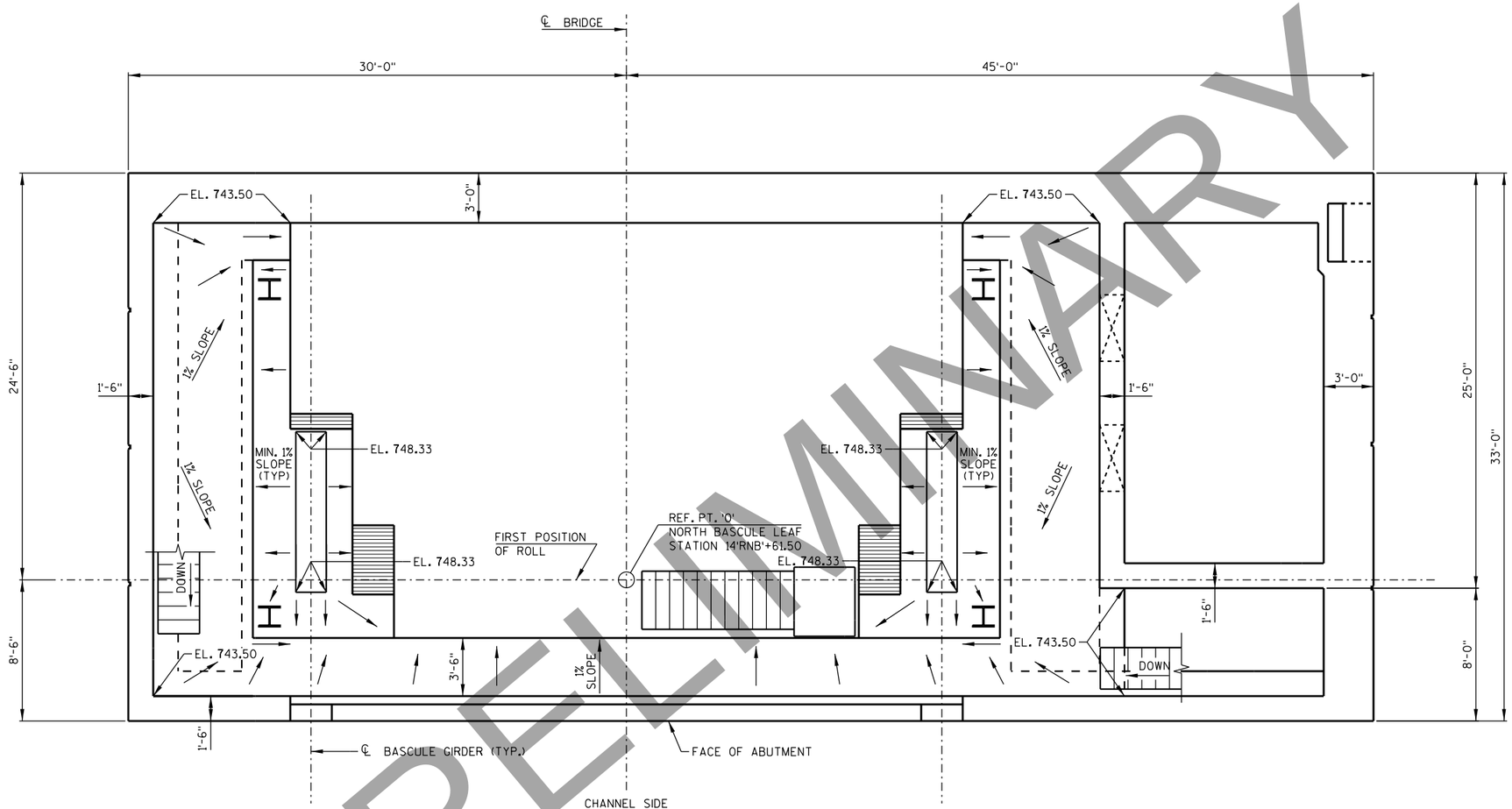
BATCH PRINT SHEET 15 OF 93

DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



PLAN

BASCULE ABUTMENT AT TRACK LEVEL

PRELIMINARY

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUT. DRAINAGE PLAN AT TRACK LEVEL

DRAWING PRE_294

PRINTER DRIVER: S:_aecm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF_11 x 17.plt
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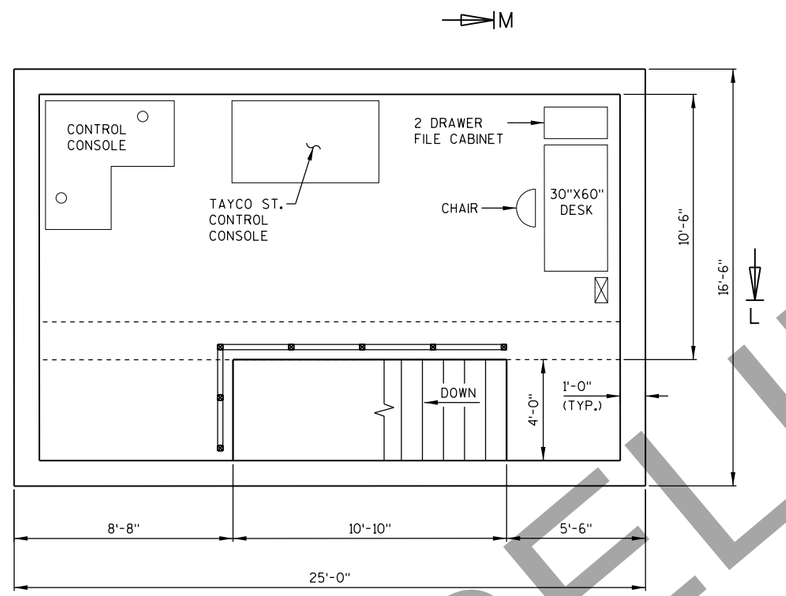
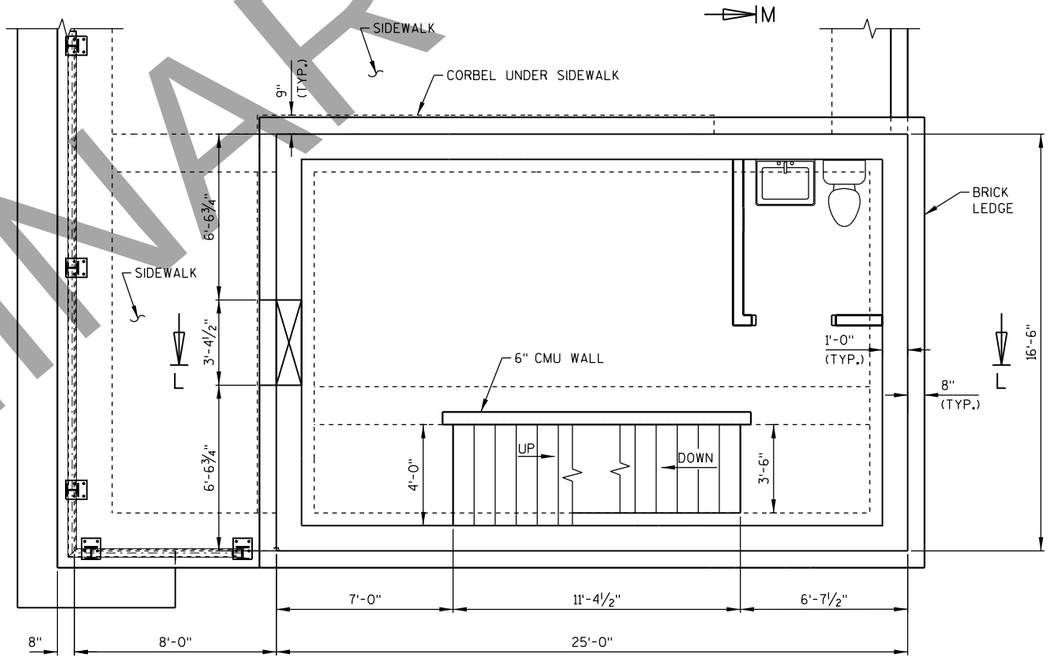
DRAFT April 20,



OPERATOR LEVEL

(TOP OF CONCRETE FLOOR EL. 772.00)



ENTRY LEVEL

(TOP OF CONCRETE FLOOR EL. 761.50)

PRELIMINARY

NOTES

SEE SHEET "OPERATOR HOUSE GENERAL SECTIONS" FOR SECTIONS L-L AND M-M.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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OPERATOR HOUSE GENERAL FLOOR PLAN - 1

DRAWING PRE_295

8

8

PRINTER DRIVER: S:_acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF_11 x 17.plt
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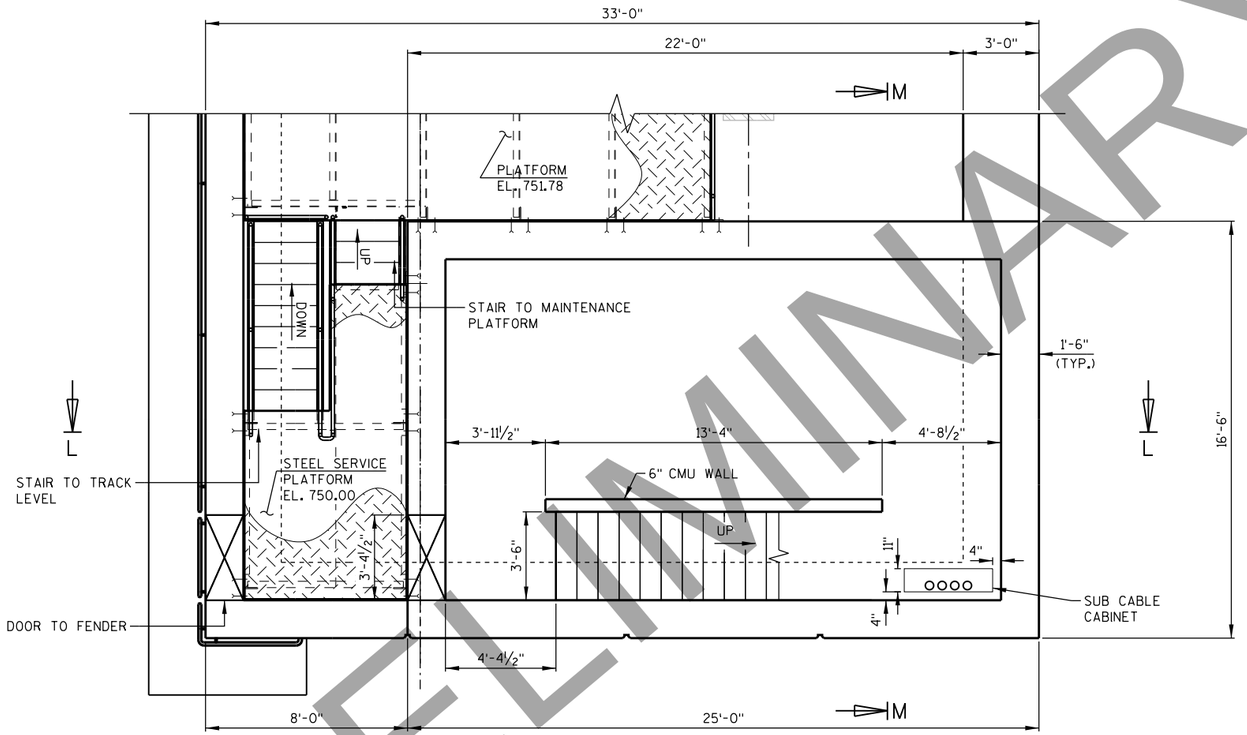
DRAFT April 20,



SERVICE LEVEL

(TOP OF CONCRETE FLOOR EL. 750.00)

PRELIMINARY

NOTES

SEE SHEET "OPERATOR HOUSE GENERAL SECTIONS" FOR SECTIONS L-L AND M-M.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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OPERATOR HOUSE GENERAL FLOOR PLAN - 2

DRAWING PRE_296

8

8

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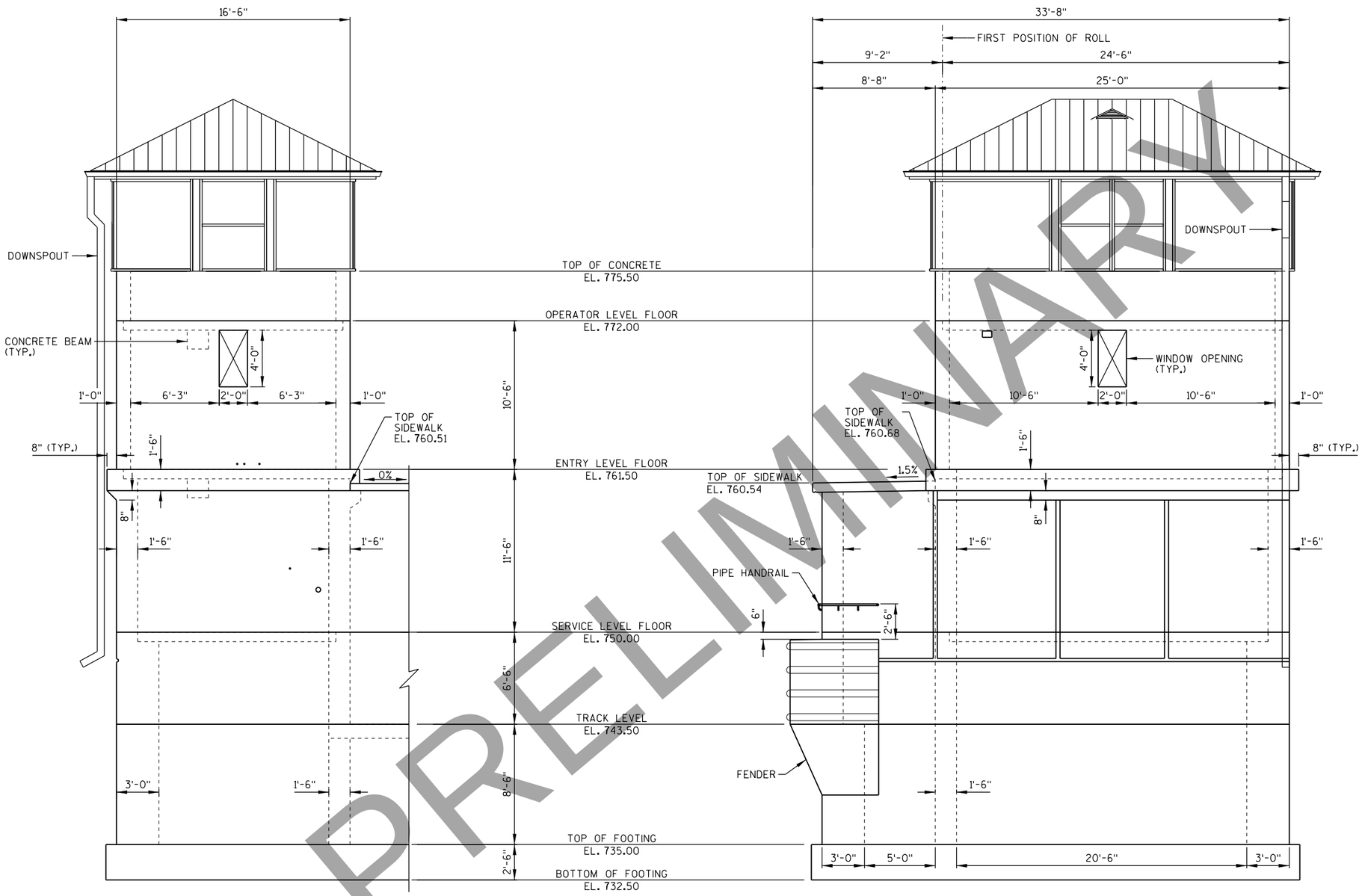
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



NORTH ELEVATION
(LOOKING SOUTH)

EAST ELEVATION
(LOOKING WEST)

OBSERVED WATER SURFACE EL. 746.20
DATE: 10/26/2017

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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OPERATOR HOUSE GENERAL NORTH AND EAST ELEVATIONS

DRAWING PRE_297

8

8

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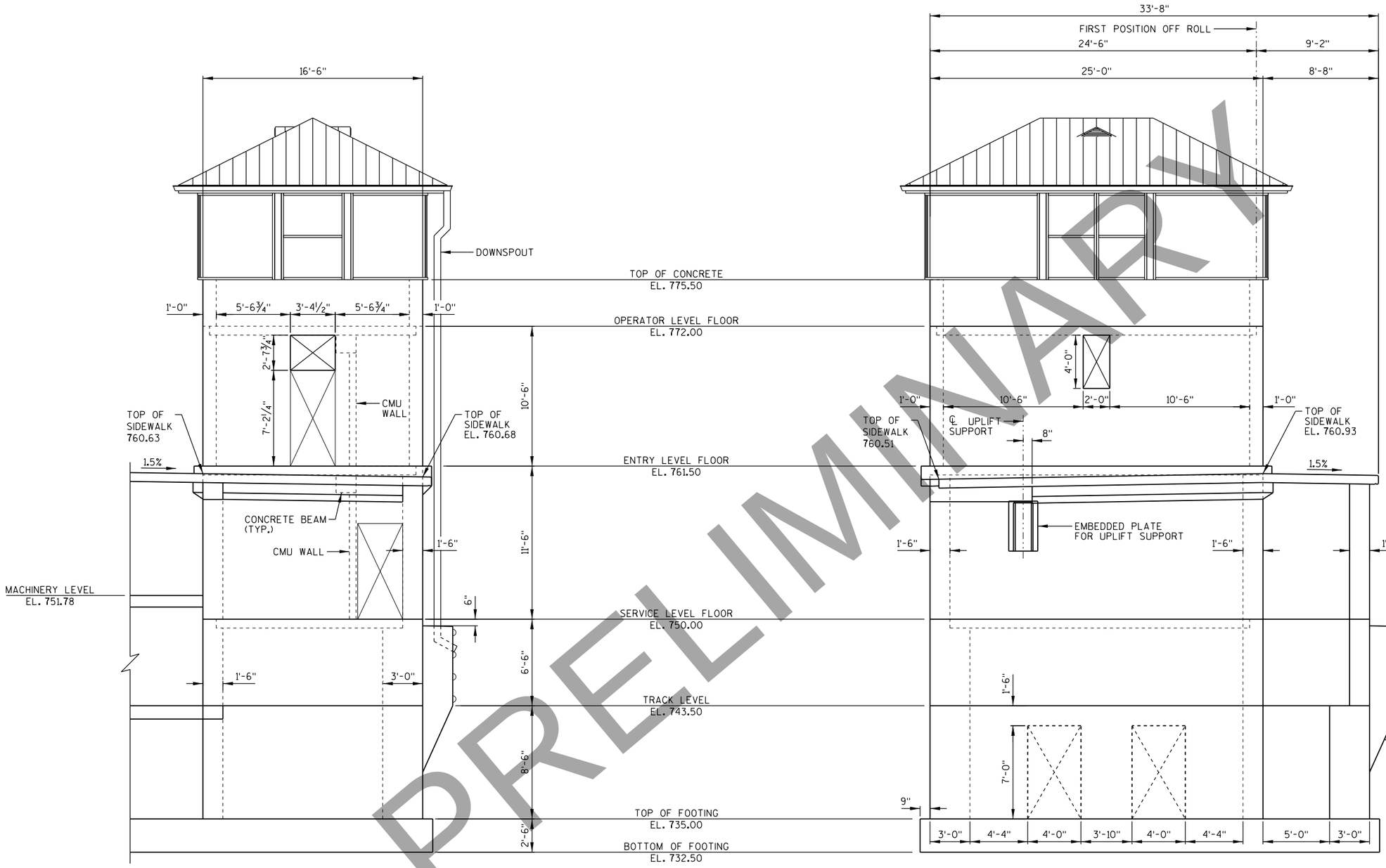
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



SOUTH ELEVATION
(LOOKING NORTH)

WEST ELEVATION
(LOOKING EAST)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

OPERATOR HOUSE GENERAL SOUTH AND WEST ELEVATIONS

DRAWING PRE_298

8

8

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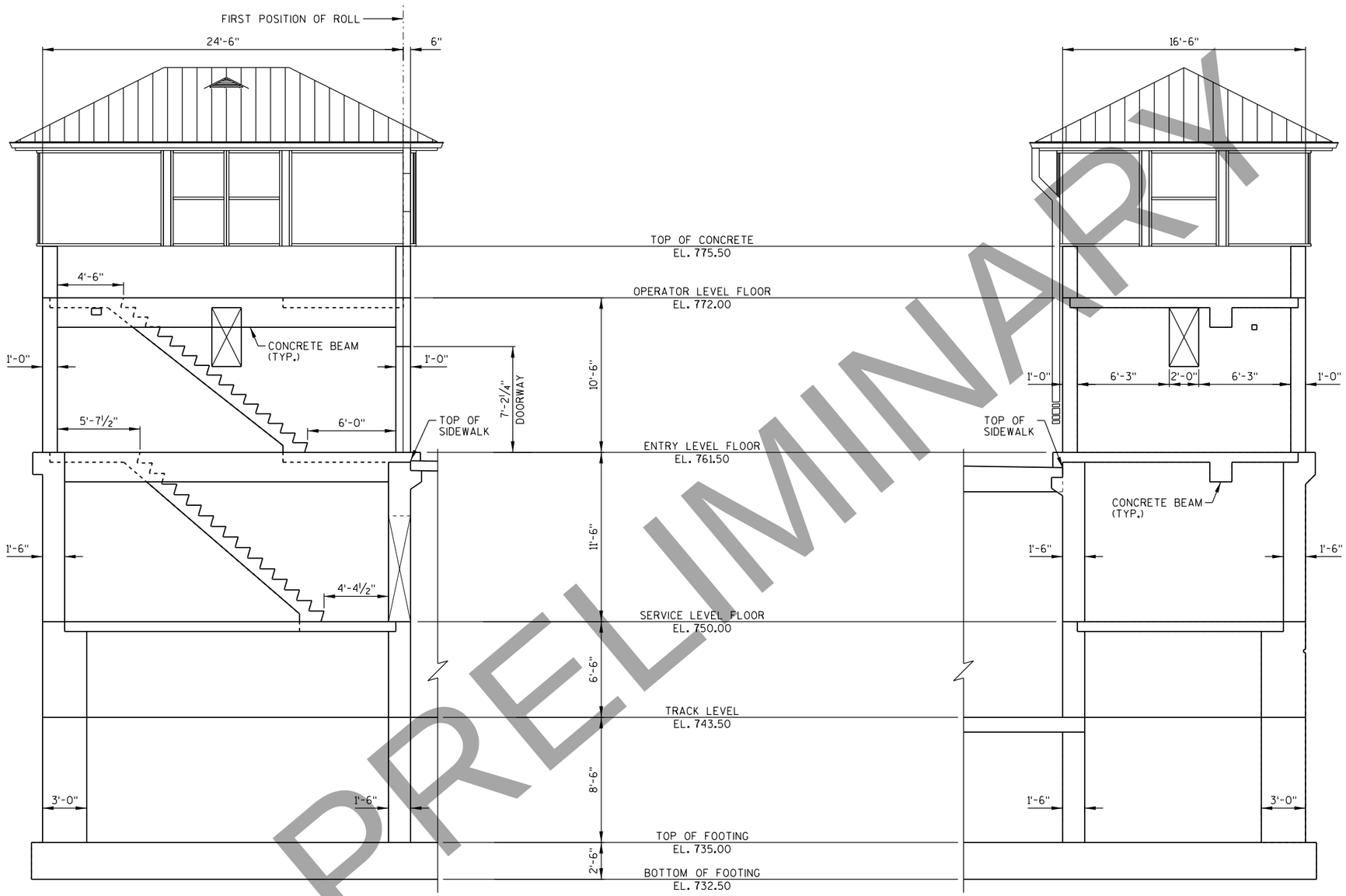
BATCH PRINT SHEET 20 OF 93
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



SECTION L-L

SECTION M-M

PRELIMINARY

NOTES

SEE SHEETS "OPERATOR HOUSE GENERAL FLOOR PLAN - 1" AND "OPERATOR HOUSE GENERAL FLOOR PLAN - 2" FOR SECTIONS L-L AND M-M.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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OPERATOR HOUSE GENERAL SECTIONS

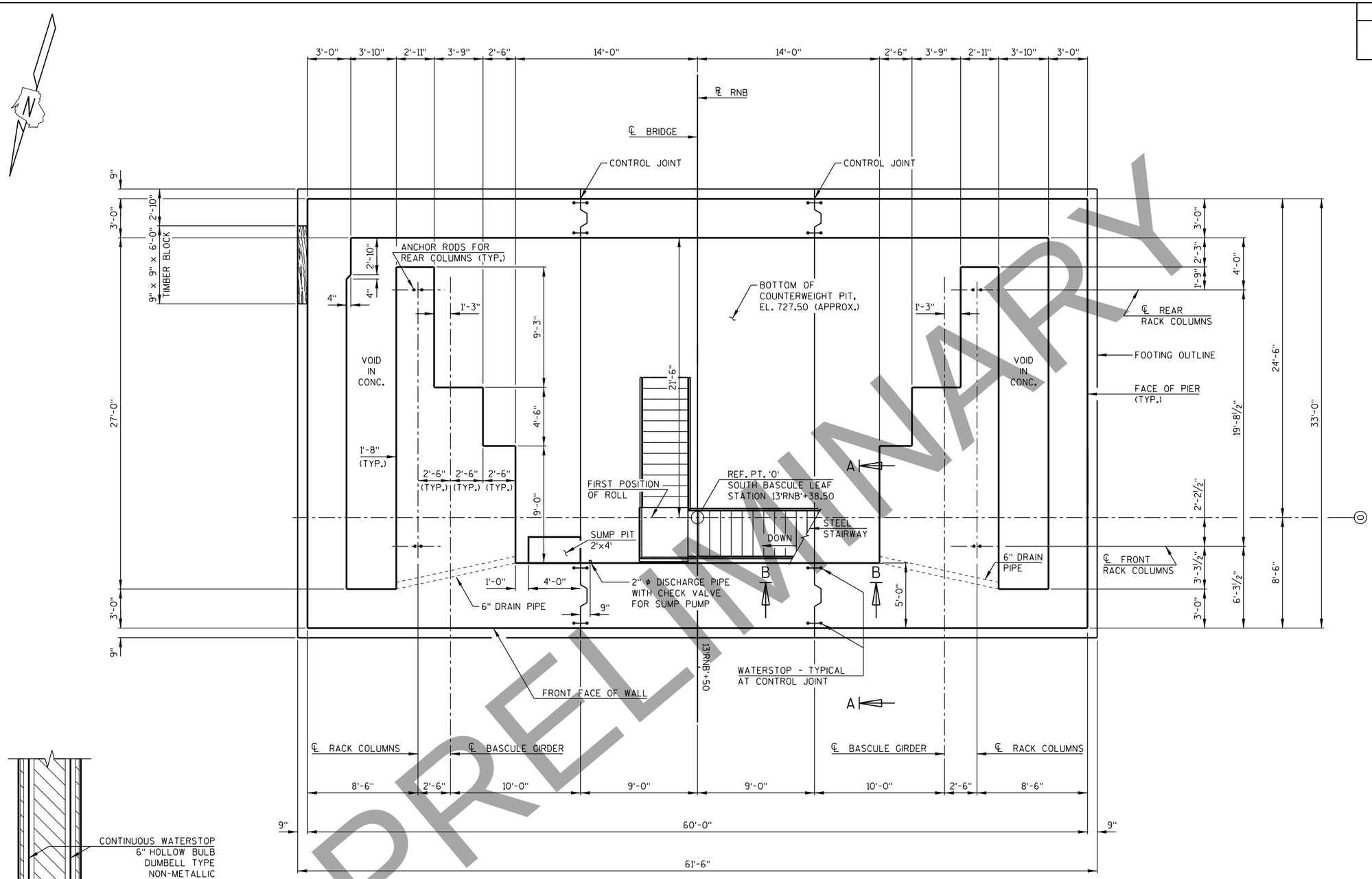
DRAWING PRE_299

8

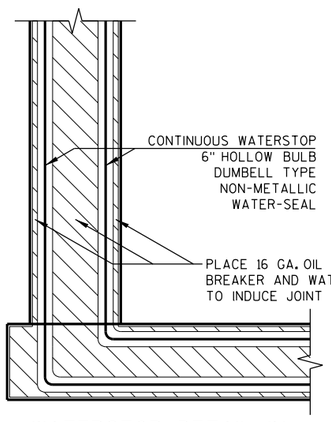
8

STATE PROJECT NUMBER

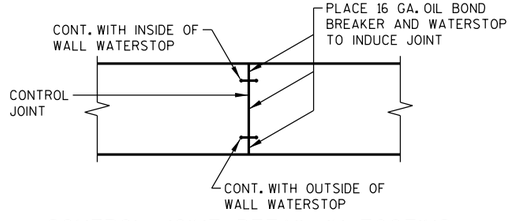
4992-03-71



PLAN OF SOUTH BASCULE PIER AT PIT LEVEL



WATERSTOP DETAIL IN FOOTING AND WALL (SECTION A-A)



CONTROL JOINT DETAIL IN FOOTING (SECTION B-B)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MJA

SOUTH BASCULE PIER PLAN AT PIT LEVEL

DRAWING PRE_300 P93

PRELIMINARY

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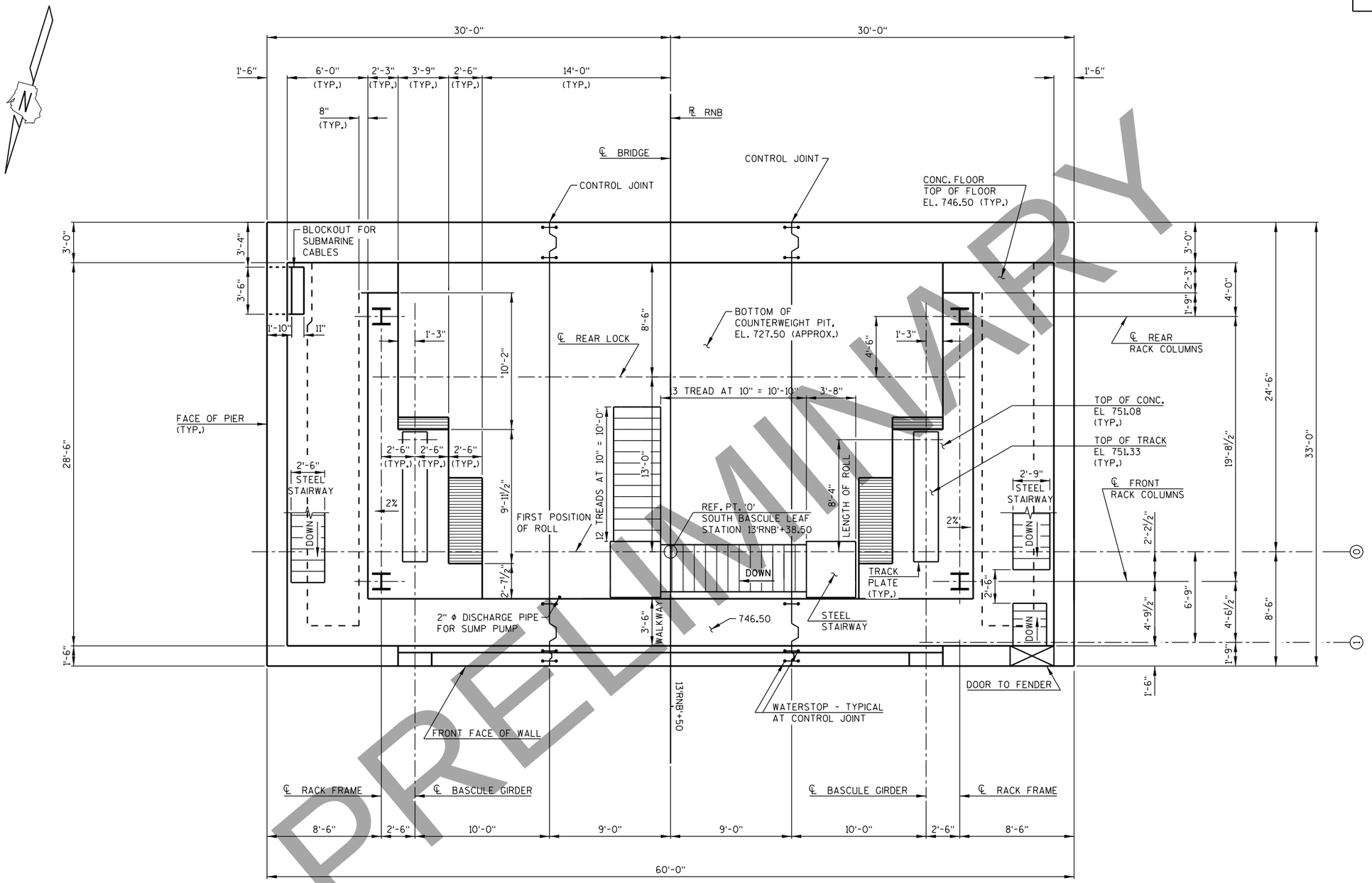
DRAFT 3/20/2020

8

8

STATE PROJECT NUMBER

4992-03-71



PLAN OF SOUTH BASCULE PIER AT TRACK LEVEL

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MJA

SOUTH BASCULE PIER PLAN AT TRACK LEVEL

DRAWING PRE_301 P93

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DRAFT 4/1/2020

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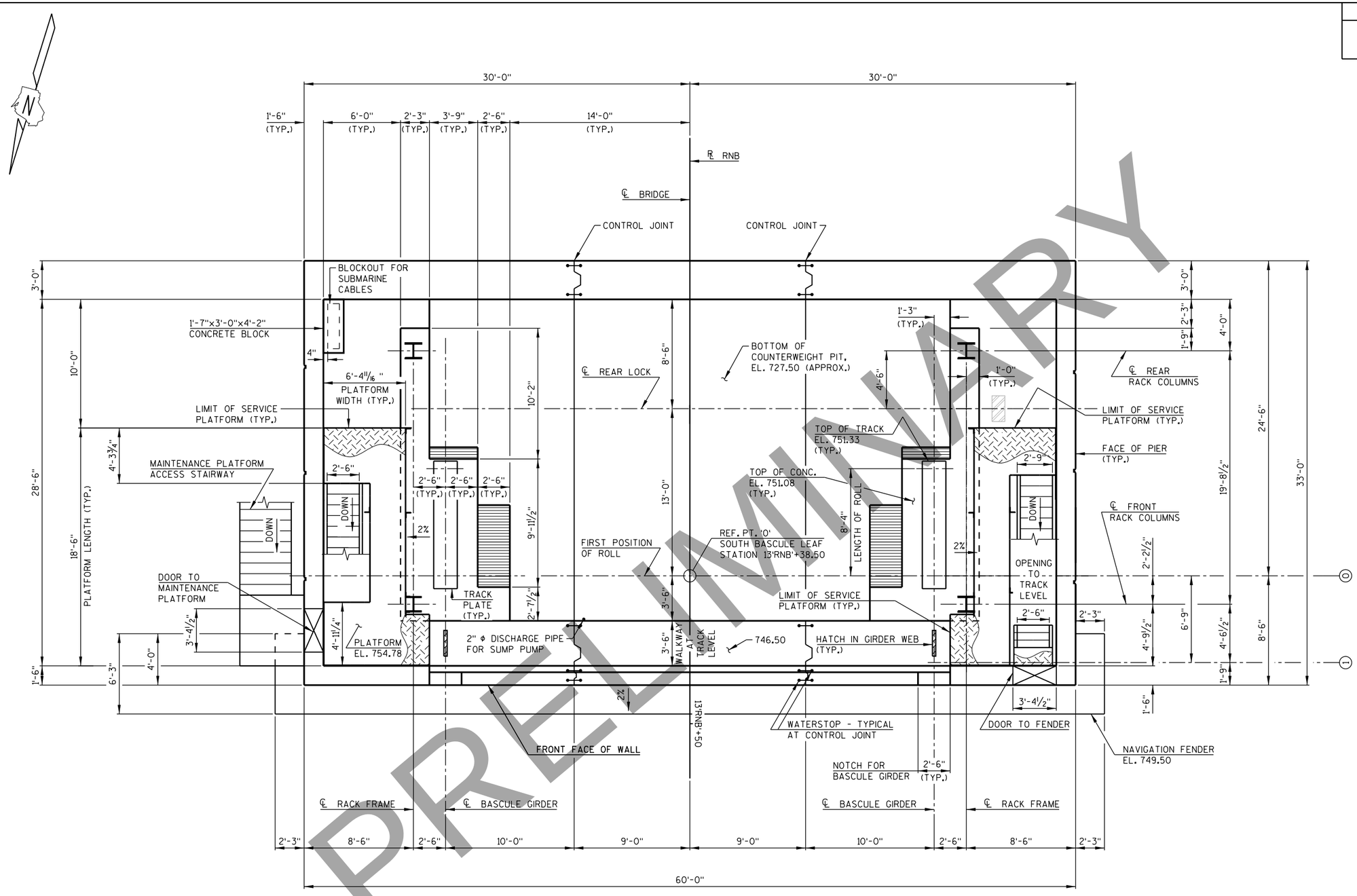
8

STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

PLAN OF SOUTH BASCULE PIER AT MACHINERY LEVEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MJA

SOUTH BASCULE PIER PLAN AT MACHINERY LEVEL

DRAWING P93

PRE_302

8

8

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PLOT DATE: 3/2/2020
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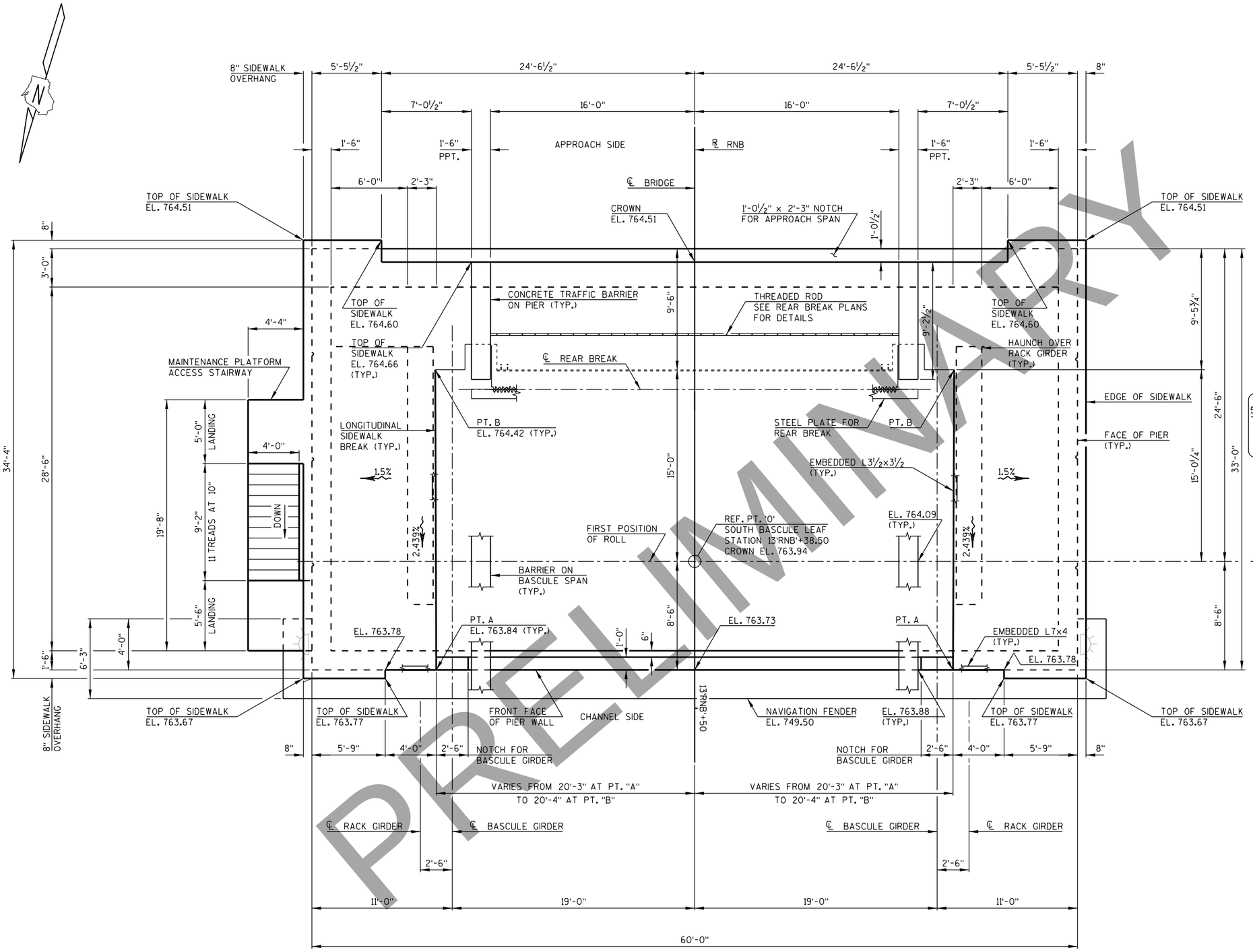
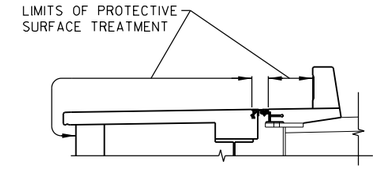
DRAFT 4/20/2020

STATE PROJECT NUMBER

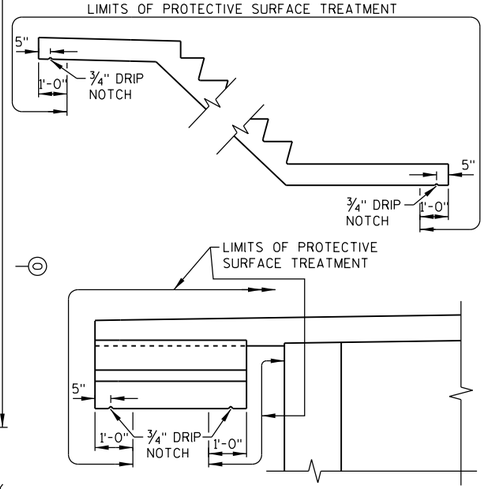
4992-03-71



PLAN OF SOUTH BASCULE PIER AT SIDEWALK LEVEL



SIDEWALK LIMITS OF PROTECTIVE SURFACE TREATMENT



STAIR & PLATFORM LIMITS OF PROTECTIVE SURFACE TREATMENT

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ/CEB | PLANS CK'D. MJA

SOUTH BASCULE PIER PLAN AT SIDEWALK LEVEL

DRAWING PRE_303 P93

8

8

PRINTER DRIVER: S:\acm-CADstds\Libraries\WISDOT\MicroStation\Printing\Printer_Drivers\HE_PDF.11 x 17.plt
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BATCH PRINT SHEET 24 OF 93
DRAFT 3/2/2020

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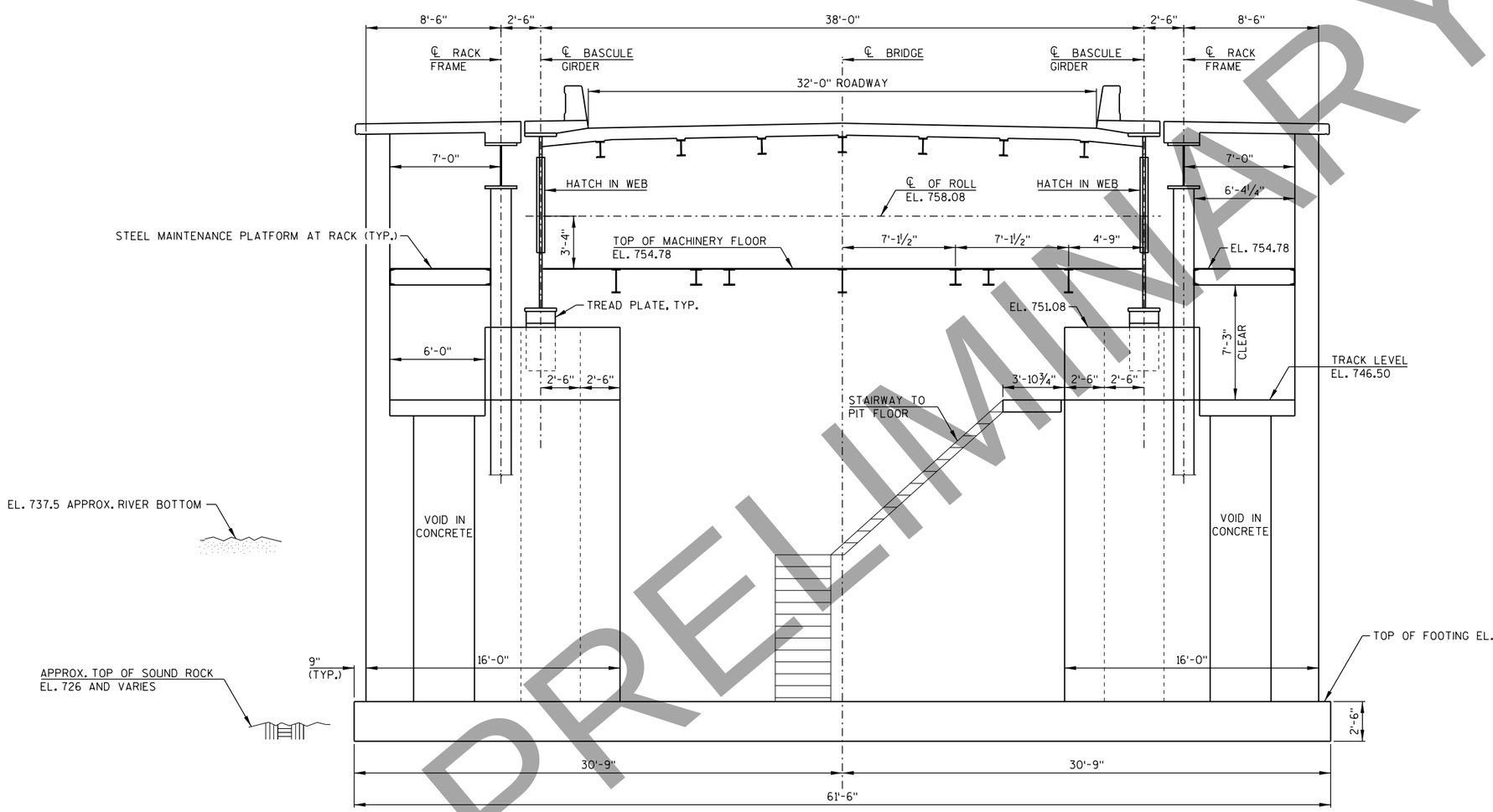
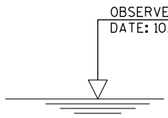
BATCH PRINT SHEET 25 OF 93
DRAFT
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71





SOUTH BASCULE PIER SECTION AT FIRST POSITION OF ROLL

(LOOKING SOUTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER SECTION AT FIRST POSITION OF ROLL

DRAWING P93

PRE_304

8

8

PRINTER DRIVER: S:_acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF 11 x 17.plt
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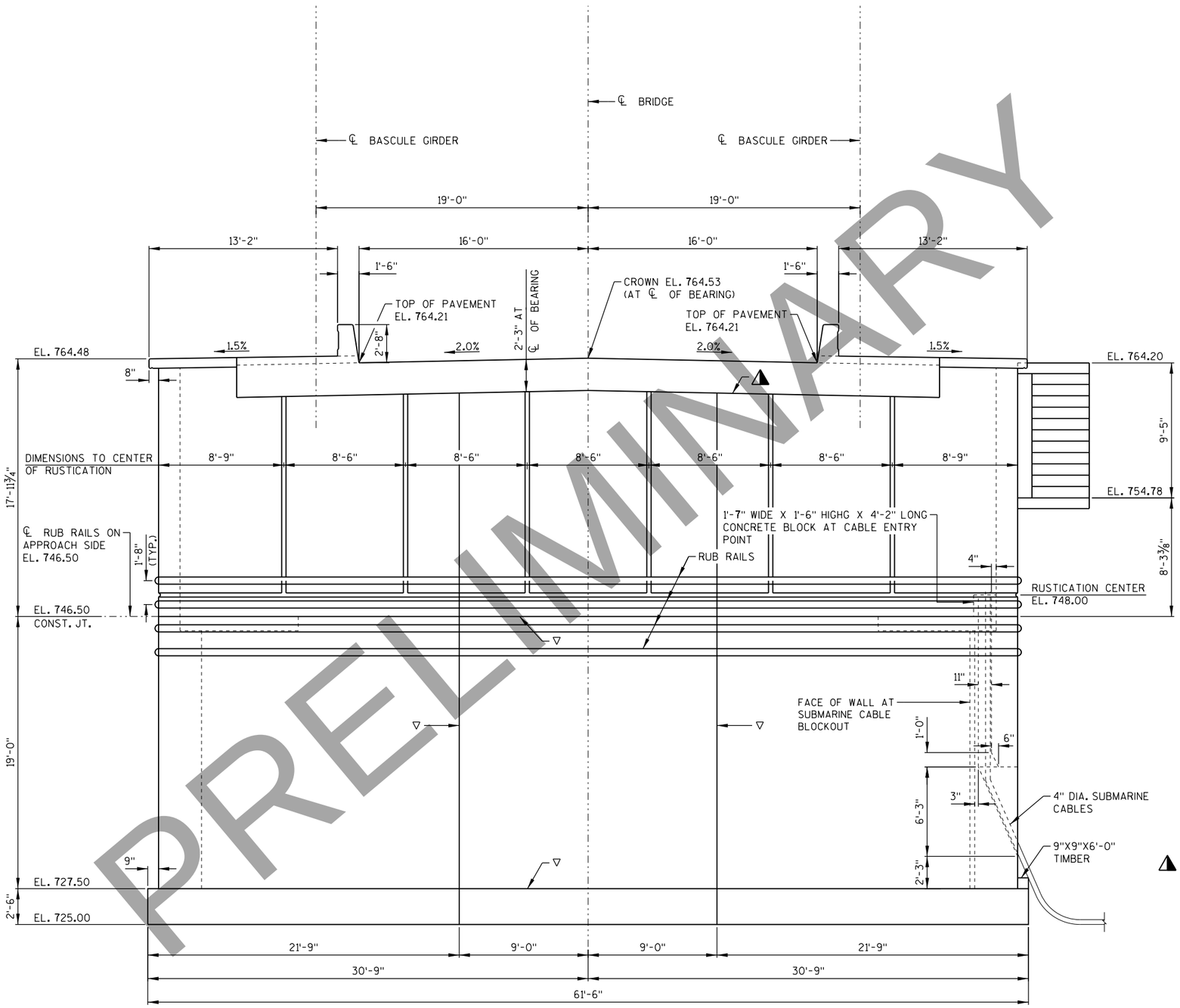
PLOT DATE: 3/2/2020 PLOT TIME: 5:04:49 PM
BATCH PRINT SHEET 26 OF 93
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



SOUTH BASCULE PIER SOUTH ELEVATION

(APPROACH SIDE - LOOKING NORTH)

LEGEND

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS BELOW WATER LINE.

LEGEND

⚠ STEEL TROWEL TOP SURFACE OF SLAB NOTCH. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE TOP OF SLAB NOTCH BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER GENERAL APPROACH ELEVATION

DRAWING PRE_305

PRELIMINARY

8

8

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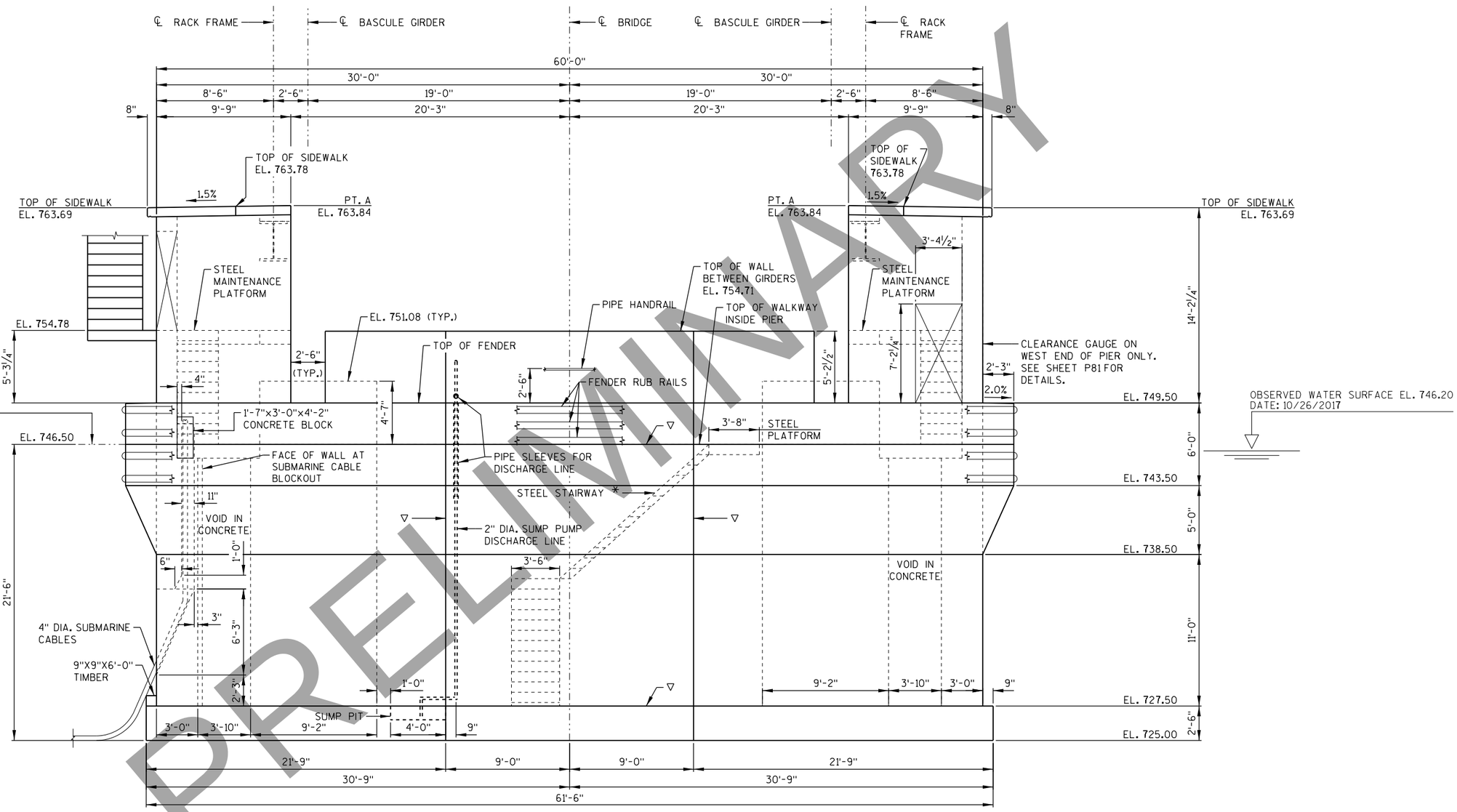
PLOT DATE: 3/2/2020
PLOT TIME: 5:05:08 PM
BATCH PRINT SHEET 27 OF 93

DRAFT April 20, 2020

PRELIMINARY

STATE PROJECT NUMBER

4992-03-71



SOUTH BASCULE PIER ELEVATION AT CHANNEL WALL

(LOOKING SOUTH)

LEGEND

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS BELOW WATER LINE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER GENERAL CHANNEL ELEVATION

DRAWING PRE_306

8

8

PRINTER DRIVER: S:\.acm-CADstds.Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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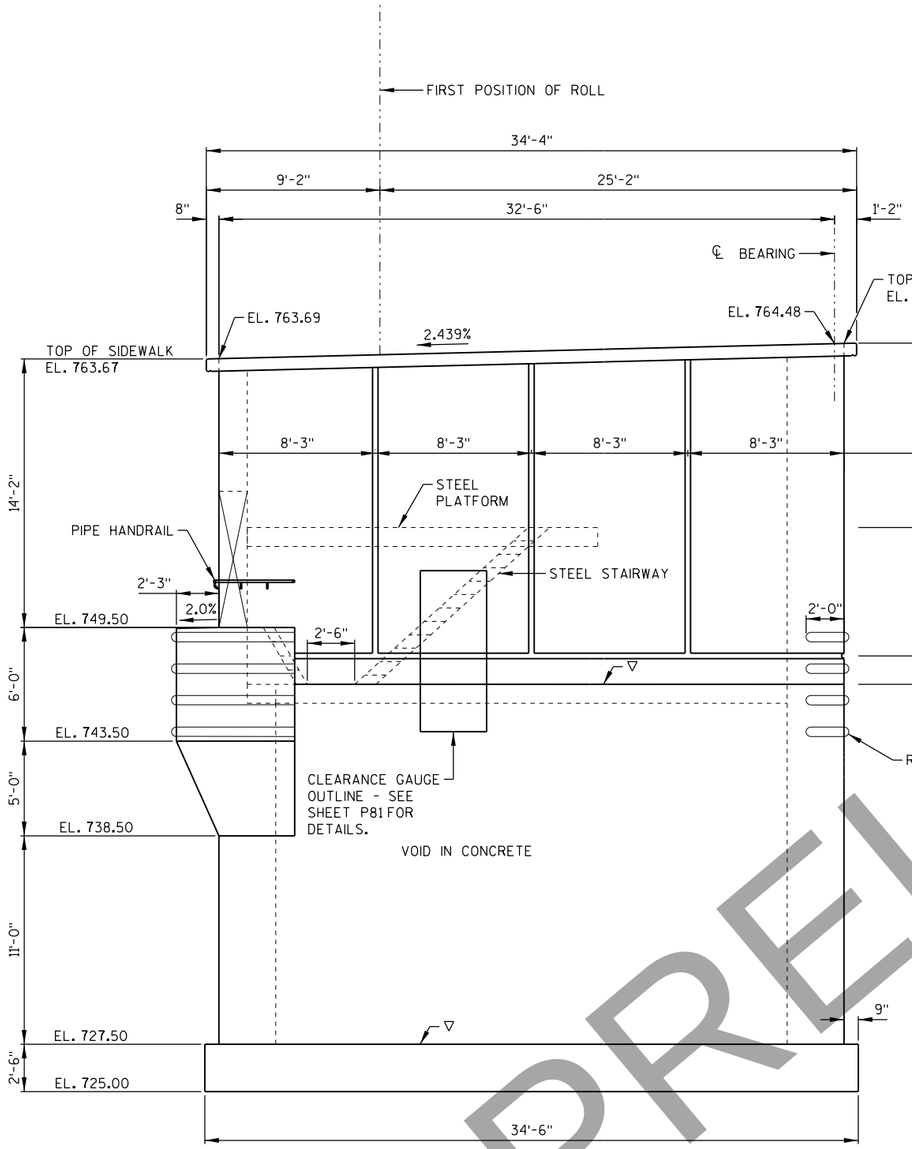
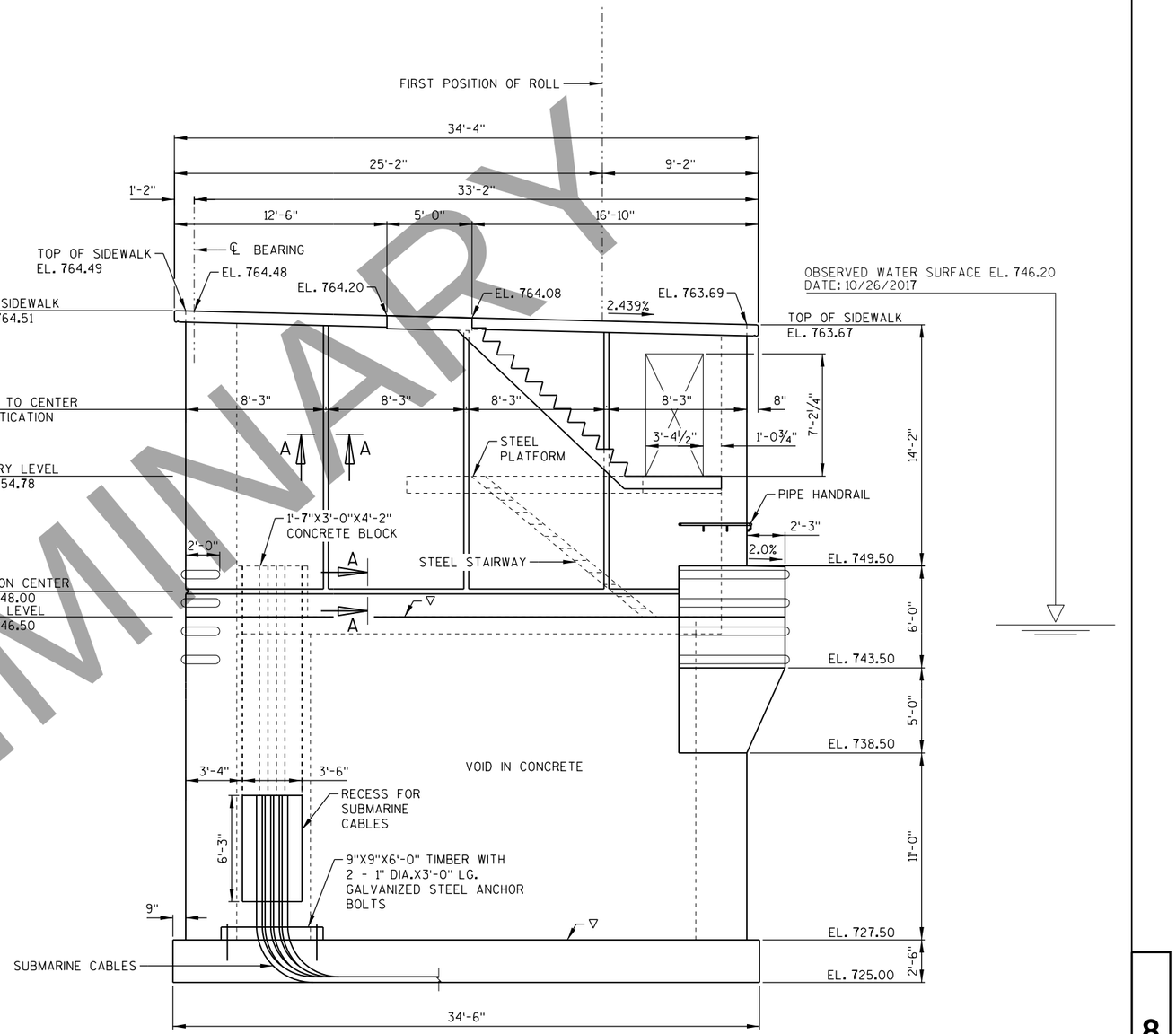
PLOT DATE: 3/2/2020 PLOT TIME: 5:05:24 PM BATCH PRINT SHEET 28 OF 93
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



SOUTH BASCULE PIER - WEST ELEVATION

(LOOKING EAST)



SOUTH BASCULE PIER - EAST ELEVATION

(LOOKING WEST)

NOTES:

FOR SECTION A-A, SEE SHEET "N. BASCULE ABUT. GENERAL EAST & WEST ELEVATIONS".

LEGEND

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS BELOW WATER LINE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER GENERAL EAST & WEST ELEVATIONS

DRAWING PRE_307

PRELIMINARY

8

8

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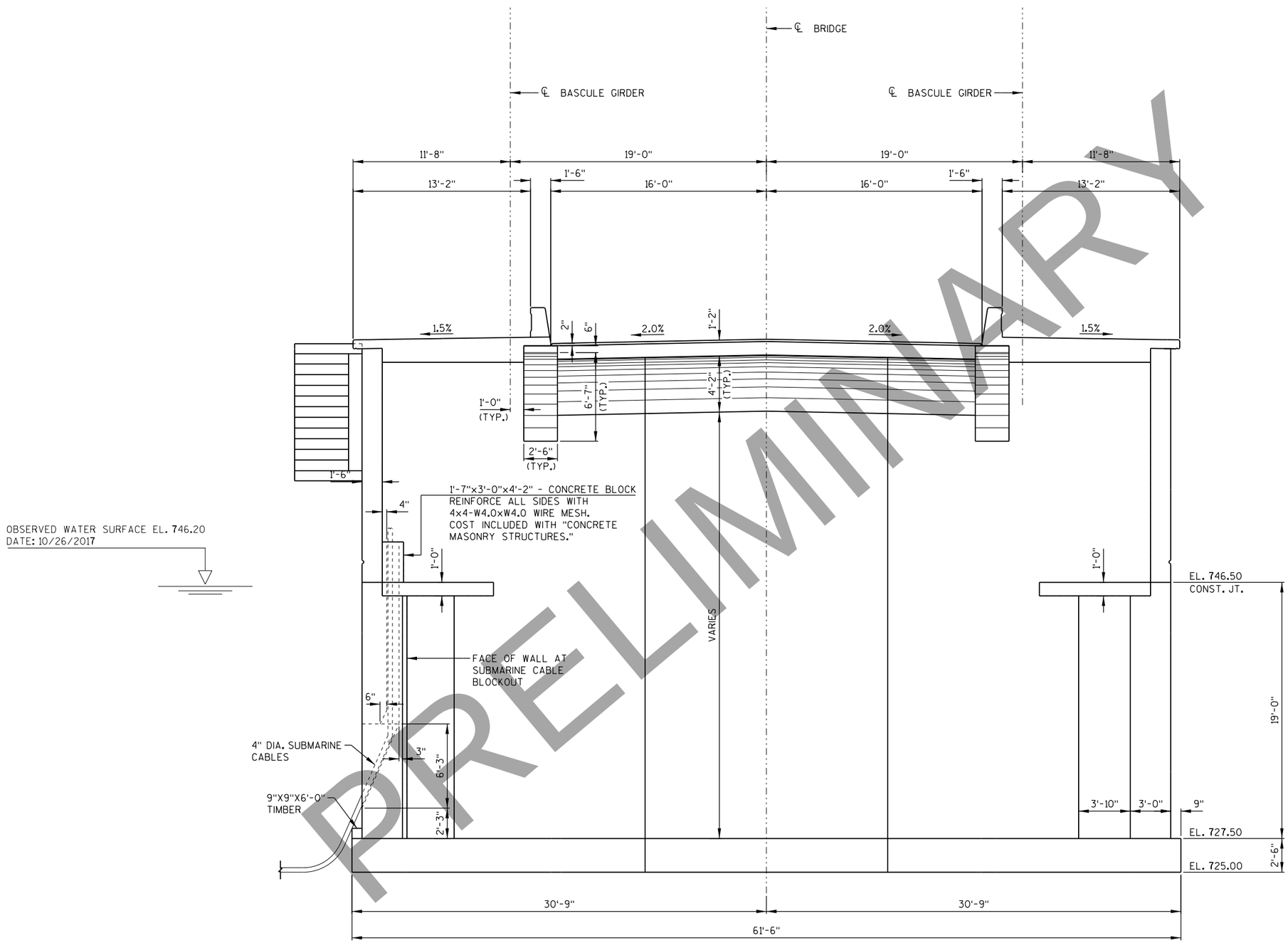
BATCH PRINT SHEET 29 OF 93
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



SOUTH BASCULE PIER SOUTH WALL

(APPROACH SIDE - LOOKING SOUTH)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER GENERAL INTERIOR APPROACH WALL ELEVATION

DRAWING PRE_308

8

8

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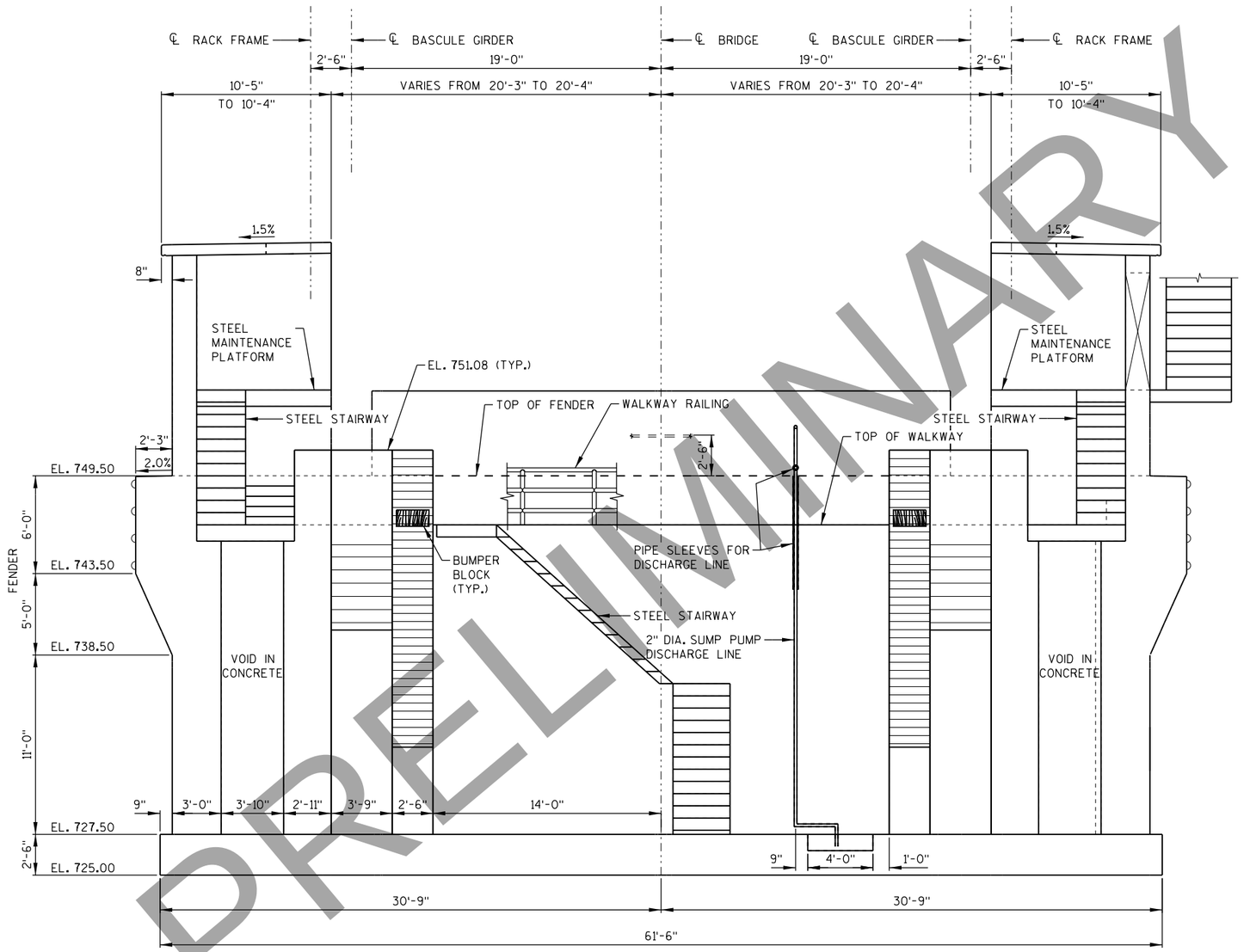
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



OBSERVED WATER SURFACE EL. 746.20
DATE: 10/26/2017

PRELIMINARY

SOUTH BASCULE PIER ELEVATION NORTH WALL
(LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER GENERAL INTERIOR CHANNEL WALL ELEVATION

DRAWING
PRE_309

8

8

PRINTER DRIVER: S:\..acm-CADstds..Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF.11 x 17.plt
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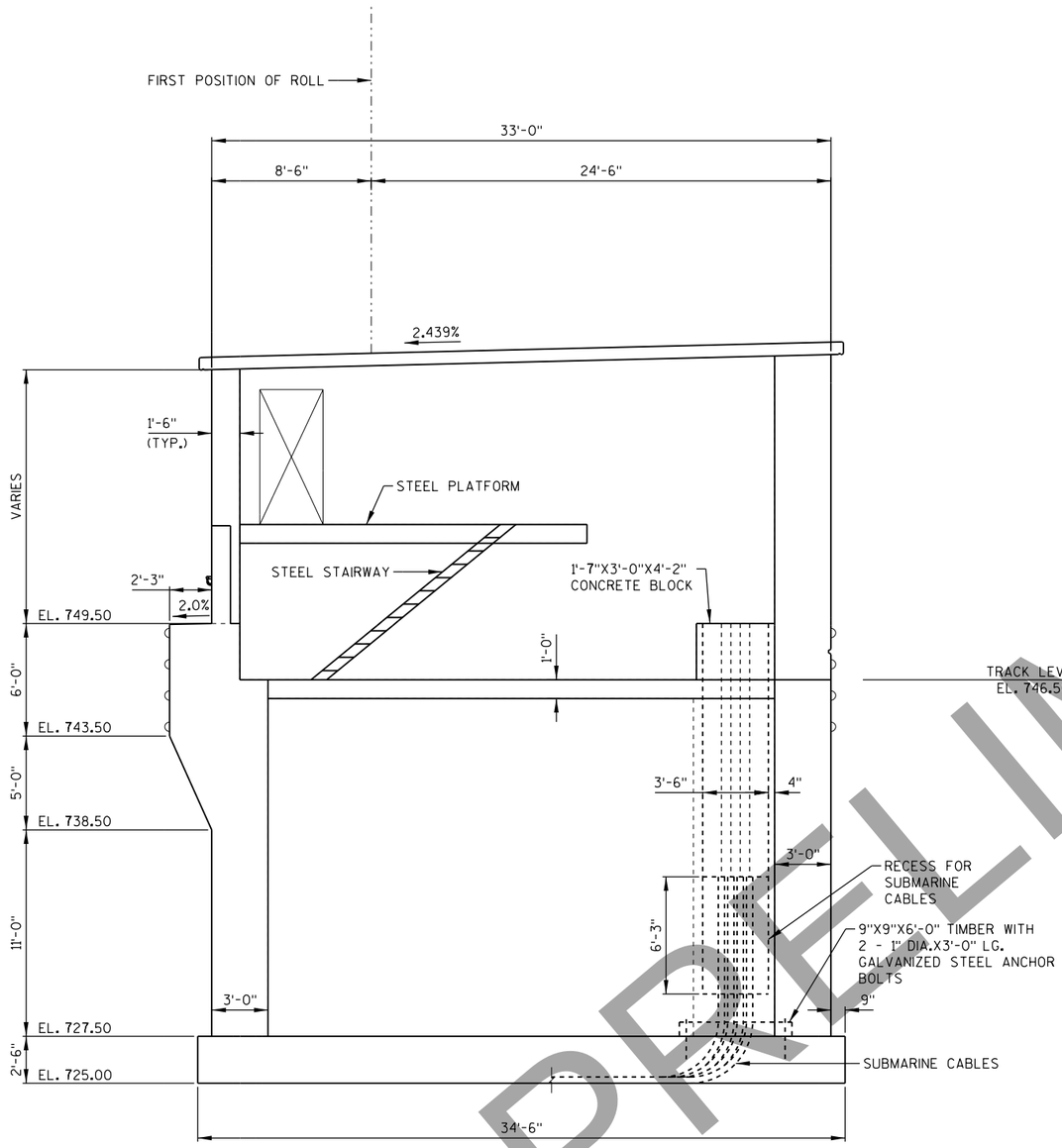
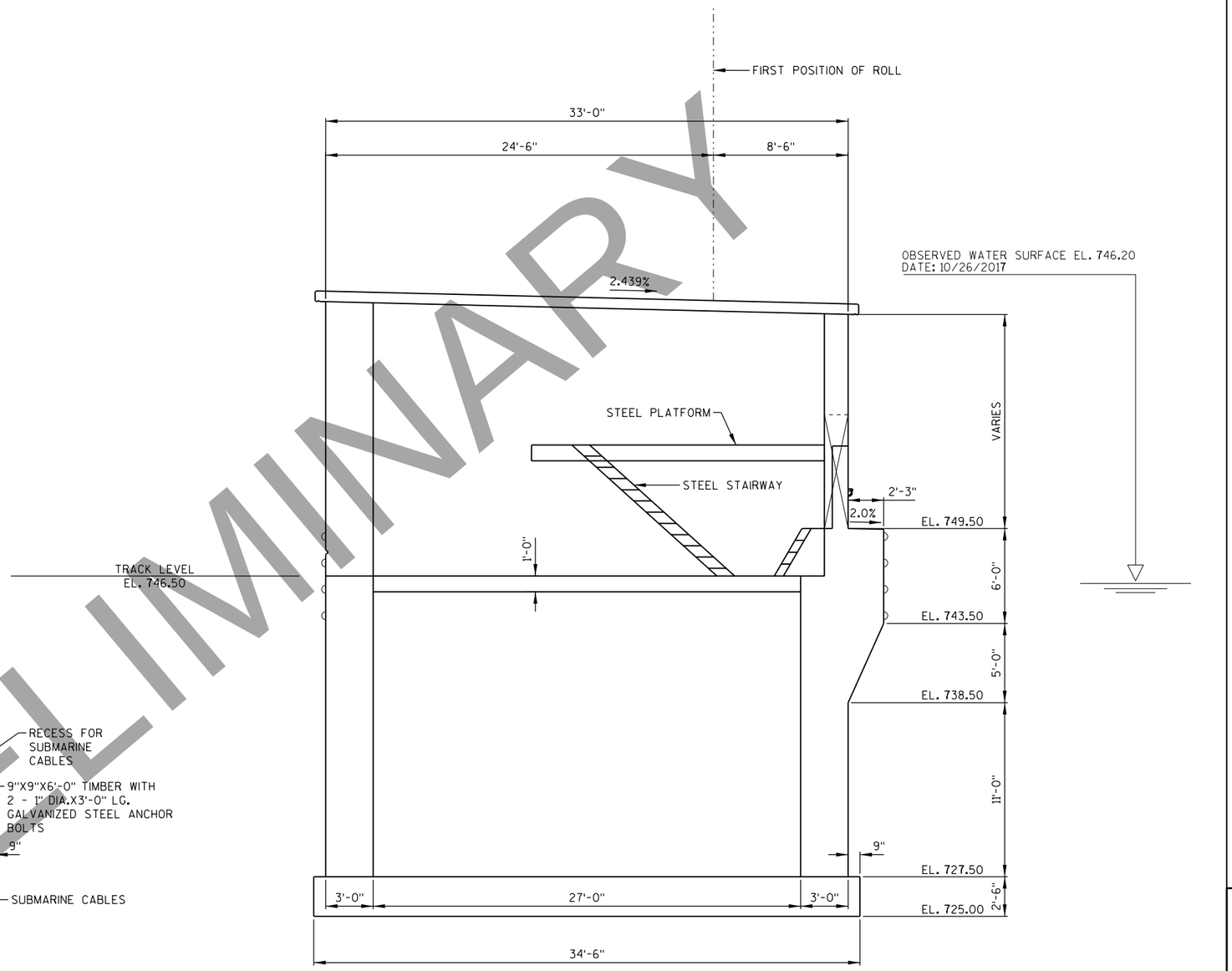
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



SOUTH BASCULE PIER - EAST WALL
(LOOKING EAST)



SOUTH BASCULE PIER - WEST WALL
(LOOKING WEST)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER GENERAL EAST & WEST INTERIOR ELEVATIONS

DRAWING PRE_310

PRINTER DRIVER: S:\..acm-CADstds.Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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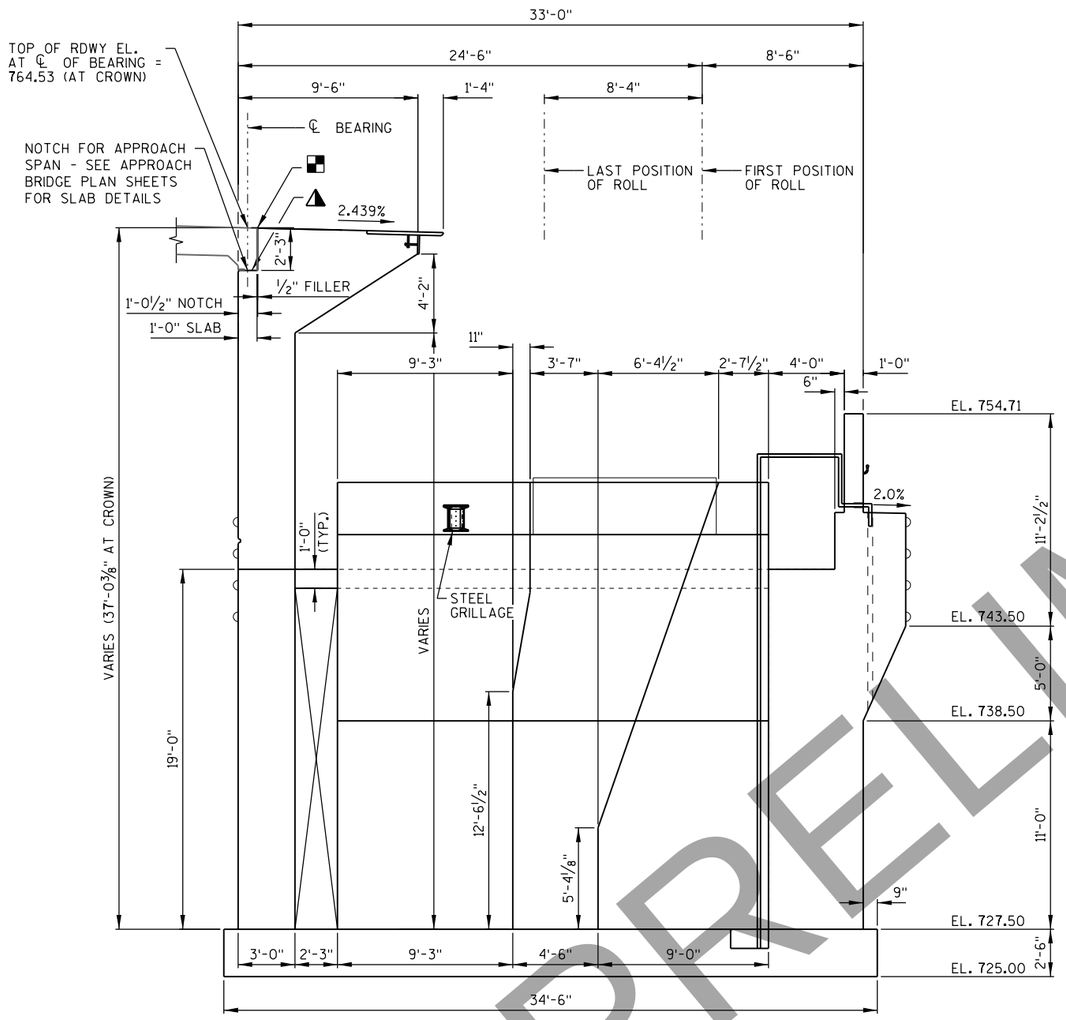
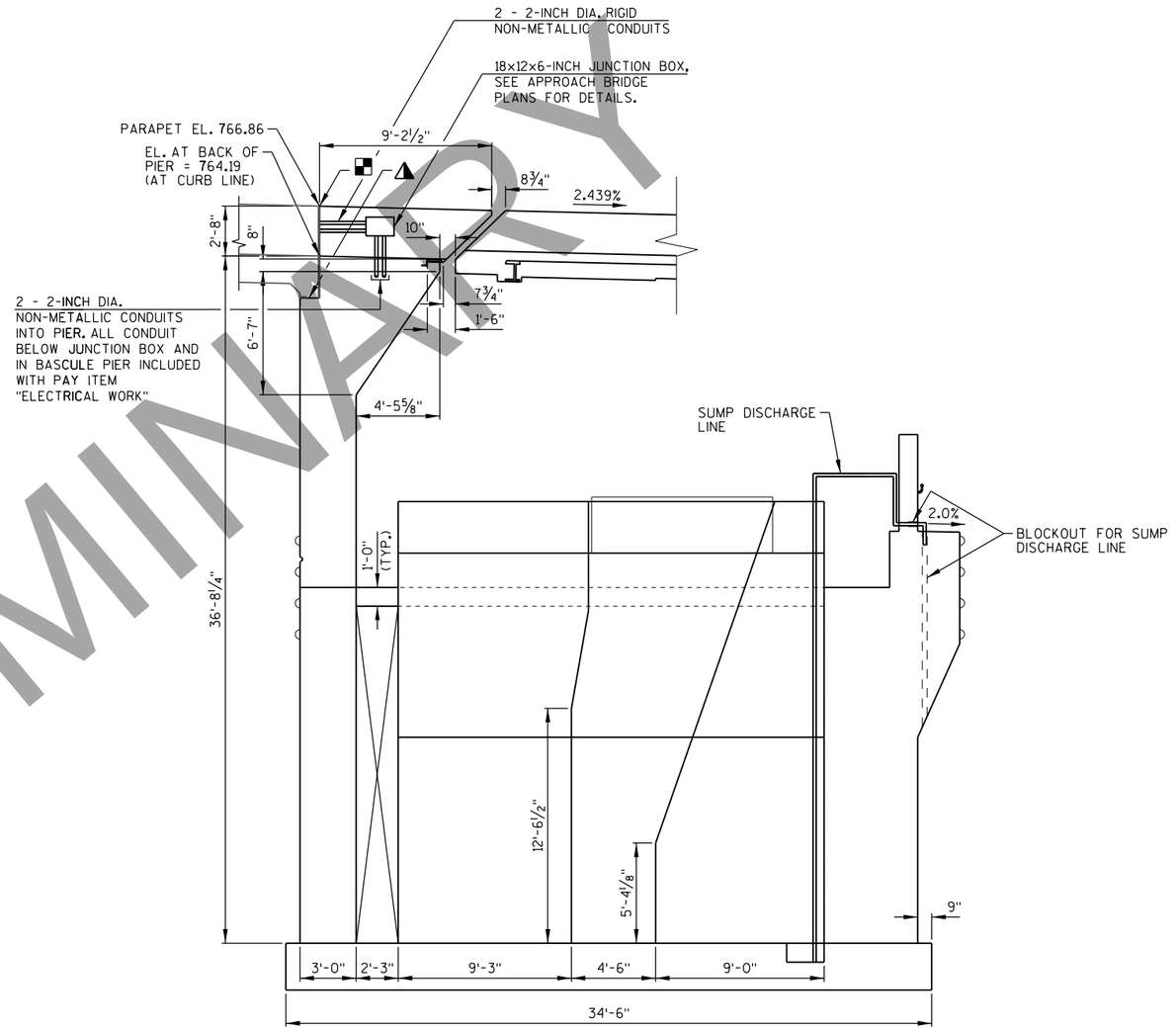
BATCH PRINT SHEET 32 OF 93
DRAFT - April 20, 2020

STATE PROJECT NUMBER

4992-03-71



SECTION A-A



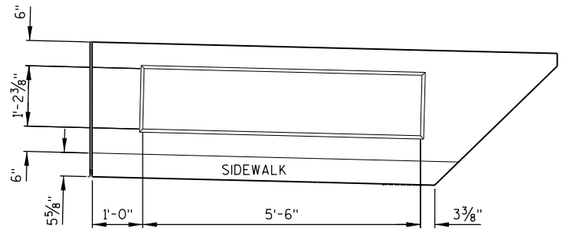
SECTION B-B

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)

LEGEND

▲ STEEL TROWEL TOP SURFACE OF SLAB NOTCH. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE TOP OF SLAB NOTCH BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

■ ½" FILLER. SEAL ALL EXPOSED HORIZONTAL & VERTICAL FACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ¼" BELOW SURFACE OF CONCRETE). PRIOR TO SETTING ANY FILLER AND POURING SLAB SPAN, APPLY A MOPPING OF BRIDGE SEAT PROTECTION PER 502.3.12 OF THE STANDARD SPECIFICATIONS TO ALL VERTICAL AND HORIZONTAL SURFACES OF THE NOTCH INTO WHICH THE SLAB AND SIDEWLK WILL BE POURED. BRIDGE SEAT PROTECTION SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES" BID ITEM.



BARRIER DETAIL

NOTES

SEE "SOUTH BASCULE PIER REINF. PLAN AT TRACK LEVEL" FOR LOCATION OF SECTIONS A-A & B-B.

FOR LIMITS OF PIGMENTED SURFACE SEALER ON BARRIER, SEE DETAIL "SECTION THRU CONCRETE BARRIER" ON SHEET "DECK DETAILS OVER MACHINERY ROOM".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER GENERAL SECTIONS AT ROADWAY & BARRIER

DRAWING PRE_311

PRELIMINARY

8

8

PRINTER DRIVER: S:\..ocm-CAD\stds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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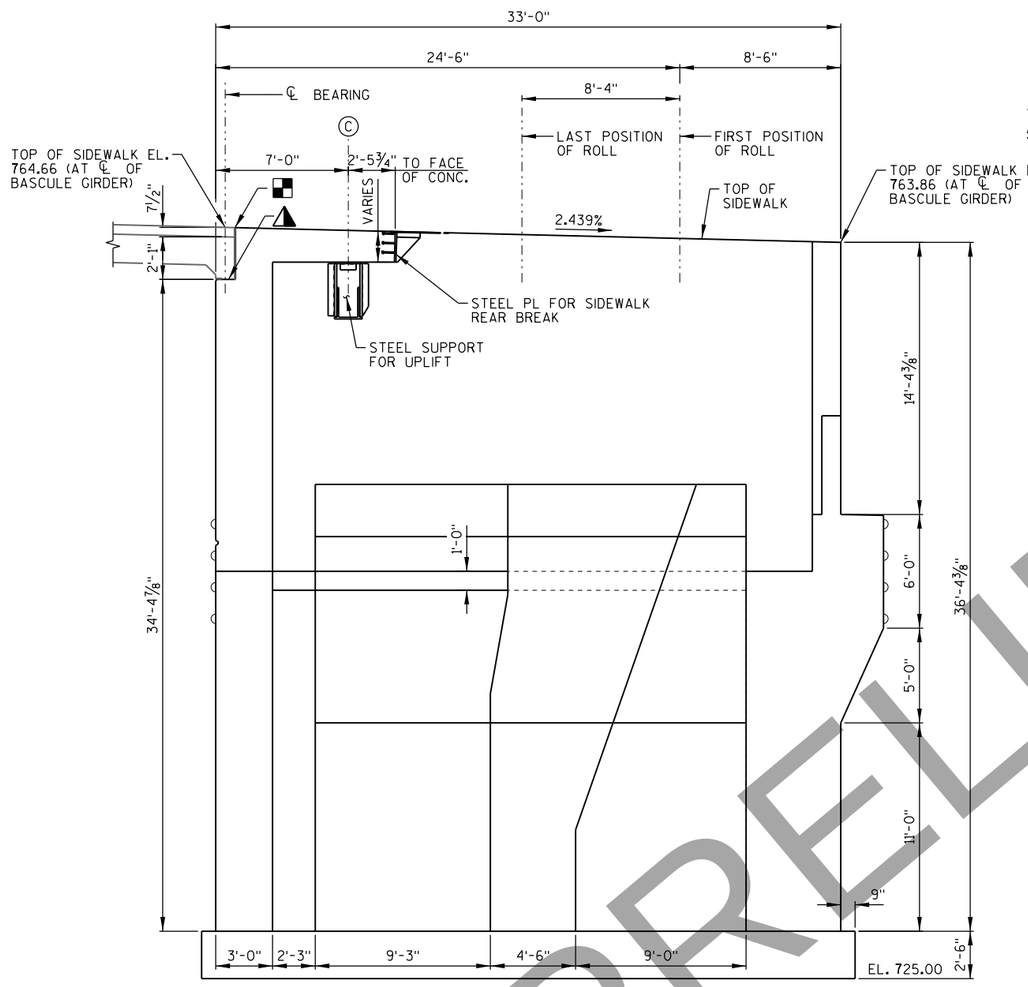
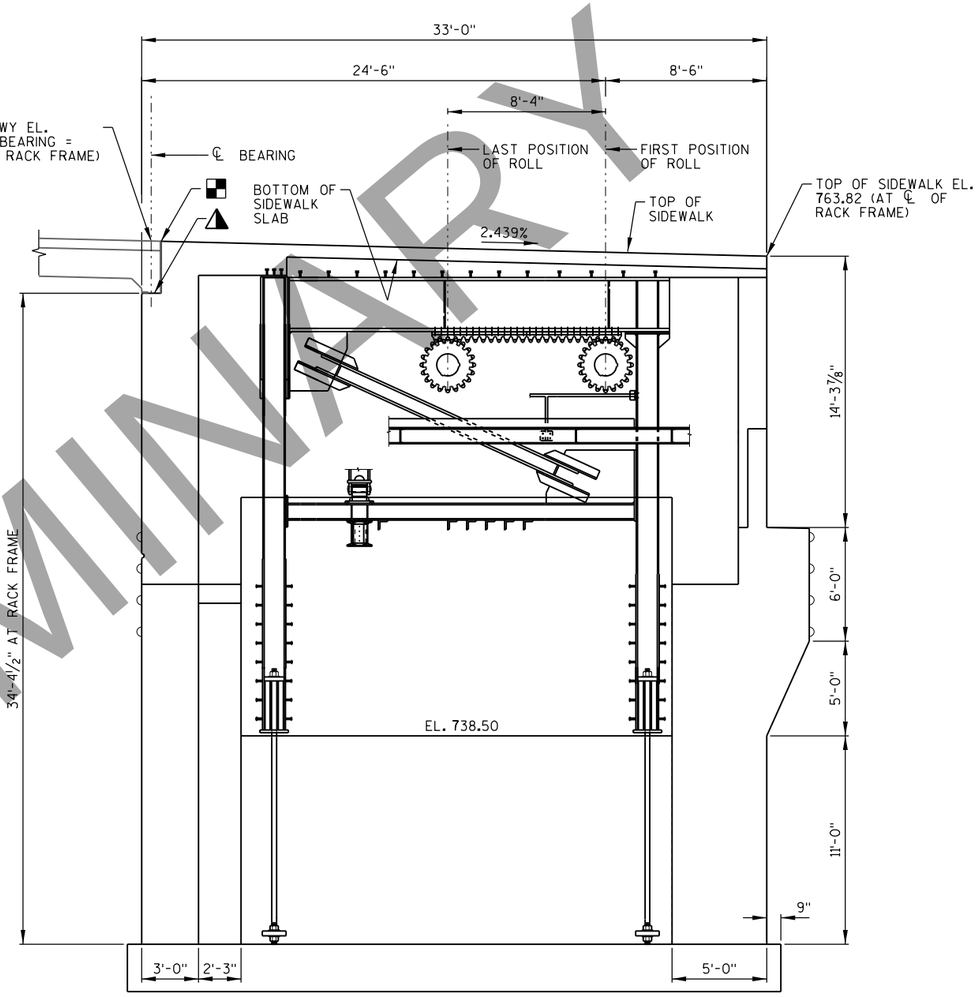
DRAFT April 20,
BATCH PRINT SHEET 33 OF 93

STATE PROJECT NUMBER
4992-03-71



SECTION C-C

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)



SECTION D-D

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)

LEGEND

▲ STEEL TROWEL TOP SURFACE OF SLAB NOTCH. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE TOP OF SLAB NOTCH BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

■ ½" FILLER. SEAL ALL EXPOSED HORIZONTAL & VERTICAL FACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ¼" BELOW SURFACE OF CONCRETE). PRIOR TO SETTING ANY FILLER AND POURING SLAB SPAN, APPLY A MOPPING OF BRIDGE SEAT PROTECTION PER 502.3.12 OF THE STANDARD SPECIFICATIONS TO ALL VERTICAL AND HORIZONTAL SURFACES OF THE NOTCH INTO WHICH THE SLAB AND SIDEWLK WILL BE POURED. BRIDGE SEAT PROTECTION SHALL BE CONSIDERED INCIDENTAL TO "CONCRETE MASONRY BRIDGES" BID ITEM.

NOTES

SEE "SOUTH BASCULE PIER REINF. PLAN AT TRACK LEVEL" FOR LOCATION OF SECTIONS C-C & D-D.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER GENERAL SECTIONS AT RACK FRAME & BASCULE GIRDER

DRAWING PRE_312

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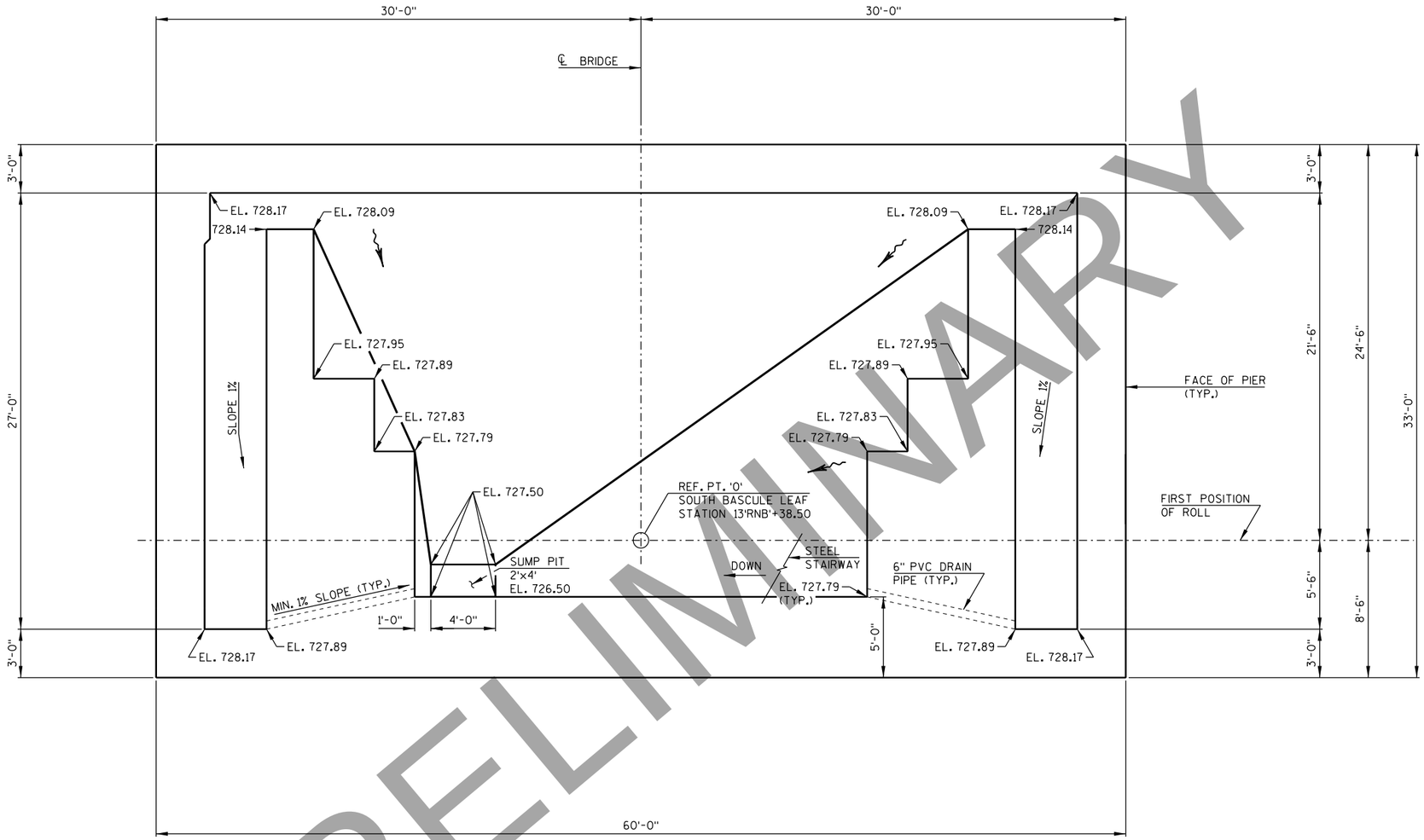
PLOT DATE: 3/2/2020 PLOT TIME: 5:06:47 PM BATCH PRINT SHEET 34 OF 93

DRAFT 2020

STATE PROJECT NUMBER
4992-03-71



DRAINAGE PLAN SOUTH BASCULE PIER AT PIT FLOOR

PRELIMINARY

NOTES

COST OF 6" PVC DRAIN PIPE IS INCLUDED IN THE BID ITEM "CONCRETE MASONRY BRIDGES."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ | PLANS CK'D. MJA

SOUTH BASCULE PIER DRAINAGE PLAN AT PIT FLOOR

DRAWING PRE_313 P93

8

8

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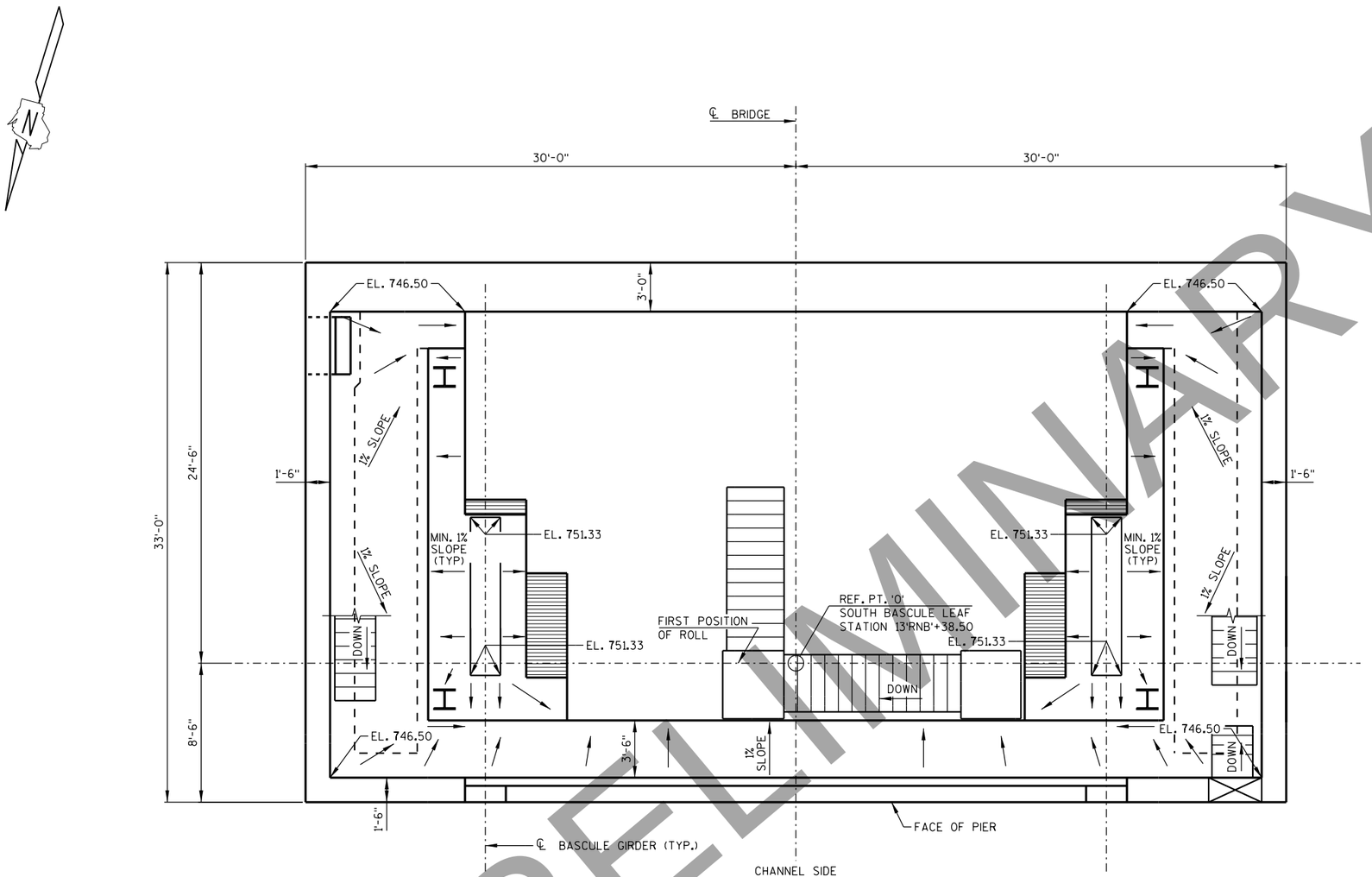
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



PLAN

BASCULE PIER AT TRACK LEVEL

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER DRAINAGE PLAN AT TRACK LEVEL

DRAWING PRE_314

8

8

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BATCH PRINT SHEET 36 OF 93

DRAFT April 20, 2020

STATE PROJECT NUMBER
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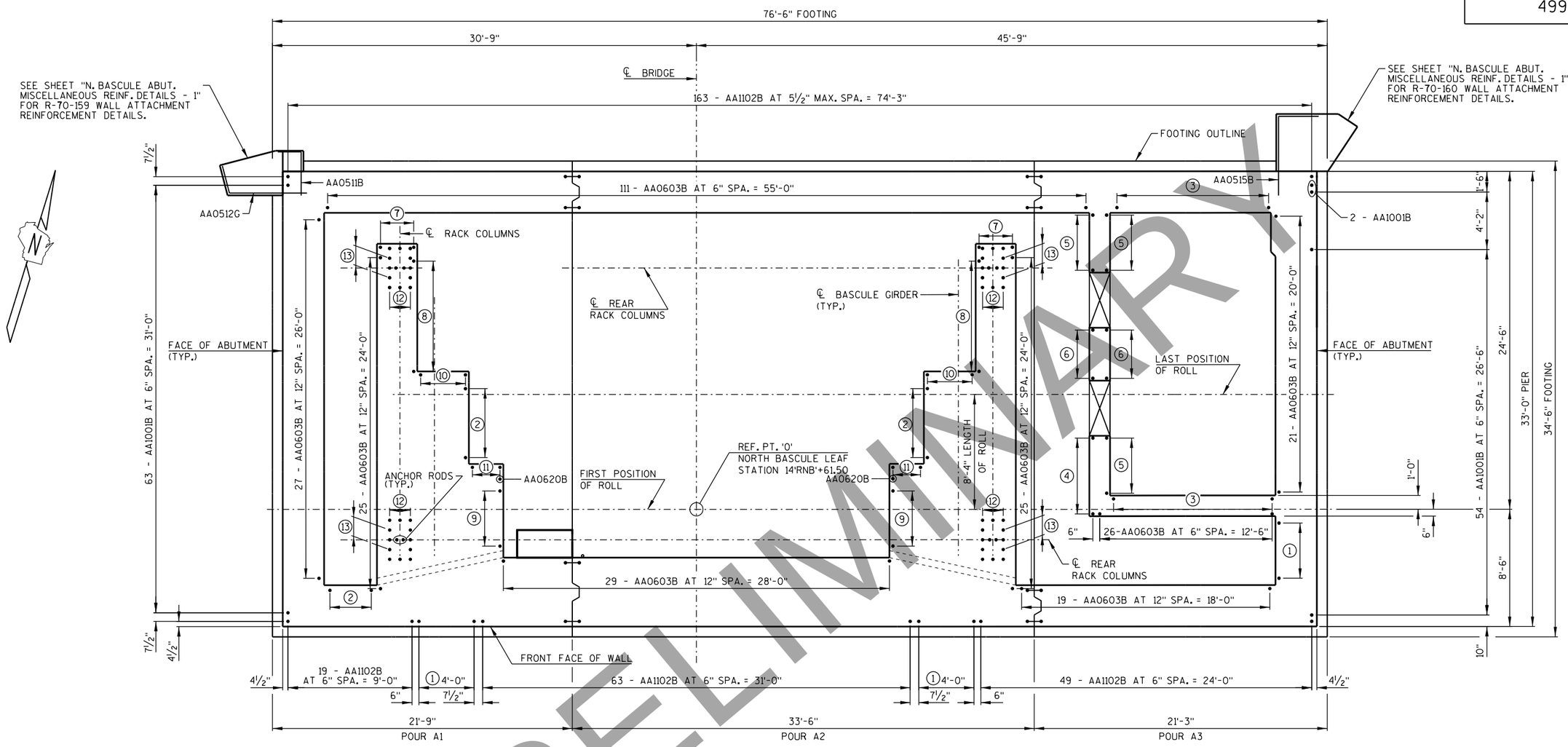

PLAN

① 5 - AA0603B AT 12" SPA. = 4'-0"
② 6 - AA0603B AT 12" SPA. = 5'-0"
③ 24 - AA0603B AT 6" SPA. = 11'-6"
④ 12 - AA0603B AT 6" SPA. = 5'-6"
⑤ 9 - AA0603B AT 6" SPA. = 4'-0"
⑥ 8 - AA0603B AT 6" SPA. = 3'-6"
⑦ 4 - AA0603B AT 12" MAX. SPA. = 2'-5"
⑧ 9 - AA0603B AT 12" SPA. = 8'-0"
⑨ 5 - AA0603B AT 12" SPA. = 4'-0"
⑩ 5 - AA0619U AT 9¾" SPA. = 3'-3"
⑪ 3 - AA0618U AT 12" SPA. = 2'-0"
⑫ 3 - AA1102B AT 9" SPA. = 1'-6" (EACH SIDE)
⑬ 3 - AA0603B AT 8½" SPA. = 1'-5" (EACH SIDE)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. FOOTING DOWEL PLAN AT PIT FLOOR

DRAWING PRE_315

8

8

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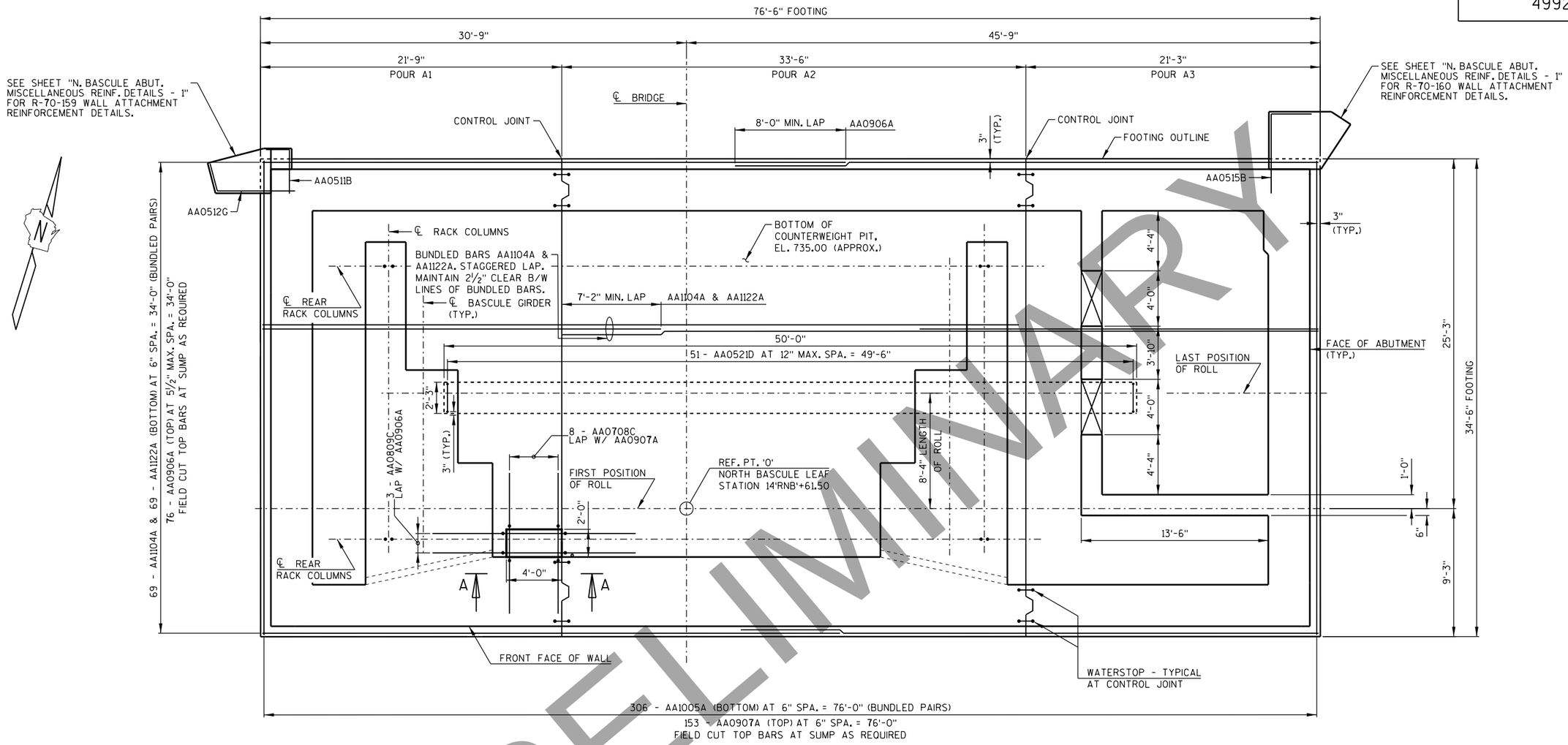
DRAFT April 20,

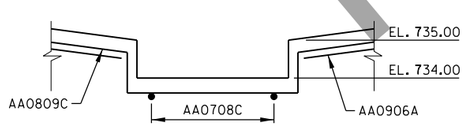
STATE PROJECT NUMBER
4992-03-71



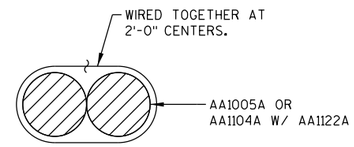
PLAN

BASCULE ABUTMENT AT PIT FLOOR

PRELIMINARY



SECTION A-A



BUNDLE DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. FOOTING REINF. PLAN

DRAWING PRE_316

8

8

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BATCH PRINT SHEET 38 OF 93
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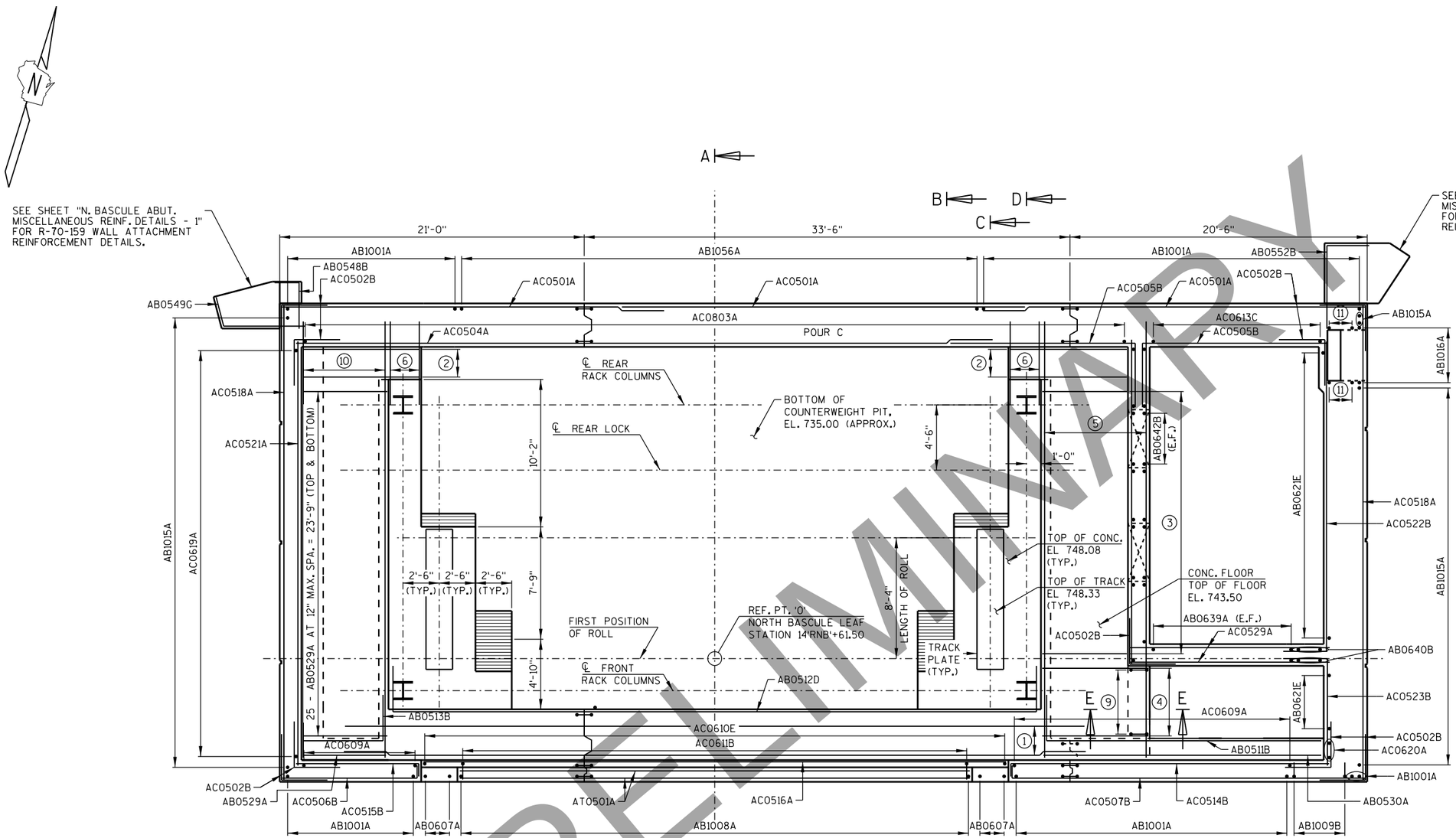
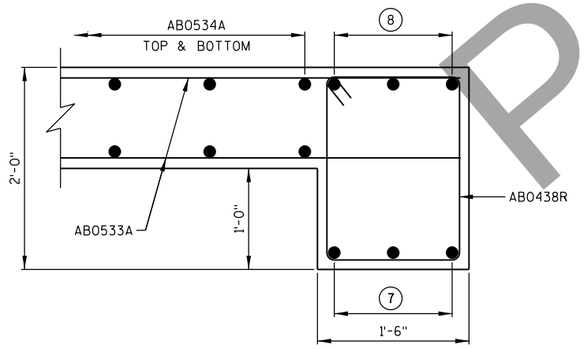
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



REINF. PLAN AT TRACK LEVEL



SECTION E-E

1. 3 - AB0525A AT 12" SPA. = 2'-0"
2. 3 - AB0531A AT 12" SPA. = 2'-0" (T&B)
3. 20 - AB0532A AT 12" MAX. SPA. = 18'-1" (T&B)
4. 6 - AB0533A AT 12" MAX. SPA. = 4'-8" (T&B)
5. 8 - AB0534A AT 12" SPA. = 7'-0" (T&B)
6. 3 - AB0535A AT 12" SPA. = 2'-0" (T&B)
7. 3 - AB0536A (BOTTOM)
8. 3 - AB0537D (TOP)
9. 6 - AB0438R AT 12" MAX SPA. = 4'-8"
10. 7 - AB0534A AT 12" MAX. SPA. = 5'-8" (T&B)
11. 3 - AB1015A AT 12" MAX. SPA.

NOTES:

SEE SHEET "N. BASCULE ABUT. REINFORCEMENT AT ROADWAY & BARRIER" FOR SECTIONS A-A & B-B.

SEE SHEET "N. BASCULE ABUT. REINFORCEMENT AT RACK FRAME & BASCULE GIRDER" FOR SECTIONS C-C & D-D.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. REINF. PLAN AT TRACK LEVEL

DRAWING PRE_317

PRELIMINARY

8

8

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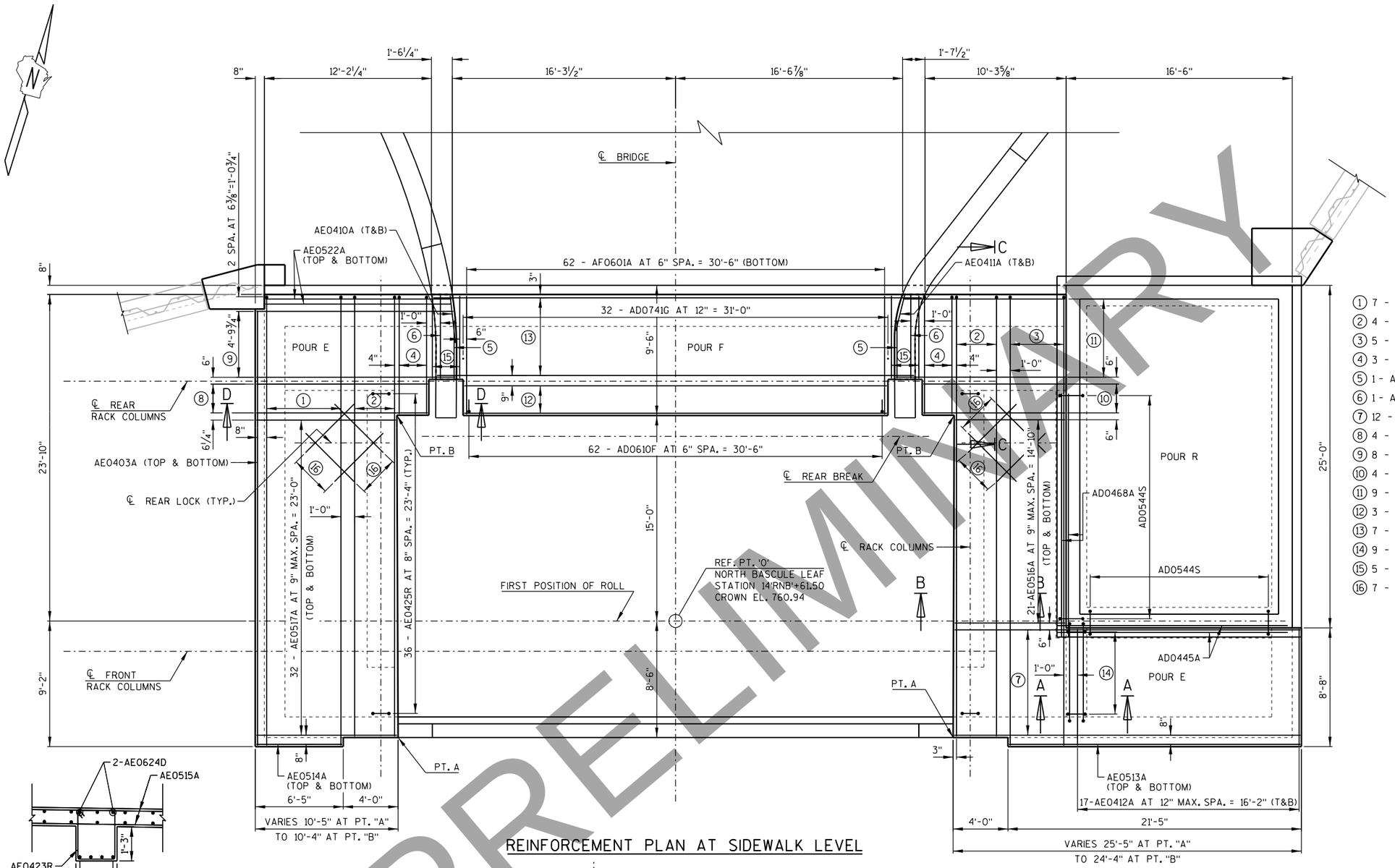
PLOT DATE: 3/2/2020 PLOT TIME: 5:08:13 PM
BATCH PRINT SHEET 39 OF 93
DRAFT April 20, 2020

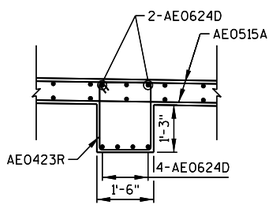
STATE PROJECT NUMBER

4992-03-71

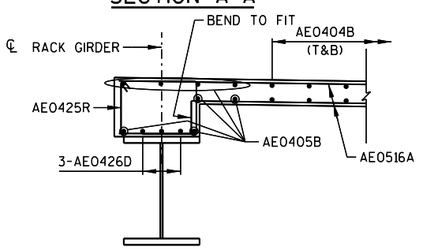


REINFORCEMENT PLAN AT SIDEWALK LEVEL

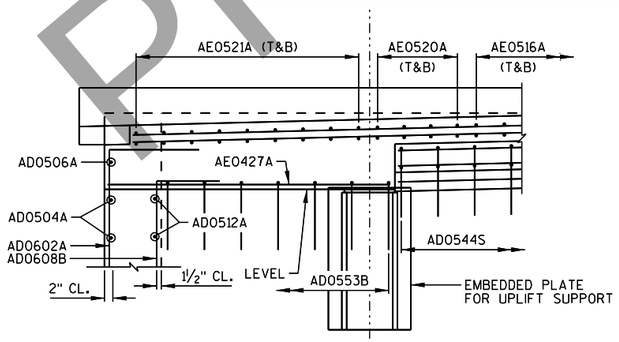
1. 7 - AE0404B AT 12" MAX. SPA. = 5'-5" (TOP & BOTTOM)
2. 4 - AE0405B AT 12" MAX. SPA. = 2'-11" (TOP & BOTTOM)
3. 5 - AE0404B AT 12" MAX. SPA. = 3'-11" (TOP & BOTTOM)
4. 3 - AE0407B AT 12" SPA. = 2'-0" (TOP)
5. 1 - AE0408A (TOP & BOTTOM)
6. 1 - AE0409A (TOP & BOTTOM)
7. 12 - AE0515A AT 9" MAX. SPA. = 7'-8¼" (TOP & BOTTOM)
8. 4 - AE0518A AT 9" MAX. SPA. = 2'-1¼" (TOP & BOTTOM)
9. 8 - AE0519A AT 9" MAX. SPA. = 4'-9¾" (TOP & BOTTOM))
10. 4 - AE0520A AT 9" MAX. SPA. = 2'-1¼" (TOP & BOTTOM)
11. 9 - AE0521A AT 9" MAX. SPA. = 5'-10½" (TOP & BOTTOM)
12. 3 - AF0602A AT 12" SPA. = 2'-0" (TOP & BOTTOM)
13. 7 - AF0603A AT 12" MAX. SPA. = 5'-8" (TOP & BOTTOM)
14. 9 - AE0423R AT 9" SPA. = 6'-0"
15. 5 - AD0660B AT 6" SPA. = 2'-0" (TOP & BOTTOM)
16. 7 - AE0529A AT 6" SPA. = 3'-0" (TOP & BOTTOM)



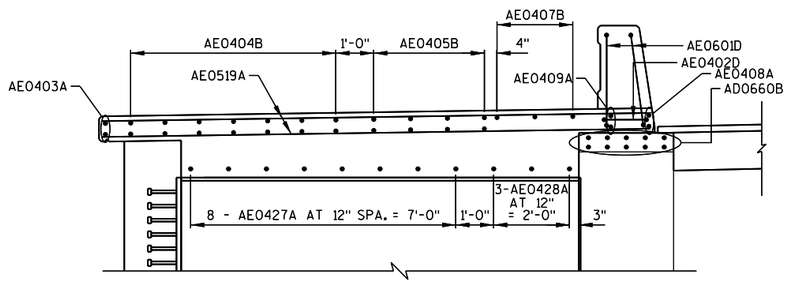
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. REINF. PLAN AT SIDEWALK LEVEL

DRAWING PRE_318

PRELIMINARY

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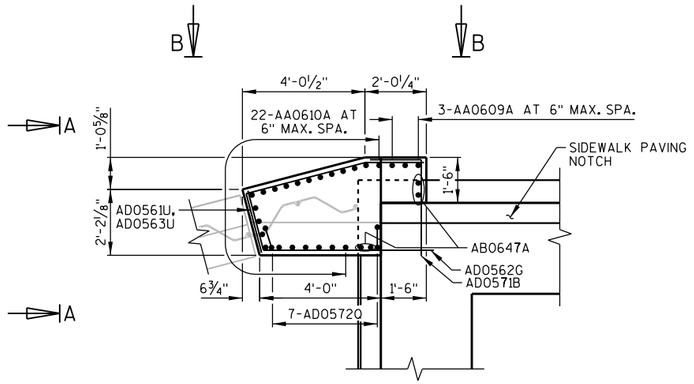
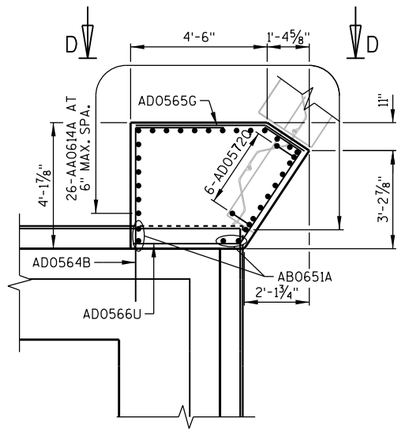
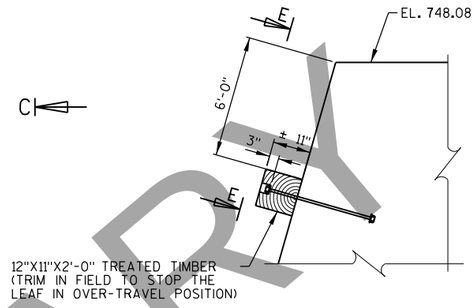
DRAFT April 20, 2020
Racine Street Bridge\900-CAD GIS\920.Structures\B-70-324\Sheets\P40-N Bascule Abutment Miscellaneous Reinforcement Details.dgn

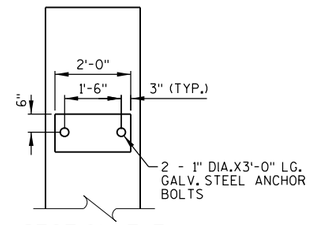


R-70-159 RETAINING WALL ATTACHMENT



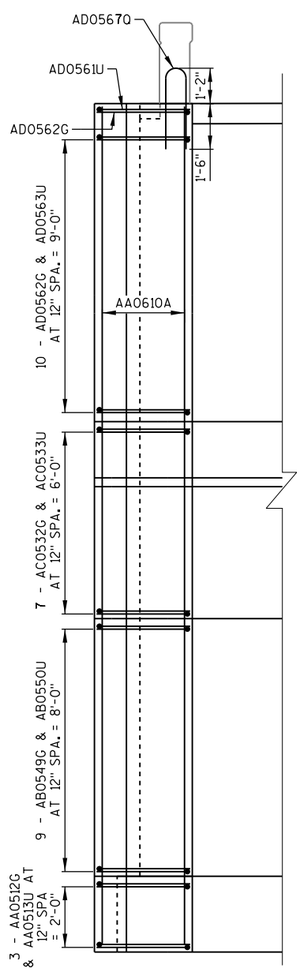
R-70-160 RETAINING WALL ATTACHMENT



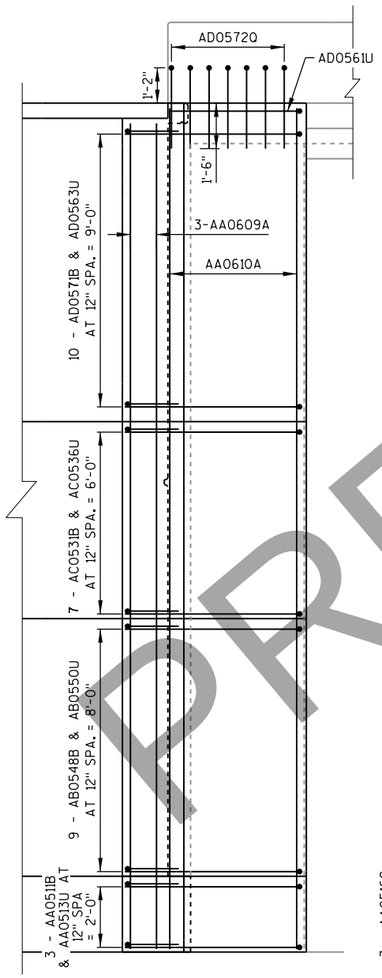


SECTION E-E

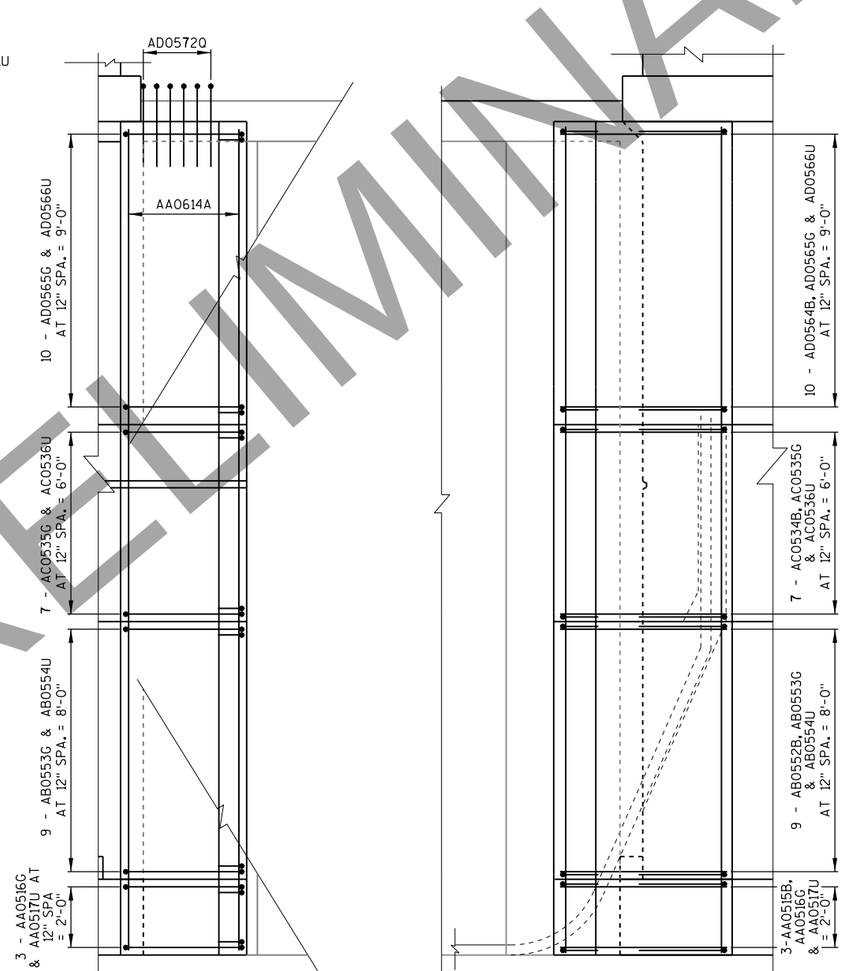
BUMPING BLOCK DETAIL
(INCIDENTAL TO CONCRETE MASONRY BRIDGES)



VIEW A-A

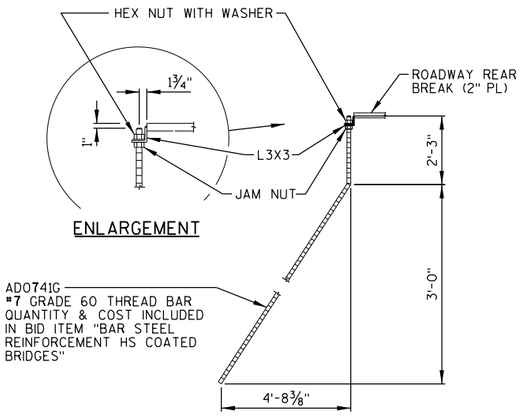


VIEW B-B



VIEW C-C

VIEW D-D



ENLARGEMENT

THREAD BAR BEND DETAIL

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. MISCELLANEOUS REINF. DETAILS - 1

DRAWING PRE_319

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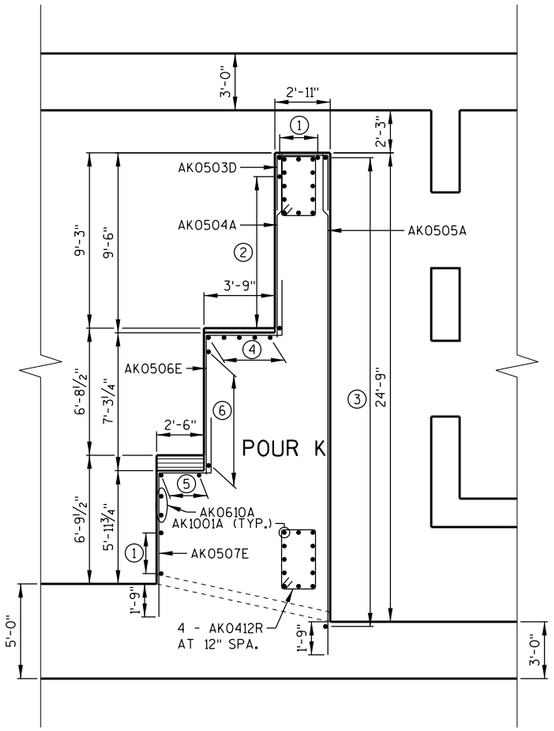
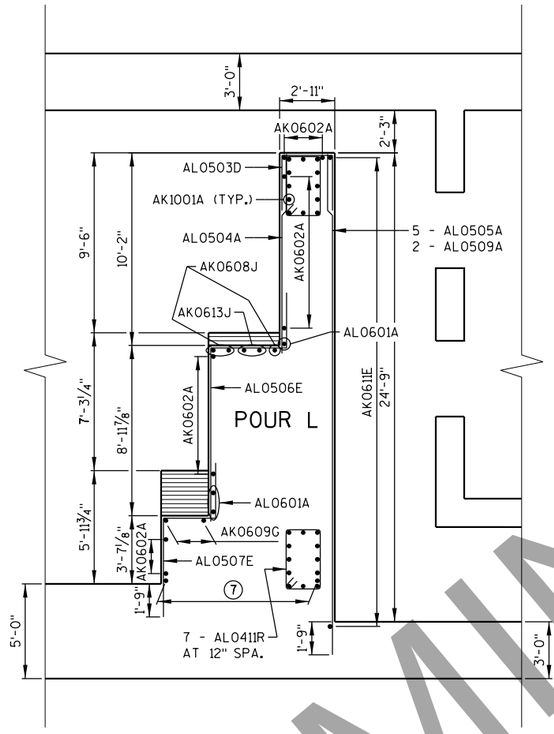
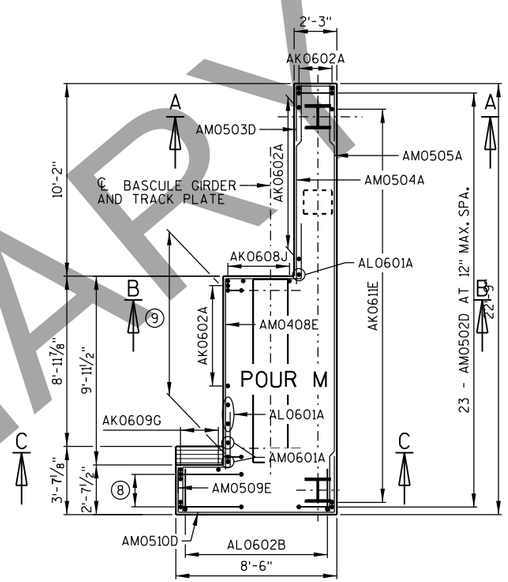
DRAFT April 20, 2020



REINFORCEMENT PLAN AT POUR K

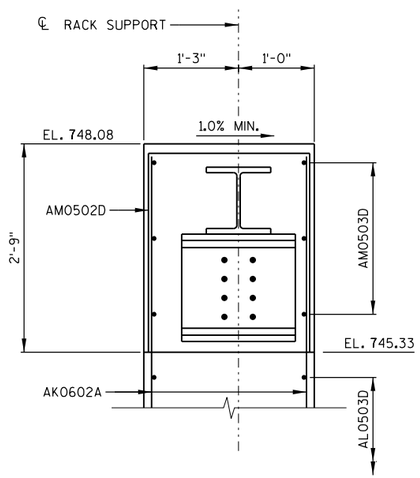


REINFORCEMENT PLAN AT POUR L

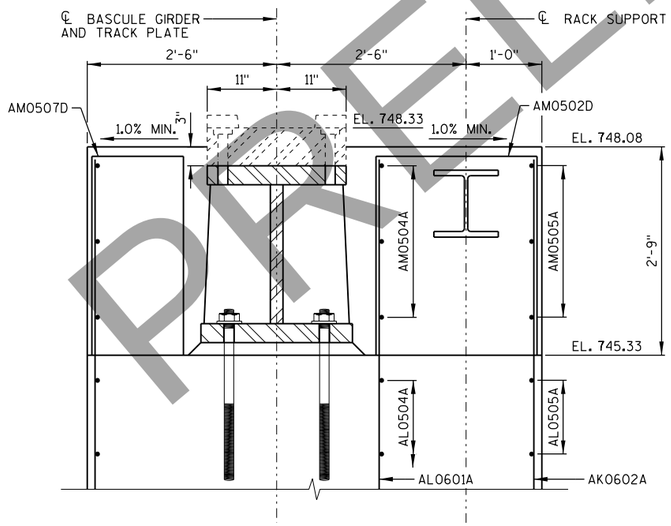


REINFORCEMENT PLAN AT POUR M

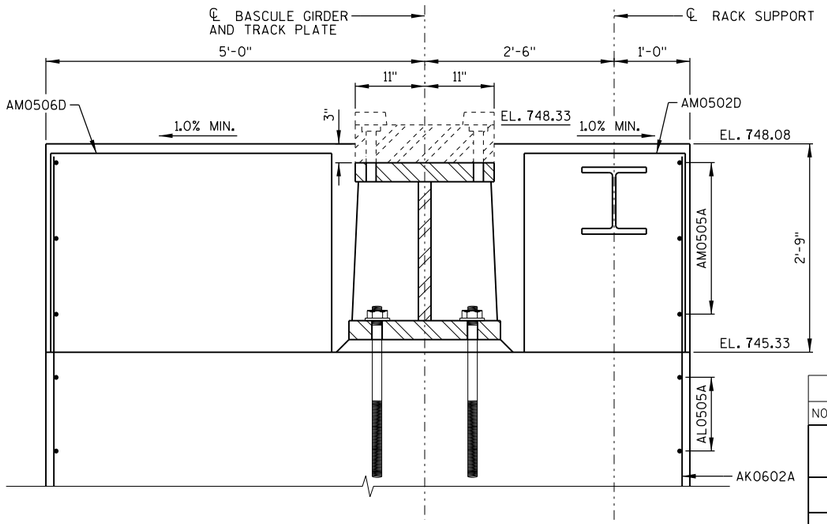
1. 3 - AK0602A LAP W/ AA0603B
2. 9 - AK0602A LAP W/ AA0603B
3. 26 - AK0611E LAP W/ AA0603B
4. 3 - AK0608J & 2 - AK0613J LAP W/ AA0619U
5. 3 - AK0609G LAP W/ AA0618U
6. 6 - AK0602A LAP W/ AA0603B
7. 9 - AL0602B AT 12" SPA. = 8'-0"
8. 3 - AM0506D AT 12" MAX. SPA.
9. 10 - AM0507D AT 12" MAX. SPA.



SECTION A-A



SECTION B-B



SECTION C-C

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. MISCELLANEOUS REINF. DETAILS - 2

DRAWING PRE_320

8

8

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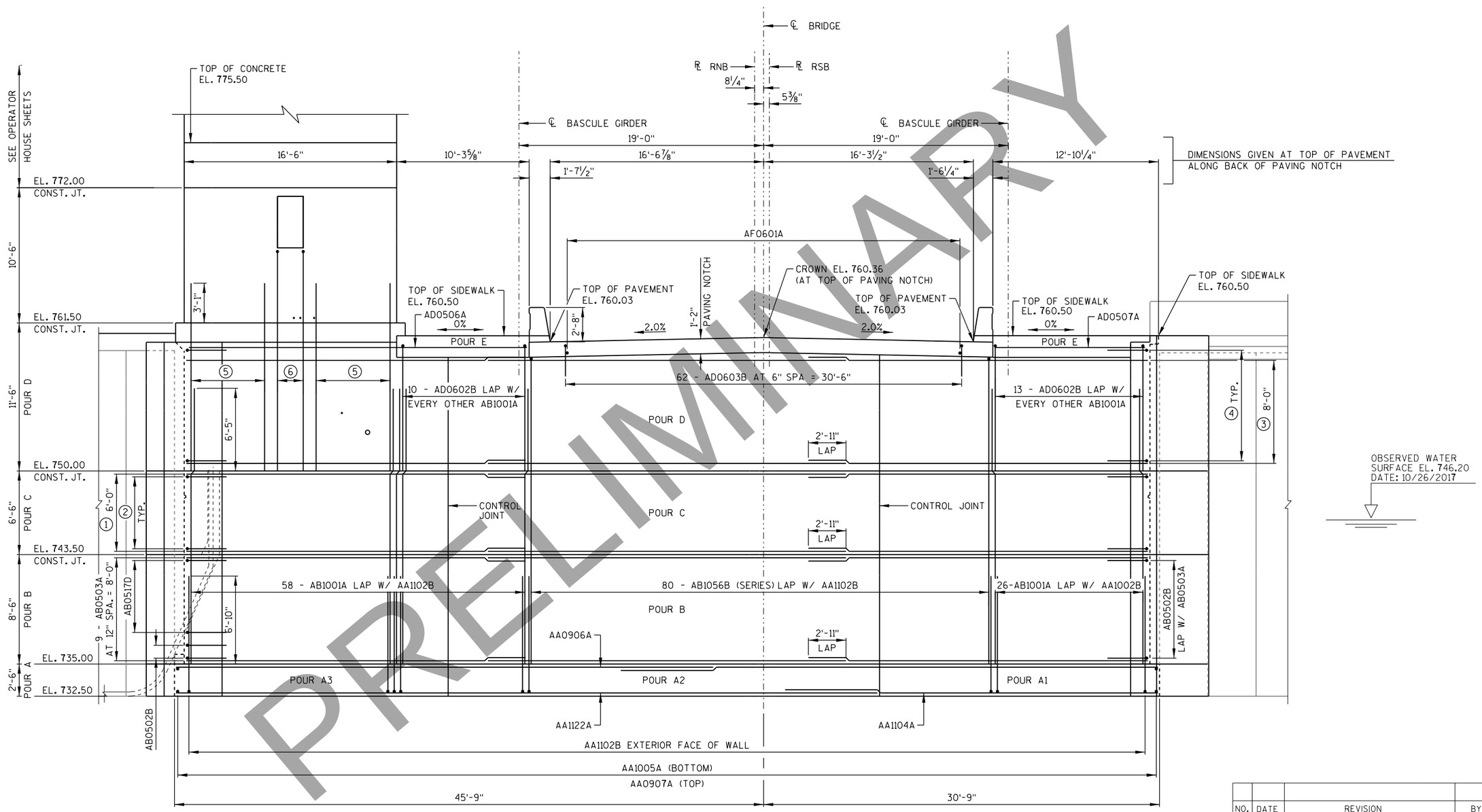
BATCH PRINT SHEET 42 OF 93
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

NORTH BASCULE ABUTMENT NORTH ELEVATION

(APPROACH SIDE - LOOKING SOUTH)

1. 7 - AC0501A AT 12" SPA. = 6'-0"
2. 7 - AC0502B LAP W/ AC0501A
3. 9 - AD0504A AT 12" SPA. = 8'-0"
4. 10 - AD0505B LAP W/ AD0504A, AD0506A OR AD0507A
5. 7 - AD0601A LAP W/ EVERY OTHER AB1001A
6. 3 - AD0669B LAP W/ EVERY OTHER AB1001A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. REINFORCEMENT APPROACH WALL EXTERIOR ELEV.

DRAWING PRE_321

8

8

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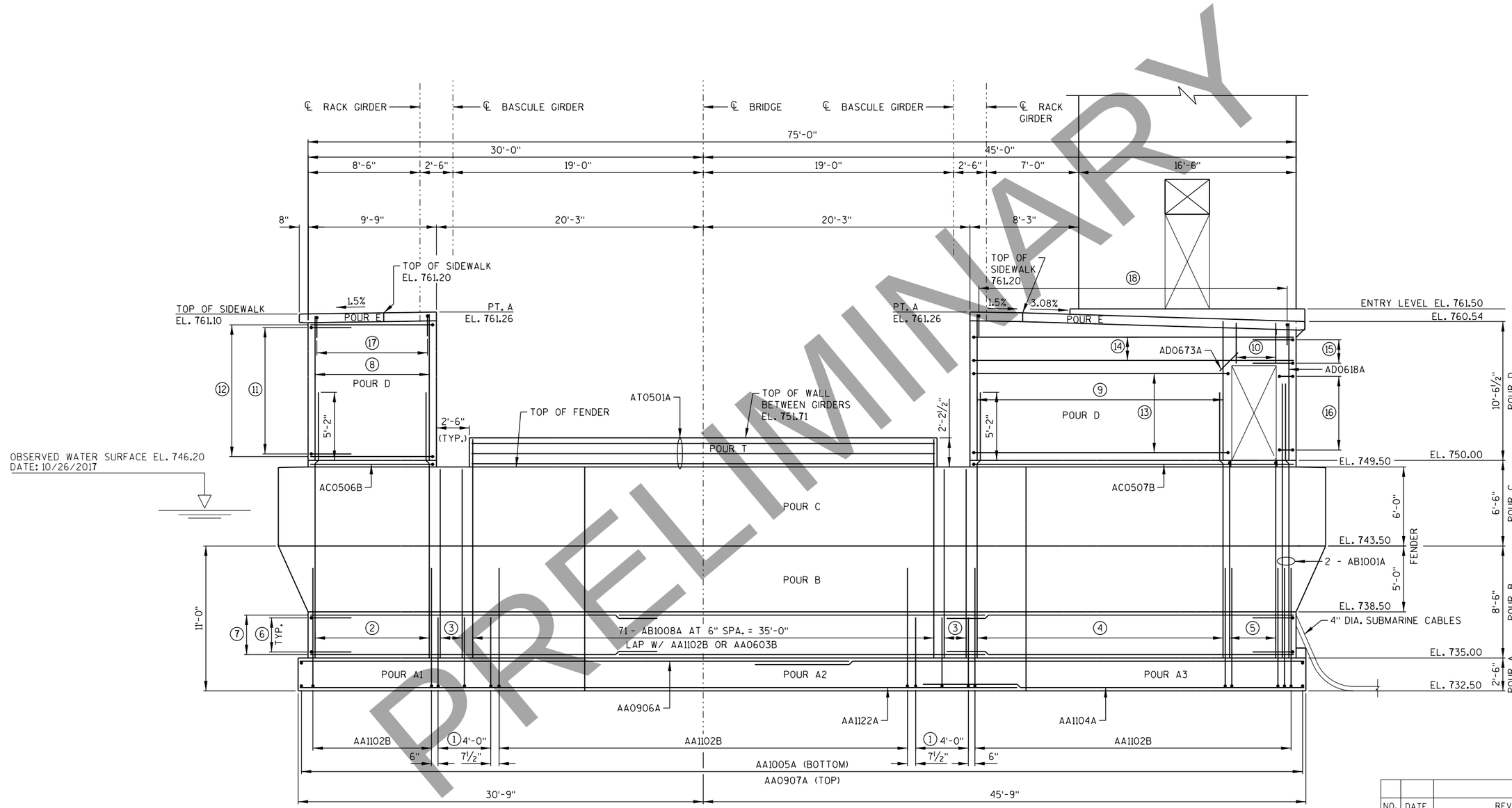
BATCH PRINT SHEET 43 OF 93
DRAFT April 20, 2020



PRELIMINARY

① AA0603B
② 19 - AB1001A LAP W/ AA1102B
③ 3 - AB0607A LAP W/ AA0603B
④ 39 - AB1001A LAP W/ AA1102B
⑤ 8 - AB1009B LAP W/ AA1102B
⑥ 4 - AB0502B LAP W/ AB0503A
⑦ 4 - AB0503A AT 12" SPA. = 3'-0"
⑧ 10 - AD0615A LAP W/ EVERY OTHER AB1001A
⑨ 20 - AD0616A LAP W/ EVERY OTHER AB1001A
⑩ 4 - AD0617A AT 12" SPA. = 3'-0"
⑪ 11 - AD0505B LAP W/ AD0519B
⑫ 11 - AD0519B AT 12" SPA. = 10'-0"
⑬ 7 - AD0520D AT 12" SPA. = 6'-0"
⑭ 3 - AD0521B AT 12" SPA.
⑮ 3 - AD0505B LAP W/ AD0521A
⑯ 7 - AD0523D AT 12" SPA. = 6'-0"
⑰ 10 - AD0447B LAP W/ AD0615A
⑱ 25 - AD0447B LAP W/ AD0616A, AD0617A & AD0618A

NORTH BASCULE ABUTMENT ELEVATION AT CHANNEL WALL

(LOOKING NORTH)

NOTE:

FOR BARS IN FENDER, SEE SHEET "NAVIGATION FENDER SYSTEM DETAILS - 1".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. REINFORCEMENT CHANNEL WALL EXTERIOR ELEV.

DRAWING PRE_322

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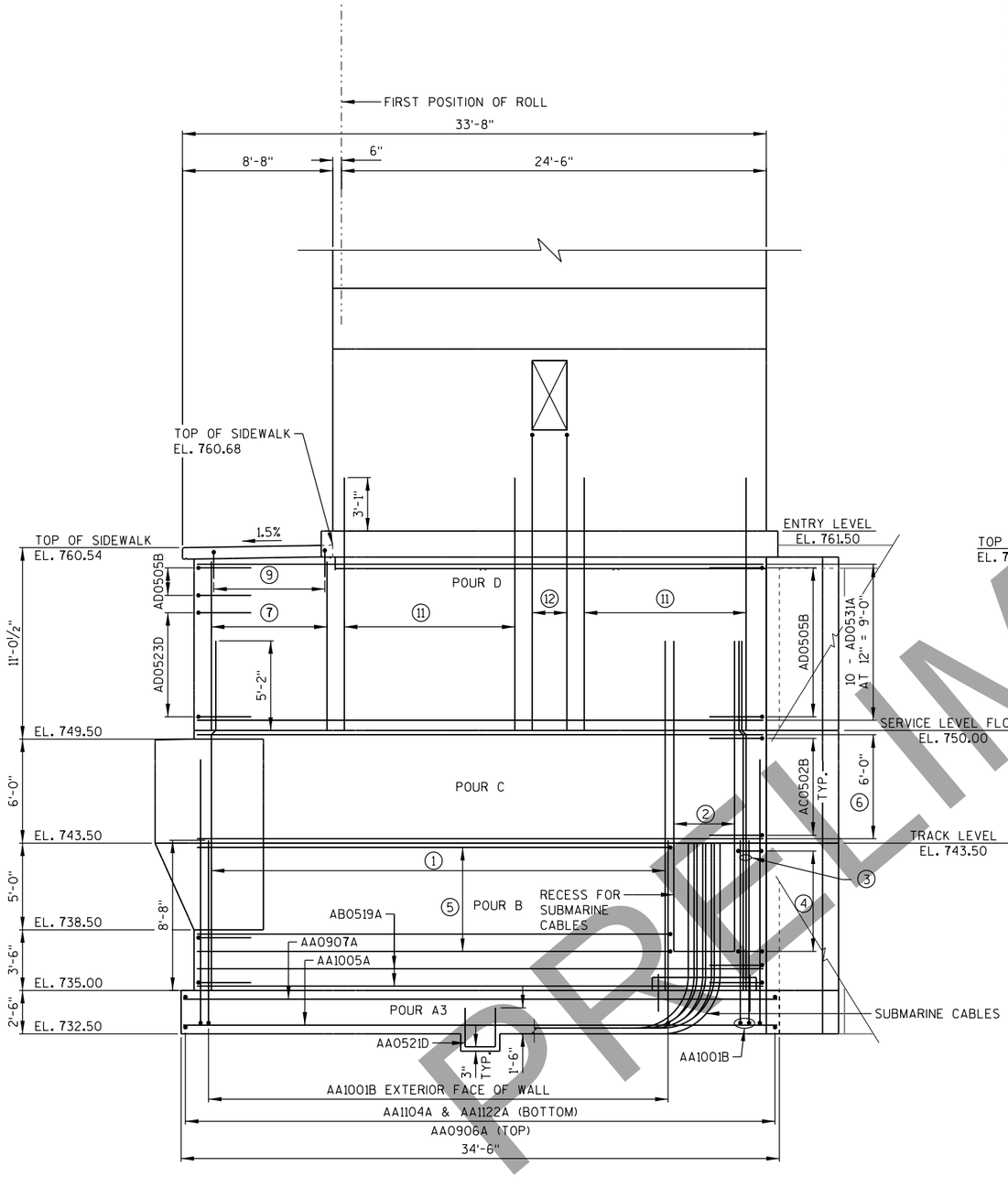
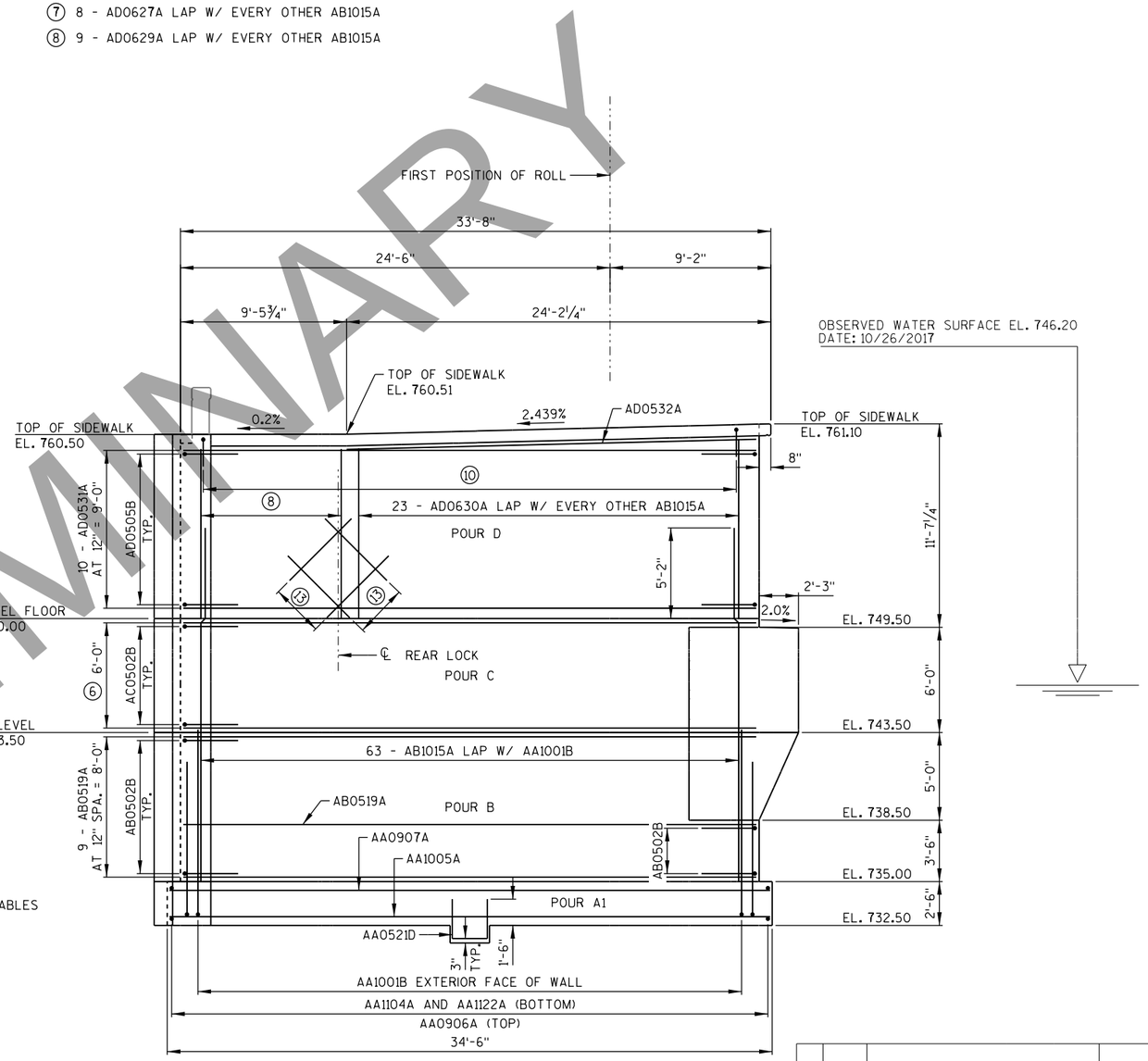
PLOT DATE: 3/27/2020
BATCH PRINT SHEET 44 OF 93
PLOT TIME: 5:10:01 PM
DRAFT April 20, 2020

1. 54 - AB1015A AT 6" SPA. = 26'-6"
2. 8 - AB1016A AT 6" SPA. = 3'-6"
3. 2 - AB1015A AT 6" SPA. = 6"
4. 7 - AB0517D AT 12" SPA. = 6'-0"
5. 7 - AB0518B AT 12" SPA. = 6'-0"
6. 7 - AC0518A AT 12" SPA. = 6'-0"
7. 8 - AD0627A LAP W/ EVERY OTHER AB1015A
8. 9 - AD0629A LAP W/ EVERY OTHER AB1015A
9. 8 - AD0447B LAP W/ AD0627A
10. 32 - AD0447B LAP W/ AD0629A & AD0630A
11. 11 - AD0628A LAP W/ EVERY OTHER AB1015A OR AB1016A
12. 3 - AD0669B LAP W/ EVERY OTHER AB1015A OR AB1016A
13. 7 - AD0540A AT 6" SPA. = 3'-0"



NORTH BASCULE ABUTMENT - EAST ELEVATION

(LOOKING WEST)



NORTH BASCULE ABUTMENT - WEST ELEVATION

(LOOKING EAST)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. REINF. EAST & WEST ELEVATIONS

DRAWING PRE_323

PRINTER DRIVER: S:_oecm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF.11 x 17.plt
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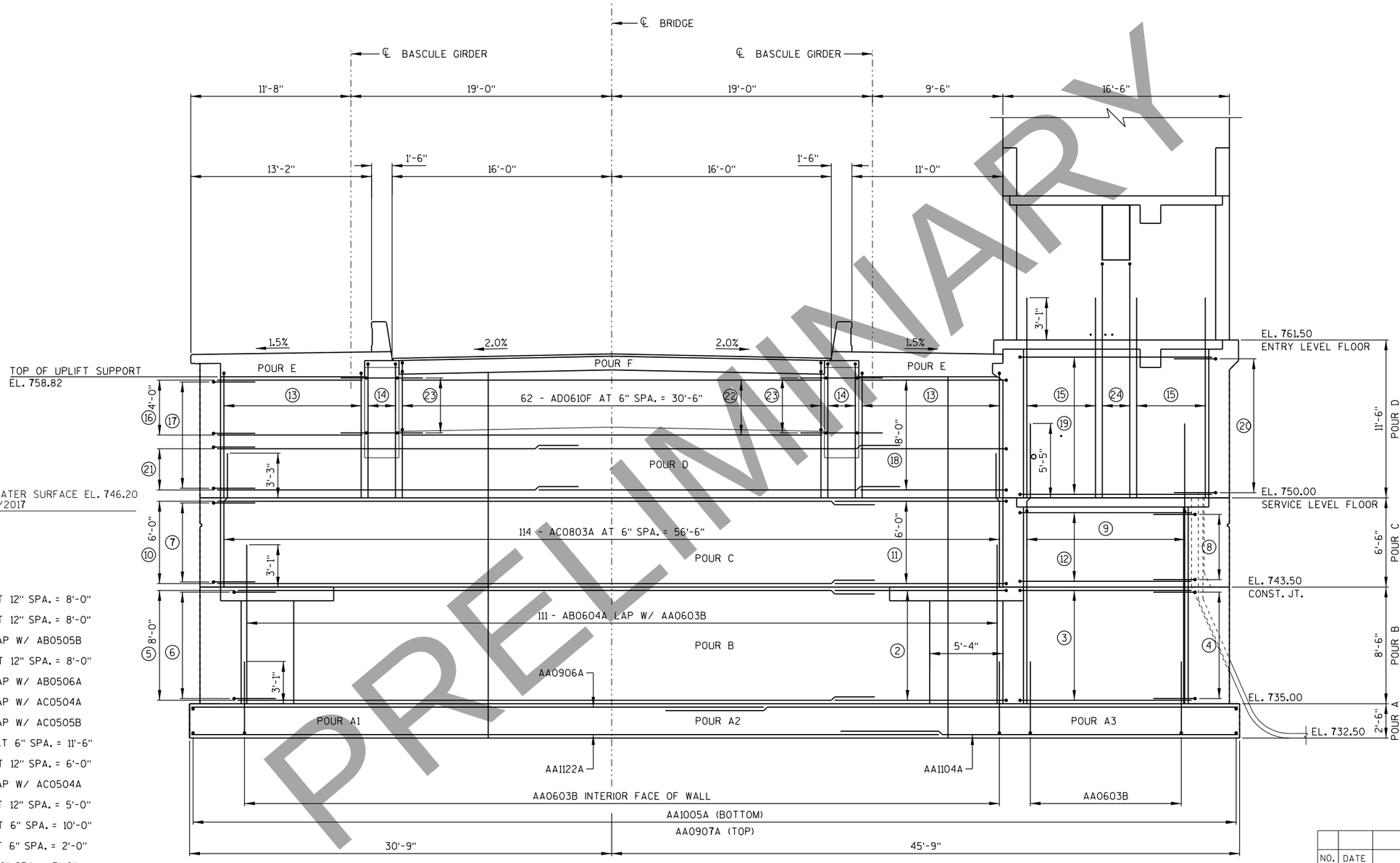
PLOT DATE: 3/2/2020 PLOT TIME: 5:10:21 PM
BATCH PRINT SHEET 45 OF 93
DRAFT - April 20, 2020

STATE PROJECT NUMBER
4992-03-71



NORTH BASCULE ABUTMENT NORTH WALL

(APPROACH SIDE - LOOKING NORTH)

(2) 9 - AB0505B AT 12" SPA. = 8'-0"
(3) 9 - AB0505B AT 12" SPA. = 8'-0"
(4) 9 - AB0502B LAP W/ AB0505B
(5) 9 - AB0506A AT 12" SPA. = 8'-0"
(6) 9 - AB0502B LAP W/ AB0506A
(7) 7 - AC0502B LAP W/ AC0504A
(8) 6 - AC0502B LAP W/ AC0505B
(9) 24 - AB0855E AT 6" SPA. = 11'-6"
(10) 7 - AC0504A AT 12" SPA. = 6'-0"
(11) 7 - AC0505B LAP W/ AC0504A
(12) 6 - AC0505B AT 12" SPA. = 5'-0"
(13) 21 - AD0608B AT 6" SPA. = 10'-0"
(14) 5 - AD0609F AT 6" SPA. = 2'-0"
(15) 11 - AD0811J AT 6" SPA. = 5'-0"
(16) 5 - AD0512A AT 12" SPA. = 4'-0"
(17) 9 - AD0505B LAP W/ AD0512A AND AD0504A
(18) 9 - AD0513B AT 12" SPA. = 8'-0"
(19) 11 - AD0514B AT 12" SPA. = 10'-0"
(20) 11 - AD0505B LAP W/ AD0514B
(21) 4 - AD0504A AT 12" SPA. = 3'-0"
(22) 5 - AD0539A AT 12" SPA. = 4'-0"
(23) 5 - AD0542C AT 12" SPA. = 4'-0", LAP W/ AD0512A, AD0539A & AD0513B
(24) 5 - AD0867K AT 6" SPA. = 2'-0"

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. REINFORCEMENT INTERIOR APPROACH WALL ELEV.

DRAWING PRE_324

8

8

PRINTER DRIVER: S:\..acm-CADstds.Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF.11 x 17.plt
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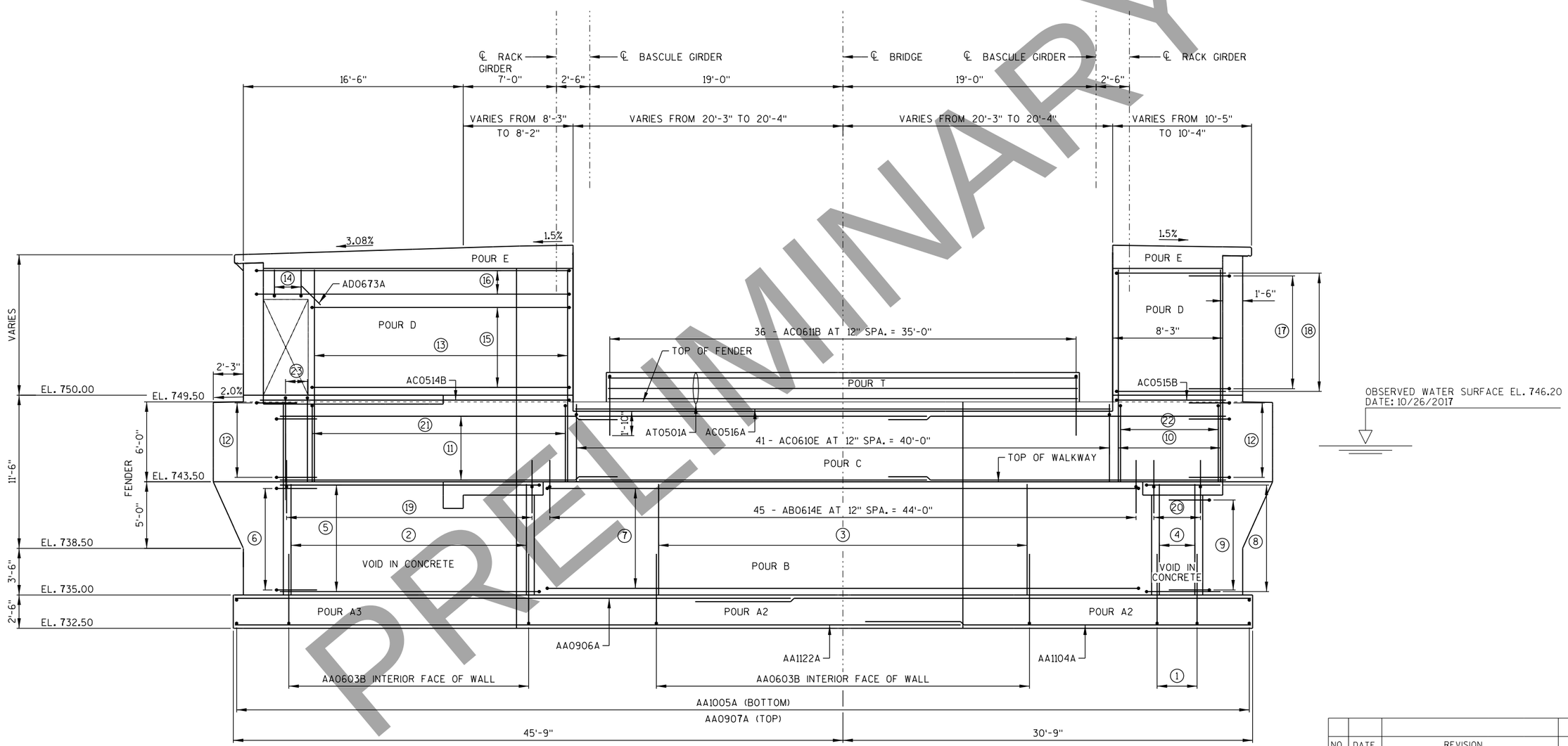
DRAFT April 20, 2020
BATCH PRINT SHEET 46 OF 93

STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

1. AA0603B INTERIOR FACE OF WALL
2. 19 - AB0610A LAP W/ AA0603B
3. 29 - AB0610A LAP W/ AA0603B
4. 4 - AB0610A LAP W/ AA0603B
5. 9 - AB0511B AT 12" SPA. = 8'-0"
6. 9 - AB0502B LAP W/ AB0511B
7. 9 - AB0512D AT 12" SPA.
8. 9 - AB0513B AT 12" SPA.
9. 8 - AB0502B LAP W/ AB0513B
10. 9 - AC0609A AT 12" SPA.
11. 6 - AC0513A AT 12" SPA.
12. 7 - AC0502B LAP W/ AC0513A, AC0514B OR AC0515B
13. 20 - AC0609A AT 12" SPA. = 19'-0"
14. 3 - AD0624B AT 12" SPA. = 2'-0"
15. 7 - AD0520D AT 12" SPA. = 6'-0"
16. 3 - AD0525E AT 12" SPA. = 2'-0"
17. 10 - AD0505B LAP W/ AD0519B
18. 10 - AD0519B AT 12" SPA. = 9'-0"
19. 19 - AB0628E LAP W/ AB0610A
20. 4 - AB0628E LAP W/ AB0610A
21. 20 - AC0608B AT 12" SPA. = 19'-0"
22. 9 - AC0608B AT 12" SPA.
23. 3 - AC0612B AT 12" MAX. SPA.

NORTH BASCULE ABUTMENT SOUTH WALL

(LOOKING SOUTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. REINFORCEMENT INTERIOR CHANNEL WALL ELEV.

DRAWING PRE_325

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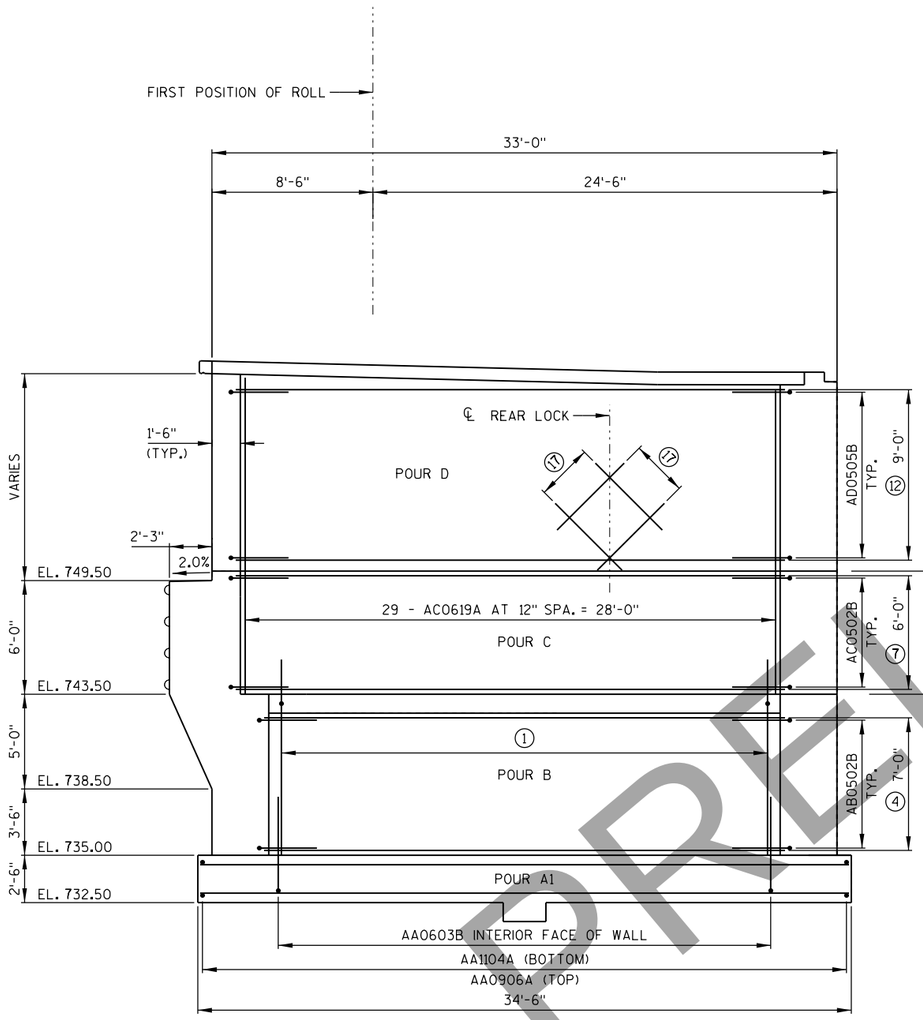
PLOT DATE: 3/2/2020
PLOT TIME: 5:11:07 PM
BATCH PRINT SHEET 47 OF 93
DRAFT April 20, 2020

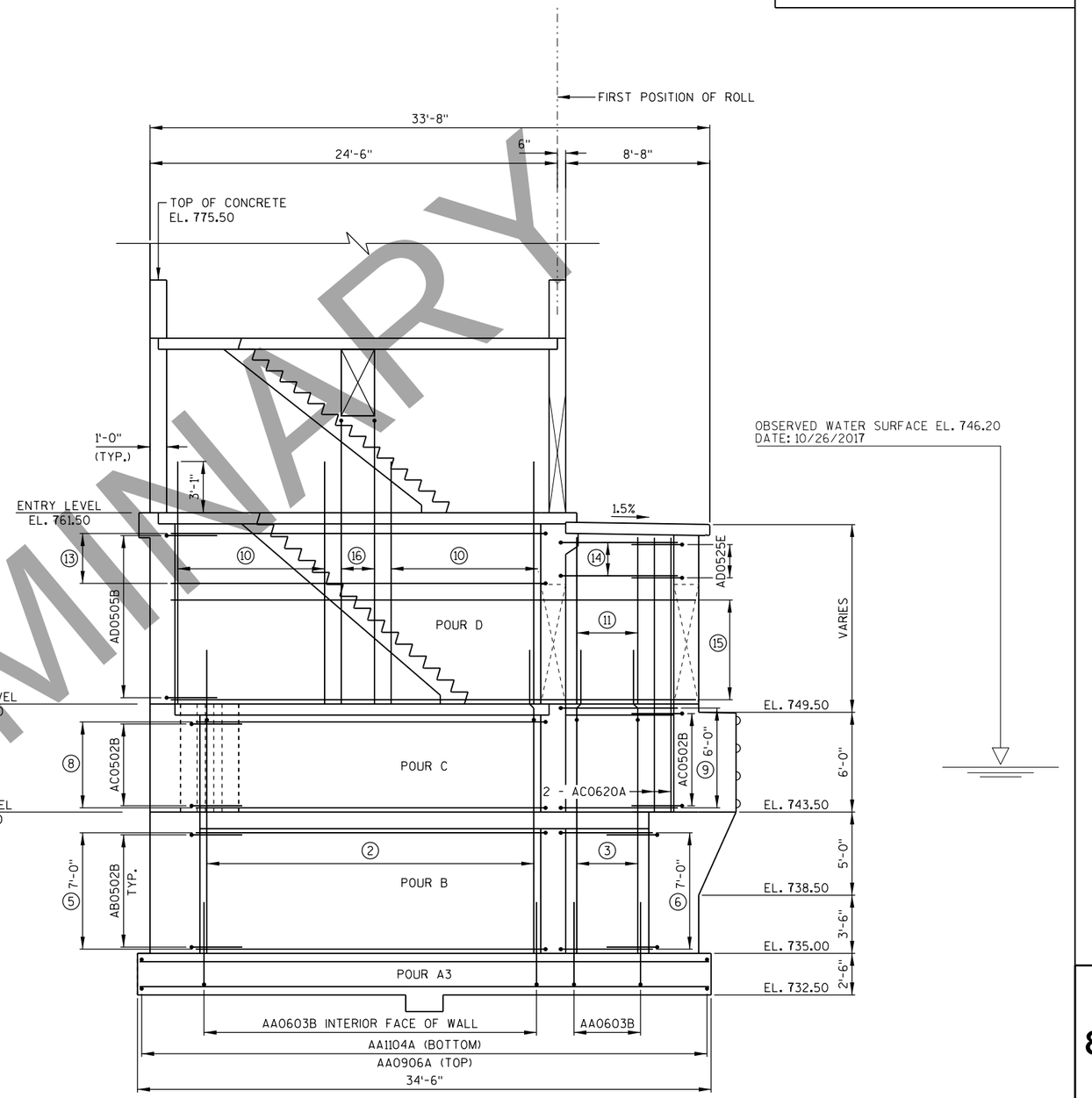
STATE PROJECT NUMBER

4992-03-71



NORTH BASCULE ABUTMENT - WEST WALL

(LOOKING WEST)



NORTH BASCULE ABUTMENT - EAST WALL

(LOOKING EAST)

PRELIMINARY

① 55 - AB0620E LAP W/ AA0603B
② 42 - AB0621E LAP W/ AA0603B
③ 11 - AB0621E LAP W/ AA0603B
④ 8 - AB0522A AT 12" SPA. = 7'-0"
⑤ 8 - AB0523B AT 12" SPA. = 7'-0"
⑥ 8 - AB0524B AT 12" SPA. = 7'-0"
⑦ 7 - AC0521A AT 12" SPA. = 6'-0"
⑧ 6 - AC0522B AT 12" SPA.
⑨ 7 - AC0523B AT 12" SPA. = 6'-0"
⑩ 10 - AD0633J AT 12" SPA.
⑪ 11 - AD0634A LAP W/ AB0621E
⑫ 10 - AD0535A AT 12" SPA. = 9'-0"
⑬ 4 - AD0536B AT 12" SPA. = 3'-0"
⑭ 3 - AD0537B LAP W/ AD0525E
⑮ 7 - AD0538A AT 12" SPA. = 6'-0"
⑯ 3 - AD0670K AT 12" SPA. = 2'-0"
⑰ 7 - AD0540A AT 6" SPA. = 3'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. REINFORCEMENT INTERIOR EAST & WEST ELEVATIONS

DRAWING PRE_326

8

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PRELIMINARY

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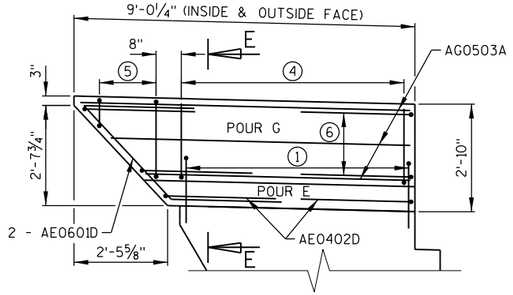
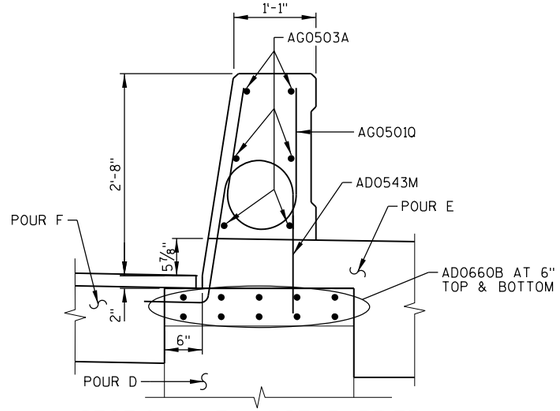
DRAFT April 20,
BATCH PRINT SHEET 48 OF 93

STATE PROJECT NUMBER

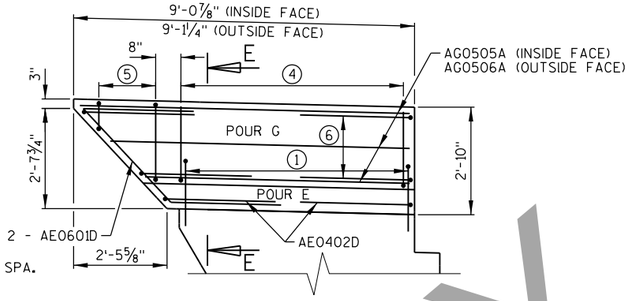
4992-03-71



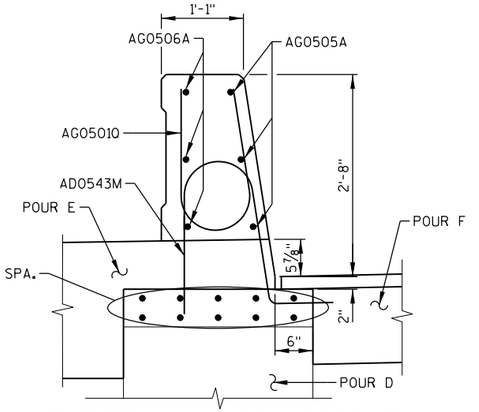
WEST CONCRETE TRAFFIC BARRIER
AT BASCULE ABUTMENT



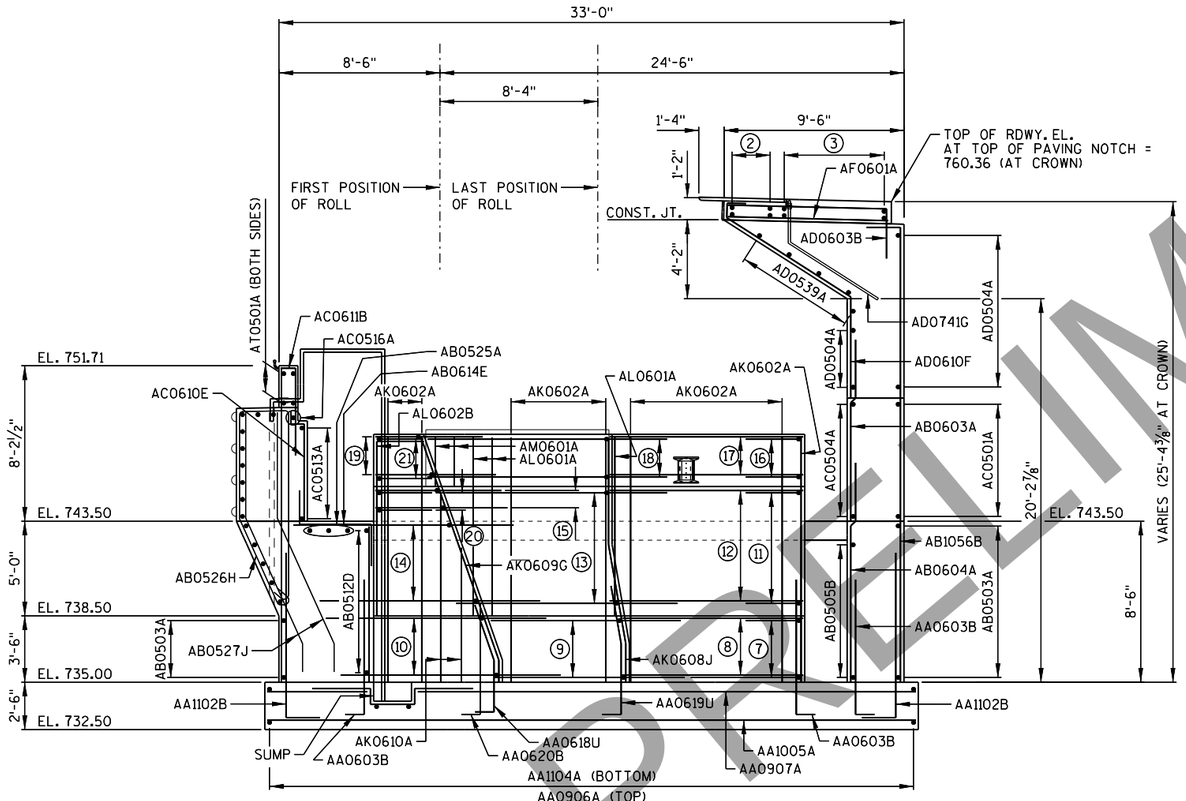
SECTION E-E (WEST BARRIER)



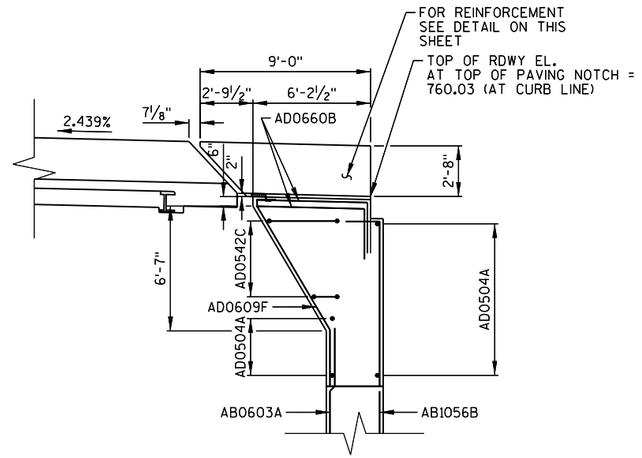
EAST CONCRETE TRAFFIC BARRIER
AT BASCULE ABUTMENT



SECTION E-E (EAST BARRIER)



SECTION A-A



SECTION B-B

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)

① 10 - AD0543M AT 8" MAX. SPA.
② AF0602A
③ AF0603A
④ 10 - AG0501Q AT 8" MAX. SPA.
⑤ 4 - AG0502R AT 8" MAX. SPA.
⑥ 5 - AG0404D AT 6" MAX. SPA. BOTH ENDS
⑦ 4 - AK0503D AT 12" SPA. = 3'-0"
⑧ 4 - AK0504A AT 12" SPA. = 3'-0"
⑨ 4 - AK0506E AT 12" SPA. = 3'-0"
⑩ 4 - AK0507E AT 12" SPA. = 3'-0"
⑪ 7 - AL0503D AT 12" MAX. SPA.
⑫ 7 - AL0504A AT 12" MAX. SPA.
⑬ 7 - AL0506E AT 12" MAX. SPA.
⑭ 5 - AL0507E AT 12" MAX. SPA.
⑮ 2 - AL0508E AT 12" MAX. SPA.
⑯ 3 - AM0503D AT 12" SPA. = 2'-0"
⑰ 3 - AM0504A AT 12" SPA. = 2'-0"
⑱ 3 - AM0408E AT 12" SPA. = 2'-0"
⑲ 3 - AM0509E AT 12" SPA. = 2'-0"
⑳ 2 - AL0510D AT 12" MAX. SPA.
㉑ 3 - AM0510D AT 12" SPA. = 2'-0"

NOTE:

FOR SECTION CUTS A-A AND B-B, SEE SHEET "N. BASCULE ABUT. REINF. PLAN AT TRACK LEVEL".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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N. BASCULE ABUT. REINFORCEMENT AT ROADWAY AND BARRIER

DRAWING PRE_327

8

8

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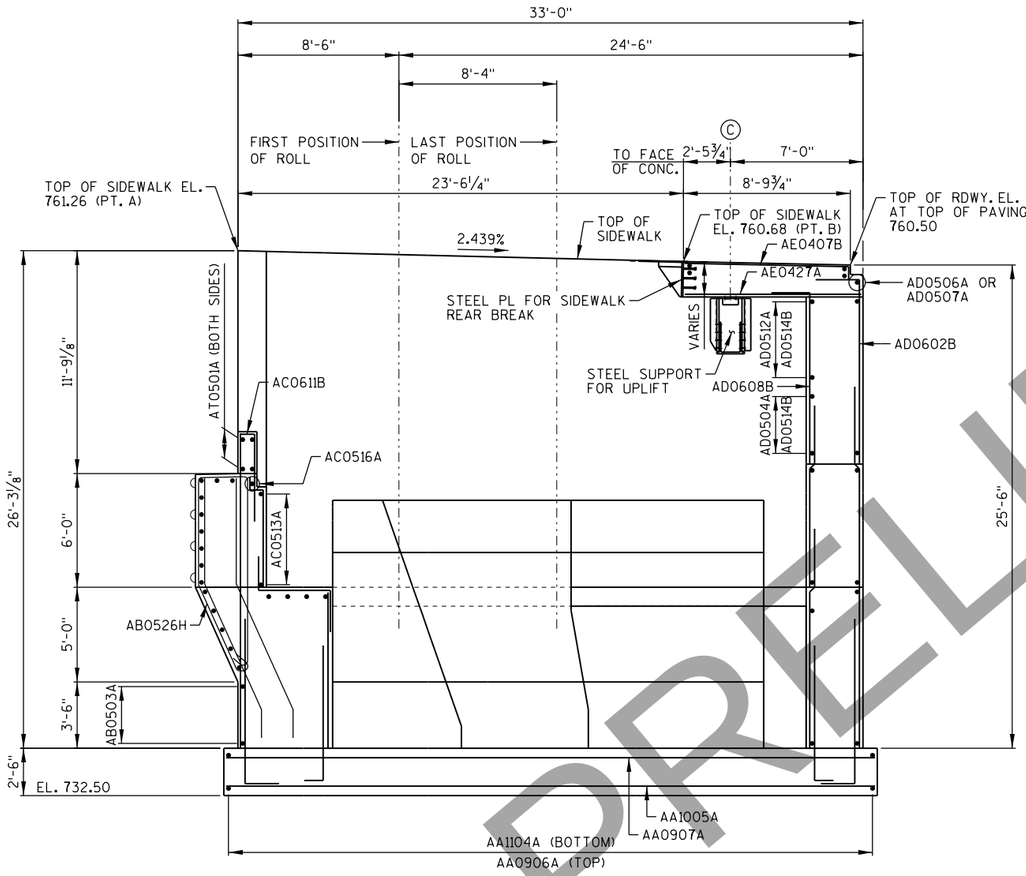
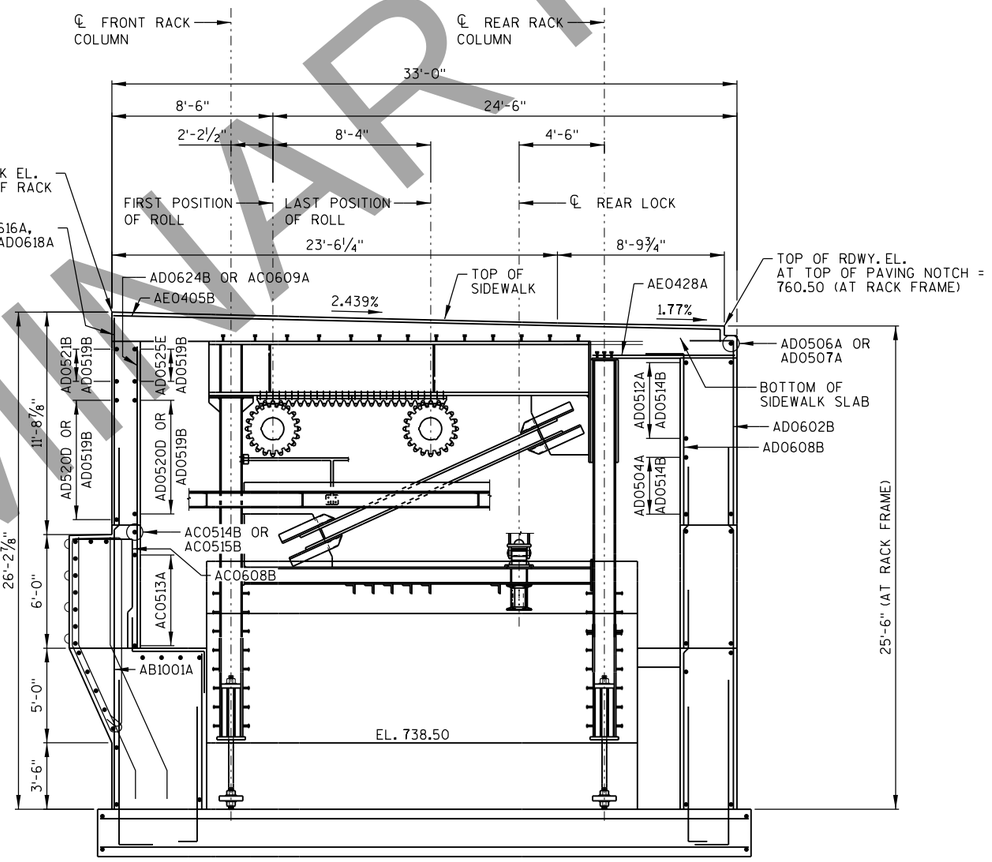
PLOT DATE: 3/2/2020
PLOT TIME: 5:12:00 PM
BATCH PRINT SHEET 49 OF 93
DRAFT April 20, 2020



SECTION C-C

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)



SECTION D-D

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)

NOTE:

FOR SECTION CUTS C-C AND D-D, SEE SHEET "N. BASCULE ABUT. REINF. PLAN AT TRACK LEVEL".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUT. REINFORCEMENT AT RACK FRAME AND BASCULE GIRDER

DRAWING PRE_328

PRELIMINARY

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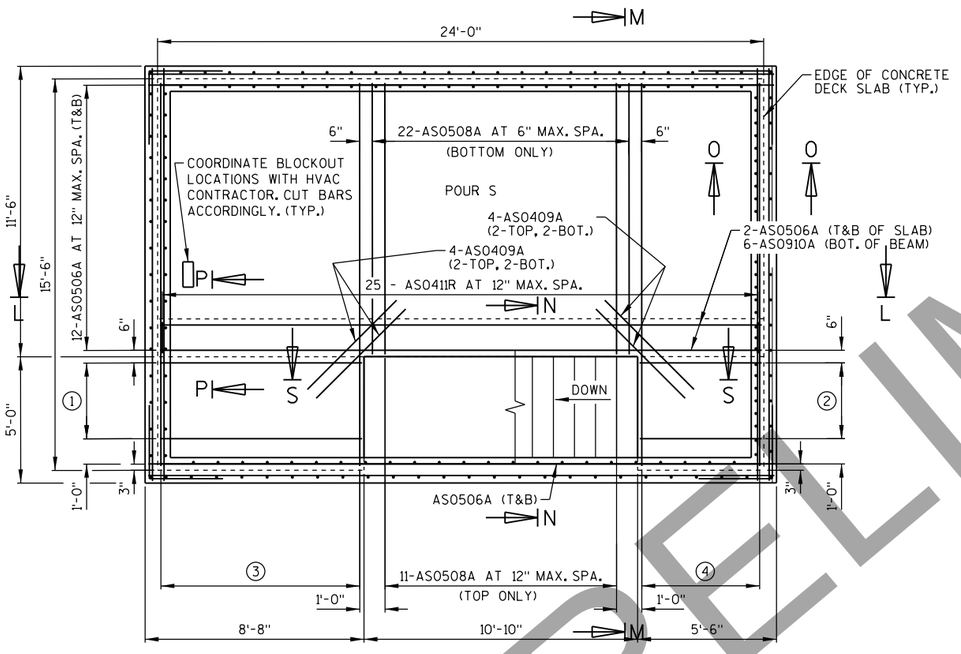
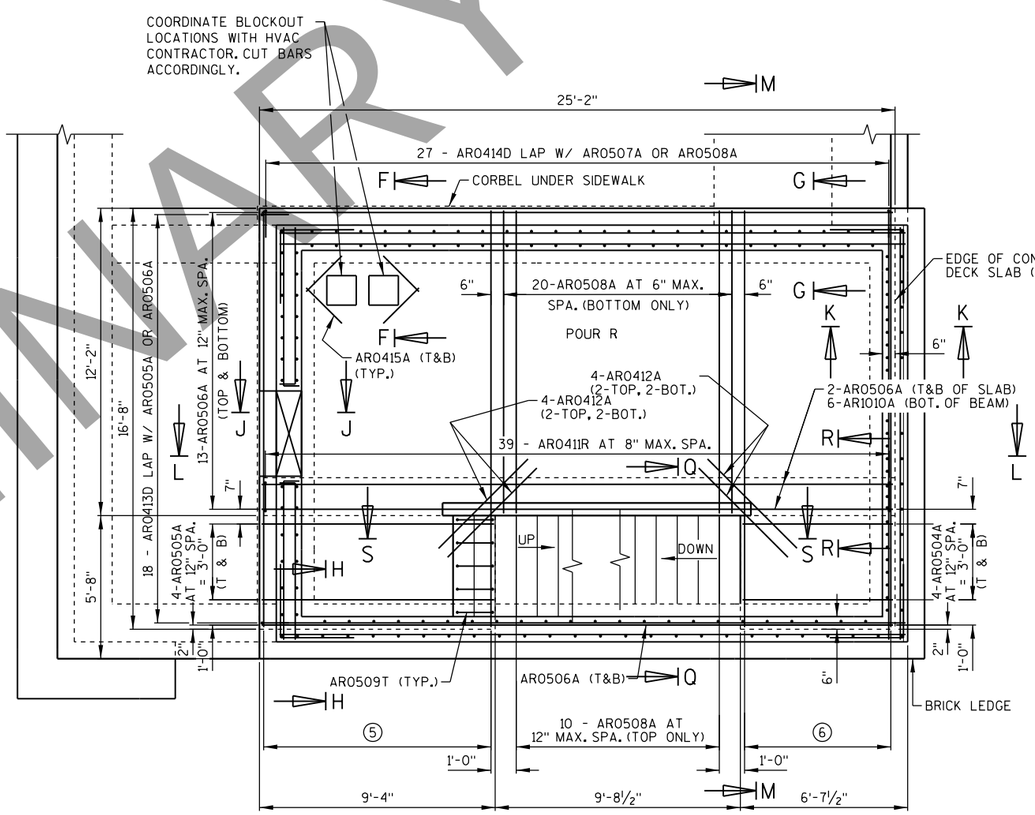
BATCH PRINT SHEET 50 OF 93

DRAFT April 20, 2020



OPERATOR LEVEL

(TOP OF CONCRETE FLOOR EL. 772.00)



ENTRY LEVEL

(TOP OF CONCRETE FLOOR EL. 761.50)

1. 4 - AS0505A AT 12" SPA. = 3'-0" (T&B)
2. 4 - AS0504A AT 12" SPA. = 3'-0" (T&B)
3. 9 - AS0507A AT 12" MAX. SPA. (TOP)
   17 - AS0507A AT 6" MAX. SPA. (BOT.)
4. 6 - AS0507A AT 12" MAX. SPA. (TOP)
   11 - AS0507A AT 6" MAX. SPA. (BOT.)
5. 10 - AR0507A AT 12" SPA. = 9'-0" (TOP)
   19 - AR0507A AT 6" SPA. = 9'-0" (BOT.)
6. 7 - AR0507A AT 12" MAX. SPA. (TOP)
   13 - AR0507A AT 6" MAX. SPA. (BOT.)

NOTES

SEE SHEET "OPERATOR HOUSE GENERAL SECTIONS" FOR SECTIONS L-L AND M-M.

SEE SHEET "OPERATOR HOUSE REINF. DETAILS" FOR SECTIONS F-F, G-G, H-H J-J, K-K, N-N, O-O, P-P, Q-Q AND R-R.

SEE SHEET "OPERATOR HOUSE GENERAL DETAILS" FOR SECTION S-S.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

OPERATOR HOUSE REINF. FLOOR PLANS - 1

DRAWING PRE_329

PRELIMINARY

8

PRINTER DRIVER: S:\..acm-CADstds.Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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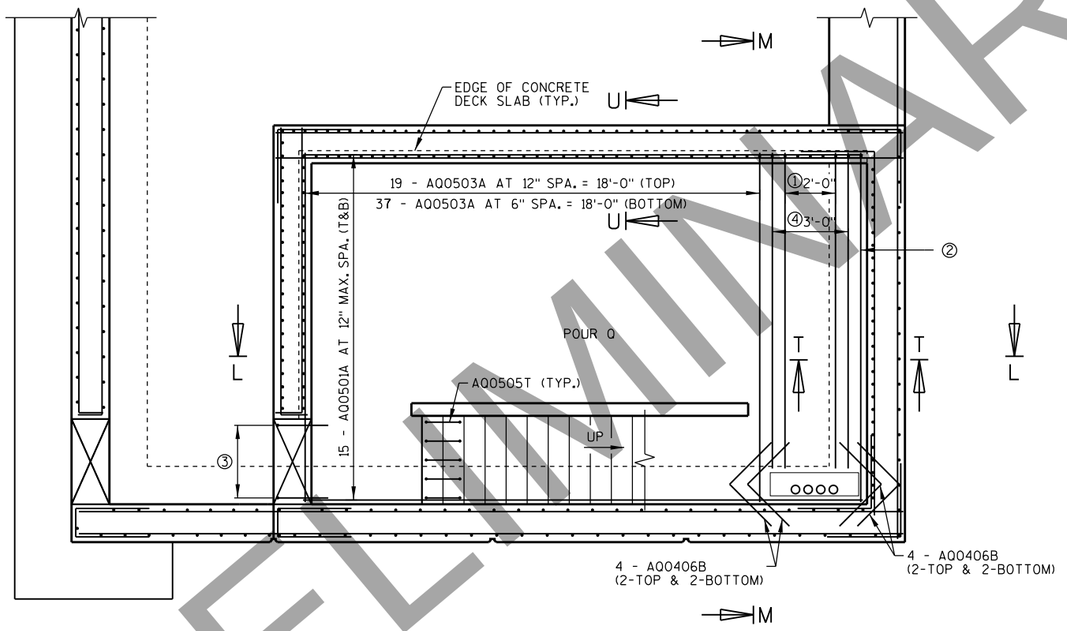
PLOT DATE: 3/2/2020 PLOT TIME: 5:12:33 PM BATCH PRINT SHEET 51 OF 93

DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



① 3 - A00504A AT 12" SPA. = 2'-0" (TOP)
② 1 - A00503A (TOP & BOTTOM)
③ 4 - A00407D LAP W/ A00501A
④ 7 - A00504A AT 6" SPA. = 3'-0" (BOTTOM)

SERVICE LEVEL

(TOP OF CONCRETE FLOOR EL. 750.00)

PRELIMINARY

NOTES

SEE SHEET "OPERATOR HOUSE GENERAL SECTIONS" FOR SECTIONS L-L AND M-M.

SEE SHEET "OPERATOR HOUSE REINF. DETAILS" FOR SECTIONS T-T AND U-U.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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OPERATOR HOUSE REINF. FLOOR PLANS - 2

DRAWING PRE_330

8

8

PRINTER DRIVER: S:\..acm-CADstds.Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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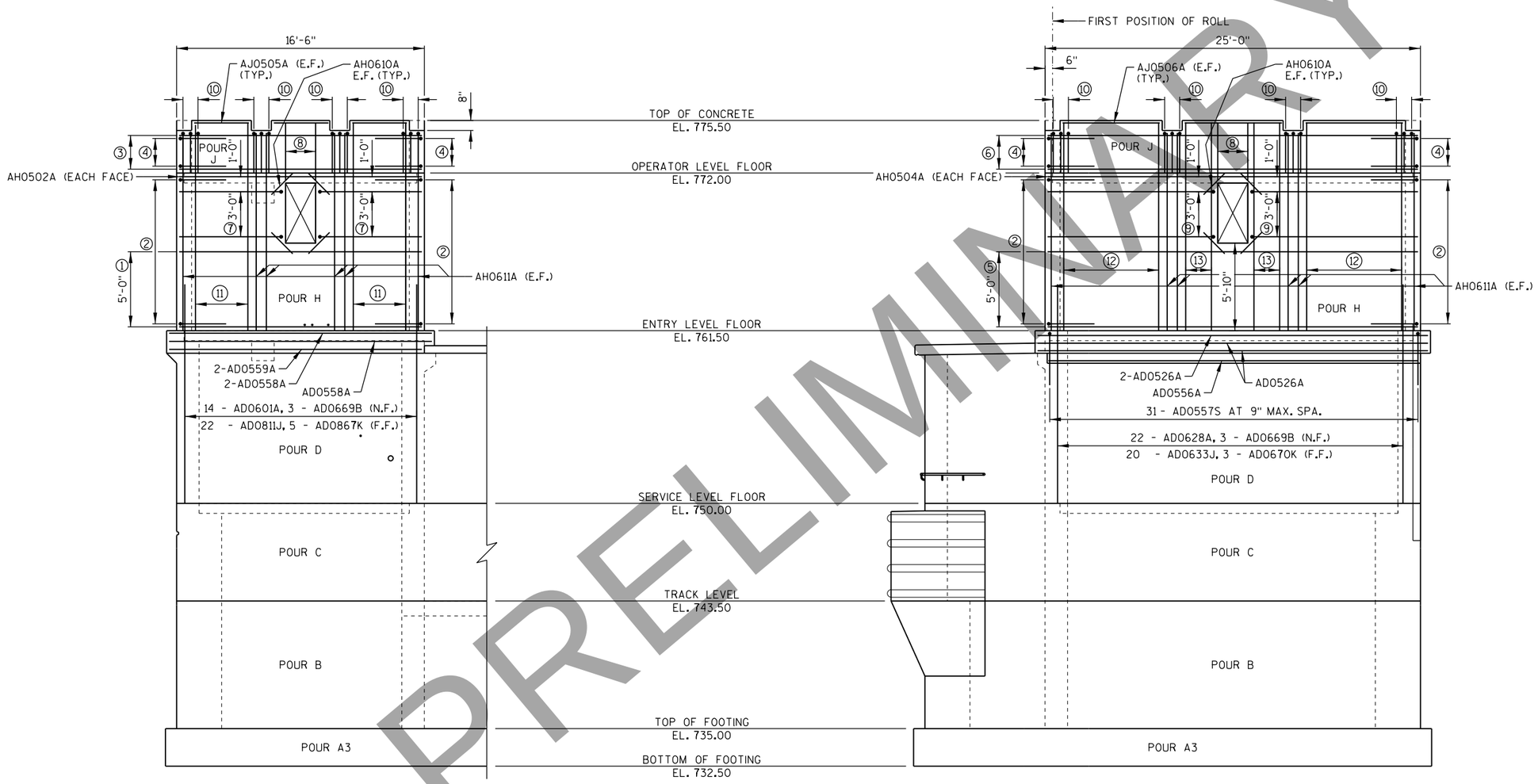
PLOT DATE: 3/2/2020 PLOT TIME: 5:12:54 PM
BATCH PRINT SHEET 52 OF 93

DRAFT April 20, 2020



NORTH ELEVATION
(LOOKING SOUTH)

EAST ELEVATION
(LOOKING WEST)

① 6 - AH0502A AT 12" SPA. = 5'-0" (E.F.)
② 11 - AH0503B LAP W/ AH0502A, AH0504A, AH0507B OR AH0509B (N.F.)
③ 3 - AJ0501A AT 12" MAX. SPA. (E.F.)
④ 3 - AJ0502B LAP W/ AJ0501A (E.F.)
⑤ 6 - AH0504A AT 12" SPA. = 5'-0" (E.F.)
⑥ 3 - AJ0503A AT 12" MAX. SPA. (E.F.)
⑦ 4 - AH0507B AT 12" SPA. = 3'-0" (E.F.)
⑧ 4 - AH0608A AT 12" SPA. = 3'-0" (E.F.)
⑨ 4 - AH0509B AT 12" SPA. = 3'-0" (E.F.)
⑩ 3 - AJ0504D AT 6" SPA. = 1'-0" (UNDER GROUT POCKET)
⑪ 9 - AH0601A AT 6" MAX. SPA. (E.F.)
⑫ 15 - AH0601A AT 6" MAX. SPA. (E.F.)
⑬ 5 - AH0601A AT 6" MAX. SPA. (E.F.)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

OPERATOR HOUSE REINF. NORTH AND EAST ELEVATIONS

DRAWING PRE_331

8

8

PRINTER DRIVER: S:_acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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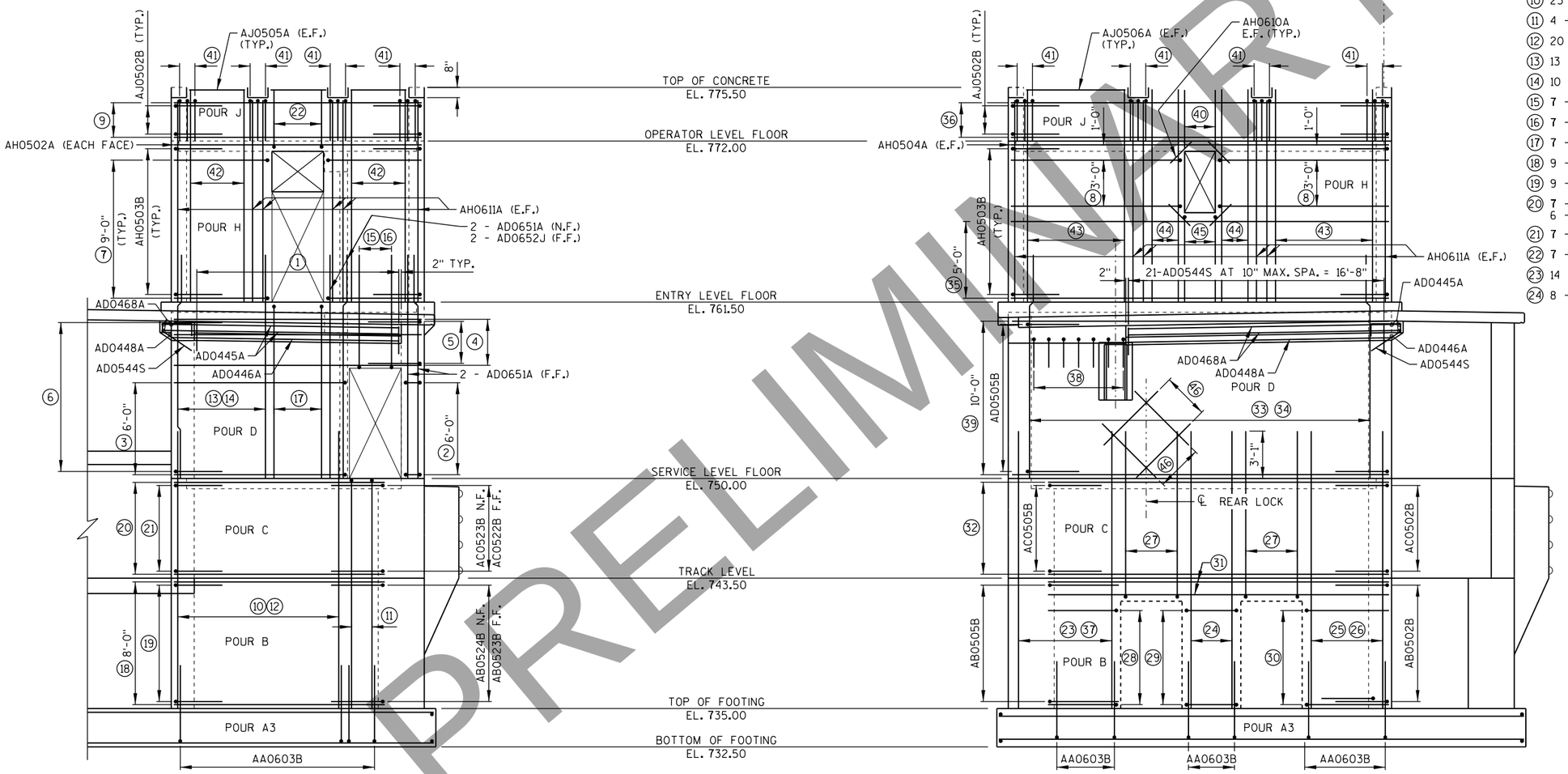
PLOT DATE: 3/2/2020
BATCH PRINT SHEET 53 OF 93
PLOT TIME: 5:13:17 PM
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71



SOUTH ELEVATION

(LOOKING NORTH)

WEST ELEVATION

(LOOKING EAST)

PRELIMINARY

(1) 17 - AD0544S AT 10" MAX. SPA.
(2) 7 - AD0523D AT 12" SPA. = 6'-0"
(3) 7 - AD0549B AT 12" SPA. = 6'-0" (E.F.)
(4) 4 - AD0550A AT 12" SPA. = 3'-0" (E.F.)
(5) 4 - AD0505B LAP W/ AD0550A
(6) 11 - AD0505B LAP W/ AD0549B OR AD0550A (N.F.)
(7) 10 - AH0505B AT 12" SPA. = 9'-0" (E.F.)
(8) 4 - AH0509B AT 12" SPA. = 3'-0" (E.F.)
(9) 3 - AJ0501A AT 12" MAX. SPA. (E.F.)
(10) 23 - AB0639A LAP W/ AA0603B (N.F.)
(11) 4 - AB0640B LAP W/ AA0603B (E.F.)
(12) 20 - AB0639A LAP W/ AA0603B (F.F.)
(13) 13 - AD0651A AT 6" SPA. = 6'-0" (N.F.)
(14) 10 - AD0652J AT 6" SPA. = 4'-6" (F.F.)
(15) 7 - AD0674B AT 6" SPA. = 3'-0" (N.F.)
(16) 7 - AD0654F AT 6" SPA. = 3'-0" (F.F.)
(17) 7 - AD0655B AT 6" SPA. = 3'-0" (E.F.)
(18) 9 - AB0541A AT 12" SPA. = 8'-0" (E.F.)
(19) 9 - AB0502B LAP W/ AB0541A (N.F.)
(20) 7 - AC0529A AT 12" SPA. = 6'-0" (N.F.)
6 - AC0529A AT 12" SPA. = 5'-0" (F.F.)
(21) 7 - AC0502B LAP W/ AC0529A (N.F.)
(22) 7 - AH0606B AT 6" SPA. = 3'-0" (E.F.)
(23) 14 - AB0639A AT 6" SPA. = 6'-6" (N.F.)
(24) 8 - AB0639A LAP W/ AA0603B (E.F.)

(25) 11 - AB0639A LAP W/ AA0603B (N.F.)
(26) 9 - AB0639A LAP W/ AA0603B (F.F.)
(27) 8 - AB0642B AT 6" SPA. = 3'-6" (E.F.)
(28) 7 - AB0543B AT 12" SPA. = 6'-0" (E.F.)
(29) 7 - AB0544D AT 12" SPA. = 6'-0" (E.F.)
(30) 7 - AB0545B AT 12" SPA. = 6'-0" (E.F.)
(31) 2 - AB0546A (E.F.)
(32) 7 - AC0530A AT 12" SPA. = 6'-0" (N.F.)
6 - AC0530A AT 12" SPA. = 5'-0" (F.F.)
(33) 47 - AD0651A AT 6" SPA. = 23'-0" (N.F.)
(34) 47 - AD0652J AT 6" SPA. = 23'-0" (F.F.)
(35) 6 - AH0504A AT 12" SPA. = 5'-0" (E.F.)
(36) 3 - AJ0503A AT 12" MAX. SPA. (E.F.)
(37) 12 - AB0639A AT 6" = 6'-0" (F.F.)
(38) 7 - AD0553B AT 12" MAX. SPA. = 6'-0" (N.F.)
(39) 11 - AD0522A AT 12" MAX. SPA. = 10'-0" (E.F.)
(40) 4 - AH0608A AT 12" SPA. = 3'-0" (E.F.)
(41) 3 - AJ0504D AT 6" SPA. = 1'-0" (UNDER GROUT POCKET)
(42) 8 - AH0601A AT 6" MAX. SPA. (E.F.)
(43) 14 - AH0601A AT 6" MAX. SPA. (E.F.)
(44) 5 - AH0601A AT 6" MAX. SPA. (E.F.)
(45) 5 - AH0612B AT 6" SPA. = 1'-0" (E.F.)
(46) 7 - AD0575A AT 6" = 3'-0" (E.F.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

OPERATOR HOUSE REINF. SOUTH AND WEST ELEVATIONS

DRAWING PRE_332

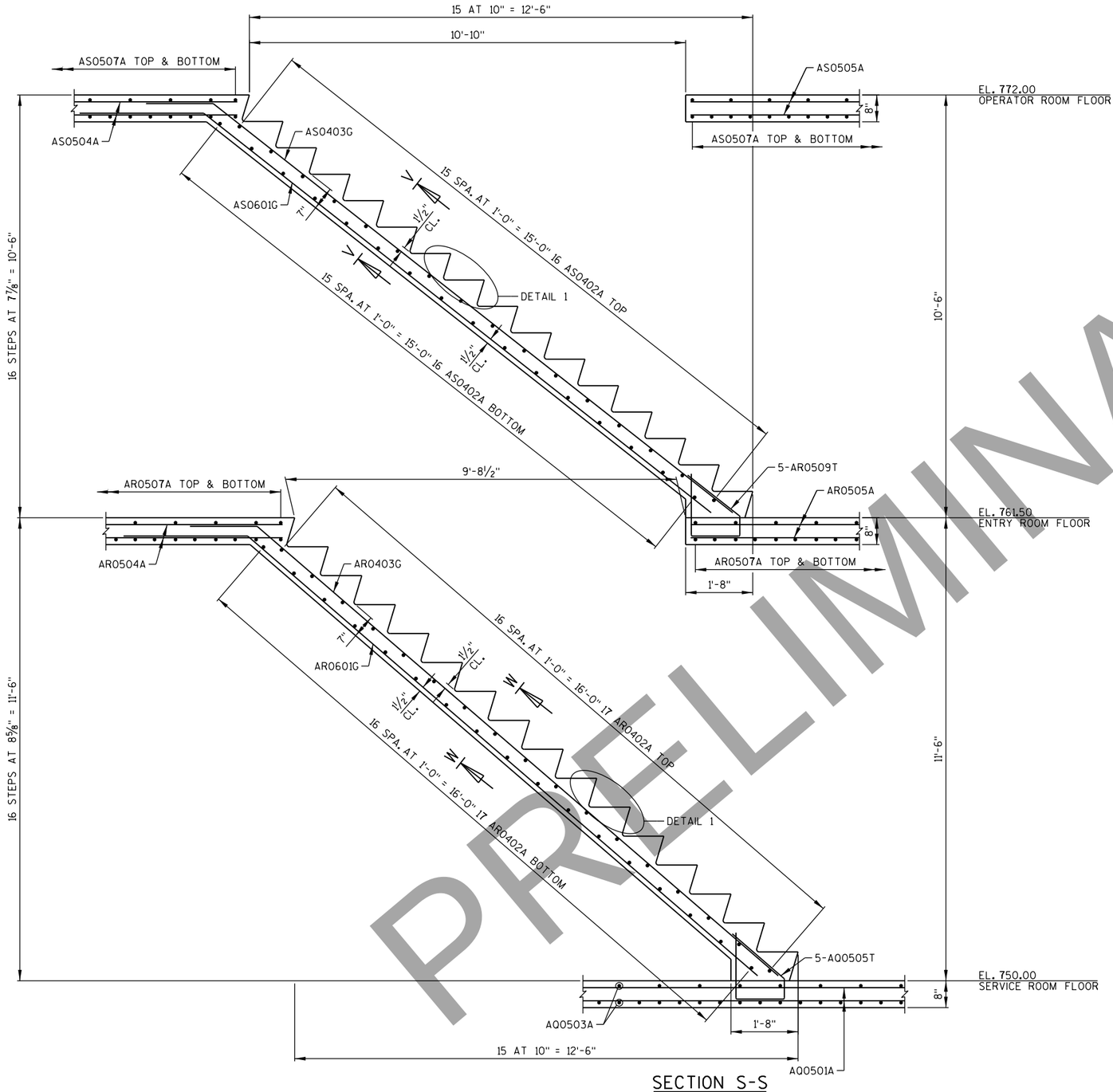
8

8

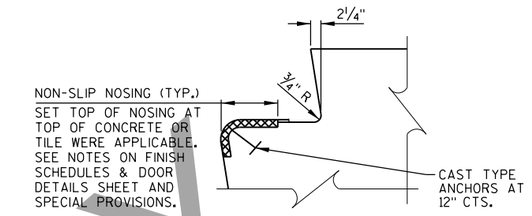
PRELIMINARY

STATE PROJECT NUMBER

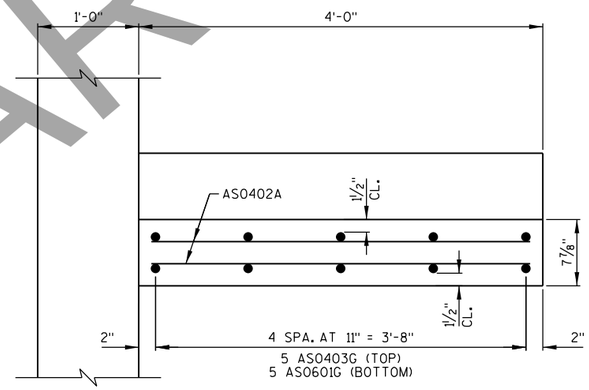
4992-03-71



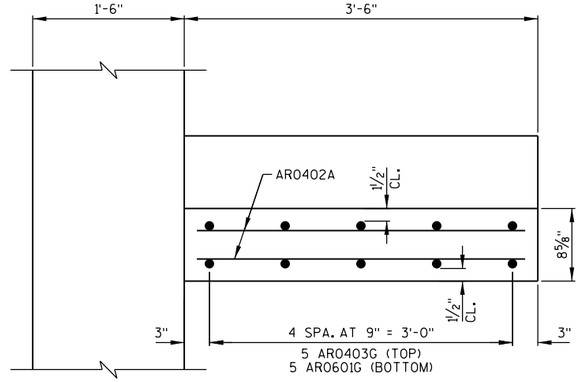
SECTION S-S



DETAIL 1



SECTION V-V



SECTION W-W

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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OPERATOR HOUSE GENERAL DETAILS

DRAWING PRE_333

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PLOT DATE: 3/2/2020 PLOT TIME: 5:13:32 PM
BATCH PRINT SHEET 54 OF 93
DRAFT April 20, 2020

8

8

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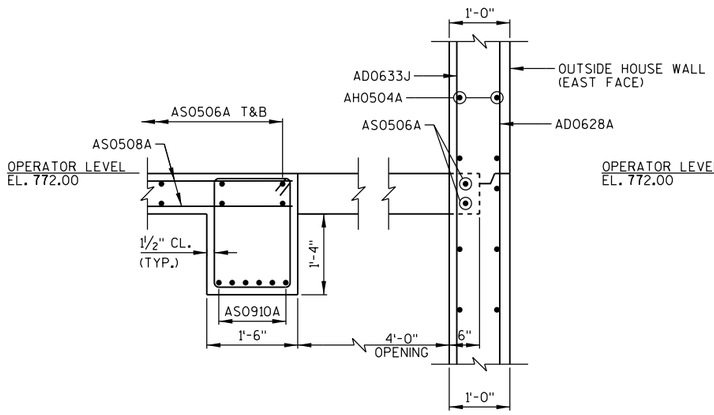
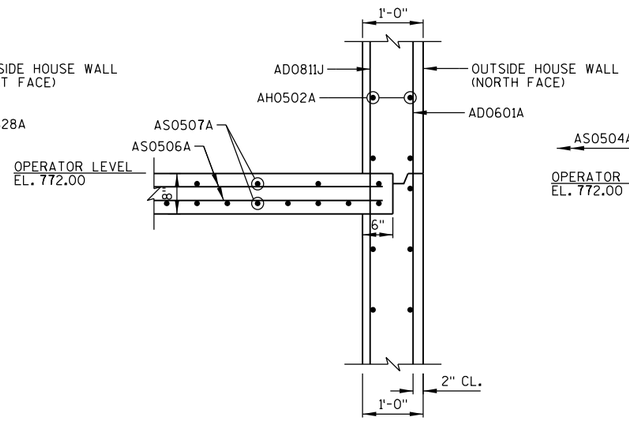
PLOT DATE: 3/2/2020 PLOT TIME: 5:13:46 PM
BATCH PRINT SHEET 55 OF 93
DRAFT April 20, 2020

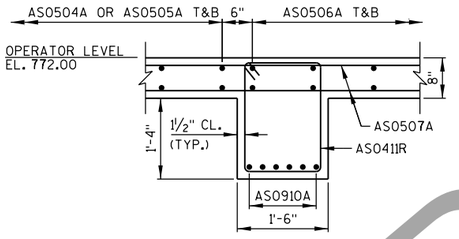
STATE PROJECT NUMBER
4992-03-71



SECTION N-N



SECTION O-O



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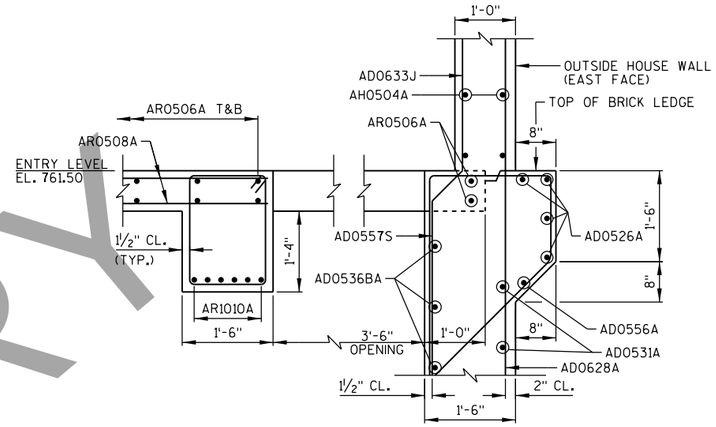
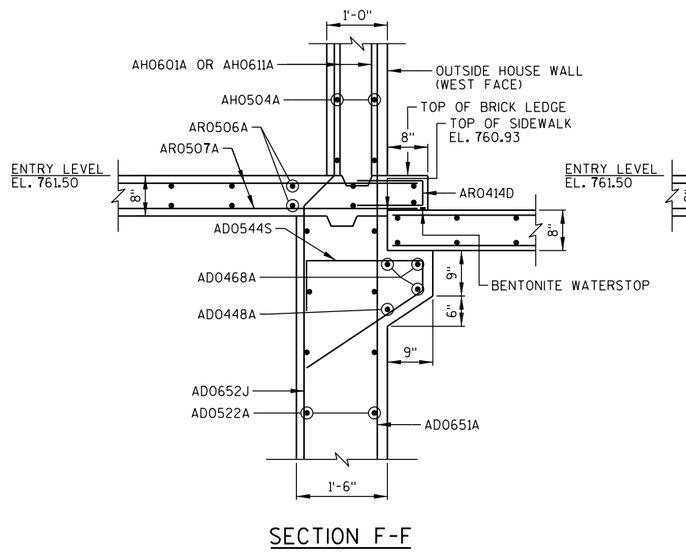


SECTION Q-Q



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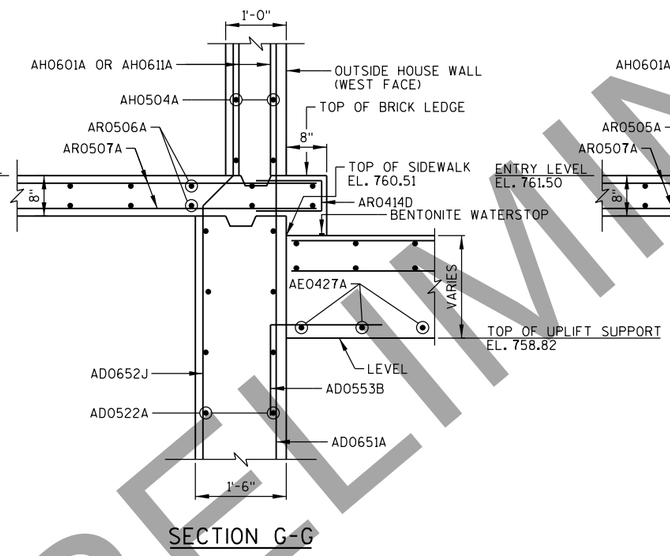

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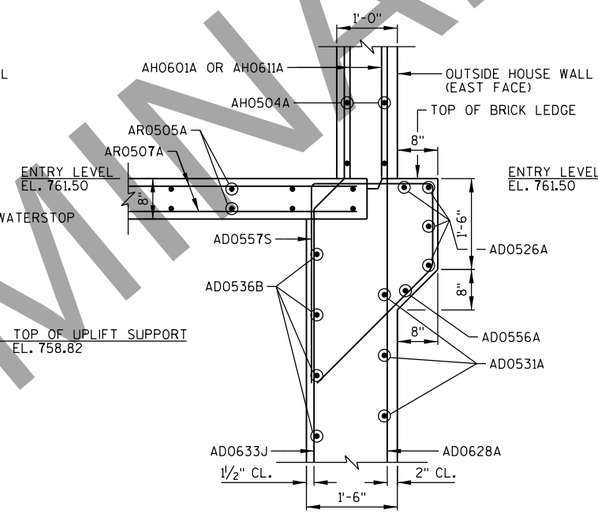

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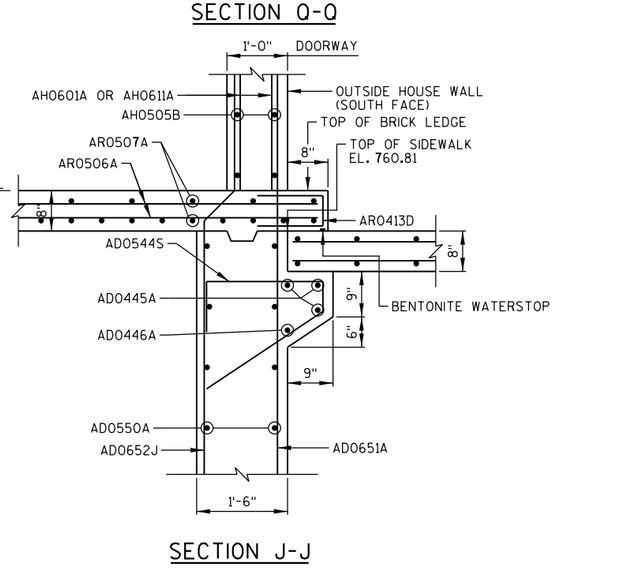
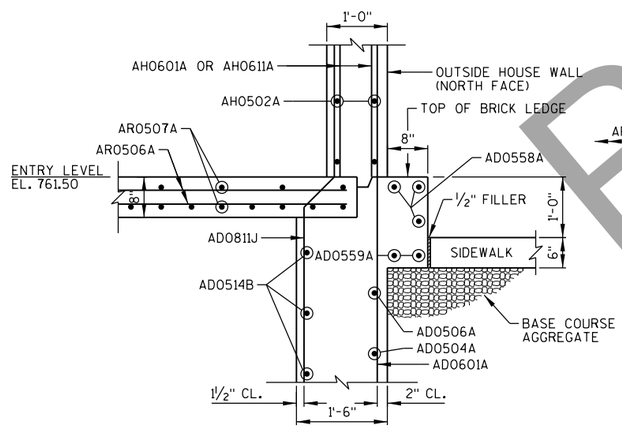
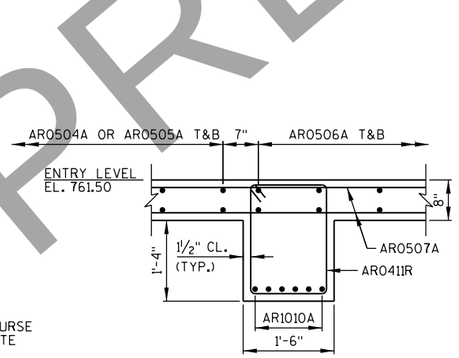


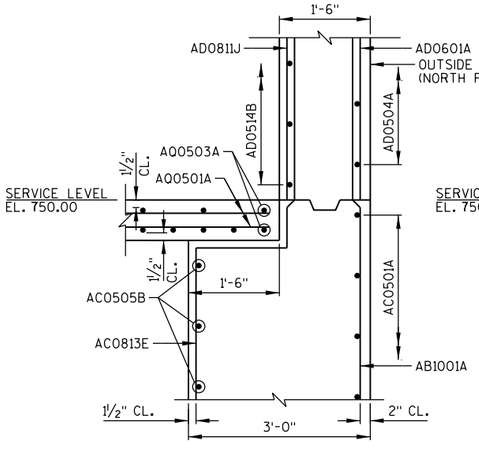
SECTION J-J



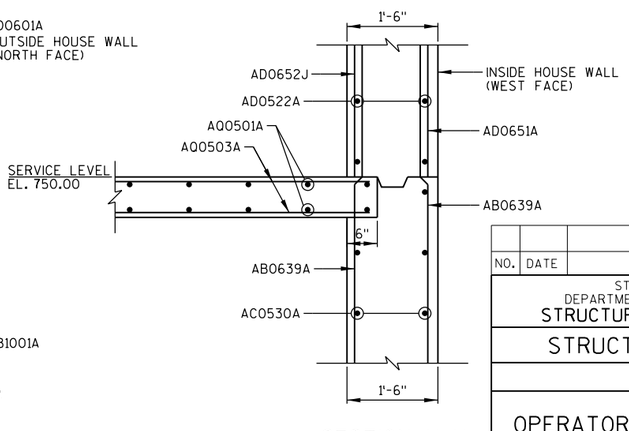
SECTION K-K



SECTION R-R



SECTION T-T



SECTION U-U

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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OPERATOR HOUSE REINF. DETAILS

DRAWING PRE_334

PRELIMINARY

8

8

PRINTER DRIVER: S:_acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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PLOT DATE: 3/2/2020
BATCH PRINT SHEET 56 OF 93
PLOT TIME: 5:14:02 PM
DRAFT April 20,

NORTH BASCULE ABUTMENT BILL OF BARS

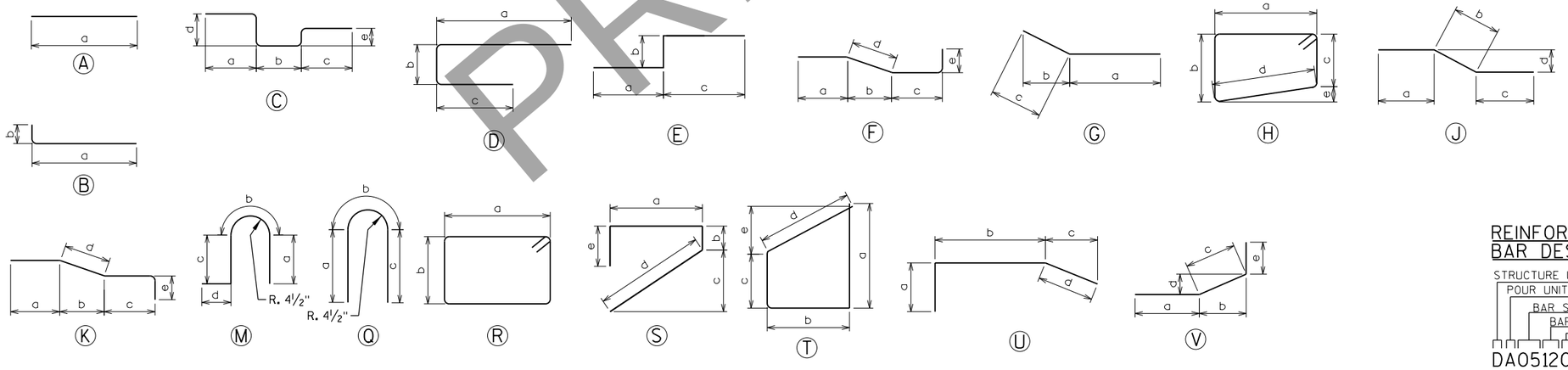
STATE PROJECT NUMBER

4992-03-71

BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
AA1001B	X	119	10'-9"	1'-10"							12'-3"	6273	FOOTING DOWELS
AA1102B	X	318	15'-5"	2'-0"							17'-1"	28863	FOOTING DOWELS
AA0603B	X	503	5'-3"	1'-0"							6'-1"	4596	FOOTING DOWELS
AA0618U	X	6	1'-0"	3'-3"	2'-11"	3'-1"					7'-4"	66	FOOTING DOWELS
AA0619U	X	10	1'-0"	4'-2"	3'-0"	3'-1"					8'-3"	124	FOOTING DOWELS
AA0620B	X	2	4'-0"	1'-0"							4'-10"	15	FOOTING DOWELS
B AA1104A		138	33'-11"								33'-11"	24867	FTG REINFORCEMENT (BOTTOM)
B AA1122A		138	59'-3"								59'-3"	43442	FTG REINFORCEMENT (BOTTOM)
B AA1005A		306	34'-0"								34'-0"	44768	FTG REINFORCEMENT (BOTTOM)
AA0521D		51	2'-3"	1'-9"	2'-3"						6'-0"	319	FTG REINFORCEMENT (KEYWAY)
AA0906A		152	42'-0"								42'-0"	21706	FTG REINFORCEMENT (TOP)
AA0907A		153	34'-0"								34'-0"	17687	FTG REINFORCEMENT (TOP)
AA0708C		8	3'-7"	2'-4"	3'-7"	1'-0"	1'-0"				10'-10"	177	FTG REINFORCEMENT (SUMP PIT)
AA0809C		3	6'-4"	4'-4"	6'-4"	1'-0"	1'-0"				18'-2"	146	FTG REINFORCEMENT (SUMP PIT)
AA0609A	X	3	27'-1"								27'-1"	122	R-70-159 WALL ATTACHMENT (VERT.)
AA0610A	X	22	27'-7"								27'-7"	911	R-70-159 WALL ATTACHMENT (VERT.)
AA0511B	X	3	3'-1"	1'-8"							4'-8"	14	R-70-159 WALL ATTACHMENT (HORIZ.)
AA0512G	X	3	5'-7"	0'-4"	1'-11"						7'-5"	23	R-70-159 WALL ATTACHMENT (HORIZ.)
AA0513U	X	3	1'-11"	3'-10"	1'-8"	1'-8"					7'-3"	23	R-70-159 WALL ATTACHMENT (HORIZ.)
AA0614A	X	26	27'-1"								27'-1"	1058	R-70-160 WALL ATTACHMENT (VERT.)
AA0515B	X	3	5'-9"	2'-11"							8'-7"	27	R-70-160 WALL ATTACHMENT (HORIZ.)
AA0516G	X	3	4'-2"	1'-2"	1'-3"						5'-3"	17	R-70-160 WALL ATTACHMENT (HORIZ.)
AA0517U	X	3	1'-3"	3'-6"	1'-8"	3'-4"					7'-10"	25	R-70-160 WALL ATTACHMENT (HORIZ.)
AB1001A	X	84	21'-5"								21'-5"	7741	APPROACH WALL EXTERIOR REINF. (VERT.)
AB1056B	X	80	23'-10"	1'-10"						X	25'-5"	8735	APPROACH WALL EXTERIOR REINF. (VERT.)
AB0502B	X	11	2'-11"	2'-11"							5'-9"	65	APPROACH WALL EXTERIOR REINF. (HORIZ.)
AB0503A	X	27	26'-10"								26'-10"	756	APPROACH WALL EXTERIOR REINF. (HORIZ.)
AB0604A	X	111	11'-7"								11'-7"	1931	APPROACH WALL INTERIOR REINF. (VERT.)
AB0502B	X	18	2'-11"	2'-11"							5'-9"	107	APPROACH WALL INTERIOR REINF. (HORIZ.)
AB0505B	X	18	12'-4"	2'-11"							15'-2"	284	APPROACH WALL INTERIOR REINF. (HORIZ.)
AB0506A	X	9	46'-5"								46'-5"	436	APPROACH WALL INTERIOR REINF. (HORIZ.)
AB1001A	X	60	21'-5"								21'-5"	5529	CHANNEL WALL EXTERIOR (VERT.)
AB0607A	X	6	14'-4"								14'-4"	129	CHANNEL WALL EXTERIOR (VERT.)
AB1008A	X	71	16'-6"								16'-6"	5041	CHANNEL WALL EXTERIOR (VERT.)
AB1009B	X	8	14'-10"	1'-2"							15'-9"	541	CHANNEL WALL EXTERIOR (VERT.)
AB0502B	X	8	2'-11"	2'-11"							5'-9"	48	CHANNEL WALL EXTERIOR (HORIZ.)
AB0503A	X	12	26'-10"								26'-10"	336	CHANNEL WALL EXTERIOR (HORIZ.)
AB0610A	X	52	8'-4"								8'-4"	651	CHANNEL WALL INTERIOR (VERT.)
AB0855E	X	24	14'-2"	1'-6"	5'-5"						20'-8"	1324	CHANNEL WALL INTERIOR (VERT.)
AB0511B	X	9	18'-10"	2'-7"							21'-4"	200	CHANNEL WALL INTERIOR (HORIZ.)
AB0502B	X	17	2'-11"	2'-11"							5'-9"	101	CHANNEL WALL INTERIOR (HORIZ.)
AB0512D	X	9	3'-1"	44'-8"	3'-1"						50'-7"	475	CHANNEL WALL INTERIOR (HORIZ.)
AB0513B	X	9	5'-10"	3'-1"							8'-10"	83	CHANNEL WALL INTERIOR (HORIZ.)
AB0614E	X	45	3'-3"	3'-6"	3'-3"						9'-8"	653	CHANNEL WALL INTERIOR (VERT.)
AB0525A	X	3	50'-10"								50'-10"	159	CHANNEL WALL INTERIOR (HORIZ.)
AB0628E	X	23	3'-3"	1'-6"	3'-3"						7'-8"	265	CHANNEL WALL INTERIOR (VERT.)
AB0529A	X	51	5'-8"								5'-8"	301	CHANNEL WALL INTERIOR (HORIZ.)
AB0530A	X	1	19'-2"								19'-2"	20	CHANNEL WALL INTERIOR (HORIZ.)
AB1015A	X	119	20'-2"								20'-2"	10326	EAST / WEST EXTERIOR WALL (VERT.)
AB1016A	X	8	11'-8"								11'-8"	402	EAST / WEST EXTERIOR WALL (VERT.)
AB0517D	X	7	2'-8"	1'-6"	2'-11"						6'-11"	50	EAST / WEST EXTERIOR WALL (HORIZ.)
AB0518B	X	7	27'-4"	2'-8"							29'-11"	218	EAST / WEST EXTERIOR WALL (HORIZ.)
AB0519A	X	11	32'-8"								32'-8"	375	EAST / WEST EXTERIOR WALL (HORIZ.)
AB0620E	X	55	8'-4"	1'-6"	3'-3"						12'-9"	1053	EAST / WEST INTERIOR WALL (VERT.)

B INDICATES BARS BUNDLED IN PAIRS

BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
AB0621E	X	53	14'-2"	1'-6"	4'-1"						19'-5"	1546	EAST / WEST INTERIOR WALL (VERT.)
AB0522A	X	8	27'-4"								27'-4"	228	EAST / WEST INTERIOR WALL (HORIZ.)
AB0523B	X	8	20'-10"	3'-1"							23'-10"	199	EAST / WEST INTERIOR WALL (HORIZ.)
AB0524B	X	8	5'-2"	3'-1"							8'-2"	68	EAST / WEST INTERIOR WALL (HORIZ.)
AB1015A	X	6	20'-2"								20'-3"	521	EAST WALL (SUB. CABLE BLOCKOUT)
AB0526H	X	155	2'-3"	10'-8"	5'-10"	5'-4"	4'-10"				24'-9"	4001	FENDER
AB0527J	X	94	5'-10"	7'-4"	1'-6"	3'-0"					14'-6"	1426	FENDER
AB0528H	X	18	3'-4"	10'-9"	5'-10"	5'-11"	4'-11"				26'-6"	498	FENDER
AB0531A	X	12	7'-11"								7'-11"	99	TRACK LEVEL WALKWAY
AB0532A	X	40	5'-8"								5'-8"	236	TRACK LEVEL WALKWAY
AB0533A	X	12	7'-2"								7'-2"	90	TRACK LEVEL WALKWAY
AB0534A	X	30	29'-10"								29'-10"	933	TRACK LEVEL WALKWAY
AB0535A	X	12	5'-9"								5'-9"	72	TRACK LEVEL WALKWAY
AB0536A	X	3	8'-0"								8'-0"	25	TRACK LEVEL WALKWAY EDGE BEAM
AB0537D	X	3	3'-9"	7'-8"	3'-9"						14'-11"	47	TRACK LEVEL WALKWAY EDGE BEAM
AB0438R	X	6	1'-8"	1'-2"							6'-2"	25	TRACK LEVEL WALKWAY EDGE BEAM
AB0639A	X	43	18'-1"								18'-1"	1168	OPERATOR HOUSE SOUTH WALL (VERT.)
AB0640B	X	8	14'-10"	1'-2"							15'-10"	190	OPERATOR HOUSE SOUTH WALL (VERT.)
AB0541A	X	18	13'-6"								13'-6"	253	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AB0502B	X	9	2'-11"	2'-11"							5'-9"	54	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AB0639A	X	62	18'-1"								18'-1"	1684	OPERATOR HOUSE WEST WALL (VERT.)
AB0642B	X	32	10'-11"	1'-2"							11'-11"	573	OPERATOR HOUSE WEST WALL (VERT.)
AB0543B	X	14	4'-4"	1'-2"							5'-5"	78	OPERATOR HOUSE WEST WALL (HORIZ.)
AB0544D	X	14	1'-2"	3'-6"	1'-2"						5'-7"	82	OPERATOR HOUSE WEST WALL (HORIZ.)
AB0545B	X	14	5'-6"	1'-2"							6'-7"	96	OPERATOR HOUSE WEST WALL (HORIZ.)
AB0546A	X	4	22'-0"								22'-0"	92	OPERATOR HOUSE WEST WALL (HORIZ.)
AB0647A	X	4	24'-10"								24'-10"	149	R-70-159 WALL ATTACHMENT (VERT.)
AB0548B	X	9	3'-1"	1'-8"							4'-8"	43	R-70-159 WALL ATTACHMENT (HORIZ.)
AB0549G	X	9	5'-7"	0'-4"	1'-11"						7'-5"	69	R-70-159 WALL ATTACHMENT (HORIZ.)
AB0550U	X	9	1'-11"	3'-10"	1'-8"	1'-8"					7'-3"	68	R-70-159 WALL ATTACHMENT (HORIZ.)
AB0651A	X	4	24'-10"								24'-10"	149	R-70-160 WALL ATTACHMENT (VERT.)
AB0552B	X	9	5'-9"	2'-11"							8'-7"	80	R-70-160 WALL ATTACHMENT (HORIZ.)
AB0553G	X	9	4'-2"	1'-2"	1'-3"						5'-3"	50	R-70-160 WALL ATTACHMENT (HORIZ.)
AB0554U	X	9	1'-3"	3'-6"	1'-8"	3'-4"					7'-10"	74	R-70-160 WALL ATTACHMENT (HORIZ.)
AC0501A	X	21	26'-10"								26'-10"	588	APPROACH WALL EXTERIOR REINF. (HORIZ.)
AC0502B	X	14	2'-11"	2'-11"							5'-9"	83	APPROACH WALL EXTERIOR REINF. (HORIZ.)
AC0803A	X	114	9'-9"								9'-9"	2968	APPROACH WALL INTERIOR REINF. (VERT.)
AC0502B	X	13	2'-11"	2'-11"							5'-9"	77	APPROACH WALL INTERIOR REINF. (HORIZ.)
AC0504A	X	7	47'-11"								47'-11"	350	APPROACH WALL INTERIOR REINF. (HORIZ.)
AC0505B	X	13	12'-4"	3'-1"							15'-4"	207	APPROACH WALL INTERIOR REINF. (HORIZ.)
AC0502B	X	14	2'-11"	2'-11"							5'-9"	83	CHANNEL WALL EXTERIOR (HORIZ.)
AC0506B	X	1	9'-5"	1'-2"							10'-6"	11	CHANNEL WALL EXTERIOR (HORIZ.)
AC0507B	X	1	24'-5"	1'-2"							25'-6"	27	CHANNEL WALL EXTERIOR (HORIZ.)
AC0608B	X	29	5'-10"	3'-5"							9'-1"	396	CHANNEL WALL INTERIOR (VERT.)
AC0609A	X	29	15'-10"								15'-10"	690	CHANNEL WALL INTERIOR (VERT.)
AC0610E	X	41	5'-1"	0'-6"	2'-9"						8'-0"	495	CHANNEL WALL INTERIOR (VERT.)
AC0611B	X	36	4'-7"	0'-8"							5'-1"	275	CHANNEL WALL INTERIOR (VERT.)
AC0612B	X	3	6'-4"	0'-8"							6'-10"	31	CHANNEL WALL INTERIOR (VERT.)
AC0502B	X	14	2'-11"	2'-11"							5'-9"	83	CHANNEL WALL INTERIOR (HORIZ.)
AC0513A	X	18	25'-6"								25'-6"	479	CHANNEL WALL INTERIOR (HORIZ.)
AC0514B	X	1	23'-3"	1'-2"							24'-3"	25	CHANNEL WALL INTERIOR (HORIZ.)
AC0515B	X	1	8'-11"	1'-2"							9'-11"	10	CHANNEL WALL INTERIOR (HORIZ.)
AC0516A	X	1	40'-2"								40'-2"	42	CHANNEL WALL INTERIOR (HORIZ.)
AC0517A													BAR MARK NOT USED



NOTES:

ALL BEND IN REINFORCING STEEL TO BE MADE ABOUT A PIN OF THE MINIMUM DIAMETER ALLOWED BY THE STANDARD SPECIFICATIONS.

TOLERANCES IN CUTTING AND BENDING BARS ARE AS ESTABLISHED IN MANUAL OF STANDARD PRACTICE OF THE REINFORCING STEEL INSTITUTE AND DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE.

REINFORCEMENT SHALL BE BUNDLED AND TAGGED AS TO THE LOCATION AS SHOWN ON THIS SHEET.

REINFORCEMENT BAR DESIGNATION

STRUCTURE UNIT DESIGNATOR
POUR UNIT DESIGNATOR
BAR SIZE
BAR SEQUENCE
BENT TYPE

DA0512C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUTMENT BILL OF BARS - 1

DRAWING PRE_335

PRELIMINARY

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PLOT TIME: 5:14:19 PM
BATCH PRINT SHEET 57 OF 93
DRAFT April 20,

STATE PROJECT NUMBER

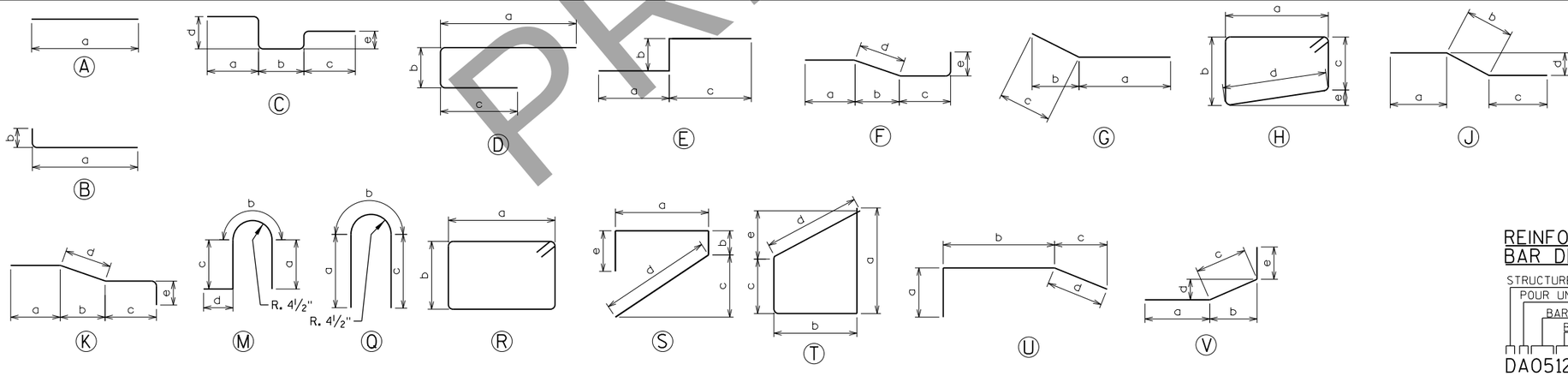
4992-03-71

NORTH BASCULE ABUTMENT BILL OF BARS

BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
AC0518A	X	14	32'-8"								32'-8"	477	EAST / WEST EXTERIOR WALL (HORIZ.)
AC0619A	X	29	16'-4"							X	16'-4"	713	EAST / WEST INTERIOR WALL (VERT.)
AC0620A	X	2	16'-6"								16'-6"	50	EAST / WEST INTERIOR WALL (VERT.)
AC0521A	X	7	28'-10"								28'-10"	211	EAST / WEST INTERIOR WALL (HORIZ.)
AC0522B	X	6	20'-10"	3'-1"							23'-10"	149	EAST / WEST INTERIOR WALL (HORIZ.)
AC0523B	X	7	5'-2"	3'-1"							8'-2"	59	EAST / WEST INTERIOR WALL (HORIZ.)
AC0424A	X	42	28'-0"								28'-0"	786	FENDER
AC0425A	X	12	5'-11"								5'-11"	47	FENDER
AC0426B	X	6	5'-11"	5'-8"							11'-6"	46	FENDER
AC0427A	X	10	4'-9"							X	4'-9"	32	FENDER
AC0428B	X	12	2'-4"	2'-4"							4'-7"	37	FENDER
AC0529A	X	13	13'-6"								13'-6"	183	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AC0502B	X	7	2'-11"	2'-11"							5'-9"	42	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AC0530A	X	13	22'-0"								22'-0"	298	OPERATOR HOUSE WEST WALL (HORIZ.)
AC0531B	X	7	3'-1"	1'-8"							4'-8"	34	R-70-159 WALL ATTACHMENT (HORIZ.)
AC0532G	X	7	5'-7"	0'-4"	1'-11"						7'-5"	54	R-70-159 WALL ATTACHMENT (HORIZ.)
AC0533U	X	7	1'-11"	3'-10"	1'-8"	1'-8"					7'-3"	53	R-70-159 WALL ATTACHMENT (HORIZ.)
AC0534B	X	7	5'-9"	2'-11"							8'-7"	62	R-70-160 WALL ATTACHMENT (HORIZ.)
AC0535G	X	7	4'-2"	1'-2"	1'-3"						5'-3"	39	R-70-160 WALL ATTACHMENT (HORIZ.)
AC0536U	X	7	1'-3"	3'-6"	1'-8"	3'-4"					7'-10"	57	R-70-160 WALL ATTACHMENT (HORIZ.)
AD0601A	X	14	14'-7"								14'-7"	307	APPROACH WALL EXTERIOR REINF. (VERT.)
AD0602B	X	23	10'-4"	2'-4"							12'-6"	432	APPROACH WALL EXTERIOR REINF. (VERT.)
AD0603B	X	62	8'-6"	5'-0"							13'-4"	1242	APPROACH WALL EXTERIOR REINF. (VERT.)
AD0504A	X	27	26'-10"								26'-10"	756	APPROACH WALL EXTERIOR REINF. (HORIZ.)
AD0505B	X	20	2'-11"	2'-11"							5'-9"	119	APPROACH WALL EXTERIOR REINF. (HORIZ.)
AD0506A	X	1	26'-5"								26'-5"	28	APPROACH WALL EXTERIOR REINF. (HORIZ.)
AD0507A	X	1	11'-10"								11'-10"	12	APPROACH WALL EXTERIOR REINF. (HORIZ.)
AD0669B	X	3	17'-2"	0'-8"							17'-8"	80	APPROACH WALL EXTERIOR REINF. (VERT.)
AD0608B	X	42	9'-0"	1'-10"							10'-8"	673	APPROACH WALL INTERIOR REINF. (VERT.)
AD0609F	X	10	2'-11"	6'-7"	0'-4"	7'-8"	1'-0"				11'-5"	171	APPROACH WALL INTERIOR REINF. (VERT.)
AD0610F	X	62	5'-3"	4'-2"	0'-8"	7'-9"	3'-6"			X	16'-8"	1552	APPROACH WALL INTERIOR REINF. (VERT.)
AD0811J	X	22	11'-0"	0'-9"	3'-1"	0'-6"					14'-5"	847	APPROACH WALL INTERIOR REINF. (VERT.)
AD0867K	X	5	11'-0"	0'-6"	5'-8"	0'-9"	0'-8"				17'-8"	236	APPROACH WALL INTERIOR REINF. (VERT.)
AD0504A	X	4	26'-10"								26'-10"	112	APPROACH WALL INTERIOR REINF. (HORIZ.)
AD0512A	X	5	10'-6"								10'-6"	55	APPROACH WALL INTERIOR REINF. (HORIZ.)
AD0505B	X	20	2'-11"	2'-11"							5'-9"	119	APPROACH WALL INTERIOR REINF. (HORIZ.)
AD0513B	X	9	10'-6"	3'-1"							13'-6"	126	APPROACH WALL INTERIOR REINF. (HORIZ.)
AD0514B	X	11	13'-10"	3'-1"							16'-10"	193	APPROACH WALL INTERIOR REINF. (HORIZ.)
AD0539A	X	5	30'-8"								30'-8"	160	APPROACH WALL INTERIOR REINF. (HORIZ.)
AD0542C	X	10	3'-3"	2'-2"	3'-3"	2'-3"	2'-3"			X	12'-8"	132	APPROACH WALL INTERIOR REINF. (HORIZ.)
AD0741G	X	32	2'-3"	3'-0"	5'-7"						7'-8"	501	APPROACH WALL REAR BREAK THREADED BAR
AD0660B	X	20	5'-10"	5'-0"							10'-8"	320	APPROACH WALL INTERIOR REINF. (HORIZ.)
AD0543M	X	20	1'-6"	1'-2"	1'-11"	0'-10"					5'-1"	105	APPROACH WALL INTERIOR REINF. AT BARRIER (VERT.)
AD0615A	X	10	10'-11"								10'-11"	164	CHANNEL WALL EXTERIOR (VERT.)
AD0616A	X	20	10'-9"							X	10'-9"	323	CHANNEL WALL EXTERIOR (VERT.)
AD0617A	X	4	3'-1"								3'-1"	19	CHANNEL WALL EXTERIOR (VERT.)
AD0618A	X	1	10'-4"								10'-4"	16	CHANNEL WALL EXTERIOR (VERT.)
AD0447B	X	35	3'-1"	3'-1"							6'-1"	142	CHANNEL WALL EXTERIOR (VERT.)
AD0505B	X	14	2'-11"	2'-11"							5'-9"	83	CHANNEL WALL EXTERIOR (HORIZ.)
AD0519B	X	11	9'-5"	1'-2"							10'-5"	120	CHANNEL WALL EXTERIOR (HORIZ.)
AD0520D	X	7	0'-8"	19'-6"	0'-8"						20'-7"	150	CHANNEL WALL EXTERIOR (HORIZ.)
AD0521B	X	3	24'-5"	0'-8"							24'-11"	78	CHANNEL WALL EXTERIOR (HORIZ.)
AD0523D	X	7	1'-2"	1'-2"	2'-11"						5'-0"	37	CHANNEL WALL EXTERIOR (HORIZ.)
AD0673A	X	1	2'-0"								2'-0"	3	CHANNEL WALL EXTERIOR (DIAG.)

BAR MARK	COATED	NOS. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
AD0624B	X	3	2'-0"	0'-8"							2'-6"	11	CHANNEL WALL INTERIOR (VERT.)
AD0505B	X	10	2'-11"	2'-11"							5'-9"	60	CHANNEL WALL INTERIOR (HORIZ.)
AD0520D	X	7	0'-8"	19'-6"	0'-8"						20'-7"	150	CHANNEL WALL INTERIOR (HORIZ.)
AD0525E	X	3	2'-11"	23'-3"	1'-2"						27'-1"	85	CHANNEL WALL INTERIOR (HORIZ.)
AD0519B	X	10	9'-5"	1'-2"							10'-5"	109	CHANNEL WALL INTERIOR (HORIZ.)
AD0673A	X	1	2'-0"								2'-0"	3	CHANNEL WALL INTERIOR (DIAG.)
AD0627A	X	8	9'-8"								9'-8"	116	EAST / WEST EXTERIOR WALL (VERT.)
AD0628A	X	22	14'-7"								14'-7"	482	EAST / WEST EXTERIOR WALL (VERT.)
AD0629A	X	9	9'-8"								9'-8"	131	EAST / WEST EXTERIOR WALL (VERT.)
AD0630A	X	23	9'-11"							X	9'-11"	343	EAST / WEST EXTERIOR WALL (VERT.)
AD0447B	X	40	3'-1"	3'-1"							6'-1"	163	EAST / WEST EXTERIOR WALL (VERT.)
AD0669B	X	3	17'-2"	0'-8"							17'-8"	80	EAST / WEST EXTERIOR WALL (VERT.)
AD0531A	X	20	32'-8"								32'-8"	681	EAST / WEST EXTERIOR WALL (HORIZ.)
AD0532A	X	1	23'-4"								23'-4"	24	EAST / WEST EXTERIOR WALL (HORIZ.)
AD0540A	X	28	5'-0"								5'-0"	146	EAST / WEST EXTERIOR WALL (AT REAR LOCK)
AD0633J	X	20	11'-0"	0'-9"	3'-1"	0'-6"					14'-6"	436	EAST / WEST INTERIOR WALL (VERT.)
AD0634A	X	11	10'-0"								10'-0"	165	EAST / WEST INTERIOR WALL (VERT.)
AD0670K	X	3	11'-0"	0'-6"	5'-8"	0'-9"	0'-8"				17'-7"	79	EAST / WEST INTERIOR WALL (VERT.)
AD0535A	X	10	28'-10"								28'-10"	301	EAST / WEST INTERIOR WALL (HORIZ.)
AD0536B	X	4	22'-4"	2'-11"							25'-1"	105	EAST / WEST INTERIOR WALL (HORIZ.)
AD0537B	X	3	6'-10"	2'-11"							9'-7"	30	EAST / WEST INTERIOR WALL (HORIZ.)
AD0538A	X	7	31'-6"								31'-6"	230	EAST / WEST INTERIOR WALL (HORIZ.)
AD0540A	X	14	5'-0"								5'-0"	73	WEST INTERIOR WALL (AT REAR LOCK)
AD0544S	X	38	1'-11"	0'-5"	1'-3"	2'-3"	0'-10"				5'-1"	200	INTERIOR WALL CORBEL
AD0445A	X	3	15'-5"								15'-5"	31	INTERIOR WALL CORBEL
AD0446A	X	1	14'-8"								14'-8"	10	INTERIOR WALL CORBEL
AD0468A	X	3	17'-9"								17'-9"	36	INTERIOR WALL CORBEL
AD0448A	X	1	17'-0"								17'-0"	11	INTERIOR WALL CORBEL
AD0523D	X	7	1'-2"	1'-2"	2'-11"						5'-0"	37	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AD0549B	X	14	11'-3"	1'-2"							12'-3"	179	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AD0550A	X	8	16'-2"								16'-2"	135	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AD0505B	X	15	2'-11"	2'-11"							5'-9"	89	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AD0651A	X	17	14'-7"								14'-7"	372	OPERATOR HOUSE SOUTH WALL (VERT.)
AD0652J	X	8	11'-0"	0'-9"	3'-1"	0'-6"					14'-8"	176	OPERATOR HOUSE SOUTH WALL (VERT.)
AD0674B	X	7	7'-2"	0'-8"							7'-8"	81	OPERATOR HOUSE SOUTH WALL (VERT.)
AD0654F	X	7	3'-1"	0'-6"	3'-7"	0'-9"	0'-8"				7'-7"	80	OPERATOR HOUSE SOUTH WALL (VERT.)
AD0655B	X	14	11'-4"	0'-8"							11'-10"	249	OPERATOR HOUSE SOUTH WALL (VERT.)
AD0651A	X	47	14'-7"								14'-7"	1029	OPERATOR HOUSE WEST WALL (VERT.)
AD0652J	X	47	11'-0"	0'-9"	3'-1"	0'-6"					14'-8"	1035	OPERATOR HOUSE WEST WALL (VERT.)
AD0553B	X	7	3'-1"	1'-6"							4'-6"	33	OPERATOR HOUSE WEST WALL (VERT.)
AD0522A	X	22	24'-8"								24'-8"	566	OPERATOR HOUSE WEST WALL (HORIZ.)
AD0575A	X	28	5'-0"								5'-0"	146	OPERATOR HOUSE WEST WALL (AT REAR LOCK)
AD0526A	X	4	26'-0"								26'-0"	108	OPERATOR HOUSE EAST WALL BRICK LEDGE (HORIZ.)
AD0556A	X	1	24'-6"								24'-6"	26	OPERATOR HOUSE EAST WALL BRICK LEDGE (HORIZ.)
AD0557S	X	31	1'-10"	1'-2"	1'-11"	2'-8"	3'-1"				8'-4"	270	OPERATOR HOUSE EAST WALL BRICK LEDGE (VERT.)
AD0558A	X	3	17'-6"								17'-6"	55	OPERATOR HOUSE NORTH WALL BRICK LEDGE (HORIZ.)
AD0559A	X	2	16'-10"								16'-10"	35	OPERATOR HOUSE NORTH WALL BRICK LEDGE (HORIZ.)
AD0571B	X	10	3'-1"	1'-8"							4'-8"	48	R-70-159 WALL ATTACHMENT (HORIZ.)
AD0561U	X	1	1'-11"	3'-10"	0'-4"	0'-4"					6'-0"	6	R-70-159 WALL ATTACHMENT (HORIZ.)
AD0562G	X	11	5'-7"	0'-4"	1'-11"						7'-5"	85	R-70-159 WALL ATTACHMENT (HORIZ.)
AD0563U	X	10	1'-11"	3'-10"	1'-8"	1'-8"					7'-3"	76	R-70-159 WALL ATTACHMENT (HORIZ.)
AD0564B	X	10	5'-9"	2'-11"							8'-7"	89	R-70-160 WALL ATTACHMENT (HORIZ.)
AD0565G	X	10	4'-2"	1'-2"	1'-3"						5'-3"	55	R-70-160 WALL ATTACHMENT (HORIZ.)
AD0566U	X	10	1'-3"	3'-6"	1'-8"	3'-4"					7'-10"	82	R-70-160 WALL ATTACHMENT (HORIZ.)
AD0572Q	X	13	2'-4"	1'-1"	2'-4"						5'-6"	74	R-70-159 & 160 WALL ATTACHMENT (VERT.)

PRELIMINARY



NOTES;

ALL BEND IN REINFORCEMENT STEEL TO BE MADE ABOUT A PIN OF THE MINIMUM DIAMETER ALLOWED BY THE STANDARD SPECIFICATIONS.

TOLERANCES IN CUTTING AND BENDING BARS ARE AS ESTABLISHED IN MANUAL OF STANDARD PRACTICE OF THE REINFORCING STEEL INSTITUTE AND DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE.

REINFORCEMENT SHALL BE BUNDLED AND TAGGED AS TO THE LOCATION AS SHOWN ON THIS SHEET.

REINFORCEMENT BAR DESIGNATION

STRUCTURE UNIT DESIGNATOR
POUR UNIT DESIGNATOR
BAR SIZE
BAR SEQUENCE
BENT TYPE

DA0512C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUTMENT BILL OF BARS - 2

DRAWING PRE_336

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PLOT DATE: 3/2/2020
PLOT TIME: 5:14:38 PM
BATCH PRINT SHEET 58 OF 93

DRAFT April 20,

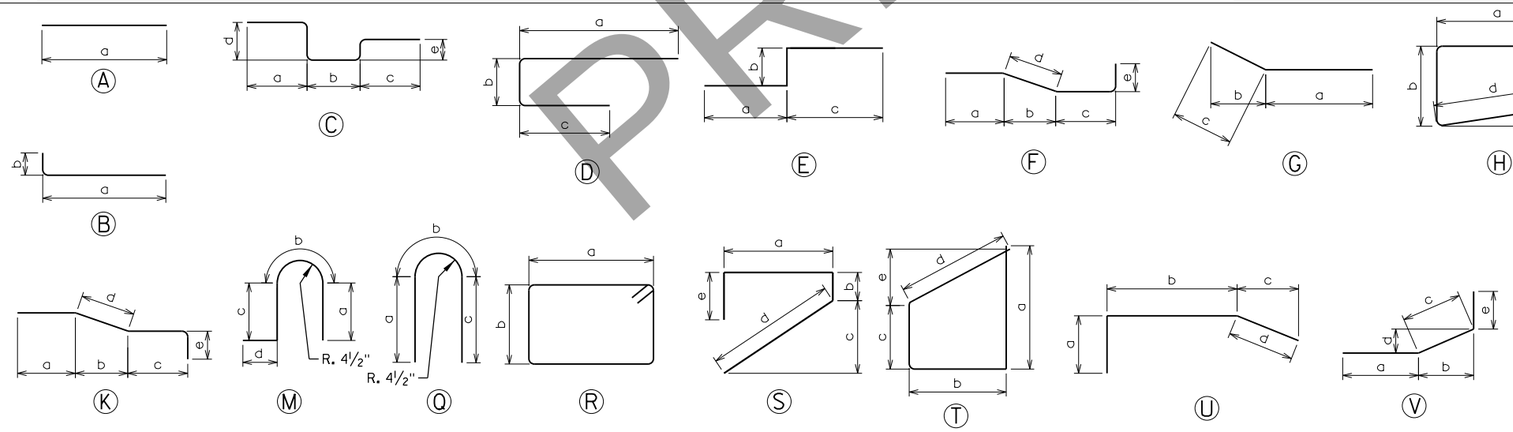
STATE PROJECT NUMBER

4992-03-71

NORTH BASCULE ABUTMENT BILL OF BARS

BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
AE0601D	X	4	3'-6"	3'-3"	3'-6"						9'-11"	60	SIDEWALK AT END OF BARRIER (VERT.)
AE0402D	X	4	3'-6"	1'-2"	3'-6"						8'-0"	21	SIDEWALK AT ENDS OF BARRIER (HORIZ.)
AE0403A	X	2	31'-7"								31'-7"	42	SIDEWALK TOP & BOTTOM (LONG.)
AE0404B	X	24	32'-8"	0'-8"							33'-3"	533	SIDEWALK TOP & BOTTOM (LONG.)
AE0405B	X	16	32'-0"	0'-8"							32'-7"	348	SIDEWALK TOP & BOTTOM (LONG.)
AE0406A													BAR NOT USED
AE0407B	X	6	8'-5"	0'-8"							9'-0"	36	SIDEWALK TOP & BOTTOM (LONG.)
AE0408A	X	4	4'-2"								4'-2"	11	SIDEWALK TOP & BOTTOM (LONG.)
AE0409A	X	4	5'-11"								5'-11"	16	SIDEWALK TOP & BOTTOM (LONG.)
AE0410A	X	2	3'-5"								3'-5"	5	SIDEWALK TOP & BOTTOM (LONG.)
AE0411A	X	2	2'-7"								2'-7"	3	SIDEWALK TOP & BOTTOM (LONG.)
AE0412A	X	34	8'-4"								8'-4"	189	SIDEWALK TOP & BOTTOM (TRANS.)
AE0513A	X	2	21'-1"								21'-1"	44	SIDEWALK TOP & BOTTOM (TRANS.)
AE0514A	X	2	6'-1"								6'-1"	13	SIDEWALK TOP & BOTTOM (TRANS.)
AE0515A	X	24	25'-0"								25'-0"	626	SIDEWALK TOP & BOTTOM (TRANS.)
AE0516A	X	42	7'-10"								7'-10"	343	SIDEWALK TOP & BOTTOM (TRANS.)
AE0517A	X	64	10'-0"								10'-0"	668	SIDEWALK TOP & BOTTOM (TRANS.)
AE0518A	X	8	12'-4"								12'-4"	103	SIDEWALK TOP & BOTTOM (TRANS.)
AE0519A	X	16	14'-3"							X	14'-3"	238	SIDEWALK TOP & BOTTOM (TRANS.)
AE0520A	X	8	10'-2"								10'-2"	85	SIDEWALK TOP & BOTTOM (TRANS.)
AE0521A	X	18	11'-11"							X	11'-11"	223	SIDEWALK TOP & BOTTOM (TRANS.)
AE0522A	X	2	13'-4"								13'-4"	28	SIDEWALK TOP & BOTTOM (TRANS.)
AE0423R	X	9	1'-7"	1'-2"							6'-0"	36	SIDEWALK BEAM STIRRUP (VERT.)
AE0624D	X	6	2'-0"	6'-10"	2'-0"						10'-6"	95	SIDEWALK BEAM (HORIZ.)
AE0425R	X	72	0'-10"	1'-10"						X	5'-10"	281	SIDEWALK AT RACK FRAME STIRRUP (VERT.)
AE0426D	X	6	1'-2"	24'-0"	0'-10"						25'-10"	104	SIDEWALK AT RACK FRAME (HORIZ.)
AE0427A	X	16	9'-1"								9'-1"	97	SIDEWALK ABOVE UPLIFT SUPPORT (LONG.)
AE0428A	X	6	7'-4"								7'-4"	29	SIDEWALK ABOVE UPLIFT SUPPORT (LONG.)
AE0529A	X	56	5'-0"								5'-0"	292	SIDEWALK (AT REAR LOCK)
AF0601A	X	62	8'-6"								8'-6"	792	REAR BREAK REINFORCEMENT
AF0602A	X	6	30'-8"								30'-8"	276	REAR BREAK REINFORCEMENT
AF0603A	X	14	34'-8"								34'-8"	729	REAR BREAK REINFORCEMENT
AG0501Q	X	20	1'-5"	1'-4"	1'-5"						3'-11"	82	BARRIER (VERT.)
AG0502R	X	8	1'-2"	0'-9"						X	4'-6"	38	BARRIER (VERT.)
AG0503A	X	6	7'-10"							X	7'-10"	49	WEST BARRIER (HORIZ.)
AG0404D	X	20	3'-6"	0'-10"	3'-6"					X	7'-8"	102	BARRIER (HORIZ.)
AG0505A	X	3	7'-10"							X	7'-10"	24	EAST BARRIER INSIDE FACE (HORIZ.)
AG0506A	X	3	7'-11"							X	7'-11"	25	EAST BARRIER OUTSIDE FACE (HORIZ.)
AH0601A	X	36	13'-10"								13'-10"	748	OPERATOR HOUSE NORTH WALL (VERT.)
AH0611A	X	12	13'-2"								13'-2"	237	OPERATOR HOUSE NORTH WALL (VERT.)
AH0608A	X	8	3'-10"								3'-10"	46	OPERATOR HOUSE NORTH WALL (VERT.)
AH0502A	X	14	16'-2"								16'-2"	236	OPERATOR HOUSE NORTH WALL (HORIZ.)
AH0503B	X	44	2'-11"	2'-11"							5'-9"	262	OPERATOR HOUSE NORTH WALL (HORIZ.)
AH0507B	X	16	6'-11"	0'-8"							7'-5"	124	OPERATOR HOUSE NORTH WALL (HORIZ.)
AH0610A	X	8	2'-0"								2'-0"	24	OPERATOR HOUSE NORTH WALL WINDOW (DIAG.)
AH0601A	X	80	13'-10"								13'-10"	1662	OPERATOR HOUSE EAST WALL (VERT.)
AH0608A	X	8	3'-10"								3'-10"	46	OPERATOR HOUSE EAST WALL (VERT.)
AH0611A	X	12	13'-2"								13'-2"	237	OPERATOR HOUSE EAST WALL (VERT.)
AH0504A	X	14	24'-8"								24'-8"	360	OPERATOR HOUSE EAST WALL (HORIZ.)
AH0509B	X	16	11'-2"	0'-8"							11'-8"	195	OPERATOR HOUSE EAST WALL (HORIZ.)

BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
AH0503B	X	44	2'-11"	2'-11"							5'-8"	262	OPERATOR HOUSE EAST WALL (HORIZ.)
AH0610A	X	8	2'-0"								2'-0"	24	OPERATOR HOUSE EAST WALL WINDOW (DIAG.)
AH0505B	X	40	6'-2"	0'-8"							6'-8"	280	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AH0502A	X	2	16'-2"								16'-2"	34	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AH0606B	X	14	3'-10"	0'-8"							4'-4"	91	OPERATOR HOUSE SOUTH WALL (VERT.)
AH0601A	X	32	13'-10"								13'-10"	665	OPERATOR HOUSE SOUTH WALL (VERT.)
AH0611A	X	12	13'-2"								13'-2"	237	OPERATOR HOUSE SOUTH WALL (VERT.)
AH0504A	X	14	24'-8"								24'-8"	360	OPERATOR HOUSE WEST WALL (HORIZ.)
AH0509B	X	16	11'-2"	0'-8"							11'-8"	195	OPERATOR HOUSE WEST WALL (HORIZ.)
AH0601A	X	76	13'-10"								13'-10"	1579	OPERATOR HOUSE WEST WALL (VERT.)
AH0608A	X	8	3'-10"								3'-10"	46	OPERATOR HOUSE WEST WALL (VERT.)
AH0611A	X	12	13'-2"								13'-2"	237	OPERATOR HOUSE WEST WALL (VERT.)
AH0612B	X	10	5'-8"	0'-8"							6'-1"	93	OPERATOR HOUSE WEST WALL (VERT.)
AH0610A	X	8	2'-0"								2'-0"	24	OPERATOR HOUSE WEST WALL WINDOW (DIAG.)
AJ0501A	X	6	16'-2"								16'-2"	101	OPERATOR HOUSE NORTH WALL (HORIZ.)
AJ0502B	X	12	2'-11"	2'-11"							5'-9"	71	OPERATOR HOUSE NORTH WALL (HORIZ.)
AJ0505A	X	6	3'-7"								3'-7"	22	OPERATOR HOUSE NORTH WALL (HORIZ.)
AJ0504D	X	12	2'-8"	0'-8"	2'-8"						5'-9"	72	OPERATOR HOUSE NORTH WALL (VERT.)
AJ0502B	X	12	2'-11"	2'-11"							5'-9"	71	OPERATOR HOUSE EAST WALL (HORIZ.)
AJ0503A	X	6	24'-8"								24'-8"	154	OPERATOR HOUSE EAST WALL (HORIZ.)
AJ0506A	X	6	6'-5"								6'-5"	40	OPERATOR HOUSE EAST WALL (HORIZ.)
AJ0504D	X	12	2'-8"	0'-8"	2'-8"						5'-9"	72	OPERATOR HOUSE EAST WALL (VERT.)
AJ0501A	X	6	16'-2"								16'-2"	101	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AJ0505A	X	6	3'-7"								3'-7"	22	OPERATOR HOUSE SOUTH WALL (HORIZ.)
AJ0504D	X	12	2'-8"	0'-8"	2'-8"						5'-9"	72	OPERATOR HOUSE SOUTH WALL (VERT.)
AJ0503A	X	6	24'-8"								24'-8"	154	OPERATOR HOUSE WEST WALL (HORIZ.)
AJ0506A	X	6	6'-5"								6'-5"	40	OPERATOR HOUSE WEST WALL (HORIZ.)
AJ0504D	X	12	2'-8"	0'-8"	2'-8"						5'-9"	72	OPERATOR HOUSE WEST WALL (VERT.)
AK1001A	X	48	10'-2"								10'-2"	2100	MASS POUR (VERT.)
AK0602A	X	42	12'-11"								12'-11"	815	MASS POUR (VERT.)
AK0503D	X	8	2'-11"	2'-7"	2'-11"						8'-2"	68	MASS POUR (HORIZ.)
AK0504A	X	8	9'-6"								9'-6"	79	MASS POUR (HORIZ.)
AK0505A	X	8	26'-4"								26'-4"	220	MASS POUR (HORIZ.)
AK0506E	X	8	7'-4"	3'-9"	2'-11"						13'-9"	115	MASS POUR (HORIZ.)
AK0507E	X	8	8'-5"	2'-6"	2'-11"						13'-6"	113	MASS POUR (HORIZ.)
AK0608J	X	6	2'-0"	5'-4"	5'-7"	0'-11"					12'-7"	113	MASS POUR (VERT.)
AK0609G	X	6	1'-2"	11'-9"	12'-5"						13'-5"	121	MASS POUR (VERT.)
AK0610A	X	4	8'-7"							X	8'-7"	52	MASS POUR (VERT.)
AK0611E	X	52	7'-4"	0'-8"	5'-5"						13'-1"	1022	MASS POUR (VERT.)
AK0412R	X	16	3'-0"	1'-8"							9'-10"	105	MASS POUR (HORIZ.)
AK0613J	X	4	2'-0"	5'-4"	2'-10"	0'-11"					9'-10"	59	MASS POUR (VERT.)
AL0601A	X	6	9'-5"								9'-5"	85	MASS POUR (VERT.)
AL0602B	X	18	9'-5"	2'-3"							11'-6"	311	MASS POUR (VERT.)
AL0503D	X	14	2'-11"	2'-7"	2'-11"						8'-2"	119	MASS POUR (HORIZ.)
AL0504A	X	14	10'-2"								10'-2"	148	MASS POUR (HORIZ.)
AL0505A	X	10	26'-4"								26'-4"	275	MASS POUR (HORIZ.)
AL0506E	X	14	9'-0"	3'-9"	2'-11"						15'-5"	225	MASS POUR (HORIZ.)
AL0507E	X	10	7'-7"	2'-6"	2'-11"						12'-9"	133	MASS POUR (HORIZ.)
AL0508E	X	4	5'-10"	2'-6"	2'-11"					X	11'-0"	46	MASS POUR (HORIZ.)
AL0509A	X	4	22'-5"								22'-5"	94	MASS POUR (HORIZ.)



NOTES:

ALL BEND IN REINFORCING STEEL TO BE MADE ABOUT A PIN OF THE MINIMUM DIAMETER ALLOWED BY THE STANDARD SPECIFICATIONS.

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REINFORCEMENT SHALL BE BUNDLED AND TAGGED AS TO THE LOCATION AS SHOWN ON THIS SHEET.

REINFORCEMENT BAR DESIGNATION

STRUCTURE UNIT DESIGNATOR
POUR UNIT DESIGNATOR
BAR SIZE
BAR SEQUENCE
BENT TYPE

DA0512C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUTMENT BILL OF BARS - 3

DRAWING PRE_337

PRELIMINARY

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8

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BATCH PRINT SHEET 59 OF 93
PLOT TIME: 5:14:56 PM
DRAFT April 20,

NORTH BASCULE ABUTMENT BILL OF BARS

BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
AL0510D	X	4	2'-11"	8'-2"	2'-11"						13'-9"	57	MASS POUR (HORIZ.)
AL0411R	X	28	3'-0"	1'-8"							9'-10"	184	MASS POUR (HORIZ.)
AM0601A	X	4	2'-7"								2'-7"	16	MASS POUR (VERT.)
AM0502D	X	46	2'-7"	1'-11"	2'-7"						6'-10"	328	MASS POUR (VERT.)
AM0503D	X	6	2'-11"	2'-7"	2'-11"						8'-2"	51	MASS POUR (HORIZ.)
AM0504A	X	6	10'-2"								10'-2"	64	MASS POUR (HORIZ.)
AM0505A	X	6	22'-5"								22'-5"	140	MASS POUR (HORIZ.)
AM0506D	X	6	2'-7"	3'-6"	2'-7"						8'-5"	53	MASS POUR (VERT.)
AM0507D	X	20	2'-7"	1'-0"	2'-7"						5'-11"	123	MASS POUR (VERT.)
AM0408E	X	6	10'-0"	3'-9"	2'-11"						16'-6"	66	MASS POUR (HORIZ.)
AM0509E	X	6	2'-9"	3'-9"	2'-11"					X	9'-3"	58	MASS POUR (HORIZ.)
AM0510D	X	6	2'-3"	8'-2"	2'-11"						13'-1"	82	MASS POUR (HORIZ.)
AQ0501A	X	30	22'-2"								22'-2"	694	SERVICE LEVEL FLOOR
AQ0502A													BAR MARK NOT USED
AQ0503A	X	58	13'-8"								13'-8"	827	SERVICE LEVEL FLOOR
AQ0504A	X	10	12'-5"								12'-5"	130	SERVICE LEVEL FLOOR
AQ0505T	X	5	2'-4"	1'-4"	0'-6"	2'-9"	1'-10"				6'-6"	34	SERVICE LEVEL FLOOR AT STAIRS
AQ0406B	X	8	1'-11"	2'-4"							4'-2"	22	SERVICE LEVEL FLOOR AT SUB. CABLES
AQ0407D	X	4	3'-5"	0'-4"							3'-8"	10	SERVICE LEVEL FLOOR AT DOORWAY
AR0601G	X	5	16'-7"	2'-4"	3'-1"						19'-6"	146	SERVICE TO ENTRY LEVEL STAIRS
AR0402A	X	34	3'-2"								3'-2"	72	SERVICE TO ENTRY LEVEL STAIRS
AR0403G	X	5	17'-1"	1'-3"	2'-7"						19'-7"	65	SERVICE TO ENTRY LEVEL STAIRS
AR0504A	X	8	5'-9"								5'-9"	48	ENTRY LEVEL FLOOR
AR0505A	X	8	9'-0"								9'-0"	75	ENTRY LEVEL FLOOR
AR0506A	X	26	24'-10"								24'-10"	673	ENTRY LEVEL FLOOR
AR0507A	X	49	16'-4"								16'-4"	835	ENTRY LEVEL FLOOR
AR0508A	X	30	11'-10"								11'-10"	370	ENTRY LEVEL FLOOR
AR0509T	X	5	1'-10"	1'-4"	0'-6"	2'-9"	1'-10"				6'-0"	32	ENTRY LEVEL FLOOR AT STAIRS
AR1010A	X	6	24'-10"								24'-10"	641	ENTRY LEVEL FLOOR BEAM
AR0411R	X	39	1'-9"	1'-3"							6'-6"	169	ENTRY LEVEL FLOOR BEAM
AR0412A	X	8	5'-0"								5'-0"	27	ENTRY LEVEL FLOOR
AR0413D	X	18	1'-0"	0'-4"	1'-0"					X	2'-2"	26	ENTRY LEVEL BRICK LEDGE
AR0414D	X	27	1'-0"	0'-5"	1'-0"					X	2'-3"	41	ENTRY LEVEL BRICK LEDGE
AR0415A	X	8	2'-0"								2'-0"	11	ENTRY LEVEL FLOOR (BLOCKOUTS)
AS0601G	X	5	15'-10"	2'-5"	3'-1"						18'-9"	141	ENTRY TO OPERATOR LEVEL STAIRS
AS0402A	X	32	3'-8"								3'-8"	78	ENTRY TO OPERATOR LEVEL STAIRS
AS0403G	X	5	16'-4"	1'-3"	2'-7"						18'-10"	63	ENTRY TO OPERATOR LEVEL STAIRS
AS0504A	X	8	4'-8"								4'-8"	39	OPERATOR LEVEL FLOOR
AS0505A	X	8	7'-10"								7'-10"	65	OPERATOR LEVEL FLOOR
AS0506A	X	26	23'-8"								23'-8"	642	OPERATOR LEVEL FLOOR
AS0507A	X	43	15'-2"								15'-2"	680	OPERATOR LEVEL FLOOR
AS0508A	X	33	10'-8"								10'-8"	367	OPERATOR LEVEL FLOOR
AS0409A	X	8	5'-0"								5'-0"	27	OPERATOR LEVEL FLOOR
AS0910A	X	6	23'-8"								23'-8"	483	OPERATOR LEVEL FLOOR BEAM
AS0411R	X	25	1'-9"	1'-3"							6'-6"	109	OPERATOR LEVEL FLOOR BEAM
AT0501A	X	3	35'-2"								35'-2"	110	CHANNEL WALL EXTERIOR (HORIZ.)
AT0501A	X	3	35'-2"								35'-2"	110	CHANNEL WALL INTERIOR (HORIZ.)
										COATED BARS TOTAL WEIGHT =		166280	LBS.
										NON-COATED BARS TOTAL WEIGHT =		153115	LBS.

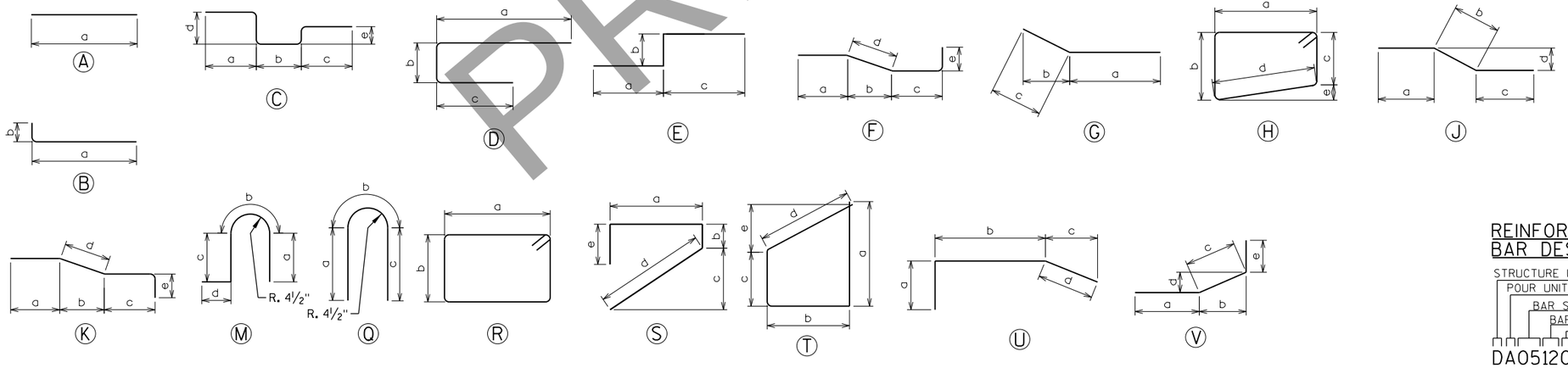
BAR SERIES TABLE

BAR MARK	NO. REQUIRED	VARYING LEG	LEG LENGTH
AB1056B	2 SERIES OF 40	A	23'-8" TO 24'-0"
AC0619A	1 SERIES OF 29	A	16'-1" TO 16'-8"
AC0427A	2 SERIES OF 5	A	3'-10" TO 5'-8"
AD0610F	2 SERIES OF 31	A	5'-1" TO 5'-5"
AD0542C	2 SERIES OF 5	D & E	1'-1" TO 3'-5"
AD0616A	1 SERIES OF 20	A	10'-6" TO 11'-0"
AD0630A	1 SERIES OF 23	A	9'-8" TO 10'-2"
AE0519A	2 SERIES OF 8	A	14'-2" TO 14'-4"
AE0521A	2 SERIES OF 9	A	11'-7" TO 12'-2"
AE0425R	2 SERIES OF 36	A	6" TO 1'-2"
AG0502R	2 SERIES OF 4	A	7" TO 1'-8"
AG0503A	2 SERIES OF 3	A	6'-11" TO 8'-8"
AG0404D	4 SERIES OF 5	B	7" TO 1'-0"
AG0505A	1 SERIES OF 3	A	6'-11" TO 8'-8"
AG0506A	1 SERIES OF 3	A	7'-0" TO 8'-9"
AR0413D	1 SERIES OF 18	B	2" TO 5"
AR0414D	1 SERIES OF 27	B	2" TO 8"
AK0610A	2 SERIES OF 2	A	7'-2" TO 10'-0"
AL0508E	2 SERIES OF 2	A	5'-8" TO 6'-0"
AM0509E	2 SERIES OF 3	A	2'-4" TO 3'-1"

CONCRETE QUANTITIES

POUR MARK	CONCRETE QUANTITY (CY)
A	344
B	273
C	172
D	195
E	20
F	13
G	2
H	28
J	10
K	34
L	64
M	18
Q	8
R	21
S	20
T	3
TOTAL	1225

PRELIMINARY



NOTES:

ALL BEND IN REINFORCING STEEL TO BE MADE ABOUT A PIN OF THE MINIMUM DIAMETER ALLOWED BY THE STANDARD SPECIFICATIONS.

TOLERANCES IN CUTTING AND BENDING BARS ARE AS ESTABLISHED IN MANUAL OF STANDARD PRACTICE OF THE REINFORCING STEEL INSTITUTE AND DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE.

REINFORCEMENT SHALL BE BUNDLED AND TAGGED AS TO THE LOCATION AS SHOWN ON THIS SHEET.

REINFORCEMENT BAR DESIGNATION

STRUCTURE UNIT DESIGNATOR
POUR UNIT DESIGNATOR
BAR SIZE
BAR SEQUENCE
BENT TYPE

DA0512C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

N. BASCULE ABUTMENT BILL OF BARS - 4

DRAWING PRE_338

STATE PROJECT NUMBER

4992-03-71

PRINTER DRIVER: S:_acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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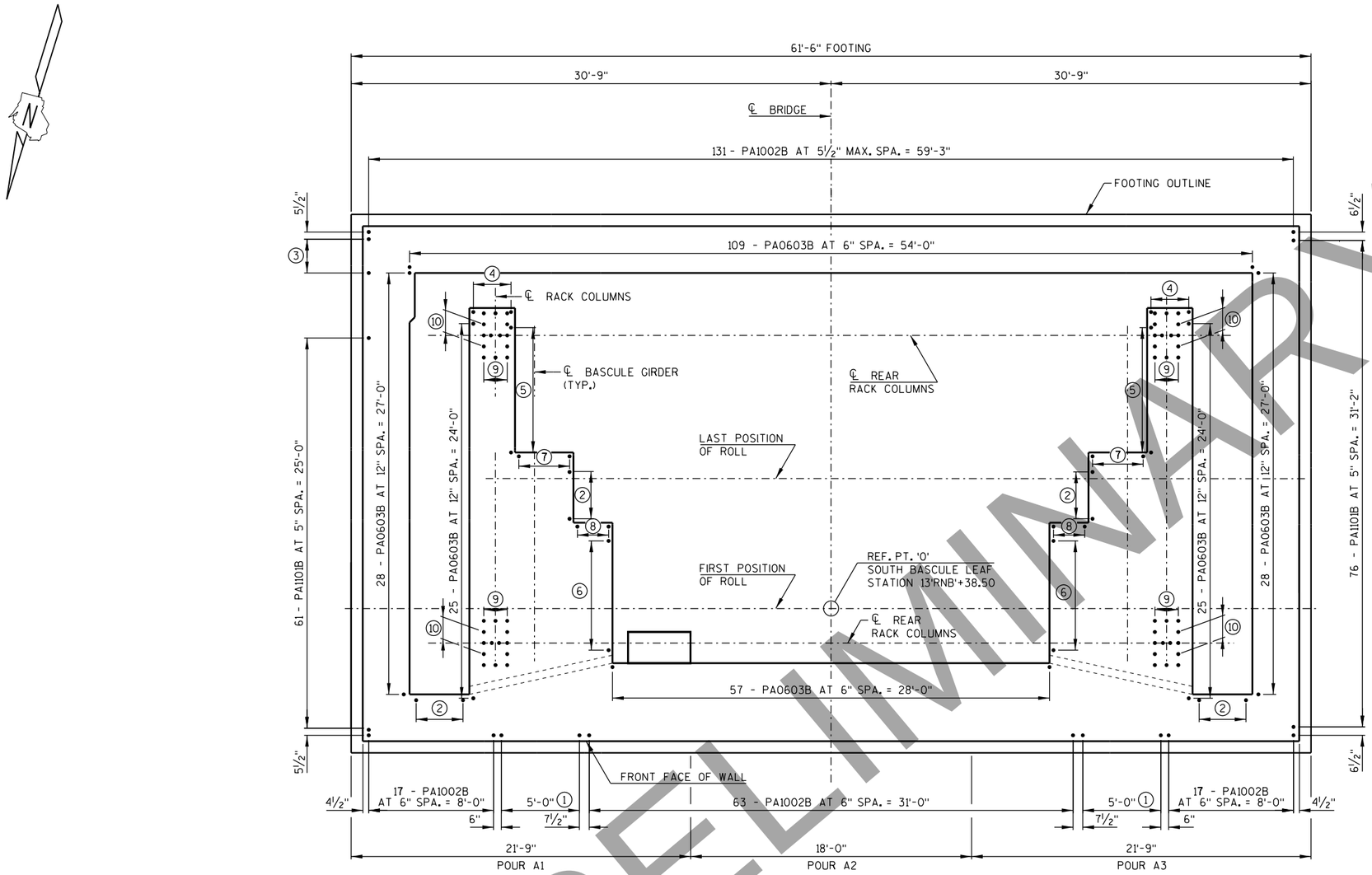
PLOT DATE: 3/27/2020 PLOT TIME: 5:15:14 PM BATCH PRINT SHEET 60 OF 93
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71



PLAN

PRELIMINARY

(1) 6 - PA0603B AT 12" SPA. = 5'-0"
(2) 4 - PA0603B AT 12" SPA. = 3'-0"
(3) 7 - PA1101B AT 5" MAX. SPA. = 2'-2"
(4) 4 - PA0603B AT 12" MAX. SPA. = 2'-5"
(5) 9 - PA0603B AT 12" SPA. = 8'-0"
(6) 8 - PA0603B AT 12" SPA. = 7'-0"
(7) 5 - PA0603B AT 9¾" SPA. = 3'-3"
(8) 3 - PA0603A AT 12" SPA. = 2'-0"
(9) 3 - PA1002B AT 9" SPA. = 1'-6" (EACH SIDE)
(10) 3 - PA0603B AT 8½" SPA. = 1'-5" (EACH SIDE)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER FOOTING DOWEL PLAN AT PIT FLOOR

DRAWING PRE_339

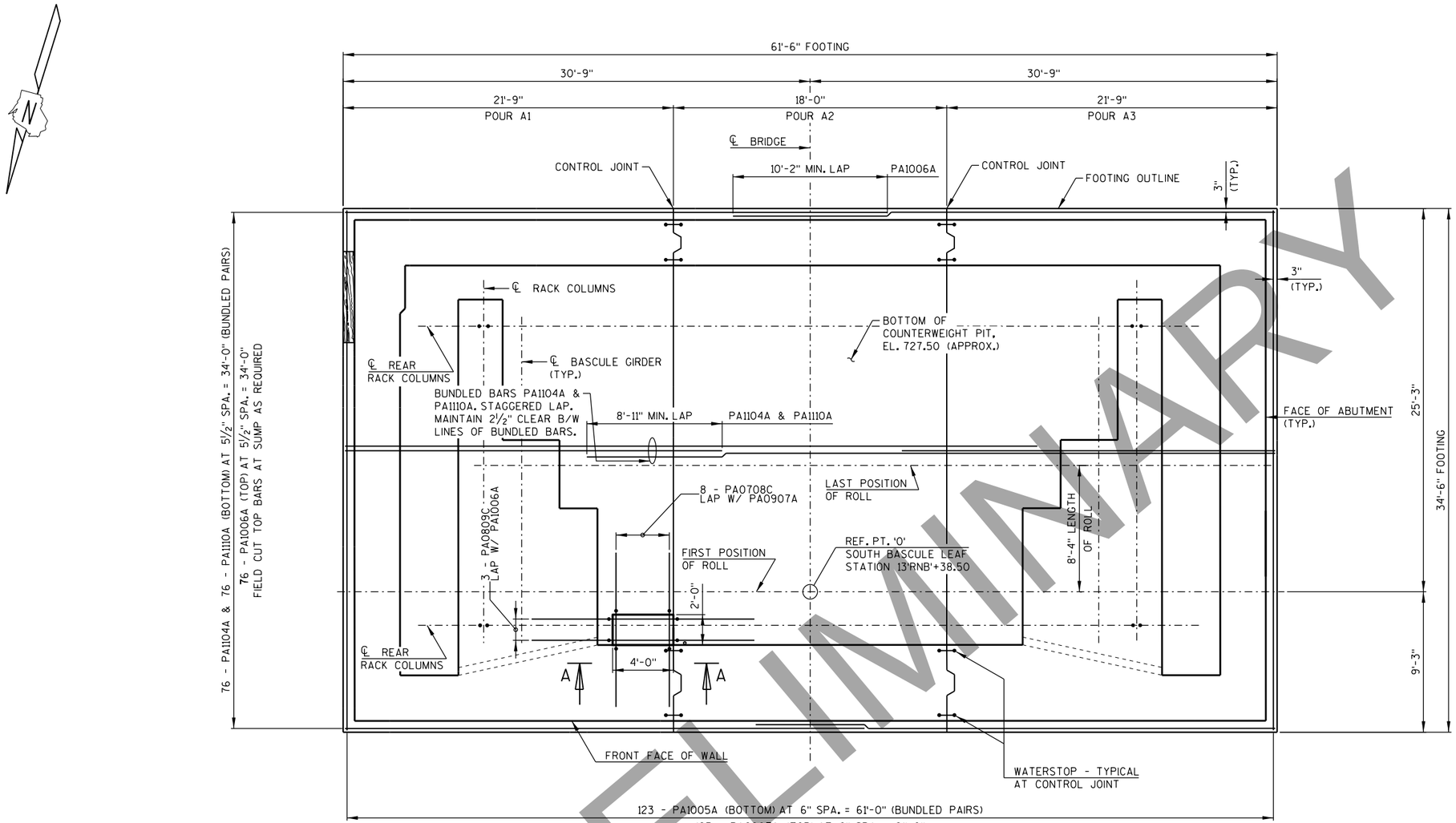
8

8

PRELIMINARY

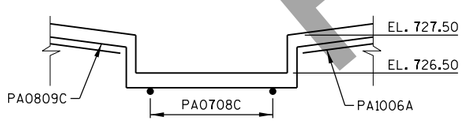
STATE PROJECT NUMBER

4992-03-71

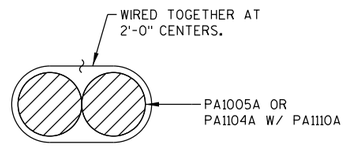


PLAN

BASCULE PIER AT PIT FLOOR



SECTION A-A



BUNDLE DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER FOOTING REINF. PLAN

DRAWING PRE_340

8

8

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BATCH PRINT SHEET 61 OF 93
DRAFT April 20, 2020

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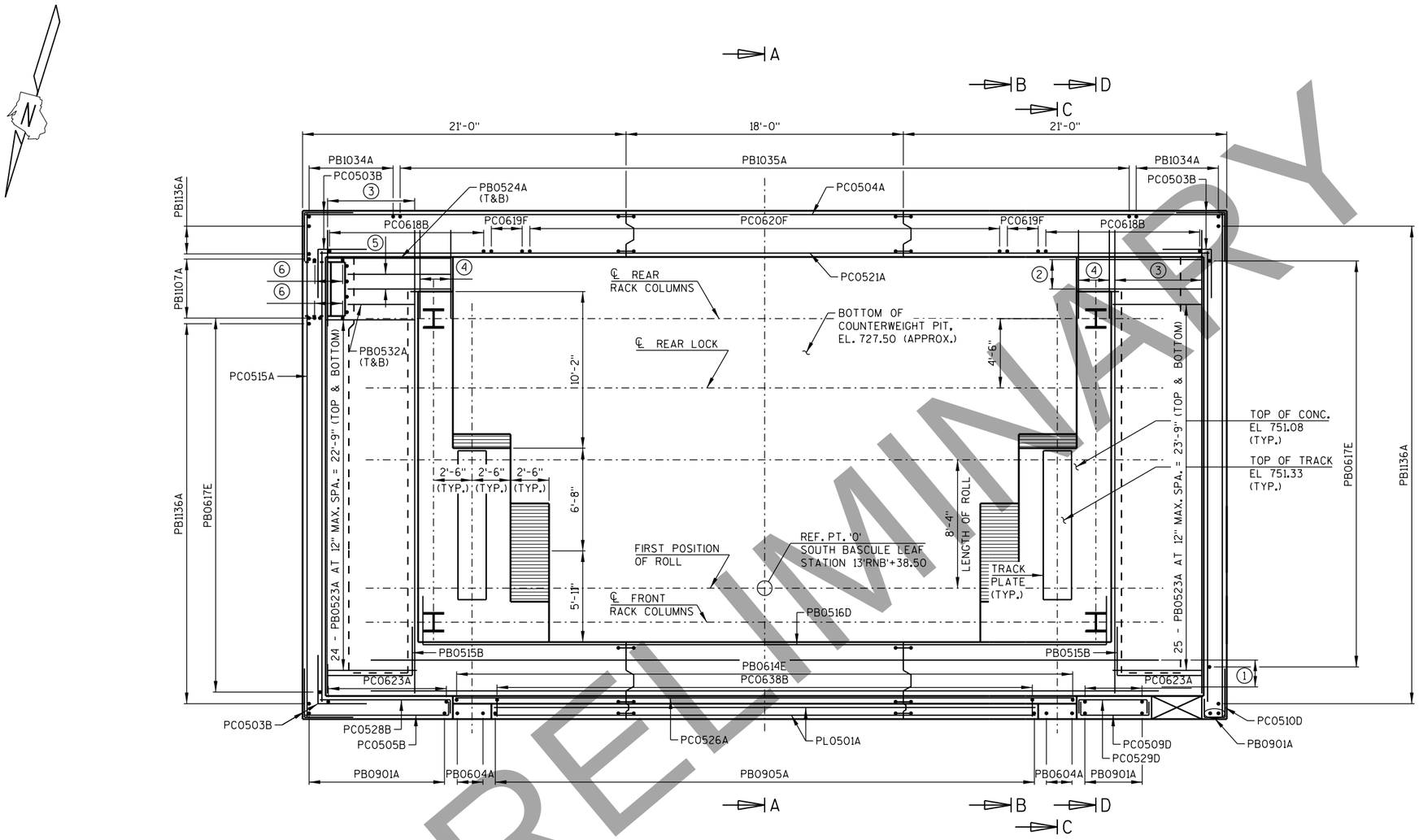
BATCH PRINT SHEET 62 OF 93

DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71



PLAN

1. 3 - PB0522A AT 12" SPA. = 2'-0"
2. 3 - PB0524A AT 12" SPA. = 2'-0" (T&B)
3. 7 - PB0525A AT 12" MAX. SPA. = 5'-8" (T&B)
4. 3 - PB0526A AT 12" SPA. = 2'-0" (T&B)
5. 2 - PB0533A AT 12" SPA. = 1'-0" (T&B)
6. 3 - PB0628A AT 12" MAX. SPA.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER REINF. PLAN AT TRACK LEVEL

DRAWING PRE_341

8

8

PRINTER DRIVER: S:_acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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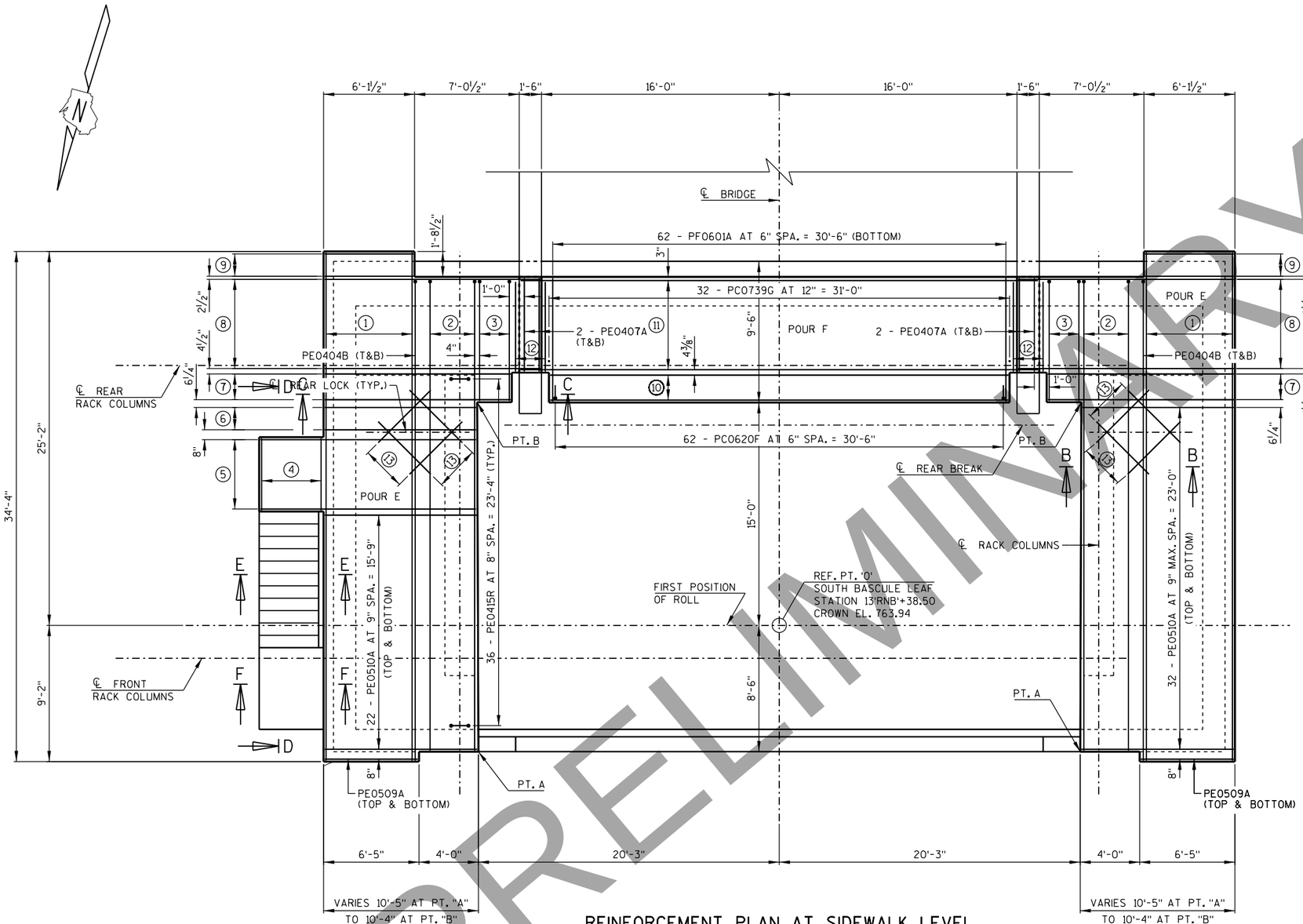
PLOT DATE: 3/2/2020 PLOT TIME: 5:16:08 PM
BATCH PRINT SHEET 63 OF 93
DRAFT April 20, 2020

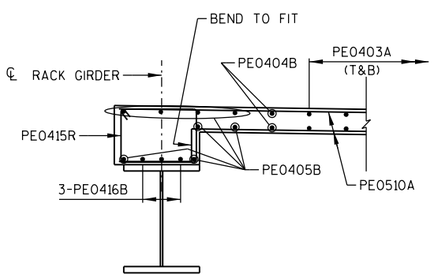
STATE PROJECT NUMBER

4992-03-71

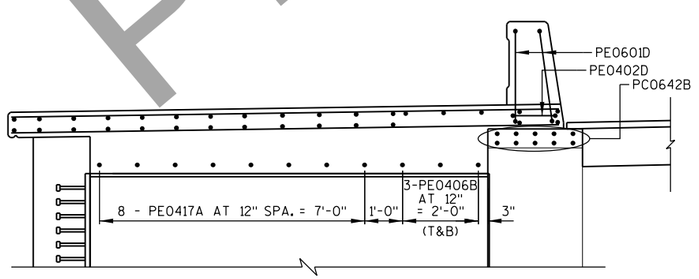


REINFORCEMENT PLAN AT SIDEWALK LEVEL

1. 7 - PE0403A AT 12" SPA. = 6'-0" (TOP & BOTTOM)
2. 4 - PE0405B AT 12" SPA. = 3'-0" (TOP & BOTTOM)
3. 3 - PE0406B AT 12" SPA. = 2'-0" (TOP & BOTTOM)
4. 5 - PE0408A AT 12" SPA. = 4'-0" (TOP & BOTTOM)
5. 8 - PE0611A AT 8" SPA. = 4'-8" (TOP & BOTTOM)
6. 3 - PE0510A AT 9" SPA. = 1'-6" (TOP & BOTTOM)
7. 4 - PE0512A AT 7" MAX. SPA. = 1'-8¾" (TOP & BOTTOM)
8. 9 - PE0513A AT 9" SPA. = 6'-0" (TOP & BOTTOM)
9. 3 - PE0514A AT 9" SPA. = 1'-6" (TOP & BOTTOM)
10. 3 - PF0602A AT 12" MAX. SPA. = 2'-0" (TOP & BOTTOM)
11. 7 - PF0603A AT 12" SPA. = 5'-8" (TOP & BOTTOM)
12. 5 - PC0642B AT 6" SPA. = 2'-0" (TOP & BOTTOM)
13. 7 - PE0520A AT 6" SPA. = 3'-0" (TOP & BOTTOM)



SECTION B-B



SECTION C-C

NOTES:

FOR SECTIONS D-D, E-E AND F-F, SEE SHEET "S. BASCULE PIER MISCELLANEOUS REINFORCEMENT DETAILS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER REINF. PLAN AT SIDEWALK LEVEL

DRAWING PRE_342

PRELIMINARY

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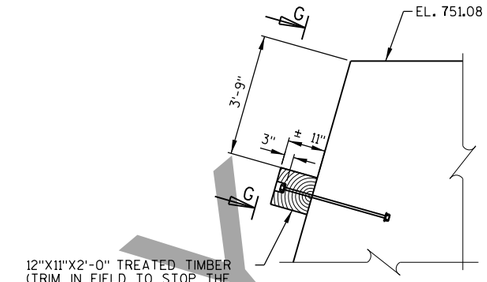
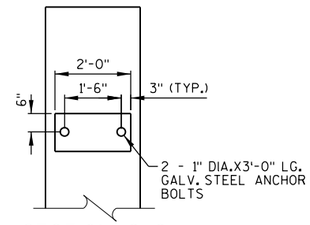
BATCH PRINT SHEET 64 OF 93

DRAFT - April 20, 2020

PRELIMINARY

STATE PROJECT NUMBER
4992-03-71



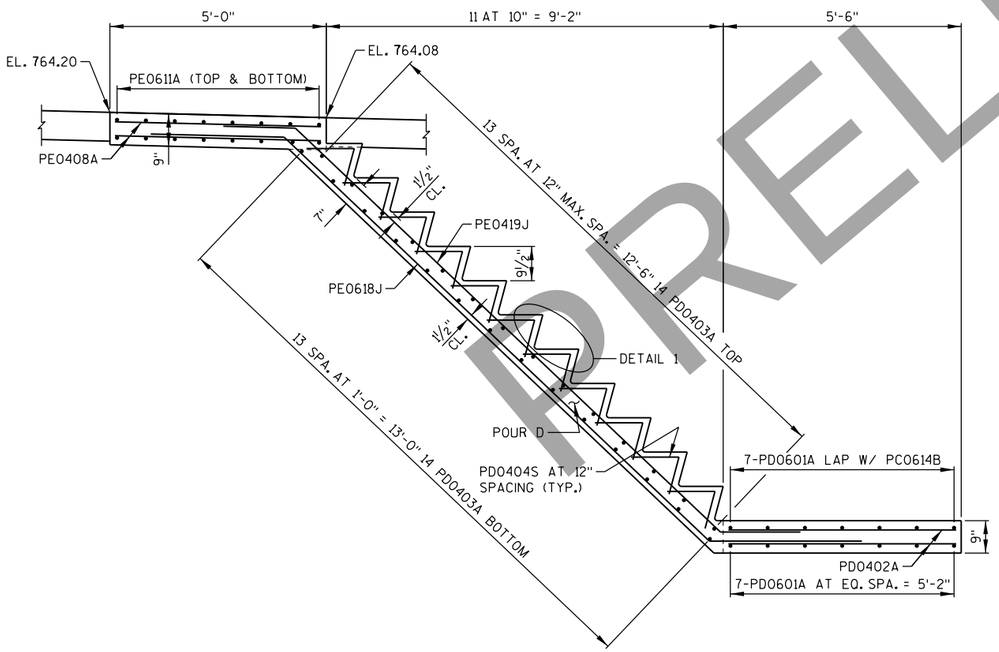


SECTION G-G

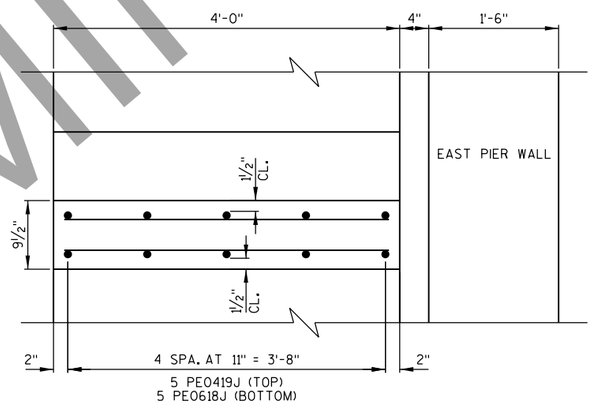
BUMPING BLOCK DETAIL

(INCIDENTAL TO CONCRETE MASONRY BRIDGES)

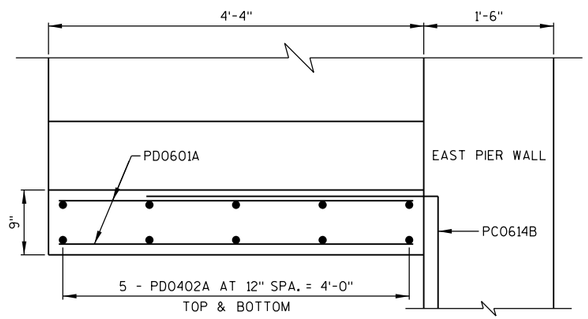
NOTE: FOR SECTION CUTS D-D, E-E AND F-F, SEE SHEET "S. BASCULE PIER REINF. PLAN AT SIDEWALK LEVEL".



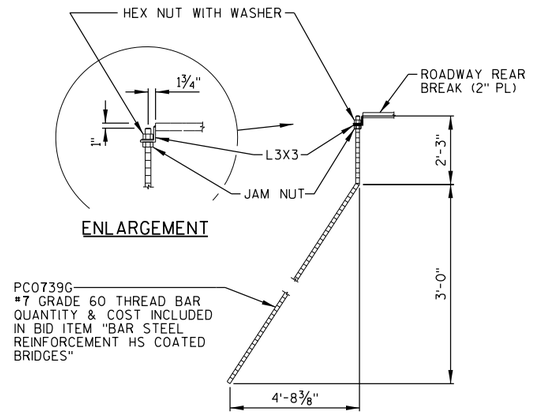
SECTION D-D



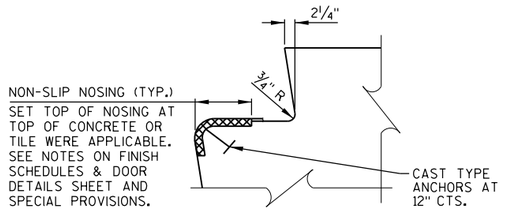
SECTION E-E



SECTION F-F



THREAD BAR BEND DETAIL



DETAIL 1

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER MISCELLANEOUS REINF. DETAILS - 1

DRAWING PRE_343

8

8

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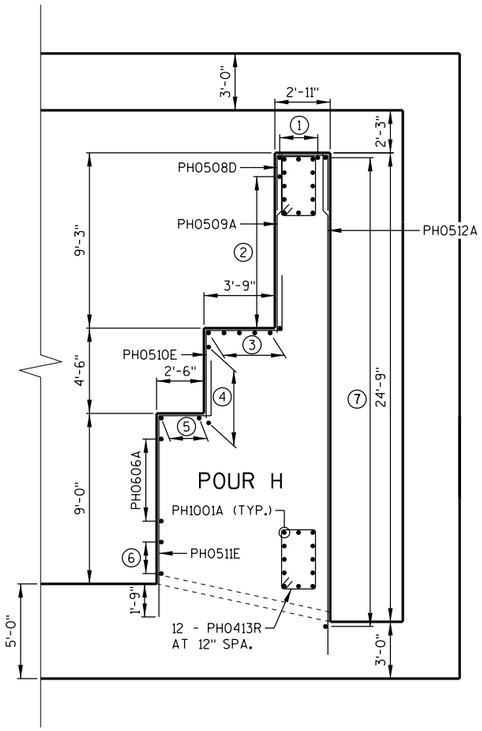
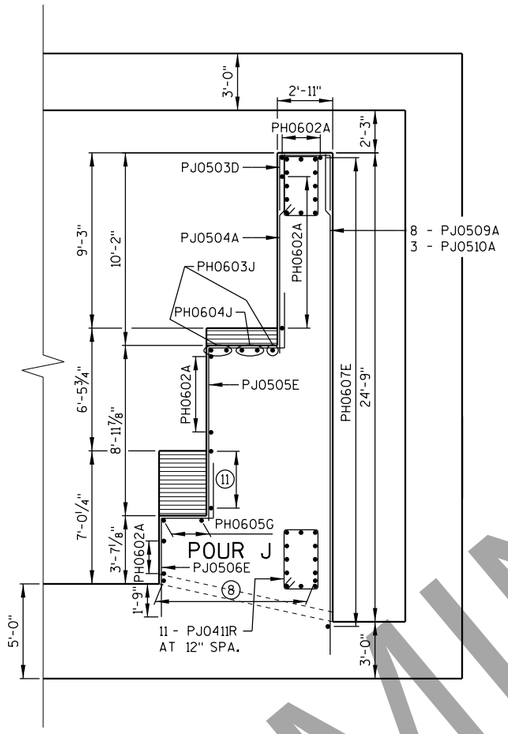
PLOT TIME: 5:16:39 PM
BATCH PRINT SHEET 65 OF 93
DRAFT April 20,

STATE PROJECT NUMBER

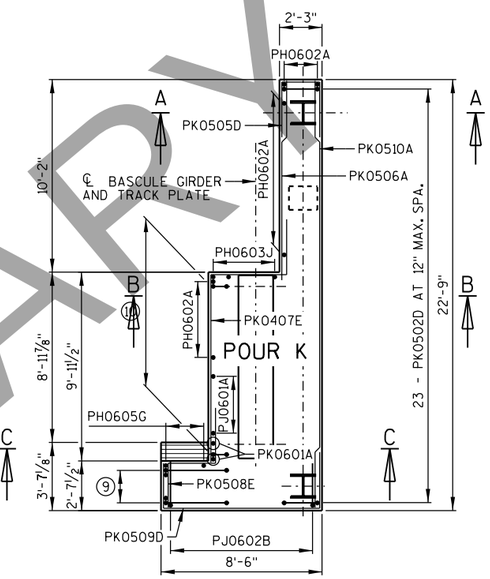
4992-03-71



REINFORCEMENT PLAN AT POUR H

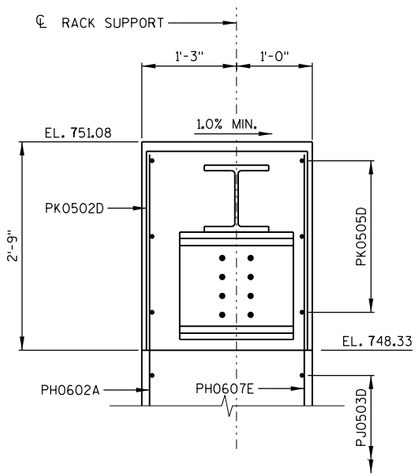


REINFORCEMENT PLAN AT POUR J

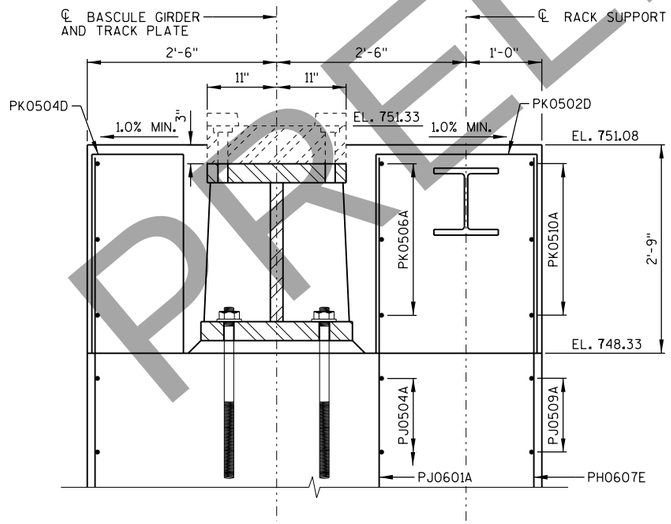


REINFORCEMENT PLAN AT POUR K

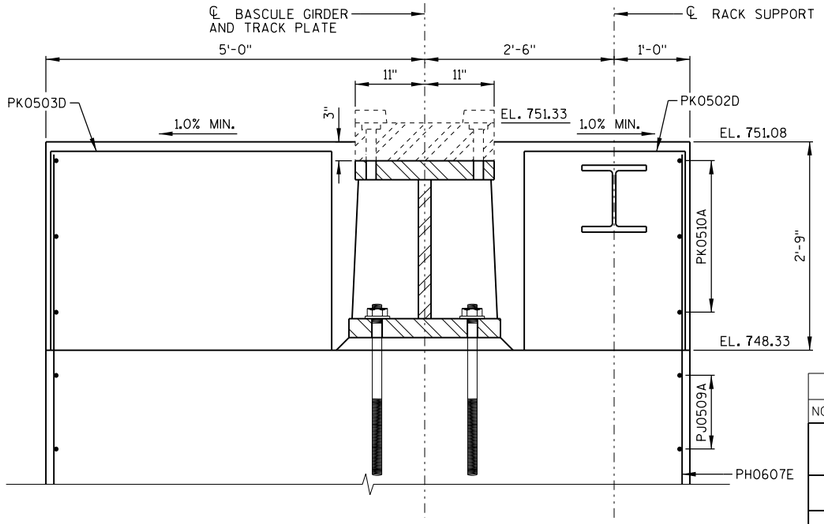
① 3 - PH0602A LAP W/ PA0603B
② 9 - PH0602A LAP W/ PA0603B
③ 3 - PH0603J & 2 - PH0604J LAP W/ PA0603B
④ 5 - PH0602A LAP W/ PA0603B
⑤ 3 - PH0605G LAP W/ PA0603B
⑥ 3 - PH0602A LAP W/ PA0603B
⑦ 26 - PH0607E LAP W/ PA0603B
⑧ 9 - PJ0602B AT 12" SPA. = 8'-0"
⑨ 3 - PK0503D AT 12" MAX. SPA.
⑩ 10 - PK0504D AT 12" MAX. SPA.
⑪ 4 - PJ0601A AT 12" SPA. = 3'-0"



SECTION A-A



SECTION B-B



SECTION C-C

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER MISCELLANEOUS REINF. DETAILS - 2

DRAWING PRE_344

8

8

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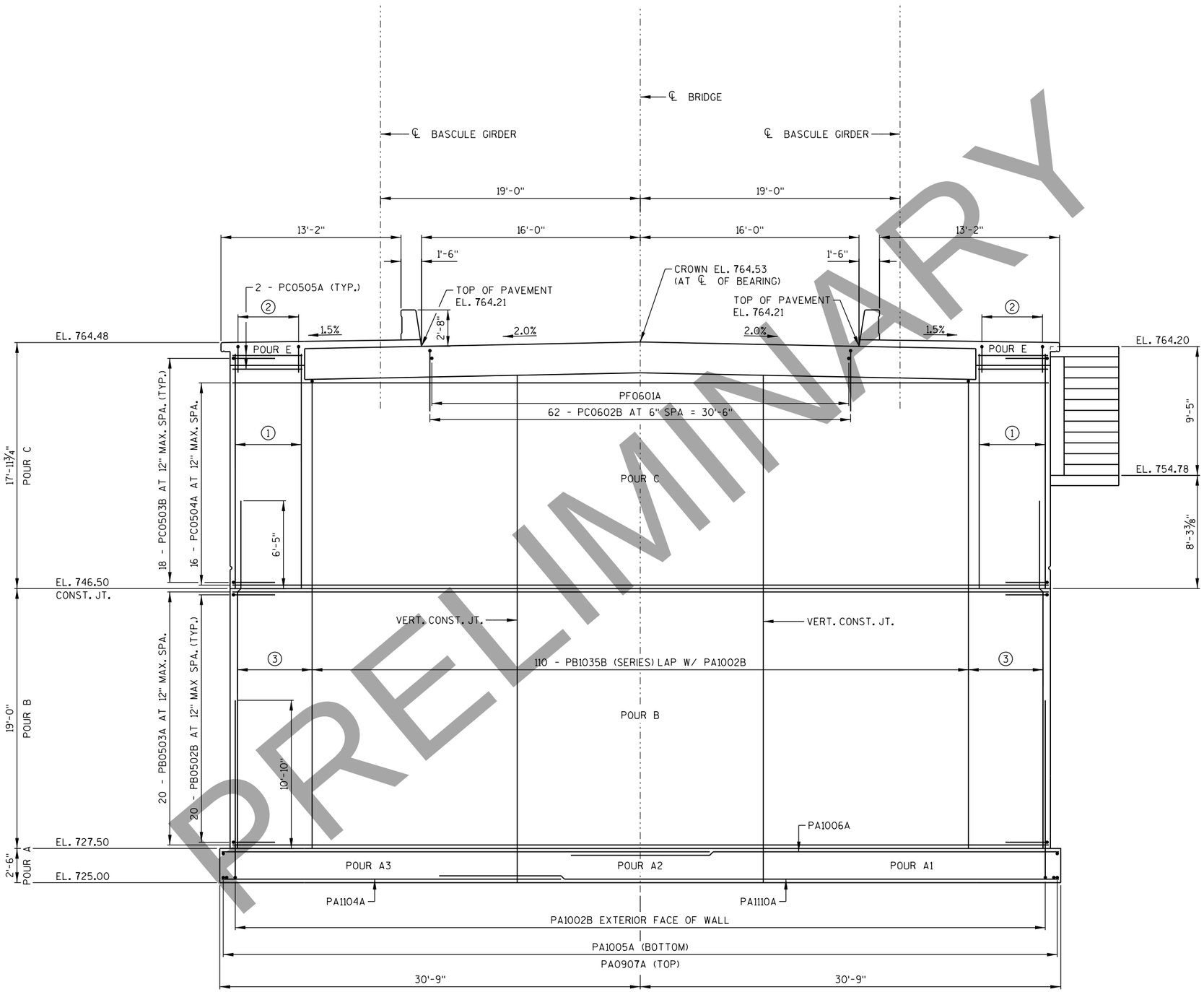
PLOT DATE: 3/2/2020 PLOT TIME: 5:16:57 PM BATCH PRINT SHEET 66 OF 93

DRAFT April 20,

STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

① 6 - PC0601A AT 12" SPA. = 5'-0"
② 6 - PC0406B LAP W/ PC0601A
③ 11 - PB1034A LAP W/ PA1002B

SOUTH BASCULE PIER SOUTH ELEVATION

(APPROACH SIDE - LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER REINFORCEMENT APPROACH WALL EXTERIOR ELEV.

DRAWING PRE_345

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DRAFT April 20,
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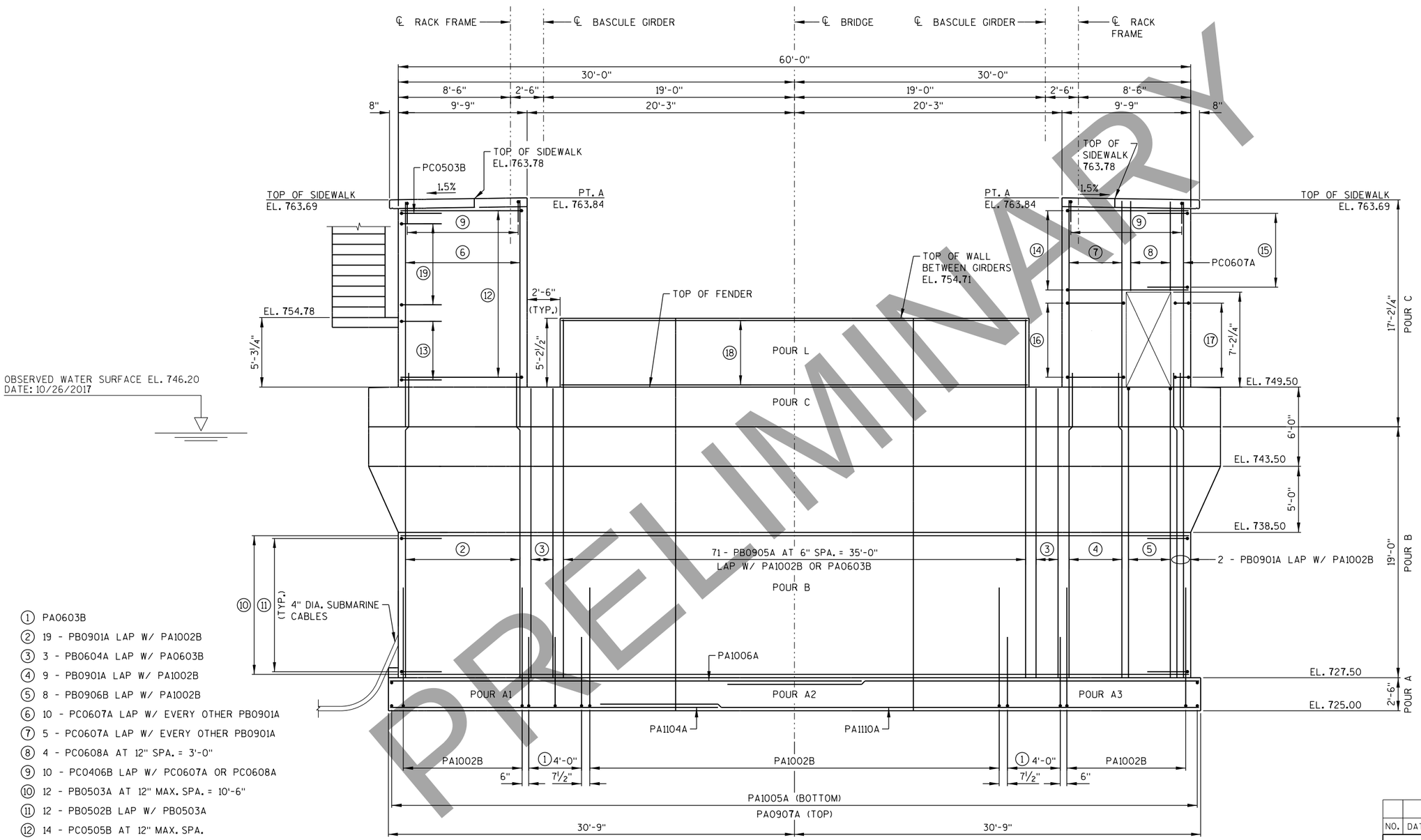
STATE PROJECT NUMBER
4992-03-71



SOUTH BASCULE PIER ELEVATION AT CHANNEL WALL

(LOOKING SOUTH)

PRELIMINARY

1. PA0603B
2. 19 - PB0901A LAP W/ PA1002B
3. 3 - PB0604A LAP W/ PA0603B
4. 9 - PB0901A LAP W/ PA1002B
5. 8 - PB0906B LAP W/ PA1002B
6. 10 - PC0607A LAP W/ EVERY OTHER PB0901A
7. 5 - PC0607A LAP W/ EVERY OTHER PB0901A
8. 4 - PC0608A AT 12" SPA. = 3'-0"
9. 10 - PC0406B LAP W/ PC0607A OR PC0608A
10. 12 - PB0503A AT 12" MAX. SPA. = 10'-6"
11. 12 - PB0502B LAP W/ PB0503A
12. 14 - PC0505B AT 12" MAX. SPA.
13. 9 - PC0503B LAP W/ PC0505B
14. 7 - PC0505B AT 12" SPA. = 6'-0"
15. 7 - PC0503B LAP W/ PC0505B
16. 7 - PC0509D AT 12" SPA. = 6'-0"
17. 7 - PC0510D AT 12" SPA. = 6'-0"
18. 6 - PL0501A AT 12" MAX SPA.
19. 8 - PC0512D AT 12" MAX SPA.

NOTE:

FOR BARS IN FENDER, SEE SHEET "NAVIGATION FENDER SYSTEM DETAILS - 1".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

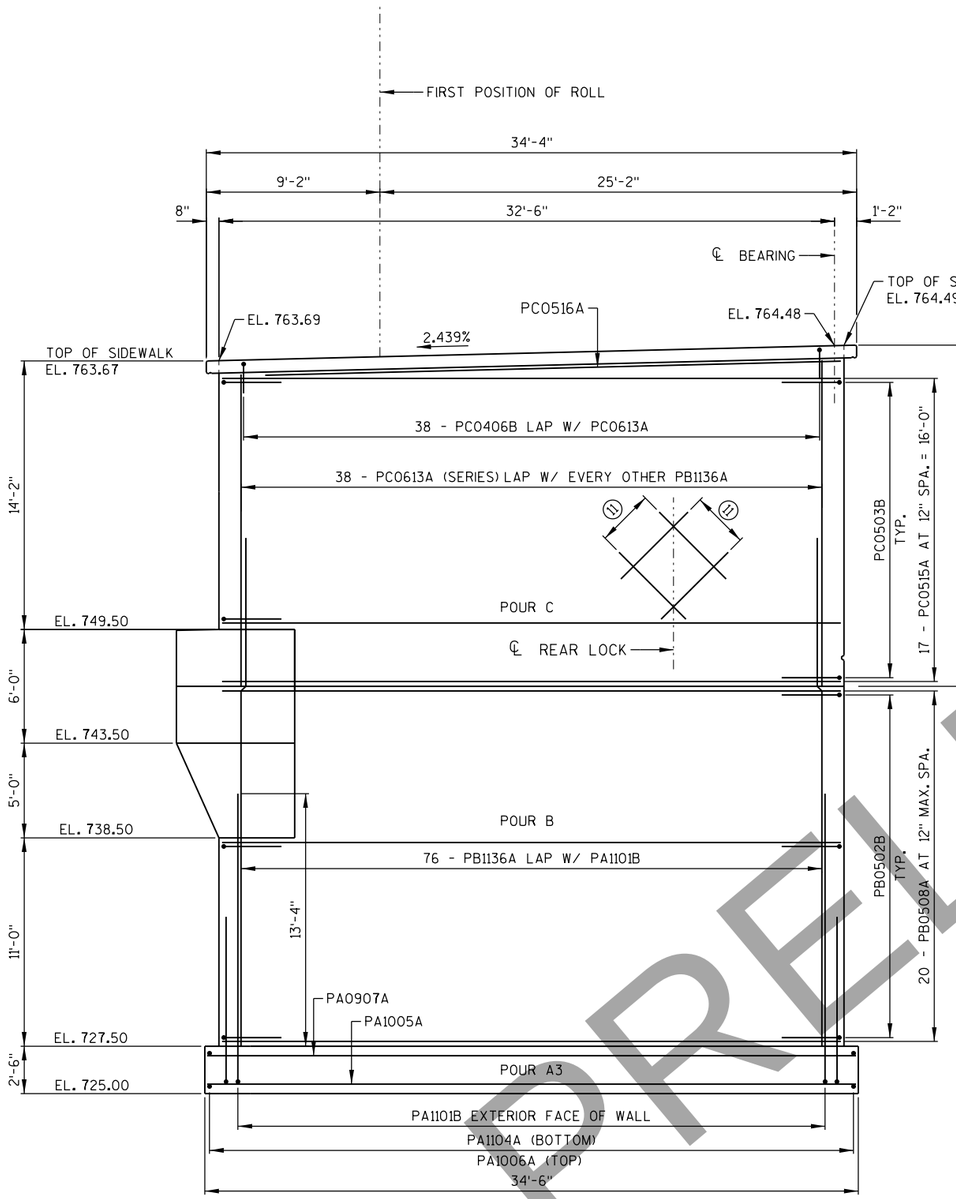
S. BASCULE PIER REINFORCEMENT CHANNEL WALL EXTERIOR ELEV.

DRAWING PRE_346

8

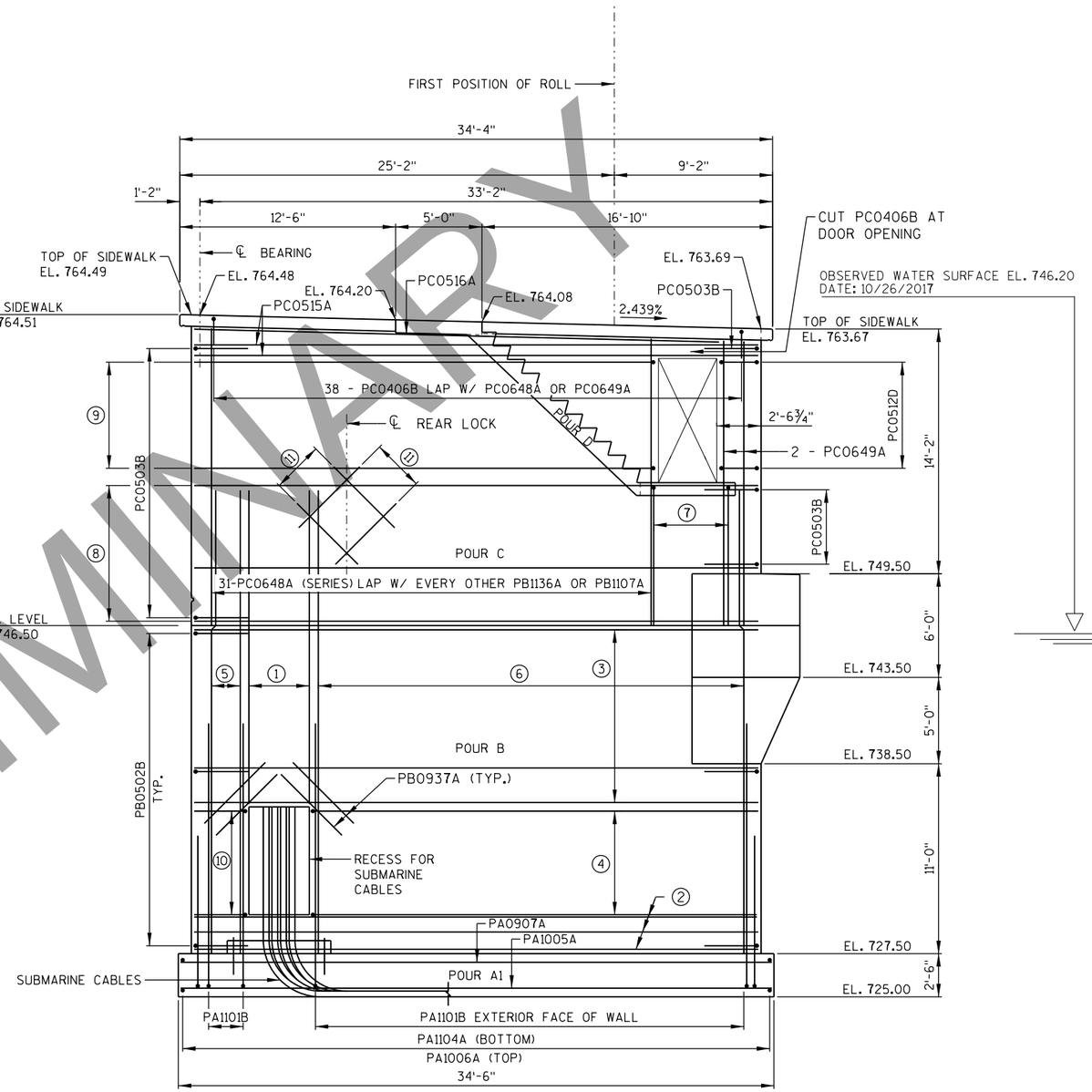
8

STATE PROJECT NUMBER
4992-03-71



SOUTH BASCULE PIER - WEST ELEVATION

(LOOKING EAST)



SOUTH BASCULE PIER - EAST ELEVATION

(LOOKING WEST)

PRELIMINARY

① 9 - PB1107A AT 6" SPA. = 3'-4"
② 3 - PB0508A AT 12" SPA.
③ 11 - PB0508A AT 12" SPA. = 10'-0"
④ 7 - PB0509B AT 12" SPA. = 6'-0"
⑤ 5 - PB1136A AT 5" SPA. = 2'-2"
⑥ 61 - PB1136A AT 5" SPA. = 25'-0"
⑦ 7 - PC0614B AT EQ. SPA. LAP W/ PD0601A
⑧ 9 - PC0515A AT 12" SPA.
⑨ 7 - PC0517B AT 12" SPA.
⑩ 7 - PB0531B AT 12" = 6'-0"
⑪ 7 - PC0511A AT 6" SPA. = 3'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER REIN. EAST & WEST ELEVATIONS

DRAWING PRE_347

8

8

PRINTER DRIVER: SS.acm-CADstds.Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\AE_PDF.11 x 17.plt
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BATCH PRINT SHEET 68 OF 93
DRAFT April 20,

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PLOT DATE: 3/2/2020 PLOT TIME: 5:17:57 PM
BATCH PRINT SHEET 69 OF 93
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71

℄ BRIDGE

℄ BASCULE GIRDER ℄ BASCULE GIRDER

11'-8" 19'-0" 19'-0" 11'-8"

1'-6" 1'-6"

13'-2" 16'-0" 16'-0" 13'-2"

1.5% 2.0% 2.0% 1.5%

TOP OF UPLIFT SUPPORT
EL. 762.82

POUR E POUR F POUR E

⑥ ⑤ ⑥

④ (TYP.)

① ② 62 - PC0620F AT 6" SPA. = 30'-6" ② ①

POUR C

③ 17 - PC0503B AT 12" MAX. SPA. (TYP.)

17'-11¾" POUR C

3'-1"

EL. 746.50
CONST. JT.

20 - PB0511A AT 12" MAX. SPA.

20 - PB0502B AT 12" MAX SPA. (TYP.)

109 - PB0610A LAP W/ PA0603B

POUR B

19'-0" POUR B

PA1006A

EL. 727.50

POUR A1 POUR A2 POUR A3

2'-6" POUR A

EL. 725.00

PA1104A PA1110A

PA0603B INTERIOR FACE OF WALL

PA1005A (BOTTOM)
PA0907A (TOP)

30'-9" 30'-9"

① 21 - PC0618B AT 6" SPA. = 10'-0"
② 5 - PC0619F AT 6" SPA. = 2'-0"
③ 12 - PC0521A AT 12" SPA. = 11'-0"
④ 5 - PC0522A AT 12" SPA. = 4'-0"
⑤ 6 - PC0537A AT 12" SPA. = 4'-0"
⑥ 5 - PC0541C AT 12" SPA. = 4'-0"

OBSERVED WATER SURFACE EL. 746.20
DATE: 10/26/2017

SOUTH BASCULE PIER SOUTH WALL

(APPROACH SIDE - LOOKING NORTH)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER REINFORCEMENT INTERIOR APPROACH WALL ELEV.

DRAWING PRE_348

8

8

PRINTER DRIVER: S:_oecm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF.11 x 17.plt
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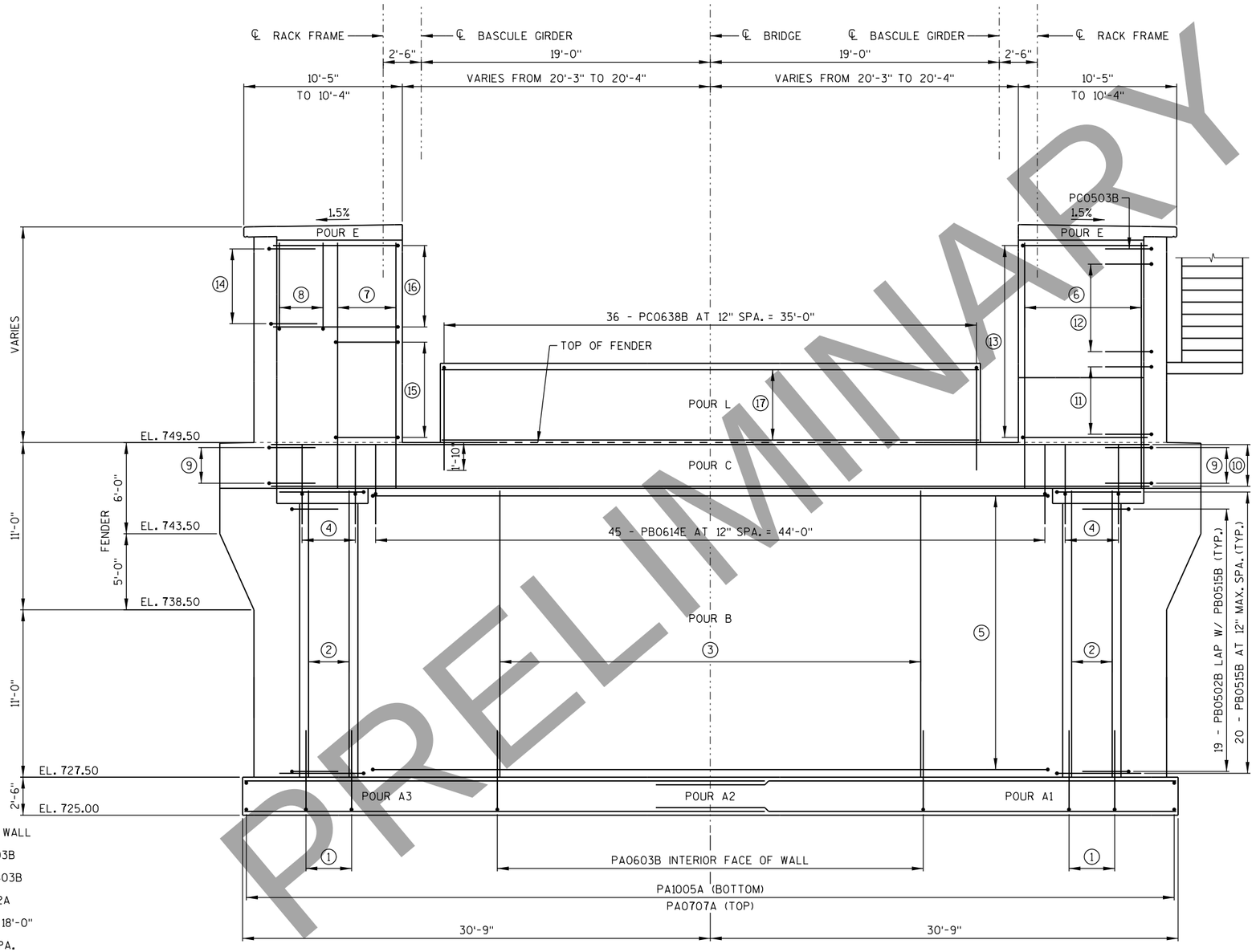
BATCH PRINT SHEET 70 OF 93
DRAFT April 20,

STATE PROJECT NUMBER

4992-03-71



SOUTH BASCULE PIER ELEVATION NORTH WALL

(LOOKING NORTH)

1. PA0603B INTERIOR FACE OF WALL
2. 4 - PB0612A LAP W/ PA0603B
3. 29 - PB0612A LAP W/ PA0603B
4. 4 - PB0613E LAP W/ PB0612A
5. 19 - PB0516D AT 12" SPA. = 18'-0"
6. 9 - PC0623A AT 12" MAX. SPA.
7. 5 - PC0623A AT 12" MAX. SPA.
8. 4 - PC0624B AT 12" MAX. SPA.
9. 4 - PC0503B AT 12" MAX. SPA.
10. 4 - PC0526A AT 12" MAX. SPA.
11. 6 - PC0503B AT 12" MAX. SPA.
12. 7 - PC0525E AT 12" MAX. SPA.
13. 14 - PC0528B AT 12" MAX. SPA.
14. 6 - PC0503B AT 12" MAX. SPA.
15. 7 - PC0529D AT 12" MAX. SPA.
16. 6 - PC0528B AT 12" MAX. SPA.
17. 6 - PL0501A AT 12" MAX. SPA.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER REINFORCEMENT INTERIOR CHANNEL WALL ELEV.

DRAWING PRE_349

8

8

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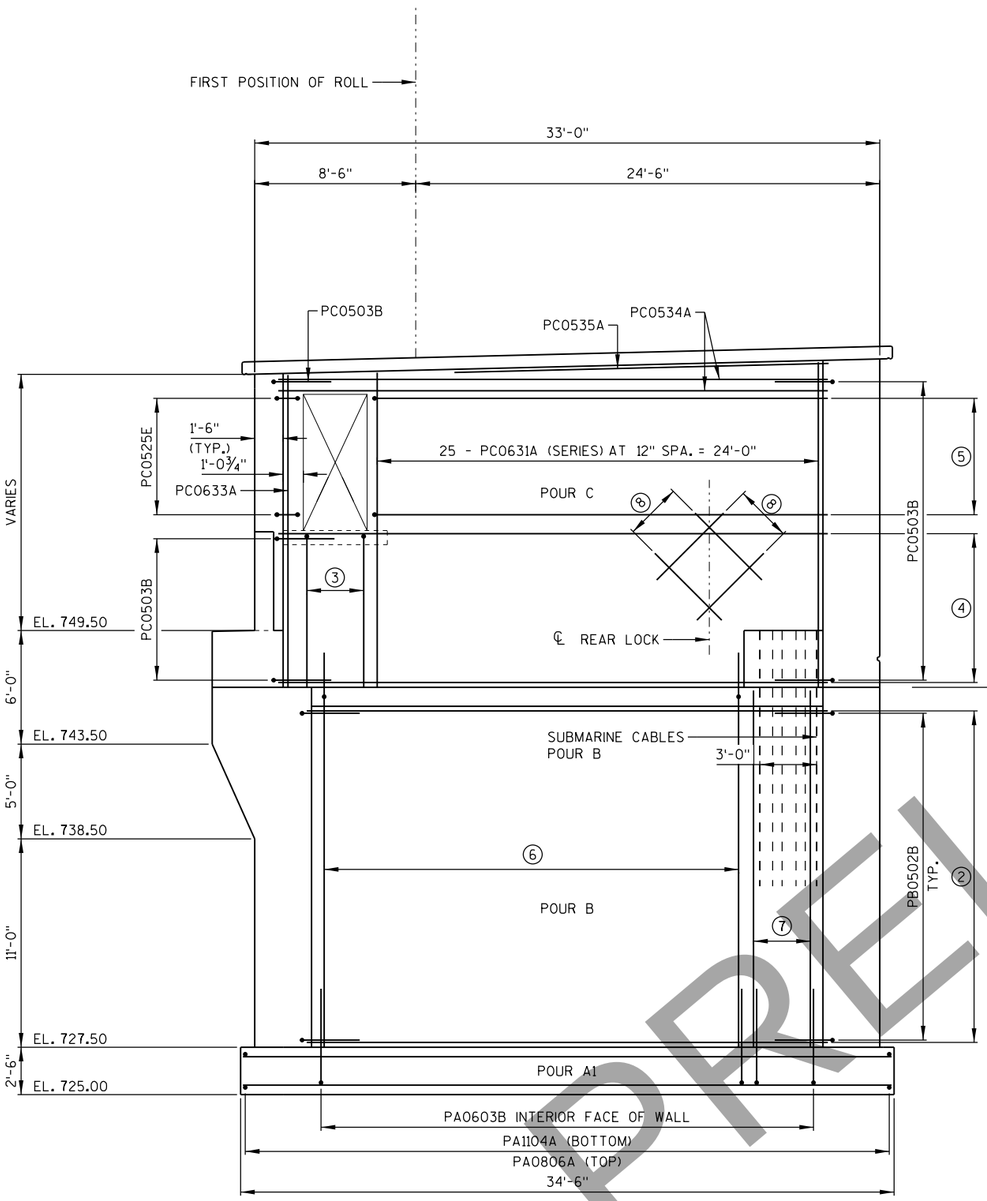
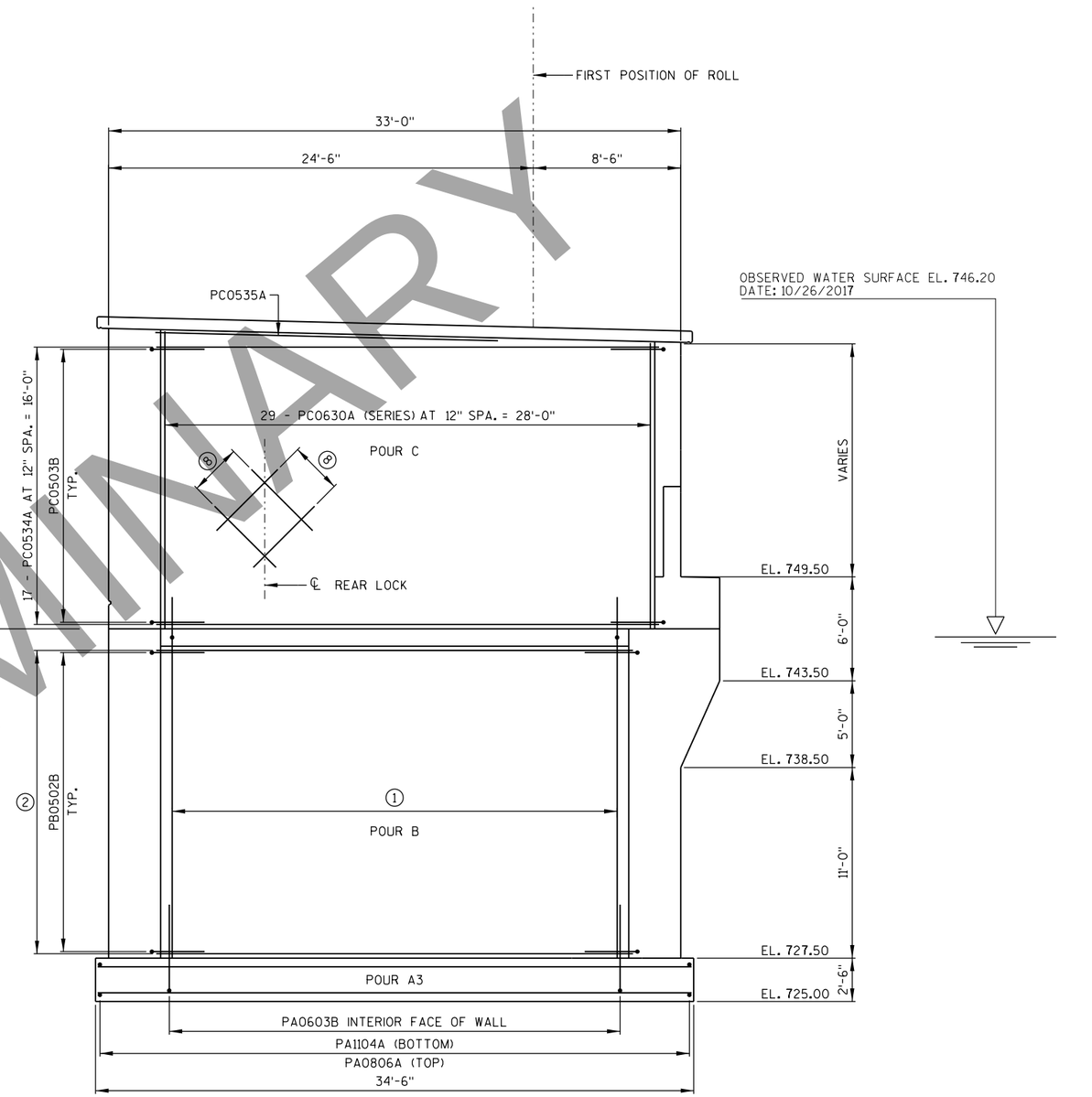
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



SOUTH BASCULE PIER - EAST WALL
(LOOKING EAST)



SOUTH BASCULE PIER - WEST WALL
(LOOKING WEST)

PRELIMINARY

1. 27 - PB0617E LAP W/ PA0603B
2. 19 - PB0518A AT 12" MAX. SPA.
3. 4 - PC0632B AT 12" SPA. = 3'-0"
4. 9 - PC0534A AT 12" SPA.
5. 8 - PC0536B AT 12" SPA.
6. 24 - PB0617E LAP W/ PA0603B
7. 13 - PB0628A AT 6" SPA. = 3'-0"
8. 7 - PC0511A AT 6" SPA. = 3'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER REINFORCEMENT INTERIOR EAST & WEST ELEVATIONS

DRAWING PRE_350

PRINTER DRIVER: S:_acm-CADstds_Libraries\WISDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\VAE_PDF_11 x 17.plt
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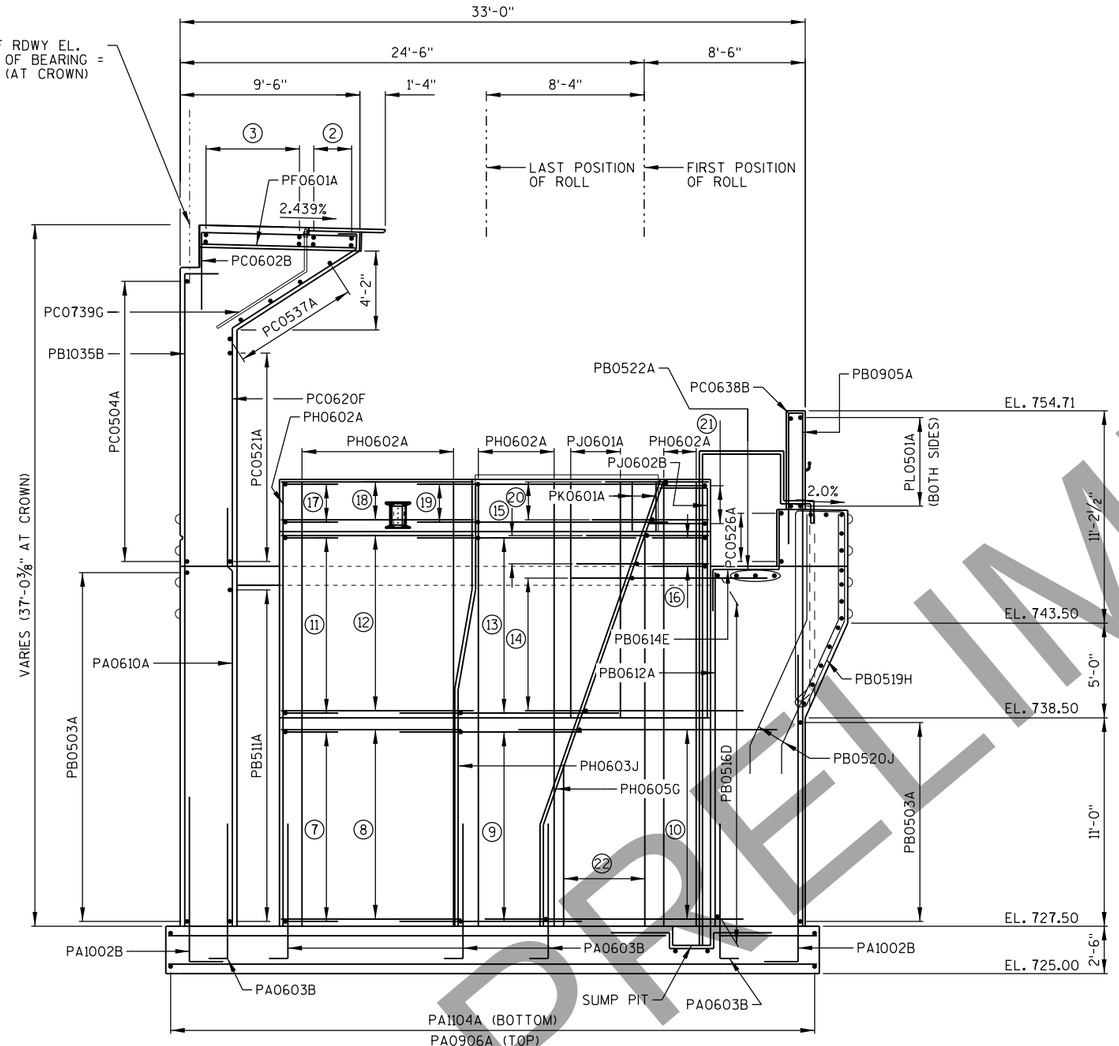
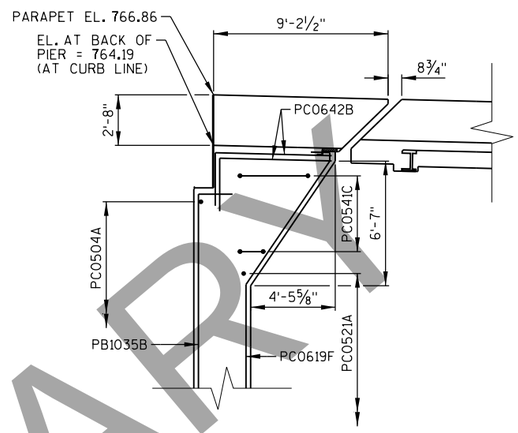
BATCH PRINT SHEET 72 OF 93
DRAFT April 20,

STATE PROJECT NUMBER

4992-03-71

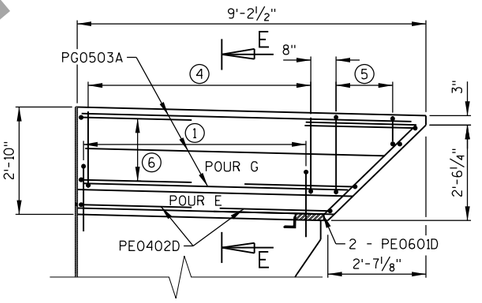


SECTION A-A



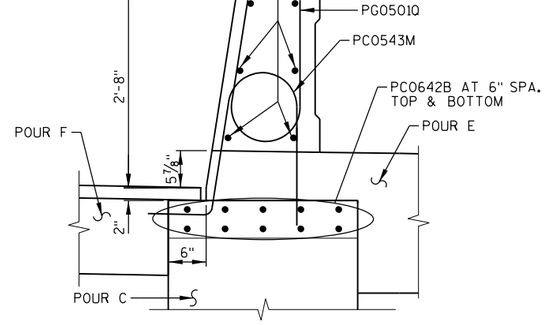
SECTION B-B

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)



CONCRETE TRAFFIC BARRIER AT BASCULE PIER

(2 REQUIRED)



SECTION E-E

NOTE:

FOR SECTION CUTS A-A AND B-B, SEE SHEET "S. BASCULE PIER REINF. PLAN AT TRACK LEVEL".

① 10 - PC0543M AT 8" MAX. SPA.
② PF0602A
③ PF0603A
④ 10 - PG0501Q AT 8" MAX. SPA.
⑤ 4 - PG0502R AT 8" MAX. SPA.
⑥ 5 - PG0404D AT 6" MAX. SPA. BOTH ENDS
⑦ 11 - PH0508D AT 12" SPA. = 10'-0"
⑧ 11 - PH0509A AT 12" SPA. = 10'-0"
⑨ 11 - PH0510E AT 12" SPA. = 10'-0"
⑩ 11 - PH0511E AT 12" SPA. = 10'-0"
⑪ 11 - PJ0503D AT 12" MAX. SPA.
⑫ 11 - PJ0504A AT 12" MAX. SPA.
⑬ 11 - PJ0505E AT 12" MAX. SPA.
⑭ 8 - PJ0506E AT 12" SPA. = 7'-0"
⑮ 3 - PJ0507E AT 12" MAX. SPA.
⑯ 3 - PJ0508D AT 12" MAX. SPA.
⑰ 3 - PK0505D AT 12" SPA. = 2'-0"
⑱ 3 - PK0506A AT 12" SPA. = 2'-0"
⑲ 3 - PK0407E AT 12" SPA. = 2'-0"
⑳ 3 - PK0508E AT 12" SPA. = 2'-0"
㉑ 3 - PK0509D AT 12" SPA. = 2'-0"
㉒ 5 - PH0606A AT 12" MAX. SPA.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER REINFORCEMENT AT ROADWAY AND BARRIER

DRAWING PRE_351

PRELIMINARY

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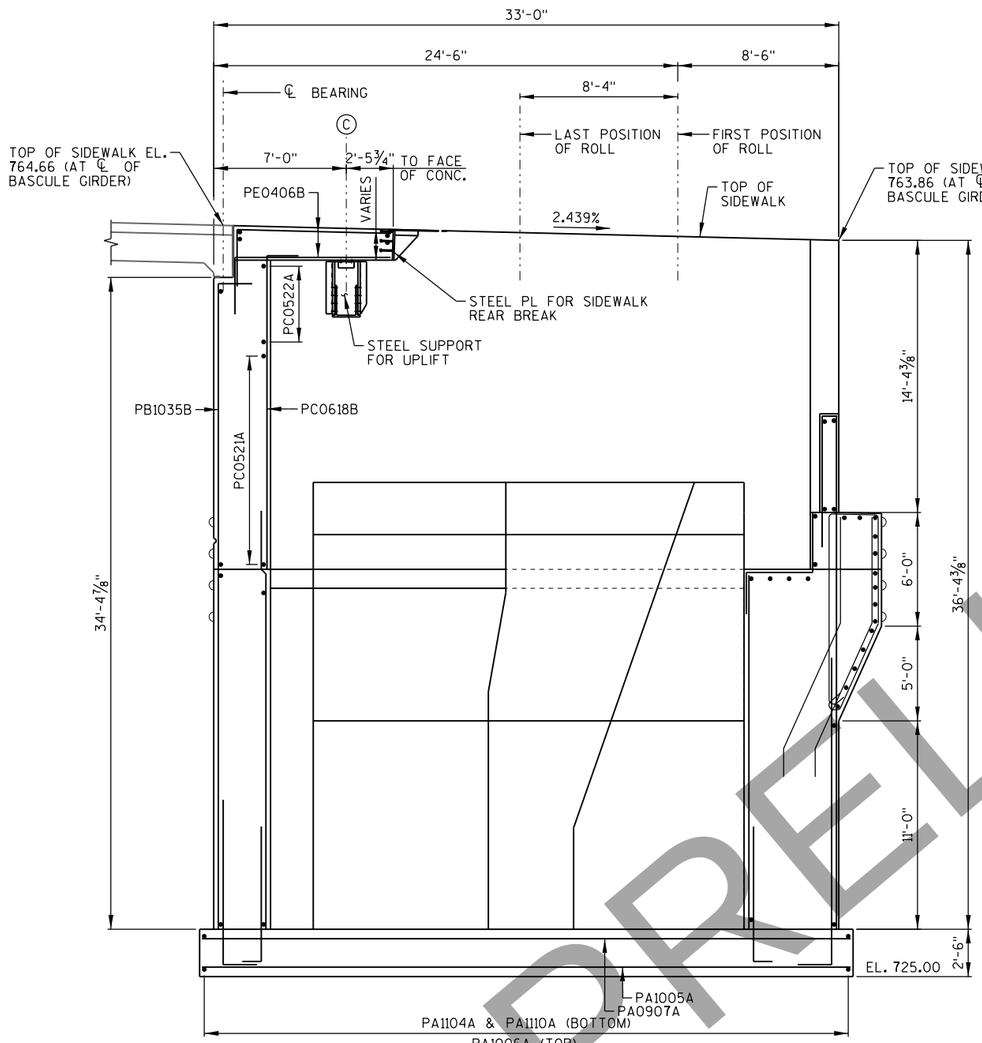
BATCH PRINT SHEET 73 OF 93
DRAFT April 20,

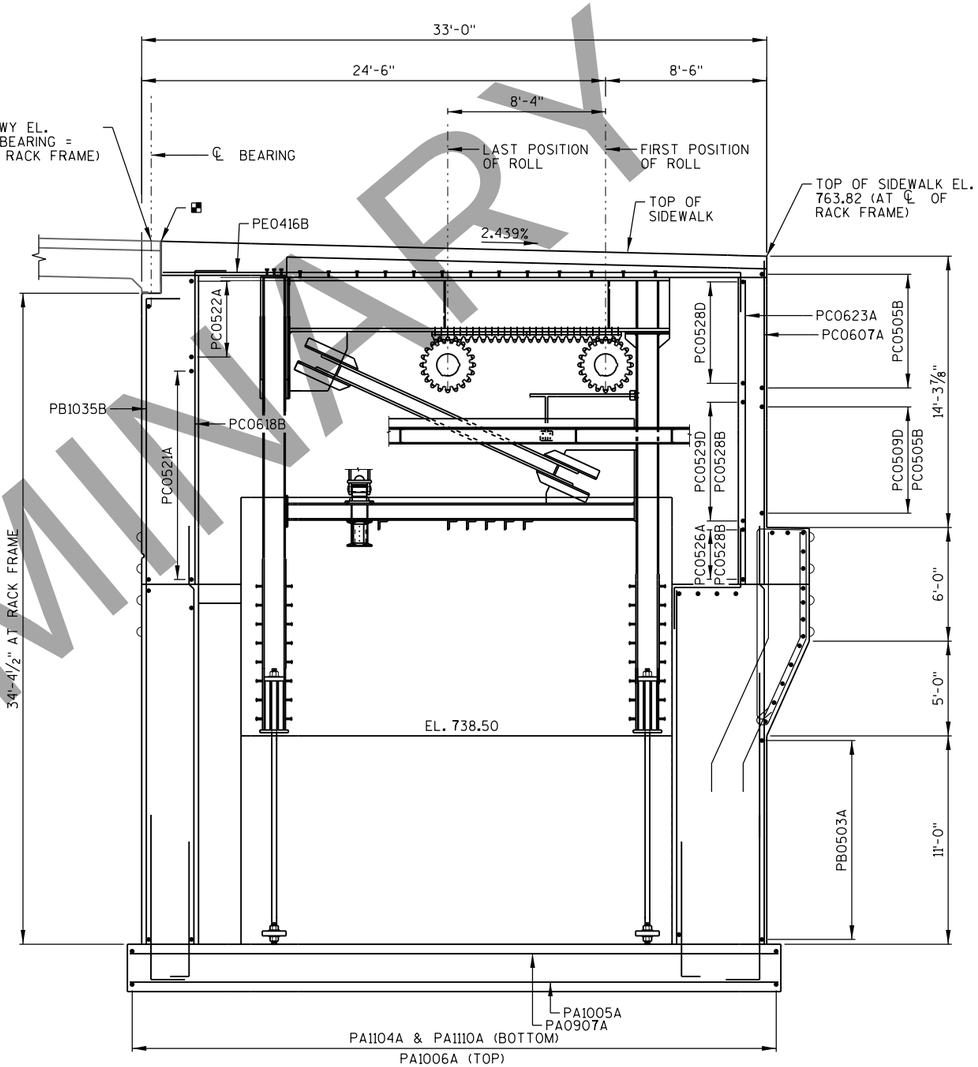
STATE PROJECT NUMBER

4992-03-71



SECTION C-C

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)



SECTION D-D

(DETAILS NOT SHOWN ARE SIMILAR TO SECTION A-A)

NOTE:

FOR SECTION CUTS C-C AND D-D, SEE SHEET "S. BASCULE PIER REINF. PLAN AT TRACK LEVEL".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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S. BASCULE PIER REINFORCEMENT AT RACK FRAME AND BASCULE GIRDER

DRAWING PRE_352

PRELIMINARY

8

8

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PLOT DATE: 3/2/2020
BATCH PRINT SHEET 74 OF 93
PLOT TIME: 5:19:29 PM
DRAFT April 20,

STATE PROJECT NUMBER

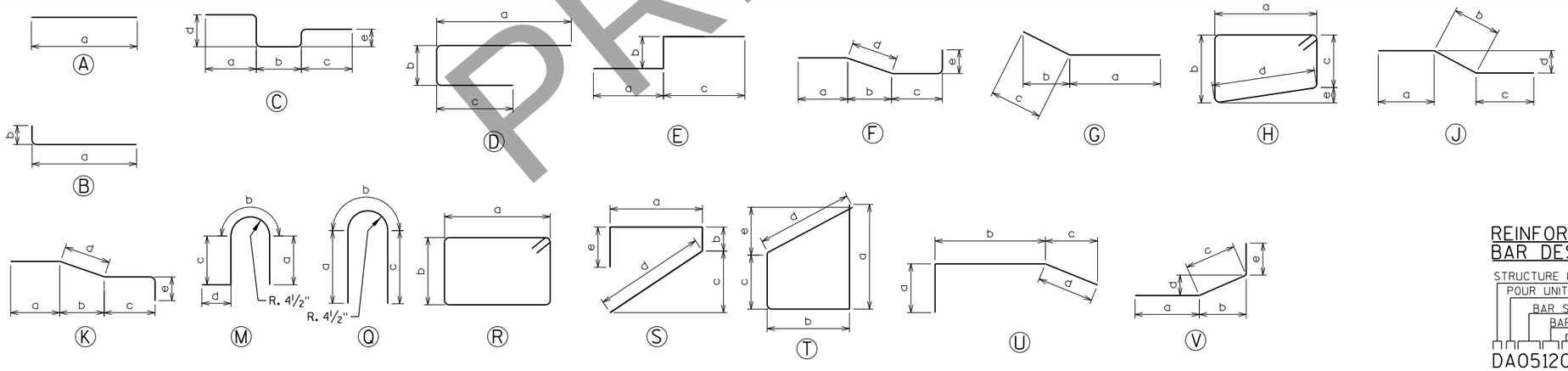
4992-03-71

SOUTH BASCULE PIER BILL OF BARS

BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
PA1101B	X	144	15'-5"	2'-0"							17'-1"	13070	FOOTING DOWELS
PA1002B	X	252	12'-11"	1'-10"							14'-6"	15678	FOOTING DOWELS
PA0603B	X	382	5'-11"	1'-0"							6'-9"	3873	FOOTING DOWELS
B PA1104A		152	24'-9"								24'-9"	20021	FTG REINFORCEMENT (BOTTOM)
B PA1110A		152	45'-2"								45'-2"	36442	FTG REINFORCEMENT (BOTTOM)
B PA1005A		246	34'-0"								34'-0"	35990	FTG REINFORCEMENT (BOTTOM)
PA1006A		152	35'-7"								35'-8"	23273	FTG REINFORCEMENT (TOP)
PA0907A		123	34'-0"								34'-0"	14219	FTG REINFORCEMENT (TOP)
PA0708C		8	3'-7"	2'-4"	3'-7"	1'-0"	1'-0"				10'-10"	177	FTG REINFORCEMENT (SUMP PIT)
PA0809C		3	6'-4"	4'-4"	6'-4"	1'-0"	1'-0"				18'-2"	146	FTG REINFORCEMENT (SUMP PIT)
PB1034A	X	22	25'-5"								25'-5"	2406	APPROACH WALL EXTERIOR REINF. (VERT.)
PB1035B	X	110	34'-4"	1'-10"						X	35'-11"	16981	APPROACH WALL EXTERIOR REINF. (VERT.)
PB0502B	X	40	2'-11"	2'-11"							5'-9"	238	APPROACH WALL EXTERIOR REINF. (HORIZ.)
PB0503A	X	20	59'-8"								59'-8"	1245	APPROACH WALL EXTERIOR REINF. (HORIZ.)
PB0901A	X	30	23'-1"								23'-1"	2355	CHANNEL WALL EXTERIOR (VERT.)
PB0604A	X	6	21'-10"								21'-10"	197	CHANNEL WALL EXTERIOR (VERT.)
PB0905A	X	71	27'-0"								27'-0"	6528	CHANNEL WALL EXTERIOR (VERT.)
PB0906B	X	8	21'-10"	1'-2"							22'-9"	619	CHANNEL WALL EXTERIOR (VERT.)
PB0502B	X	24	2'-11"	2'-11"							5'-9"	143	CHANNEL WALL EXTERIOR (HORIZ.)
PB0503A	X	12	59'-8"								59'-8"	747	CHANNEL WALL EXTERIOR (HORIZ.)
PB1136A	X	144	26'-10"								26'-10"	20529	EAST / WEST EXTERIOR WALL (VERT.)
PB1107A	X	9	18'-2"								18'-2"	869	EAST EXTERIOR WALL (VERT.)
PB0508A	X	34	32'-8"								32'-8"	1158	EAST / WEST EXTERIOR WALL (HORIZ.)
PB0509B	X	7	25'-10"	2'-8"							28'-4"	207	EAST EXTERIOR WALL (HORIZ.)
PB0531B	X	7	3'-0"	2'-8"							5'-6"	40	EAST EXTERIOR WALL (HORIZ.)
PB0937A	X	4	5'-0"								5'-0"	68	EAST EXTERIOR WALL (DIAG.)
PB0610A	X	109	22'-1"								22'-1"	3615	APPROACH WALL INTERIOR REINF. (VERT.)
PB0502B	X	40	2'-11"	2'-11"							5'-9"	238	APPROACH WALL INTERIOR REINF. (HORIZ.)
PB0511A	X	20	54'-4"								54'-4"	1133	APPROACH WALL INTERIOR REINF. (HORIZ.)
PB0612A	X	37	18'-10"								18'-10"	1047	CHANNEL WALL INTERIOR (VERT.)
PB0613E	X	8	3'-3"	1'-6"	3'-3"						7'-8"	92	CHANNEL WALL INTERIOR (VERT.)
PB0614E	X	45	3'-3"	3'-6"	3'-0"						9'-5"	636	CHANNEL WALL INTERIOR (VERT.)
PB0502B	X	38	2'-11"	2'-11"							5'-9"	226	CHANNEL WALL INTERIOR (HORIZ.)
PB0515B	X	40	5'-10"	3'-1"							8'-10"	367	CHANNEL WALL INTERIOR (HORIZ.)
PB0516D	X	19	3'-1"	44'-8"	3'-1"						50'-7"	1002	CHANNEL WALL INTERIOR (HORIZ.)
PB0522A	X	3	50'-10"								50'-10"	159	CHANNEL WALL INTERIOR (HORIZ.)
PB0617E	X	51	18'-10"	1'-6"	3'-3"						23'-4"	1787	EAST / WEST INTERIOR WALL (VERT.)
PB0628A	X	13	18'-10"								18'-10"	368	EAST INTERIOR WALL (VERT.)
PB0518A	X	38	27'-4"								27'-4"	1083	EAST / WEST INTERIOR WALL (HORIZ.)
PB0628A	X	6	18'-10"								18'-10"	170	EAST WALL (SUB. CABLE BLOCKOUT)
PB0519H	X	125	2'-3"	10'-8"	5'-10"	5'-4"	4'-10"				24'-5"	3178	FENDER
PB0520J	X	94	5'-10"	7'-4"	1'-6"	3'-0"					14'-6"	1426	FENDER
PB0521H	X	18	3'-4"	10'-9"	5'-10"	5'-11"	4'-11"				26'-2"	490	FENDER
PB0427A	X	27	23'-9"								23'-9"	428	FENDER
PB0429A	X	10	4'-9"							X	4'-9"	32	FENDER
PB0430B	X	6	2'-4"	2'-4"							4'-7"	18	FENDER
PB0523A	X	98	5'-8"								5'-8"	579	TRACK LEVEL WALKWAY
PB0524A	X	8	7'-11"								7'-11"	66	TRACK LEVEL WALKWAY
PB0525A	X	28	29'-10"								29'-10"	871	TRACK LEVEL WALKWAY
PB0526A	X	12	5'-3"								5'-3"	66	TRACK LEVEL WALKWAY
PB0532A	X	2	4'-5"								4'-5"	9	TRACK LEVEL WALKWAY
PB0533A	X	4	6'-8"								6'-8"	28	TRACK LEVEL WALKWAY

BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
PC0601A	X	12	17'-1"								17'-1"	309	APPROACH WALL EXTERIOR REINF. (VERT.)
PC0602B	X	62	8'-1"	5'-0"							12'-11"	1203	APPROACH WALL EXTERIOR REINF. (VERT.)
PC0503B	X	36	2'-11"	2'-11"							5'-9"	214	APPROACH WALL EXTERIOR REINF. (HORIZ.)
PC0504A	X	16	59'-8"								59'-8"	996	APPROACH WALL EXTERIOR REINF. (HORIZ.)
PC0505A	X	4	5'-1"								5'-1"	21	APPROACH WALL EXTERIOR REINF. (HORIZ.)
PC0406B	X	12	3'-1"	3'-1"							6'-1"	49	APPROACH WALL EXTERIOR REINF. (VERT.)
PC0607A	X	16	17'-0"								17'-0"	409	CHANNEL WALL EXTERIOR (VERT.)
PC0608A	X	4	6'-8"								6'-8"	40	CHANNEL WALL EXTERIOR (VERT.)
PC0406B	X	20	3'-1"	3'-1"							6'-1"	81	CHANNEL WALL EXTERIOR (VERT.)
PC0503B	X	17	2'-11"	2'-11"							5'-9"	101	CHANNEL WALL EXTERIOR (HORIZ.)
PC0505B	X	21	9'-5"	1'-2"							10'-5"	229	CHANNEL WALL EXTERIOR (HORIZ.)
PC0509D	X	7	1'-2"	4'-6"	1'-2"						6'-7"	48	CHANNEL WALL EXTERIOR (HORIZ.)
PC0510D	X	7	0'-8"	1'-2"	2'-11"						4'-6"	33	CHANNEL WALL EXTERIOR (HORIZ.)
PC0512D	X	8	2'-11"	2'-2"	1'-2"						6'-0"	50	CHANNEL WALL EXTERIOR (HORIZ.)
PC0613A	X	38	16'-8"							X	16'-8"	954	WEST EXTERIOR WALL (VERT.)
PC0648A	X	31	16'-10"							X	16'-10"	782	EAST EXTERIOR WALL (VERT.)
PC0649A	X	2	16'-4"								16'-4"	49	EAST EXTERIOR WALL (VERT.)
PC0406B	X	76	3'-1"	3'-1"							6'-1"	309	EAST / WEST EXTERIOR WALL (VERT.)
PC0614B	X	7	8'-1"	3'-5"							11'-4"	119	EAST EXTERIOR WALL (VERT.)
PC0515A	X	28	32'-8"								32'-8"	954	EAST / WEST EXTERIOR WALL (HORIZ.)
PC0516A	X	2	30'-4"								30'-4"	63	EAST / WEST EXTERIOR WALL (HORIZ.)
PC0517B	X	7	26'-8"	1'-2"							27'-8"	202	EAST EXTERIOR WALL (HORIZ.)
PC0511A	X	28	5'-0"								5'-0"	146	EAST / WEST EXTERIOR WALL (AT ACTUATOR)
PC0618B	X	42	16'-6"	3'-1"							19'-5"	1225	APPROACH WALL INTERIOR REINF. (VERT.)
PC0619F	X	10	10'-6"	6'-7"	0'-4"	7'-8"	1'-0"				19'-0"	285	APPROACH WALL INTERIOR REINF. (VERT.)
PC0620F	X	62	12'-10"	4'-2"	0'-8"	7'-9"	3'-6"			X	24'-3"	2258	APPROACH WALL INTERIOR REINF. (VERT.)
PC0503B	X	34	2'-11"								2'-10"	99	APPROACH WALL INTERIOR REINF. (HORIZ.)
PC0521A	X	12	57'-4"								57'-4"	718	APPROACH WALL INTERIOR REINF. (HORIZ.)
PC0522A	X	10	10'-6"								10'-6"	110	APPROACH WALL INTERIOR REINF. (HORIZ.)
PC0537A	X	6	30'-8"								30'-8"	192	APPROACH WALL INTERIOR REINF. (HORIZ.)
PC0541C	X	10	3'-3"	2'-2"	3'-3"	2'-3"				X	12'-8"	132	APPROACH WALL INTERIOR REINF. (HORIZ.)
PC0642B	X	20	6'-2"	5'-0"							11'-0"	330	APPROACH WALL INTERIOR REINF. (HORIZ.)
PC0543M	X	20	1'-2"	1'-2"	1'-11"	0'-10"					4'-9"	98	APPROACH WALL INTERIOR REINF. AT BARRIER (VERT.)
PC0739G	X	32	2'-3"	3'-0"	5'-7"						7'-8"	501	APPROACH WALL REAR BREAK THREADED BAR
PC0623A	X	14	16'-4"								16'-4"	344	CHANNEL WALL INTERIOR (VERT.)
PC0624B	X	4	5'-9"	1'-2"							6'-9"	41	CHANNEL WALL INTERIOR (VERT.)
PC0638B	X	36	6'-10"	0'-8"							7'-4"	399	CHANNEL WALL INTERIOR (VERT.)
PC0525E	X	7	2'-11"	0'-8"	1'-2"						4'-6"	33	CHANNEL WALL INTERIOR (HORIZ.)
PC0526A	X	4	57'-4"								57'-4"	239	CHANNEL WALL INTERIOR (HORIZ.)
PC0527B												0	BAR MARK NOT USED
PC0528B	X	20	8'-3"	1'-2"							9'-3"	194	CHANNEL WALL INTERIOR (HORIZ.)
PC0529D	X	7	1'-2"	4'-6"	1'-2"						6'-7"	48	CHANNEL WALL INTERIOR (HORIZ.)
PC0630A	X	29	16'-8"							X	16'-8"	728	EAST / WEST INTERIOR WALL (VERT.)
PC0631A	X	25	16'-10"							X	16'-10"	631	EAST / WEST INTERIOR WALL (VERT.)
PC0632B	X	4	8'-1"	1'-2"							9'-1"	55	EAST / WEST INTERIOR WALL (VERT.)
PC0633A	X	1	16'-4"								16'-4"	25	EAST / WEST INTERIOR WALL (VERT.)
PC0534A	X	28	28'-10"								28'-10"	842	EAST / WEST INTERIOR WALL (HORIZ.)
PC0535A	X	2	19'-9"								19'-9"	41	EAST / WEST INTERIOR WALL (HORIZ.)
PC0536B	X	8	24'-0"	1'-2"							25'-0"	209	EAST / WEST INTERIOR WALL (HORIZ.)
PC0511A	X	28	5'-0"								5'-0"	146	EAST / WEST INTERIOR WALL (AT REAR LOCK)
PC0444A	X	15	23'-9"								23'-9"	238	FENDER
PC0445B	X	6	5'-11"	5'-8"							11'-6"	46	FENDER
PC0446A	X	4	5'-11"								5'-11"	16	FENDER

B INDICATES BARS BUNDLED IN PAIRS



NOTES:

ALL BEND IN REINFORCING STEEL TO BE MADE ABOUT A PIN OF THE MINIMUM DIAMETER ALLOWED BY THE STANDARD SPECIFICATIONS.

TOLERANCES IN CUTTING AND BENDING BARS ARE AS ESTABLISHED IN MANUAL OF STANDARD PRACTICE OF THE REINFORCING STEEL INSTITUTE AND DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE.

REINFORCEMENT SHALL BE BUNDLED AND TAGGED AS TO THE LOCATION AS SHOWN ON THIS SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

S. BASCULE PIER BILL OF BARS - 1

DRAWING PRE_353

REINFORCEMENT BAR DESIGNATION

STRUCTURE UNIT DESIGNATOR
POUR UNIT DESIGNATOR
BAR SIZE
BAR SEQUENCE
BENT TYPE

DA0512C

PRELIMINARY

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PLOT DATE: 3/2/2020 PLOT TIME: 5:19:52 PM
BATCH PRINT SHEET 75 OF 93

STATE PROJECT NUMBER

4992-03-71

SOUTH BASCULE PIER BILL OF BARS

BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
PD0601A	X	14	4'-0"								4'-0"	84	EXTERIOR STAIRCASE
PD0402A	X	10	5'-2"								5'-2"	35	EXTERIOR STAIRCASE
PD0403A	X	28	3'-8"								3'-8"	69	EXTERIOR STAIRCASE
PD0404S	X	55	1'-0"	0'-0"	0'-10"	0'-11"	0'-0"				2'-8"	98	EXTERIOR STAIRCASE
PE0601D	X	4	3'-6"	3'-3"	3'-6"						9'-11"	60	SIDEWALK AT END OF BARRIER (VERT.)
PE0402D	X	4	3'-6"	1'-2"	3'-6"						8'-0"	21	SIDEWALK AT ENDS OF BARRIER (HORIZ.)
PE0403A	X	28	34'-0"								34'-0"	636	SIDEWALK TOP & BOTTOM (LONG.)
PE0404B	X	4	32'-3"	1'-2"							33'-4"	89	SIDEWALK TOP & BOTTOM (LONG.)
PE0405B	X	16	31'-7"	1'-2"							32'-8"	350	SIDEWALK TOP & BOTTOM (LONG.)
PE0406B	X	12	8'-1"	3'-0"							11'-0"	88	SIDEWALK TOP & BOTTOM (LONG.)
PE0407A	X	8	6'-1"								6'-1"	33	SIDEWALK TOP & BOTTOM (LONG.)
PE0408A	X	10	4'-8"								4'-8"	31	SIDEWALK TOP & BOTTOM AT PLATFORM (LONG.)
PE0509A	X	4	6'-1"								6'-1"	25	SIDEWALK TOP & BOTTOM (TRANS.)
PE0510A	X	114	10'-0"								10'-0"	1189	SIDEWALK TOP & BOTTOM (TRANS.)
PE0611A	X	16	14'-4"								14'-4"	344	SIDEWALK TOP & BOTTOM AT PLATFORM (TRANS.)
PE0512A	X	16	12'-4"								12'-4"	206	SIDEWALK TOP & BOTTOM (TRANS.)
PE0513A	X	36	16'-1"								16'-1"	604	SIDEWALK TOP & BOTTOM (TRANS.)
PE0514A	X	12	5'-9"								5'-9"	72	SIDEWALK TOP & BOTTOM (TRANS.)
PE0415R	X	72	0'-10"	1'-10"						X	5'-10"	281	SIDEWALK AT RACK FRAME STIRRUP (VERT.)
PE0416B	X	6	30'-6"	1'-2"							31'-7"	127	SIDEWALK AT RACK FRAME (HORIZ.)
PE0417A	X	16	6'-3"								6'-3"	67	SIDEWALK ABOVE UPLIFT SUPPORT (LONG.)
PE0618J	X	5	3'-6"	13'-7"	3'-1"	9'-2"					19'-10"	149	EXTERIOR STAIRCASE
PE0419J	X	5	1'-10"	13'-7"	1'-8"	9'-2"					16'-11"	57	EXTERIOR STAIRCASE
PE0520A	X	28	5'-0"								5'-0"	146	SIDEWALK ABOVE UPLIFT ACTUATOR
PF0601A	X	62	8'-1"								8'-1"	753	REAR BREAK REINFORCEMENT
PF0602A	X	6	30'-8"								30'-8"	276	REAR BREAK REINFORCEMENT
PF0603A	X	14	34'-8"								34'-8"	729	REAR BREAK REINFORCEMENT
PG05010	X	20	1'-5"	1'-4"	1'-5"						3'-11"	82	BARRIER (VERT.)
PG0502R	X	8	1'-2"	0'-9"						X	4'-6"	38	BARRIER (VERT.)
PG0503A	X	12	8'-0"							X	8'-0"	100	BARRIER (HORIZ.)
PG0404D	X	20	3'-6"	0'-10"	3'-6"					X	7'-8"	102	BARRIER (HORIZ.)
PH1001A	X	48	20'-8"								20'-8"	4269	MASS POUR (VERT.)
PH0602A	X	40	23'-5"								23'-5"	1407	MASS POUR (VERT.)
PH0603J	X	6	12'-6"	5'-4"	5'-7"	0'-11"					23'-1"	208	MASS POUR (VERT.)
PH0604J	X	4	12'-6"	5'-4"	2'-10"	0'-11"					20'-4"	122	MASS POUR (VERT.)
PH0605G	X	6	5'-4"	18'-0"	19'-2"						24'-4"	219	MASS POUR (VERT.)
PH0606A	X	10	14'-8"							X	14'-8"	220	MASS POUR (VERT.)
PH0607E	X	52	17'-10"	0'-8"	5'-5"						23'-7"	1842	MASS POUR (VERT.)
PH0508D	X	22	2'-11"	2'-7"	2'-11"						8'-2"	187	MASS POUR (HORIZ.)
PH0509A	X	22	9'-3"								9'-3"	212	MASS POUR (HORIZ.)
PH0510E	X	22	4'-6"	3'-9"	2'-11"						10'-11"	250	MASS POUR (HORIZ.)
PH0511E	X	22	10'-7"	2'-6"	2'-11"						15'-9"	361	MASS POUR (HORIZ.)
PH0512A	X	22	26'-4"								26'-4"	604	MASS POUR (HORIZ.)
PH0413R	X	48	3'-0"	1'-8"							9'-10"	315	MASS POUR (HORIZ.)

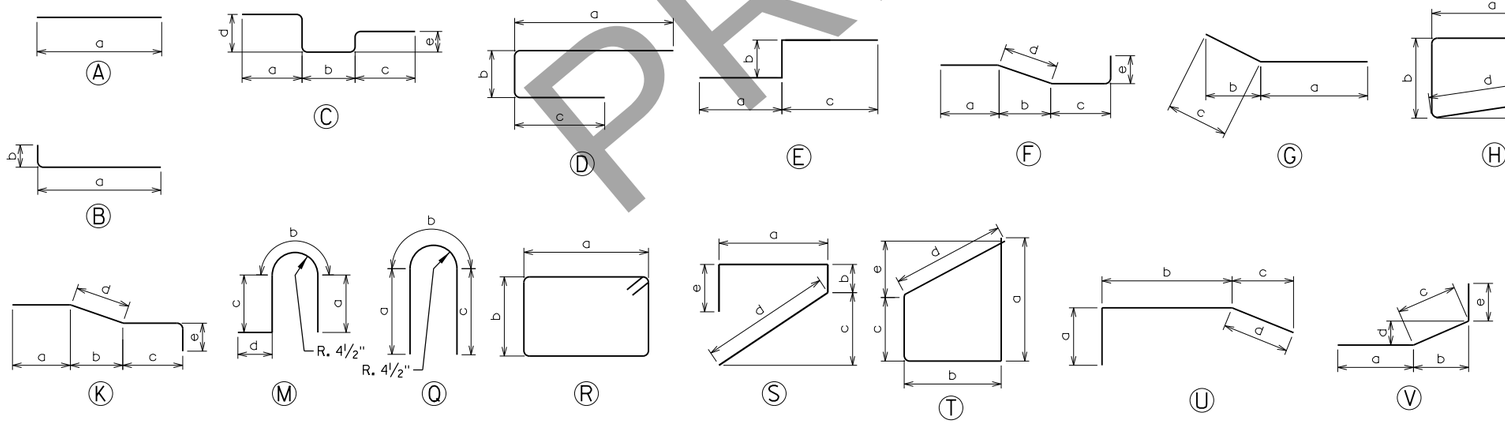
BAR MARK	COATED	NO. REQ'D	DIMENSIONS LEG (A)	LEG (B)	LEG (C)	LEG (D)	LEG (E)	LEG (F)	LEG (G)	BAR SERIES	LENGTH	WEIGHT (LBS.)	LOCATION
PJ0601A	X	8	12'-5"								12'-5"	149	MASS POUR (VERT.)
PJ0602B	X	18	12'-5"	2'-3"							14'-6"	392	MASS POUR (VERT.)
PJ0503D	X	22	2'-11"	2'-7"	2'-11"						8'-2"	187	MASS POUR (HORIZ.)
PJ0504A	X	22	10'-2"								10'-2"	233	MASS POUR (HORIZ.)
PJ0505E	X	22	9'-0"	3'-9"	2'-11"						15'-5"	354	MASS POUR (HORIZ.)
PJ0506E	X	16	8'-7"	2'-6"	2'-11"						13'-9"	229	MASS POUR (HORIZ.)
PJ0507E	X	6	7'-3"	2'-6"	2'-11"					X	12'-5"	78	MASS POUR (HORIZ.)
PJ0508D	X	6	2'-11"	8'-2"	2'-11"						13'-9"	86	MASS POUR (HORIZ.)
PJ0509A	X	16	26'-4"								26'-4"	439	MASS POUR (HORIZ.)
PJ0510A	X	6	22'-5"								22'-5"	140	MASS POUR (HORIZ.)
PJ0411R	X	44	3'-0"	1'-8"							9'-10"	289	MASS POUR (HORIZ.)
PK0601A	X	4	2'-7"								2'-7"	16	MASS POUR (VERT.)
PK0502D	X	46	2'-7"	1'-11"	2'-7"						6'-10"	328	MASS POUR (VERT.)
PK0503D	X	6	2'-7"	3'-6"	2'-7"						8'-5"	53	MASS POUR (VERT.)
PK0504D	X	20	2'-7"	1'-0"	2'-7"						5'-11"	123	MASS POUR (VERT.)
PK0505D	X	6	2'-11"	1'-11"	2'-11"						7'-6"	47	MASS POUR (HORIZ.)
PK0506A	X	6	10'-2"								10'-2"	64	MASS POUR (HORIZ.)
PK0407E	X	6	10'-0"	3'-9"	2'-11"						16'-6"	66	MASS POUR (HORIZ.)
PK0508E	X	6	2'-3"	2'-6"	2'-11"					X	7'-5"	46	MASS POUR (HORIZ.)
PK0509D	X	6	2'-3"	8'-2"	2'-11"						13'-1"	82	MASS POUR (HORIZ.)
PK0510A	X	6	22'-5"								22'-5"	140	MASS POUR (HORIZ.)
PL0501A	X	12	35'-2"								35'-2"	440	CHANNEL WALL (HORIZ.)
										COATED BARS TOTAL WEIGHT =		144790	LBS.
										NON-COATED BARS TOTAL WEIGHT =		130270	LBS.

BAR SERIES TABLE

BAR MARK	NO. REQUIRED	VARYING LEG	LEG LENGTH
PB0429A	2 SERIES OF 5	A	3'-10" TO 5'-8"
PB1035B	2 SERIES OF 55	A	34'-1" TO 34'-7"
PC0613A	1 SERIES OF 38	A	16'-4" TO 17'-1"
PC0648A	1 SERIES OF 31	A	16'-6" TO 17'-1"
PC0620F	2 SERIES OF 31	A	12'-7" TO 13'-1"
PC0541C	2 SERIES OF 5	D & E	1'-1" TO 3'-5"
PC0630A	1 SERIES OF 29	A	16'-4" TO 17'-1"
PC0631A	1 SERIES OF 25	A	16'-6" TO 17'-1"
PE0415R	2 SERIES OF 36	A	6" TO 1'-2"
PG0502R	2 SERIES OF 4	A	7" TO 1'-8"
PG0503A	4 SERIES OF 3	A	7'-1" TO 8'-10"
PG0404D	4 SERIES OF 5	B	7" TO 1'-1"
PH0606A	2 SERIES OF 5	A	8'-6" TO 20'-10"
PJ0507E	2 SERIES OF 3	A	7'-0" TO 7'-6"
PK0508E	2 SERIES OF 3	A	2'-4" TO 3'-1"

CONCRETE QUANTITIES

POUR MARK	CONCRETE QUANTITY (CY)
A	232
B	473
C	235
D	7
E	19
F	12
G	1
H	114
J	94
K	19
L	6
TOTAL	1212



NOTES:

ALL BEND IN REINFORCING STEEL TO BE MADE ABOUT A PIN OF THE MINIMUM DIAMETER ALLOWED BY THE STANDARD SPECIFICATIONS.

TOLERANCES IN CUTTING AND BENDING BARS ARE AS ESTABLISHED IN MANUAL OF STANDARD PRACTICE OF THE REINFORCING STEEL INSTITUTE AND DETAILING MANUAL OF THE AMERICAN CONCRETE INSTITUTE.

REINFORCEMENT SHALL BE BUNDLED AND TAGGED AS TO THE LOCATION AS SHOWN ON THIS SHEET.

REINFORCEMENT BAR DESIGNATION

STRUCTURE UNIT DESIGNATOR
POUR UNIT DESIGNATOR
BAR SIZE
BAR SEQUENCE
BENT TYPE

DA0512C

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

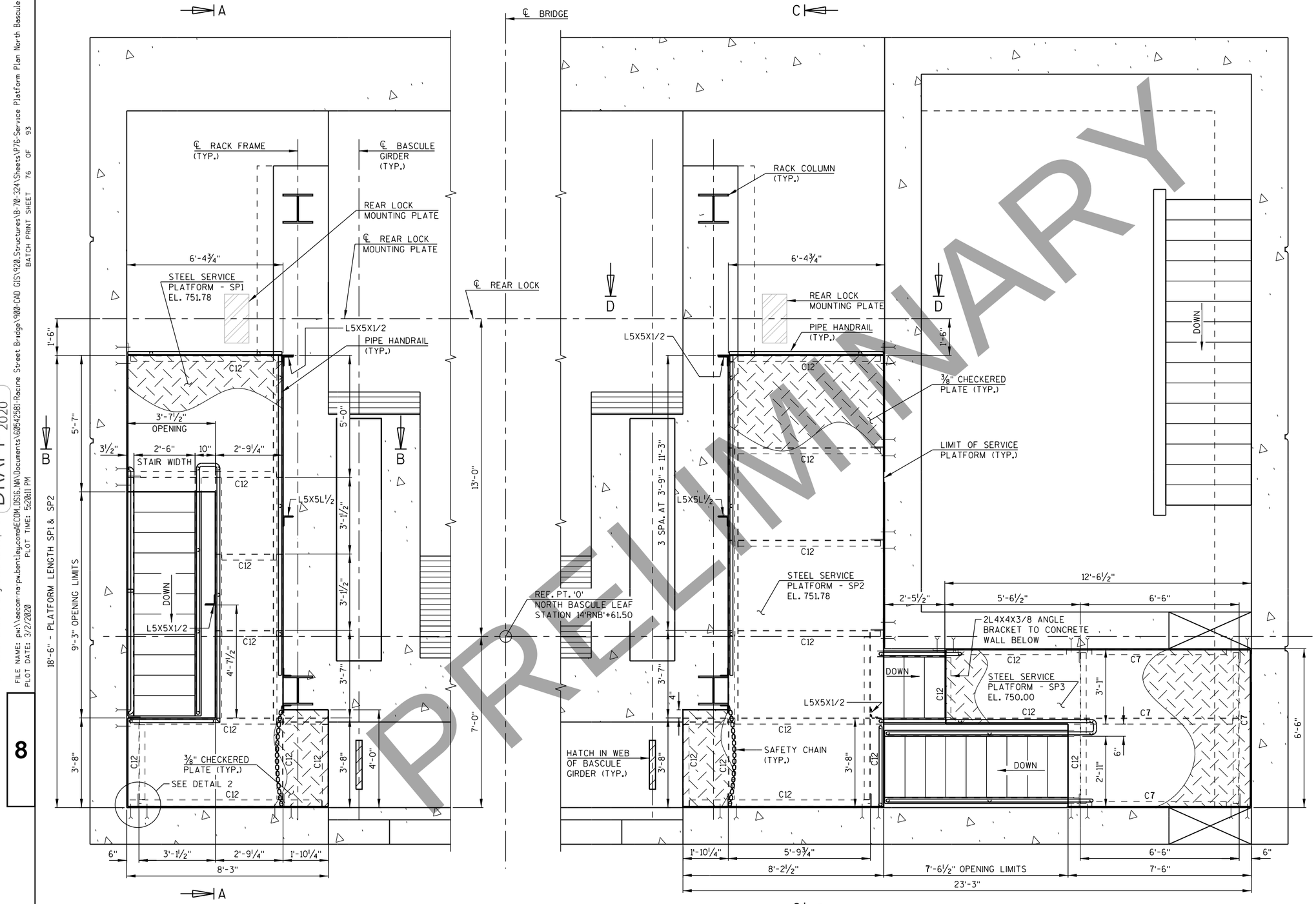
S. BASCULE PIER
BILL OF BARS - 2

DRAWING
PRE_354

PRELIMINARY
DRAFT April 20,

STATE PROJECT NUMBER

4992-03-71



SERVICE PLATFORM PLAN
WEST SIDE OF BASCULE PIER - SP1

SERVICE PLATFORM PLAN
EAST SIDE OF BASCULE PIER - SP2 & SP3

NOTES

ALL C12 FRAMING MEMBERS ARE C12×20.7.

ALL C7 FRAMING MEMBERS ARE C7X14.75.

VERIFY THE AS-BUILT LOCATIONS OF ALL CONCRETE ELEMENTS BEFORE COMPLETION OF SHOP DRAWINGS AND FABRICATION OF THE PLATFORMS, FRAMING AND STAIRWAYS.

SEE SHEET "SERVICE PLATFORM SECTIONS AND DETAILS" FOR SECTIONS A-A, B-B, C-C AND D-D.

SEE SHEET "SERVICE PLATFORM DETAILS" FOR DETAIL 2.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ/CEB | PLANS CK'D. MJA

SERVICE PLATFORM PLAN NORTH BASCULE ABUTMENT

DRAWING P93

PRE_355

PRELIMINARY
DRAFT

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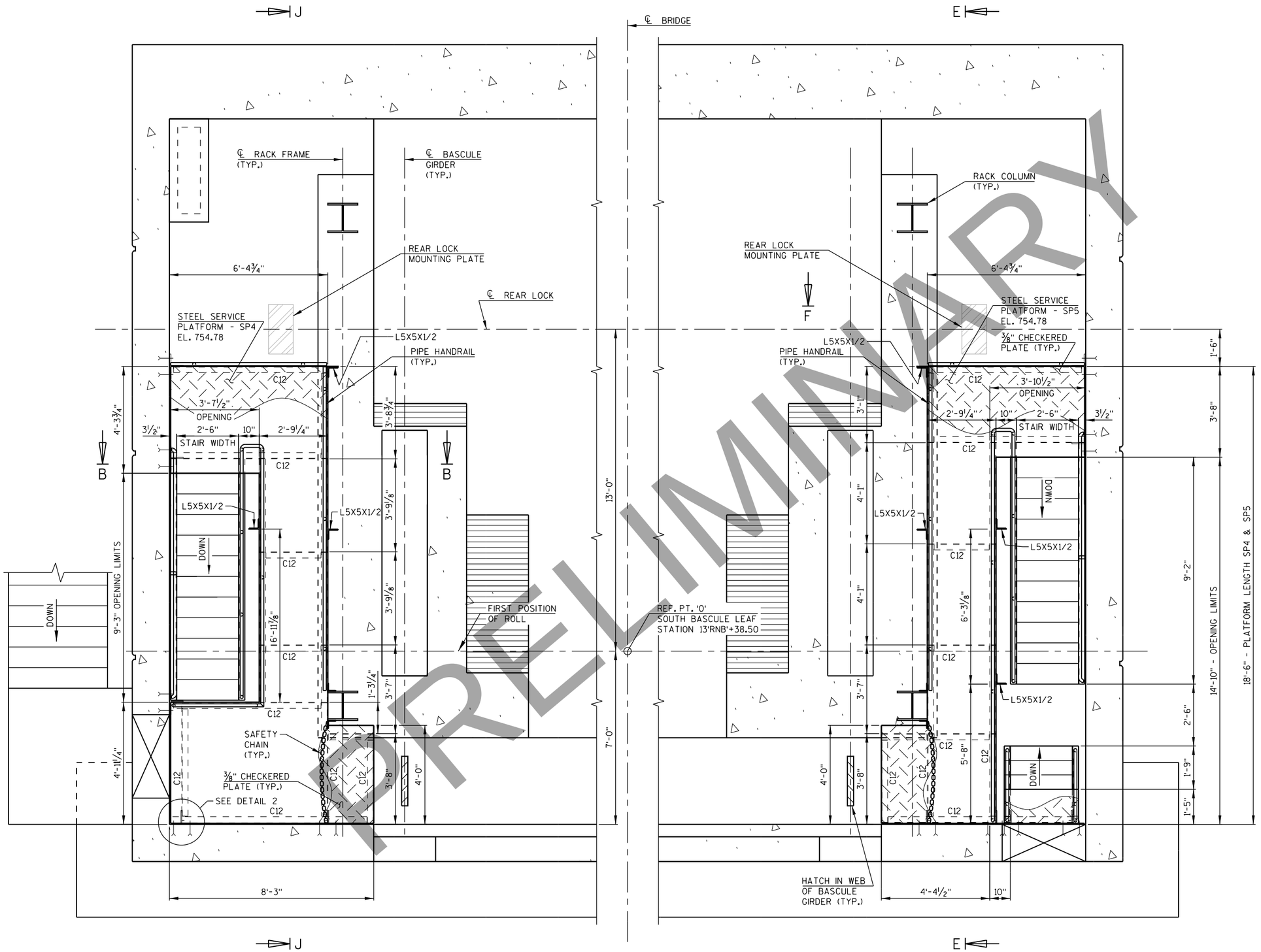
11/20/2020



SERVICE PLATFORM PLAN
EAST SIDE OF BASCULE PIER - SP4

SERVICE PLATFORM PLAN
WEST SIDE OF BASCULE PIER - SP5

NOTES

ALL C12 FRAMING MEMBERS ARE C12x20.7.

SEE SHEET "SERVICE PLATFORM SECTIONS AND DETAILS" FOR SECTIONS B-B, E-E, F-F AND J-J.

SEE SHEET "SERVICE PLATFORM DETAILS" FOR DETAIL 2.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ/CEB | PLANS CK'D. MJA

SERVICE PLATFORM PLAN SOUTH BASCULE PIER

DRAWING P93

PRE_356

PRELIMINARY

8

8

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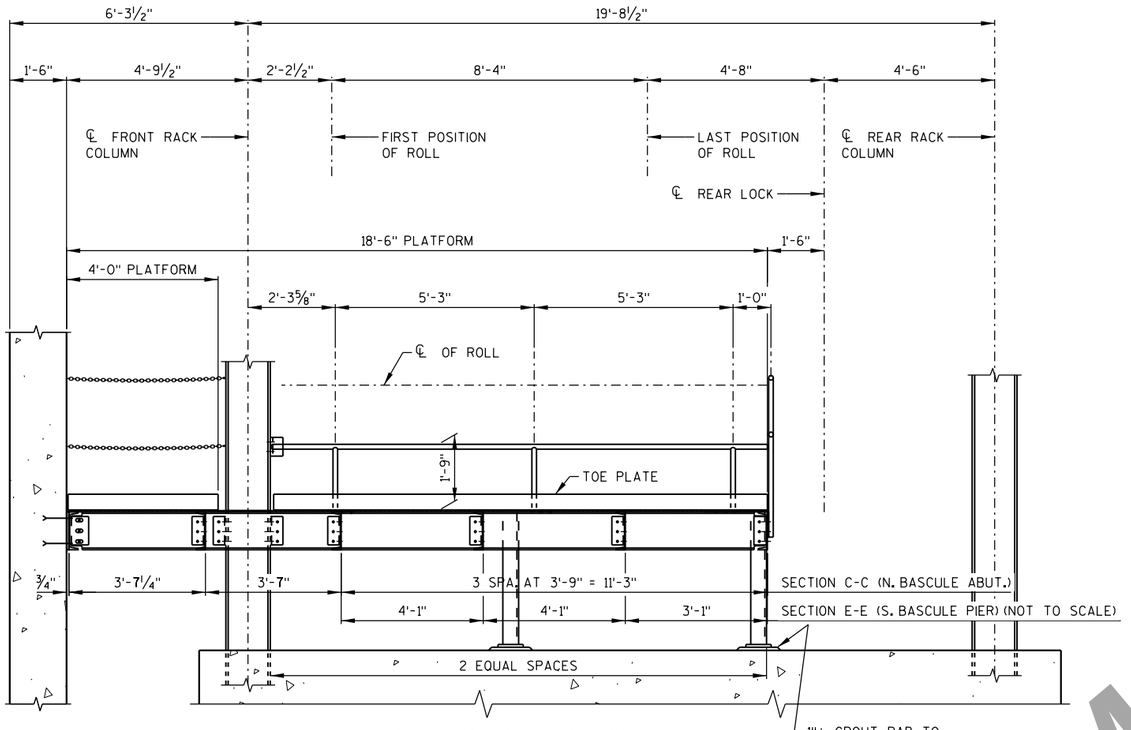
BATCH PRINT SHEET 78 OF 93

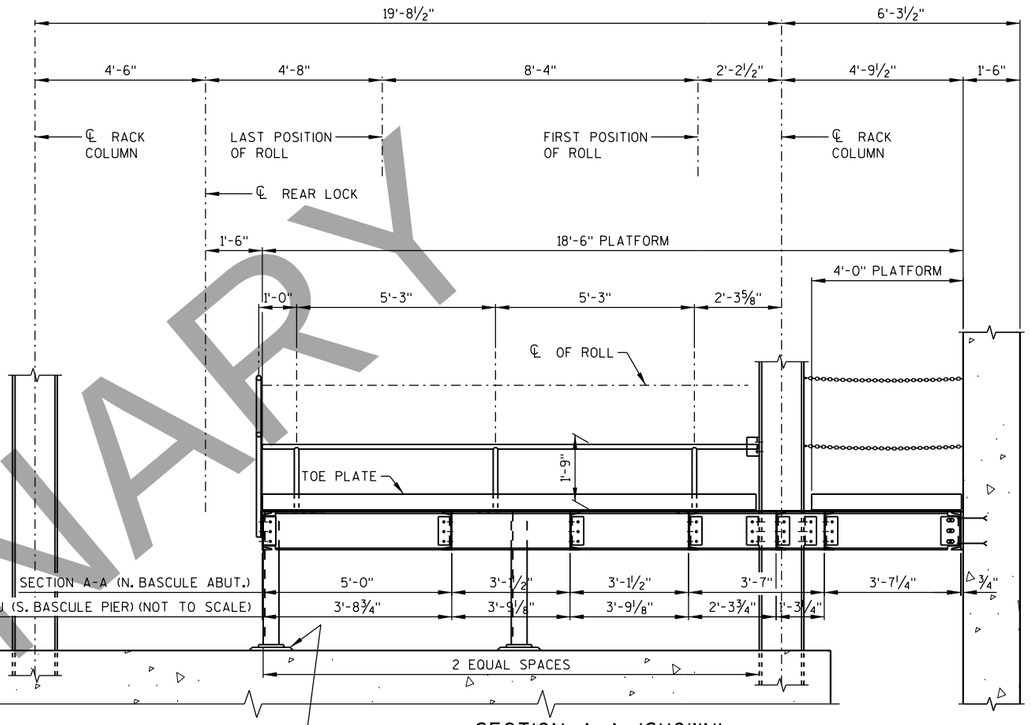
DRAFT
PRELIMINARY

STATE PROJECT NUMBER

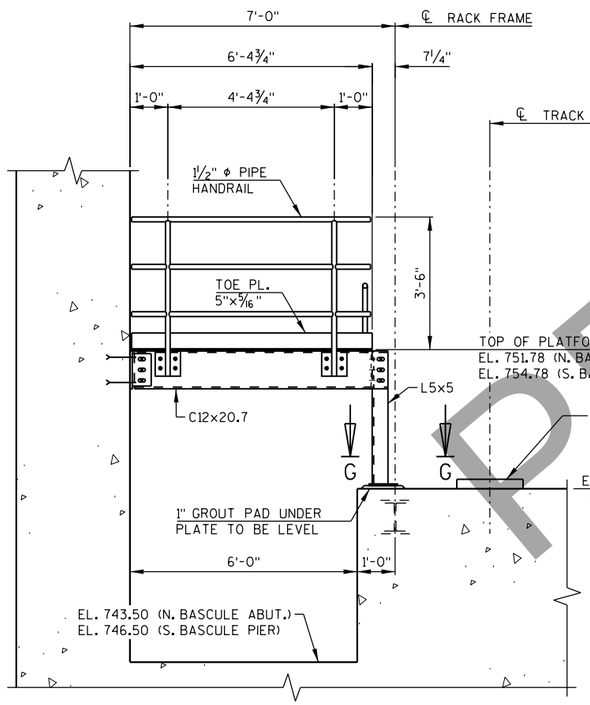
4992-03-71



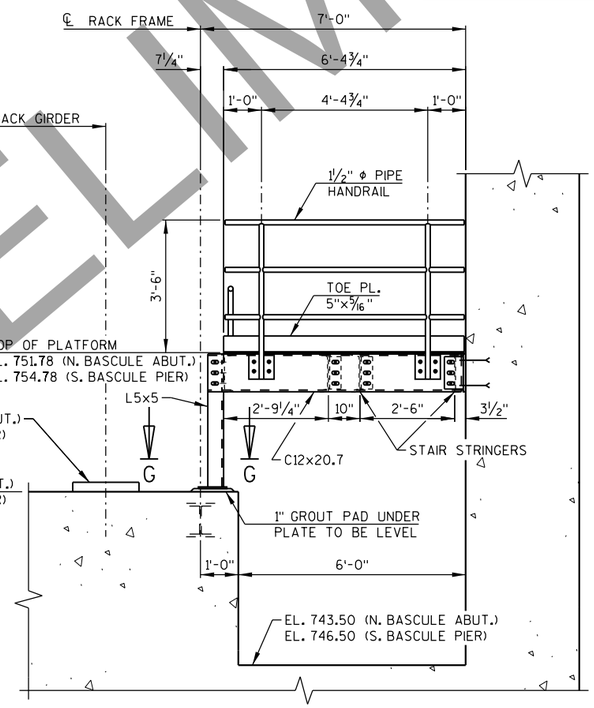
SECTION C-C (SHOWN)
SECTION E-E (SIMILAR)



SECTION A-A (SHOWN)
SECTION J-J (SIMILAR)



SECTION D-D (SHOWN)
SECTION F-F (SIMILAR)



SECTION B-B

NOTES

SEE SHEET "SERVICE PLATFORM PLAN NORTH ABUTMENT" FOR SECTIONS A-A, B-B, C-C AND D-D.
SEE SHEET "SERVICE PLATFORM PLAN SOUTH PIER" FOR SECTIONS B-B, E-E, F-F AND J-J.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY DNJ/CEB | PLANS CK'D. MJA

SERVICE PLATFORM SECTIONS AND DETAILS

DRAWING P93

PRE_357

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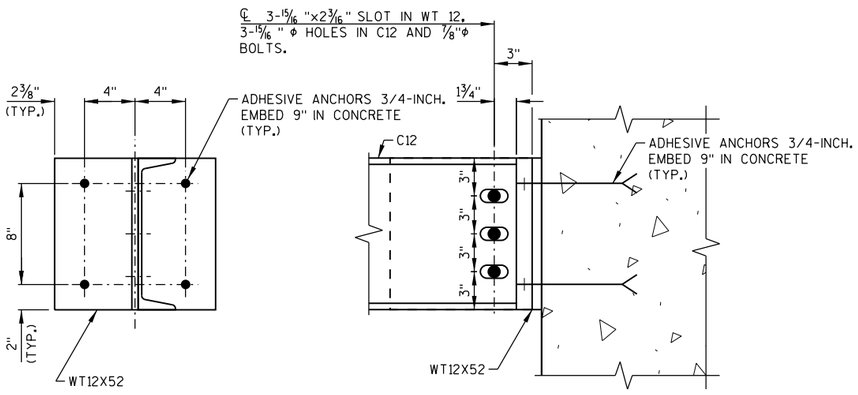
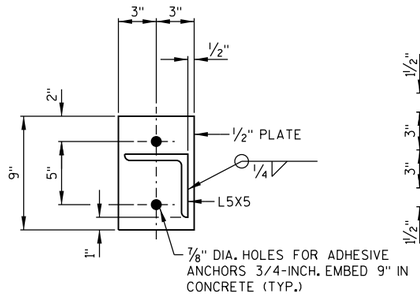
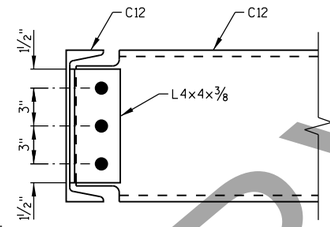


TYPICAL C12 TO WALL CONNECTION



SECTION G-G
TYPICAL AT ALL L-ANGLE COLUMNS



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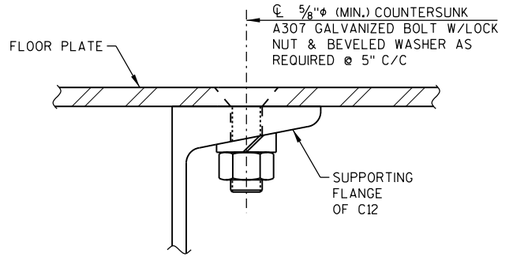
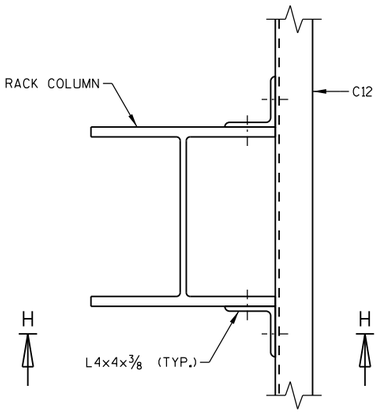
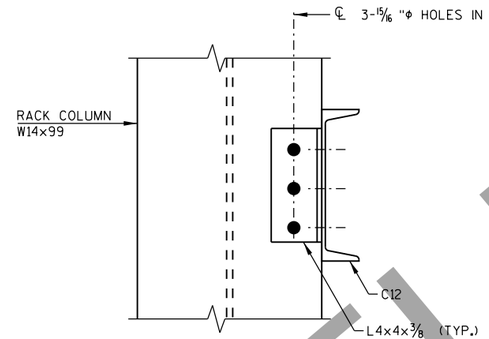


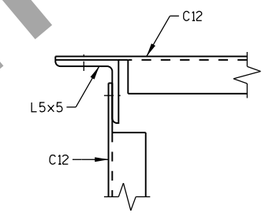
TYPICAL FLOOR PLATE CONNECTION DETAIL



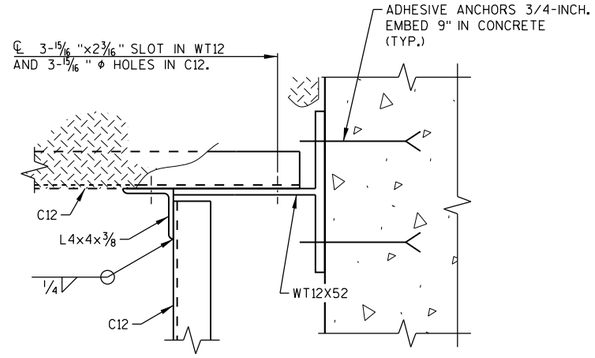
TYPICAL PLAN DETAIL FOR C12 CONNECTION TO RACK COLUMN



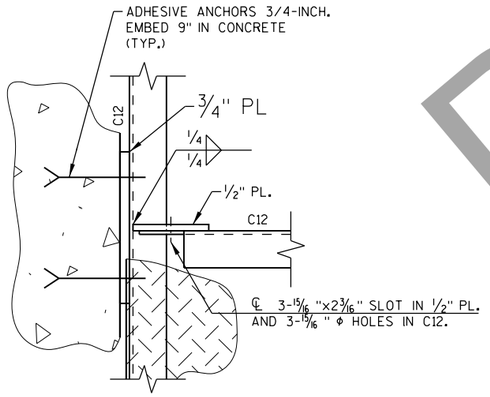
SECTION H-H



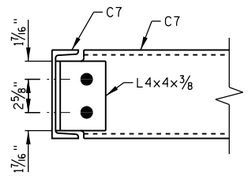
TYPICAL PLAN DETAIL FOR L COLUMN TO C12 CONNECTION



PLAN - DETAIL 1



PLAN - DETAIL 2



TYPICAL C7 CONNECTION

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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SERVICE PLATFORM DETAILS

DRAWING P93

PRE_358

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DRAFT 3/2/2020

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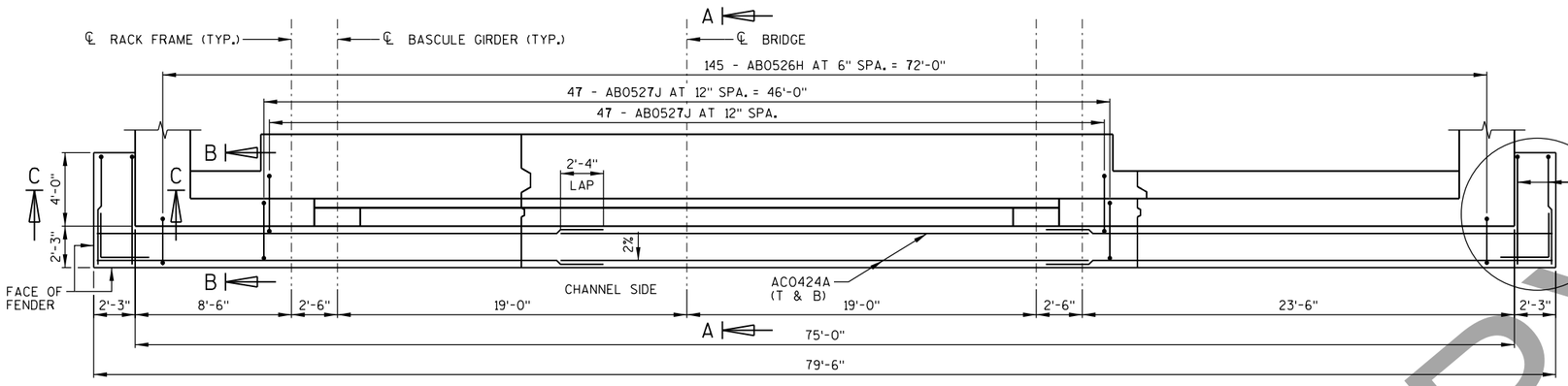
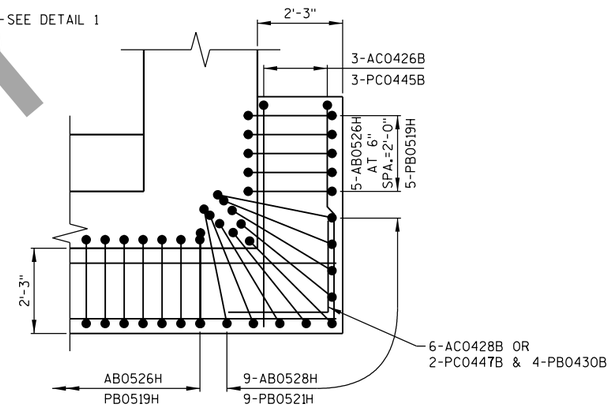
DRAFT April 20, 2020

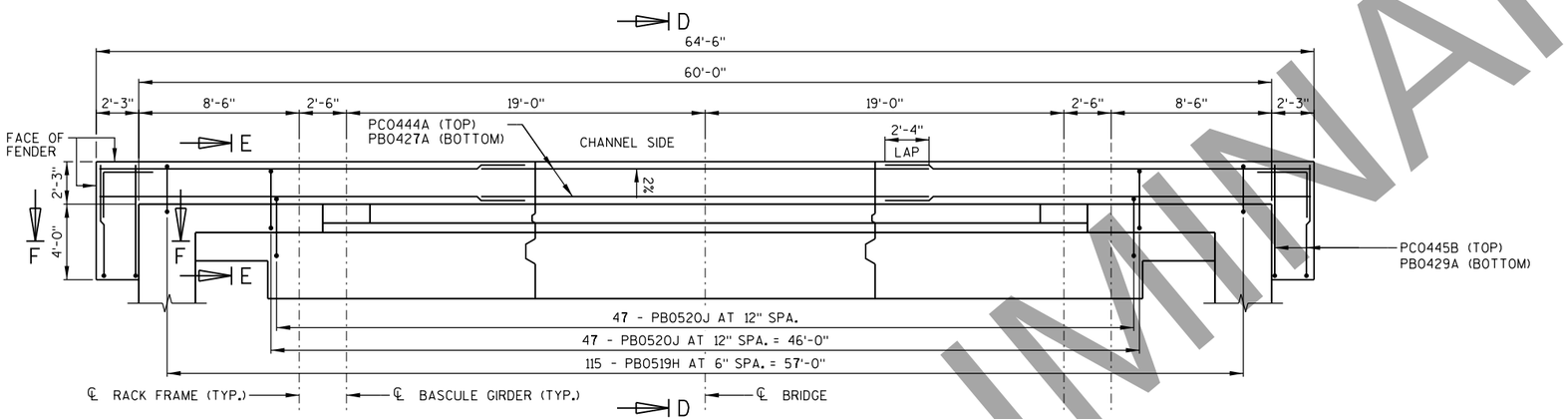


NORTH BASCULE ABUTMENT PLAN

BASCULE ABUTMENT AT TRACK LEVEL

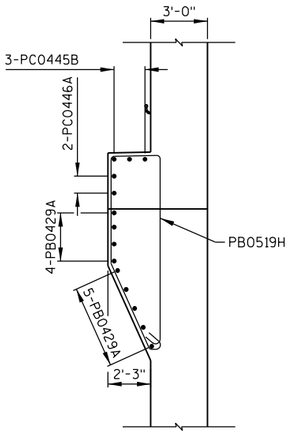


DETAIL 1

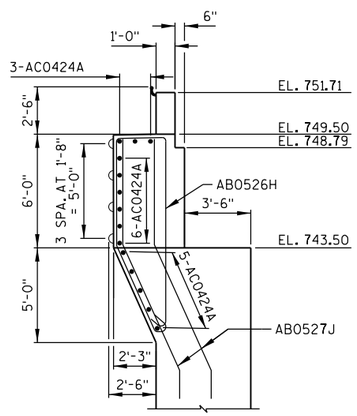


SOUTH BASCULE PIER PLAN

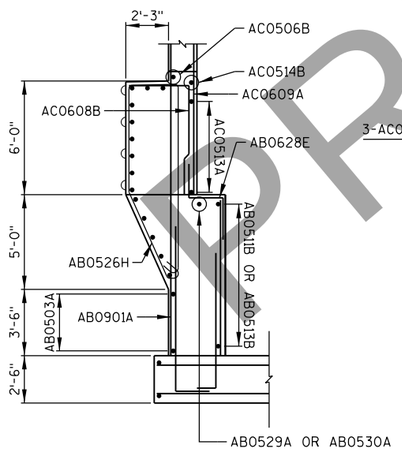
BASCULE PIER AT TRACK LEVEL



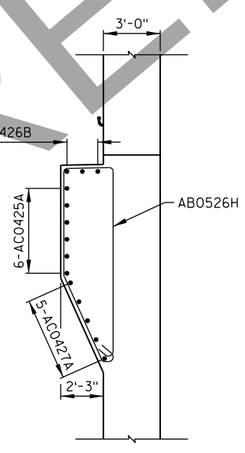
SECTION F-F



SECTION A-A



SECTION B-B



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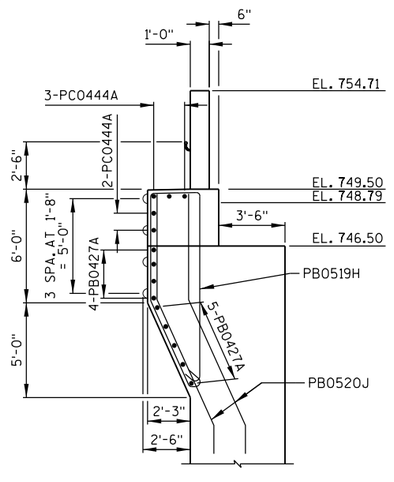

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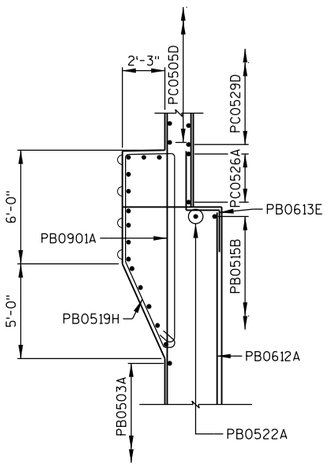

SECTION E-E

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

NAVIGATION FENDER SYSTEM DETAILS - 1

DRAWING PRE_359

PRELIMINARY

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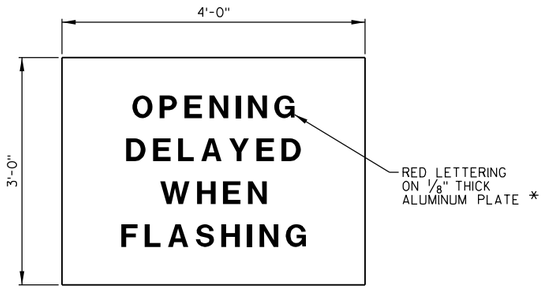
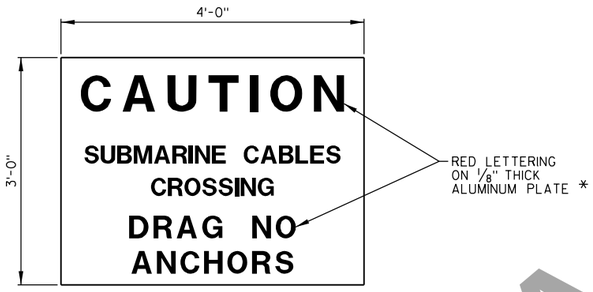
DRAFT April 20, 2020

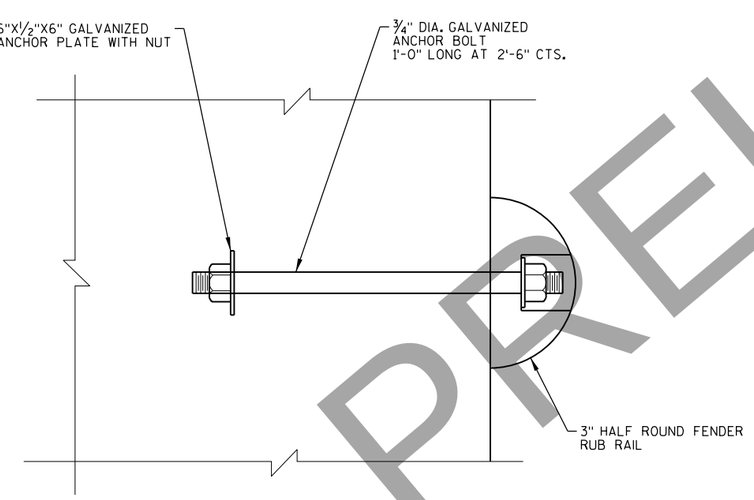


WATERWAY TRAFFIC
SIGNAL SIGN

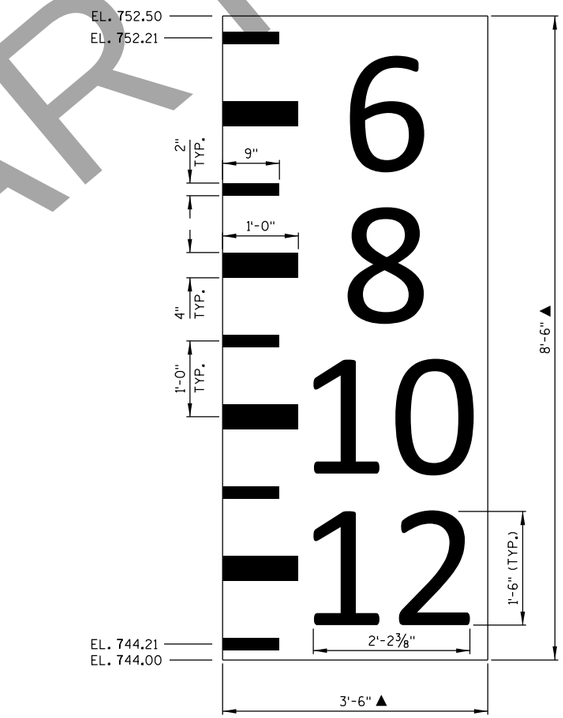


SUBMARINE CABLE
SIGN DETAIL

* USE ALUMINUM ALLOY 5052-H38 COMPLYING WITH ASTM B 209 FOR THE SIGN. SIGN TO COMPLY WITH REQUIREMENTS OF SECTION 637 OF THE STANDARD SPECIFICATIONS



TYPICAL RUB RAIL
CONNECTION DETAIL



▲ PAINT AREA WHITE (FEDERAL COLOR NUMBER 27925)

CLEARANCE GAUGE DETAIL

(LOOKING WEST ON NORTH BASCULE ABUTMENT, LOOKING EAST ON SOUTH BASCULE PIER)

NOTE: SIZE, TYPE AND SPACING OF NUMERALS SHALL CONFORM TO THE FEDERAL HIGHWAY ADMINISTRATION "STANDARD ALPHABET FOR HIGHWAY SIGNS"

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NAVIGATION FENDER SYSTEM DETAILS - 2

DRAWING PRE_360

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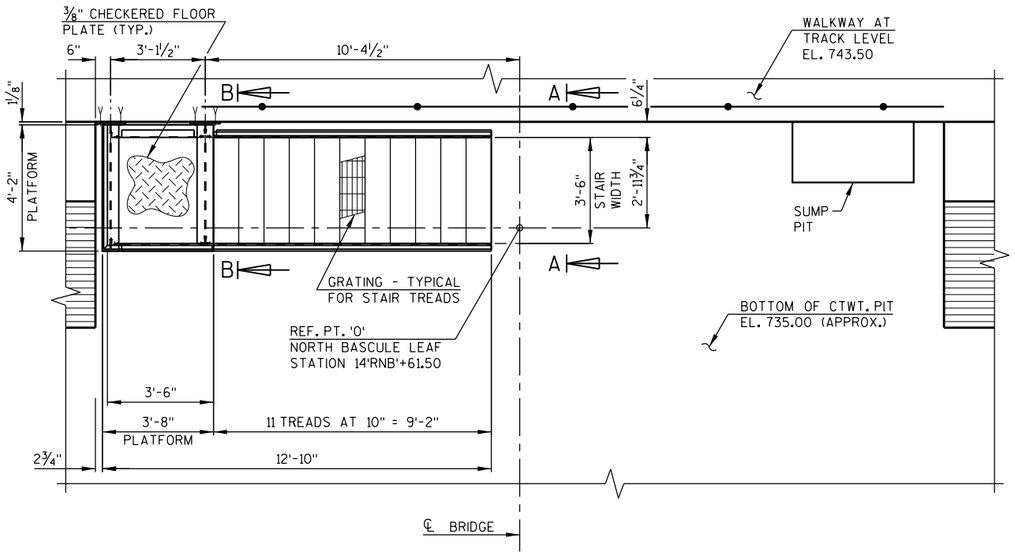
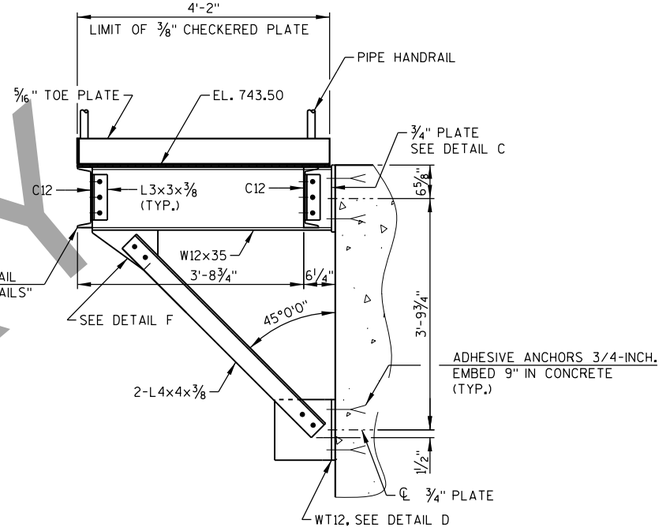
DRAFT
PRELIMINARY

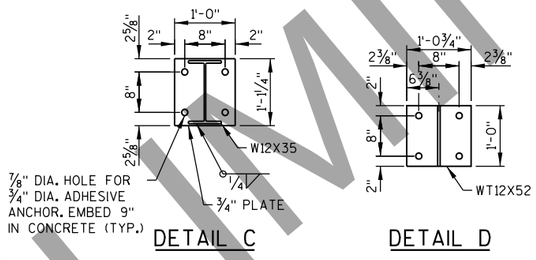
STATE PROJECT NUMBER
4992-03-71



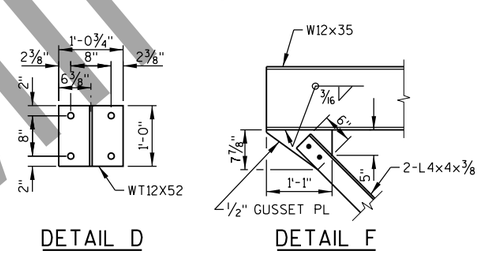
PLAN



SECTION B-B
TYPICAL BRACKET DETAIL

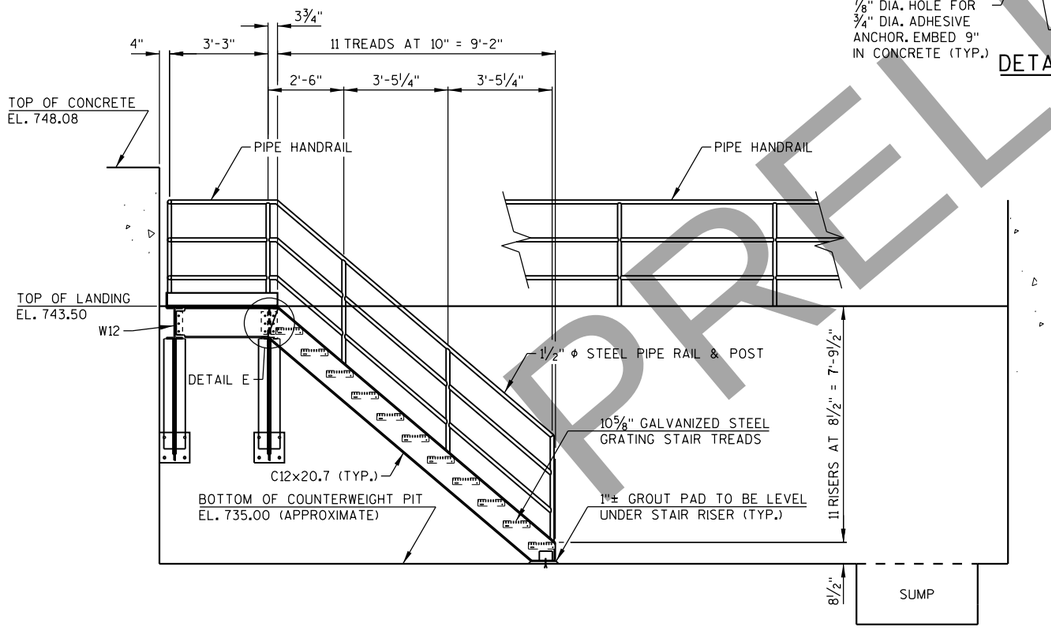


DETAIL C

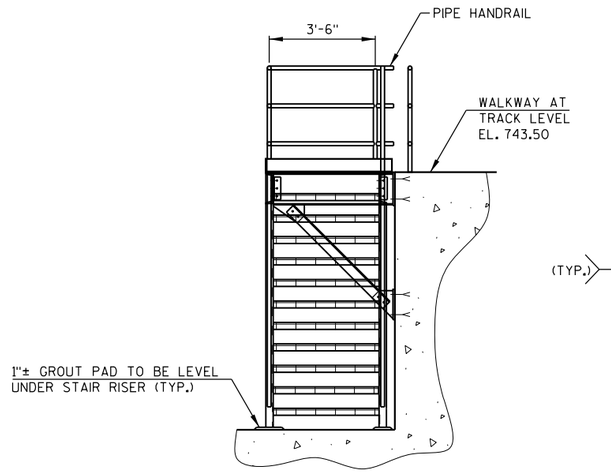


DETAIL D

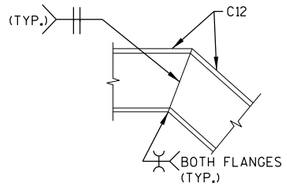
DETAIL F



ELEVATION
(LOOKING SOUTH)



SECTION A-A



DETAIL E

NOTES

THE COST OF PIPE RAILING AND PIPE HANDRAIL IS INCLUDED IN THE BID ITEM "STEEL STAIRS, PLATFORMS AND RAILING."

THE COST OF STEEL STAIRWAY INCLUDING GRATING IS INCLUDED IN THE BID ITEM "STEEL STAIRS, PLATFORMS AND RAILING."

THE COST OF ADHESIVE ANCHORS IS INCLUDED IN THE BID ITEM "STEEL STAIRS, PLATFORMS AND RAILING."

VERIFY AS-BUILT TOP OF CONCRETE ELEVATIONS PRIOR TO STAIR FABRICATION. PROVIDE 1" MINIMUM GROUT PAD FOR COLUMN BASES.

ATTACH GRATING USING GALVANIZED SADDLE CLIPS AND 3/8" ϕ (MIN.) STAINLESS STEEL SELF-TAPPING SCREWS AT APPROX. 4" CTRS.

CAP ALL ENDS OF OPEN HANDRAIL PIPES EXCEPT AT BOTTOM OF POSTS.

STRUCTURAL STEEL FOR STAIRWAY IS ASTM 709, GRADE 36.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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STEEL STAIR PLAN & ELEVATION NORTH BASCULE ABUT. - 1

DRAWING P93

PRE_361

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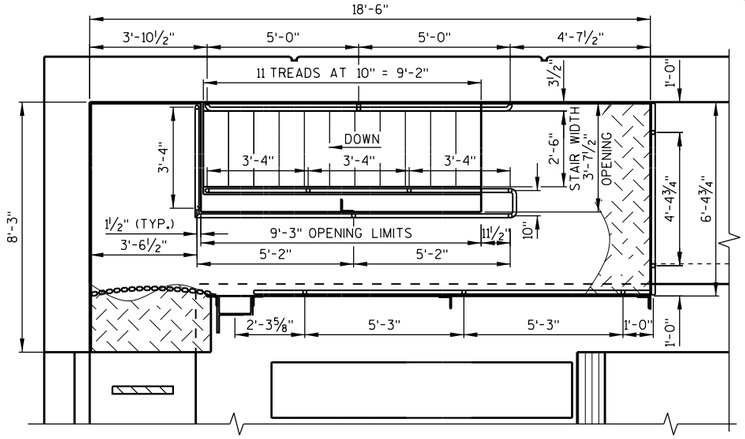
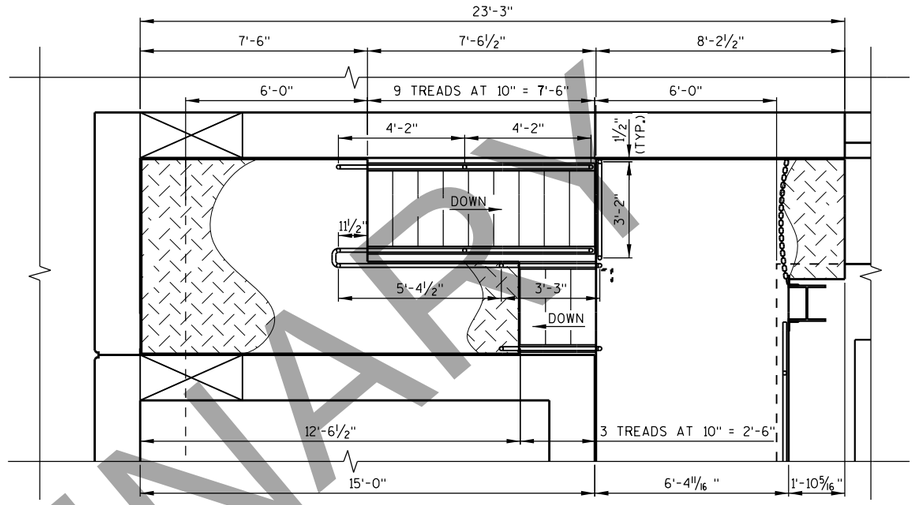
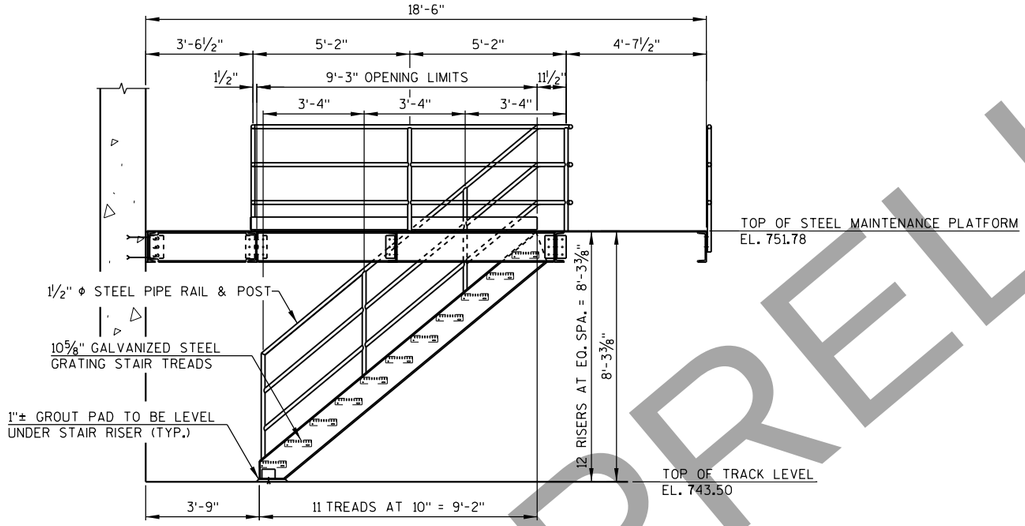


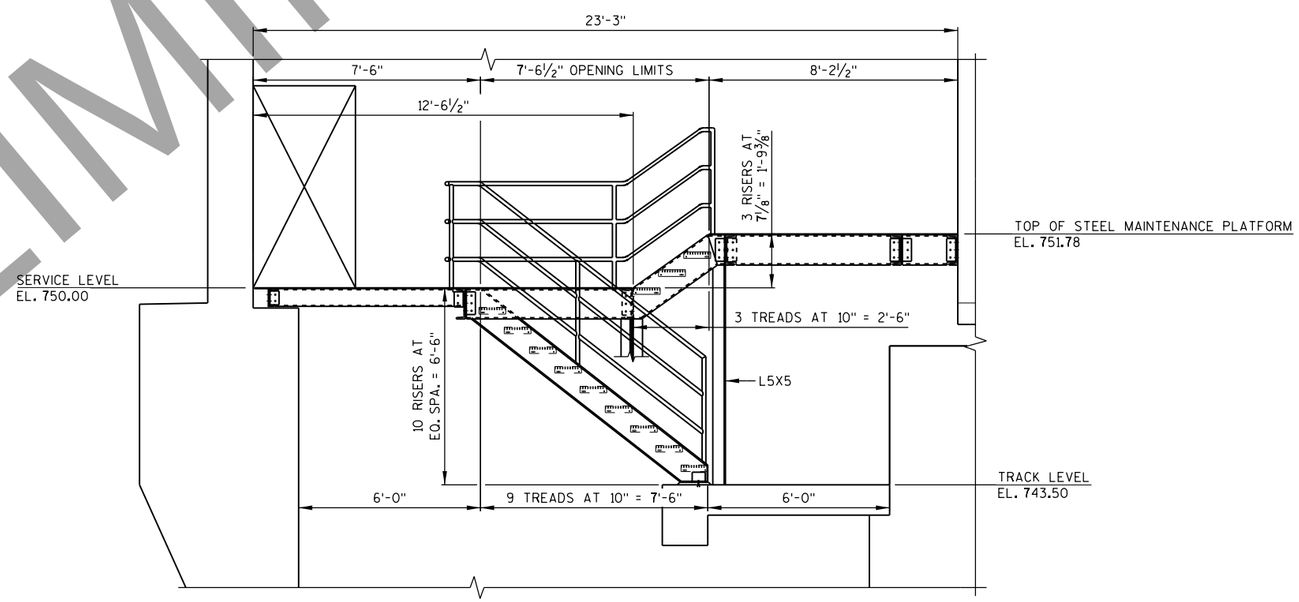
STAIR PLAN AT WEST SERVICE PLATFORM



STAIR PLAN AT EAST SERVICE PLATFORM



ELEVATION
(LOOKING WEST)



ELEVATION
(LOOKING SOUTH)

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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STEEL STAIR PLAN & ELEVATION NORTH BASCULE ABUT. - 2

DRAWING PRE_362 P93

8

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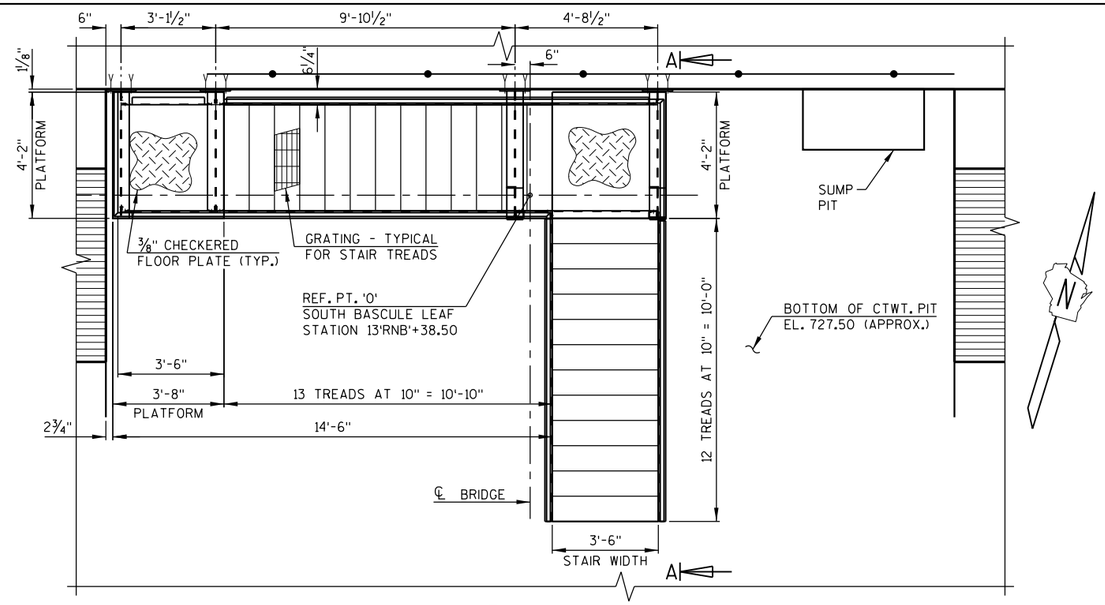
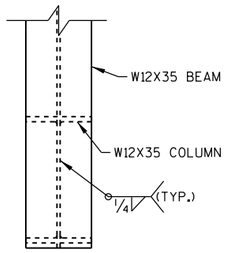
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71



PLAN



DETAIL G

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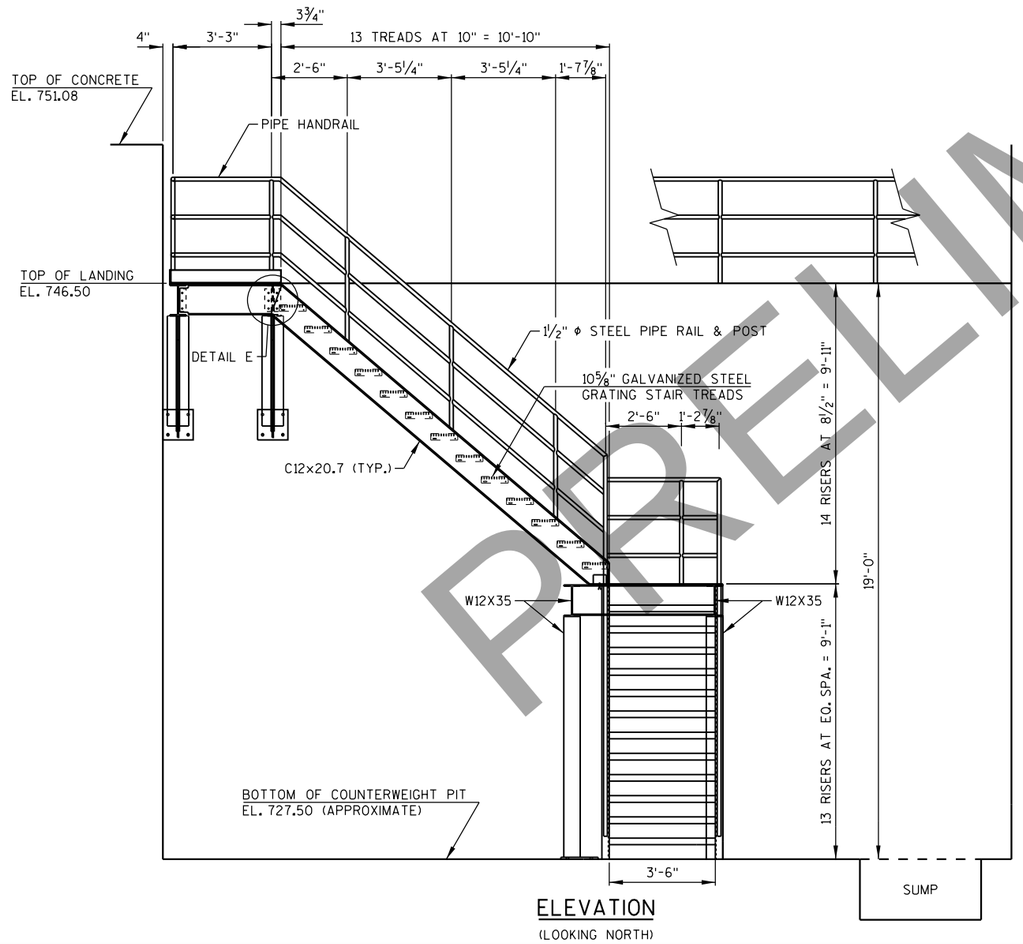
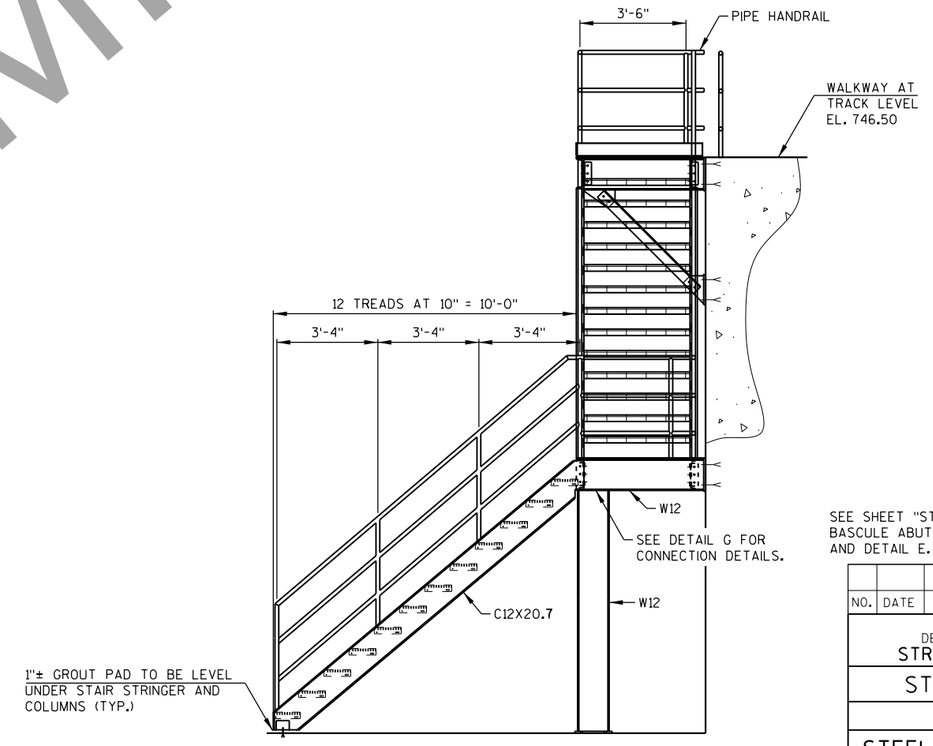


ELEVATION

(LOOKING NORTH)



SECTION A-A

SEE SHEET "STEEL STAIRWAY PLAN & ELEVATION NORTH BASCULE ABUT. - 1" FOR THE TYPICAL BRACKET DETAIL AND DETAIL E.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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STEEL STAIR PLAN & ELEVATION SOUTH BASCULE PIER - 1

DRAWING P93

PRE_363

8

8

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DRAFT 3/2/2020

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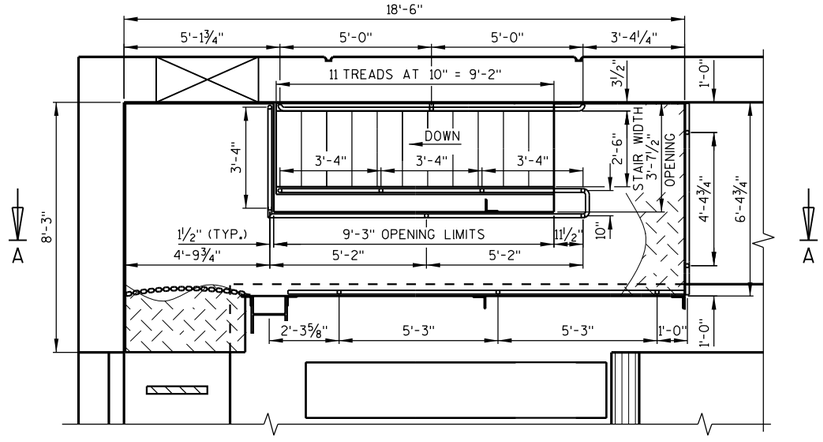
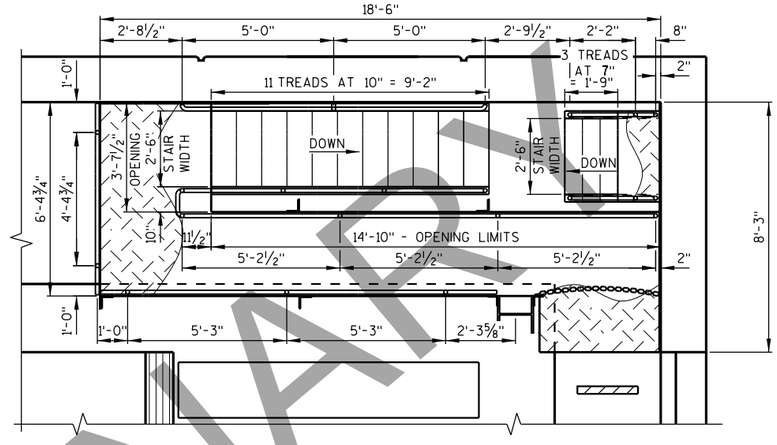
STATE PROJECT NUMBER

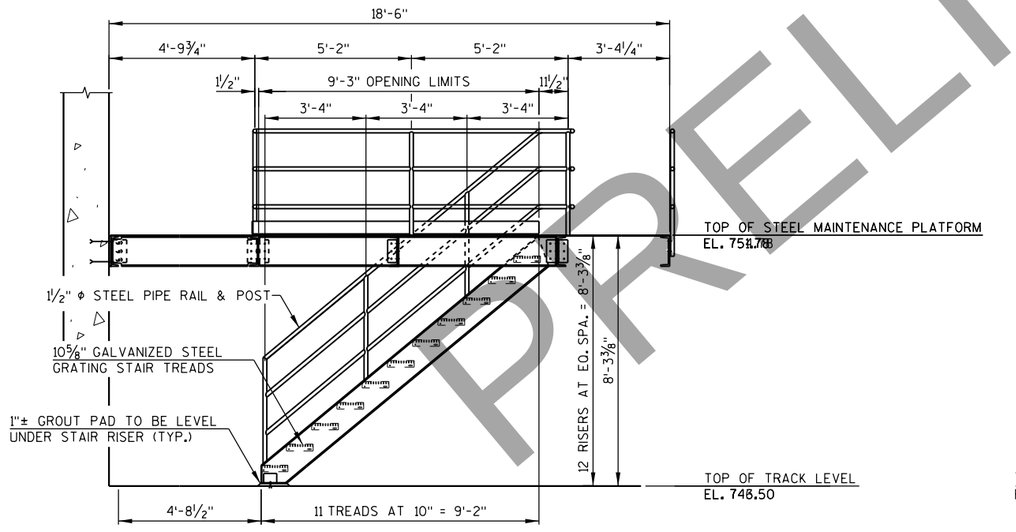
4992-03-71



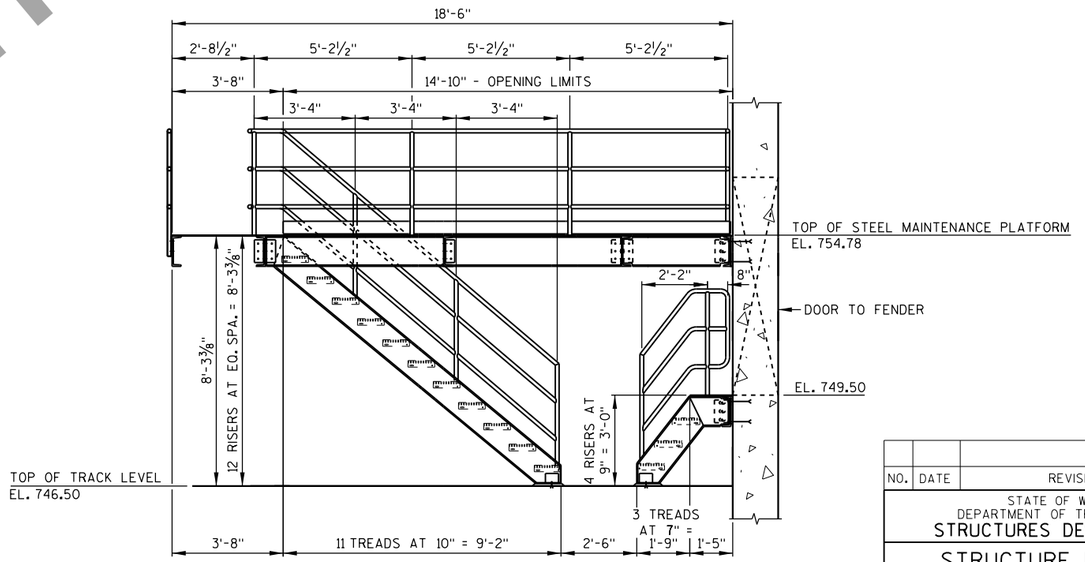
STAIR PLAN AT EAST SERVICE PLATFORM



STAIR PLAN AT WEST SERVICE PLATFORM



ELEVATION
(LOOKING EAST)



ELEVATION
(LOOKING WEST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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STEEL STAIR PLAN & ELEVATION SOUTH BASCULE PIER - 2

DRAWING NO. P93

PRE_364

8

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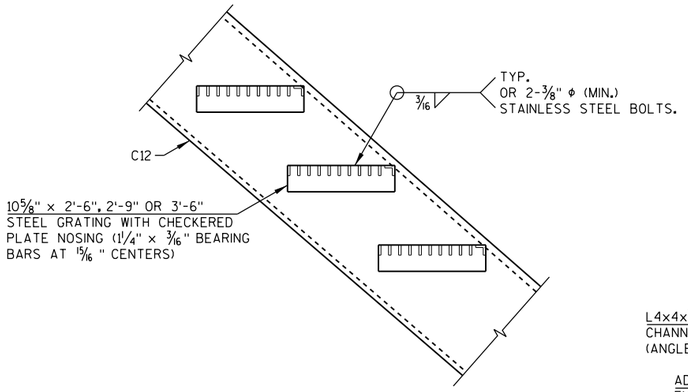
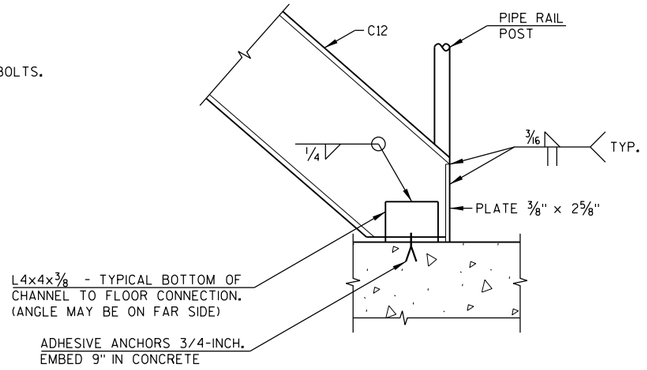
STATE PROJECT NUMBER

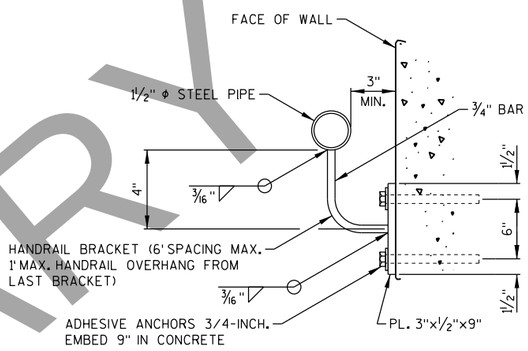
4992-03-71



TYPICAL STAIR TREAD DETAIL



STAIR STRINGER CONNECTION
DETAIL AT CONCRETE



HANDRAIL DETAIL

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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STEEL STAIR DETAILS

DRAWING P93

PRE_365

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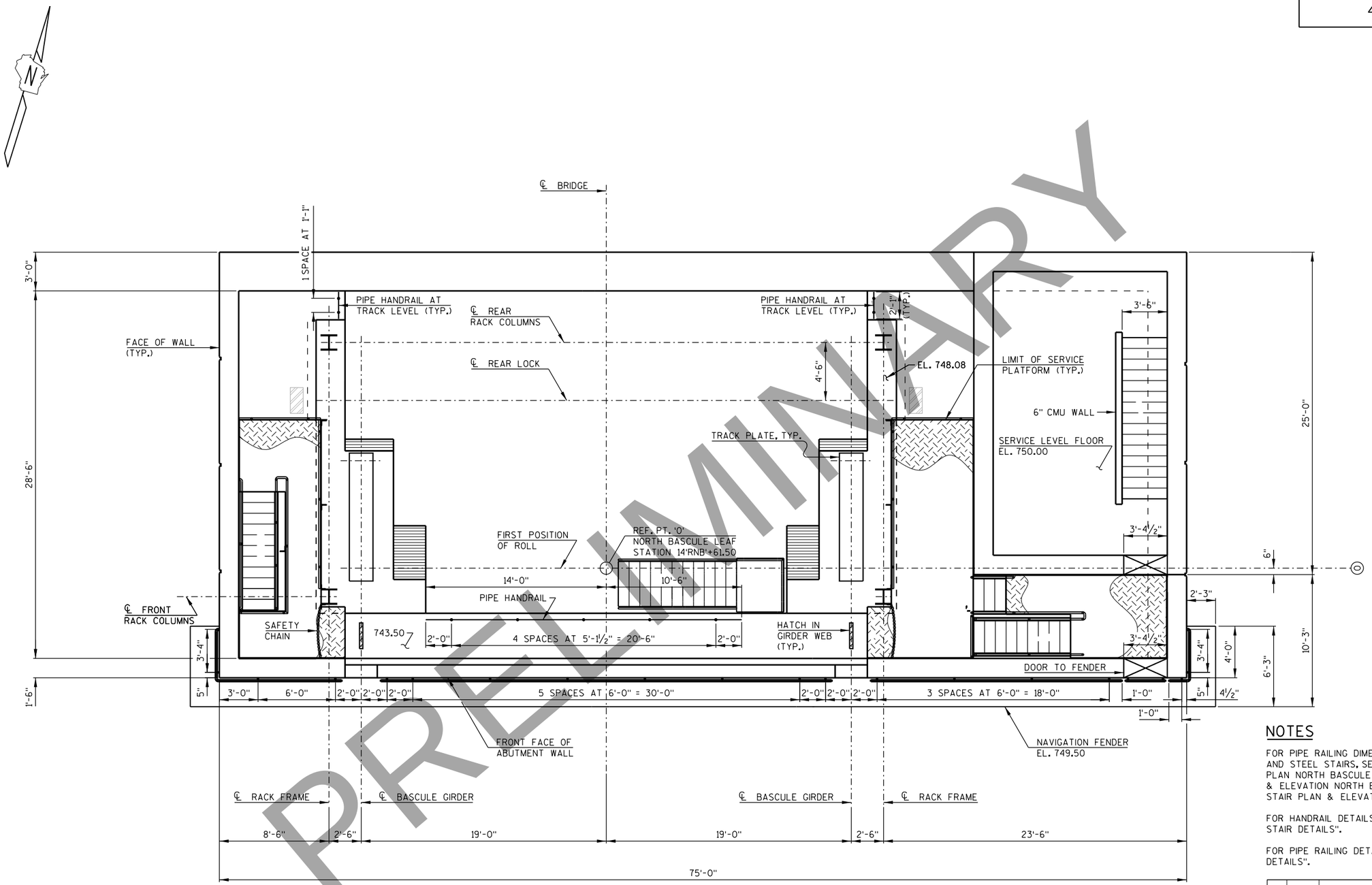
DRAFT 10/20/2020

STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

PIPE RAILING PLAN AT NORTH BASCULE ABUTMENT

NOTES

FOR PIPE RAILING DIMENSIONS ON SERVICE PLATFORMS AND STEEL STAIRS, SEE SHEETS "SERVICE PLATFORM PLAN NORTH BASCULE ABUTMENT", "STEEL STAIR PLAN & ELEVATION NORTH BASCULE ABUT. - 1" AND "STEEL STAIR PLAN & ELEVATION NORTH BASCULE ABUT. - 2".

FOR HANDRAIL DETAILS AT FENDER, SEE SHEET "STEEL STAIR DETAILS".

FOR PIPE RAILING DETAILS, SEE SHEET "PIPE RAILING DETAILS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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PIPE RAILING PLAN NORTH BASCULE ABUTMENT

DRAWING P93

PRE_366

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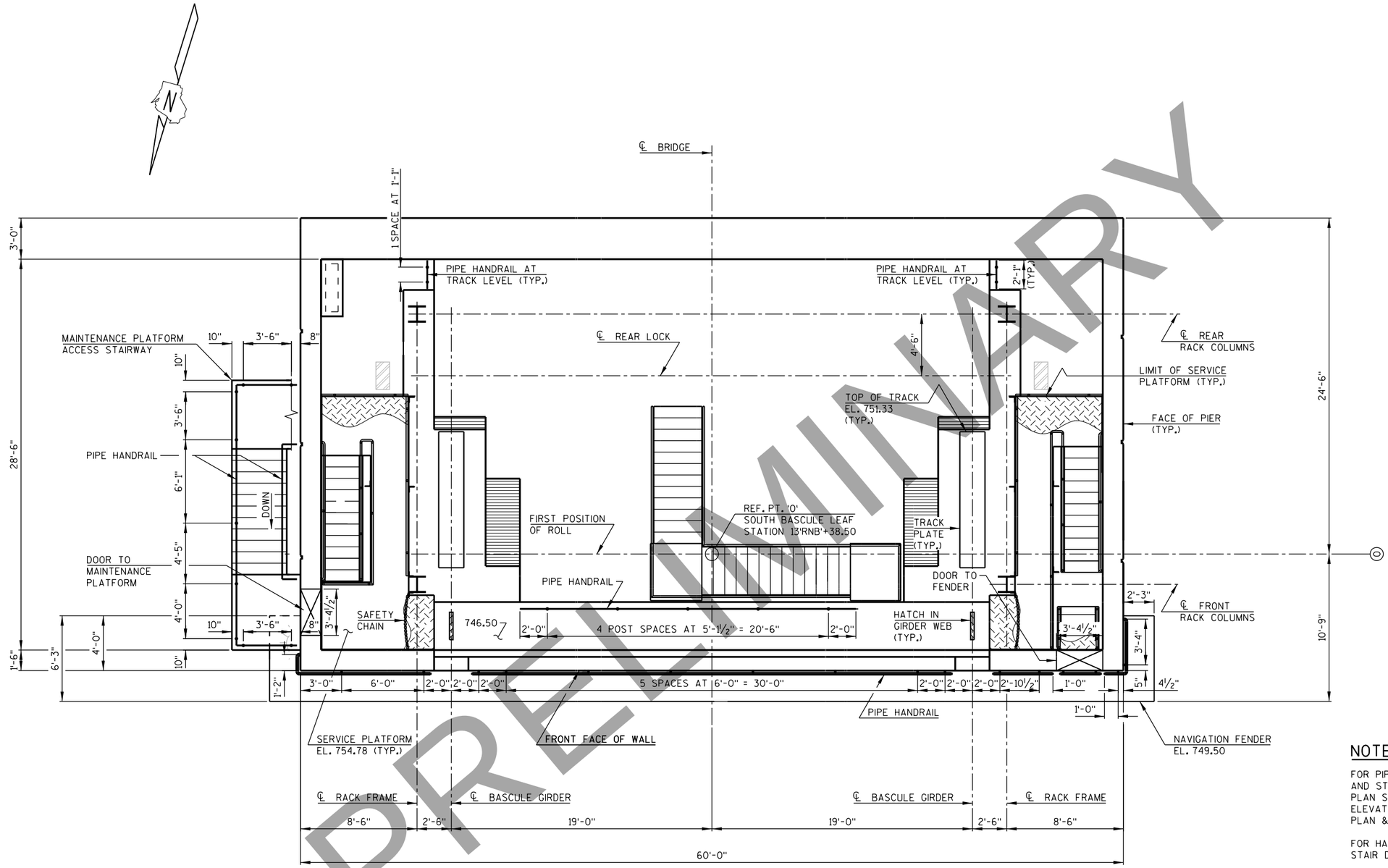
DRAFT 03/02/2020

STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

PIPE RAILING PLAN AT SOUTH BASCULE PIER

NOTES

FOR PIPE RAILING DIMENSIONS ON SERVICE PLATFORMS AND STEEL STAIRS, SEE SHEETS "SERVICE PLATFORM PLAN SOUTH BASCULE PIER", "STEEL STAIR PLAN & ELEVATION SOUTH BASCULE PIER - 1" AND "STEEL STAIR PLAN & ELEVATION SOUTH BASCULE PIER - 2".

FOR HANDRAIL DETAILS AT FENDER, SEE SHEET "STEEL STAIR DETAILS".

FOR PIPE RALING DETAILS, SEE SHEET "PIPE RAILING DETAILS".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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PIPE RAILING PLAN SOUTH BASCULE PIER

DRAWING P93

PRE_367

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DRAFT 03/20/2020

STATE PROJECT NUMBER

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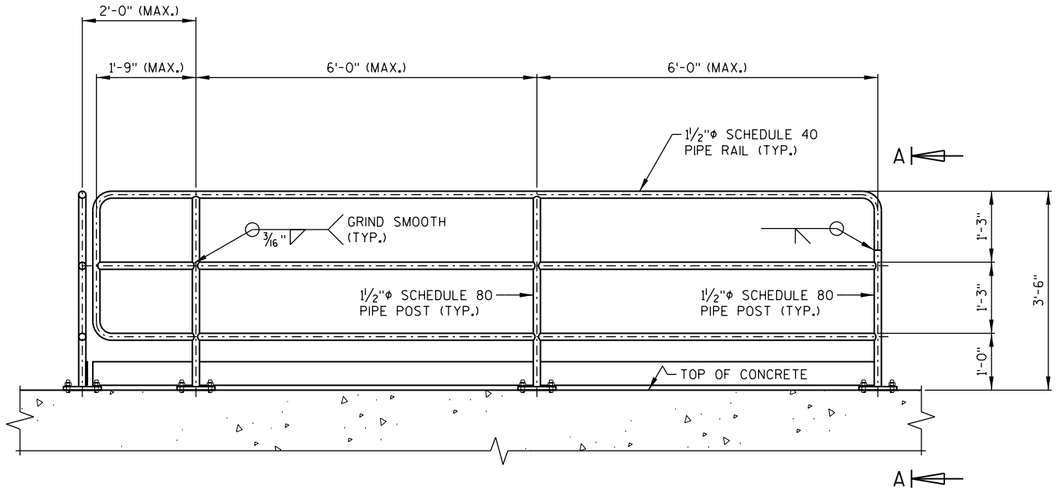
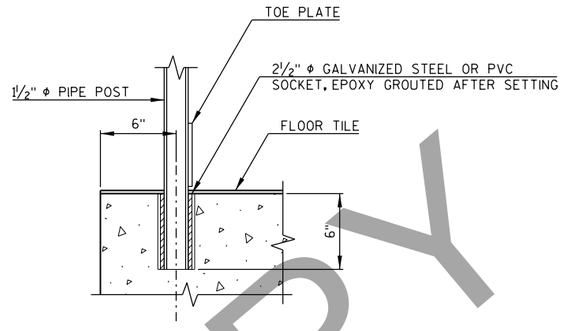
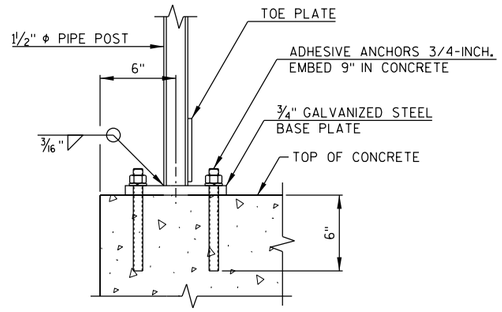


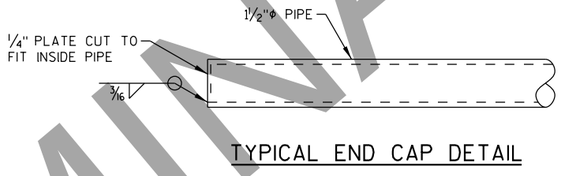
TYPICAL PIPE HANDRAIL



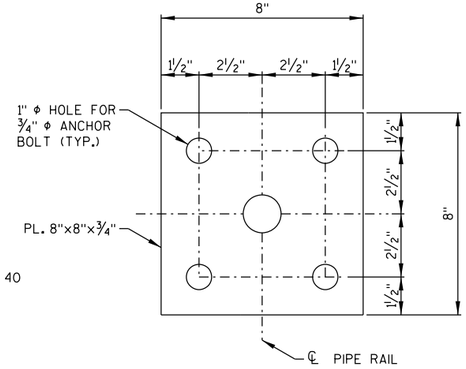
TYPICAL PIPE HANDRAIL POST ATTACHMENT DETAIL AT OPERATOR HOUSE



TYPICAL PIPE HANDRAIL POST ATTACHMENT

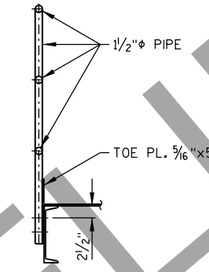


TYPICAL END CAP DETAIL

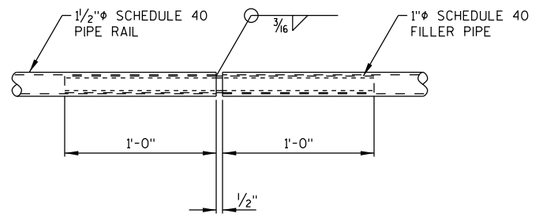


PIPE HANDRAIL BASE PLATE DETAIL

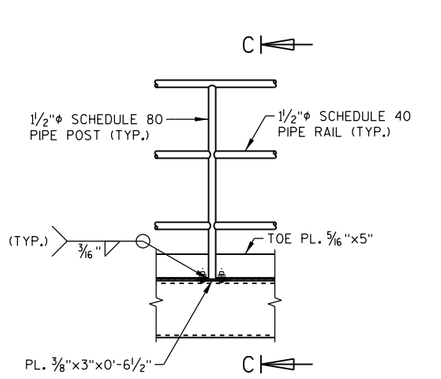
TYPICAL SERVICE PLATFORM HANDRAIL



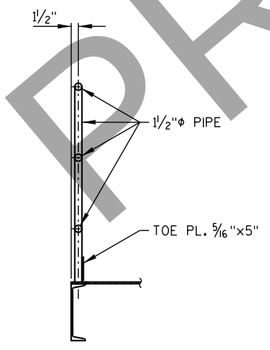
SECTION B-B



PIPE RAIL SPLICE DETAIL



TYPICAL SERVICE PLATFORM HANDRAIL TOP MOUNTED POST



SECTION C-C

NOTES

1. PIPE RAILING AND POST SHALL BE FABRICATED FROM STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A53.
2. RAILING SHALL BE WELDED CONSTRUCTION WITH 3/16" MIN. FILLET WELDS UNLESS SHOWN OTHERWISE.
3. GALVANIZE PIPE HANDRAIL AFTER FABRICATION. BLAST CLEAN PRIOR TO GALVANIZING.
4. CAP ALL OPEN ENDS OF HANDRAIL PIPES EXCEPT AT BOTTOM OF POSTS. SEE END CAP DETAIL.
5. PROVIDE DRAIN HOLES FOR GALVANIZING PER ASTM A385.
6. EDGES OF RAIL SHALL BE SMOOTH, FREE FROM BURRS OR RAGGED EDGES.
7. PAYMENT FOR THE PIPE RAILING AND SAFETY CHAINS ARE INCLUDED UNDER THE BID ITEM "STEEL STAIRS, PLATFORMS AND RAILING."

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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PIPE RAILING DETAILS

DRAWING PRE_368 P93

PRELIMINARY

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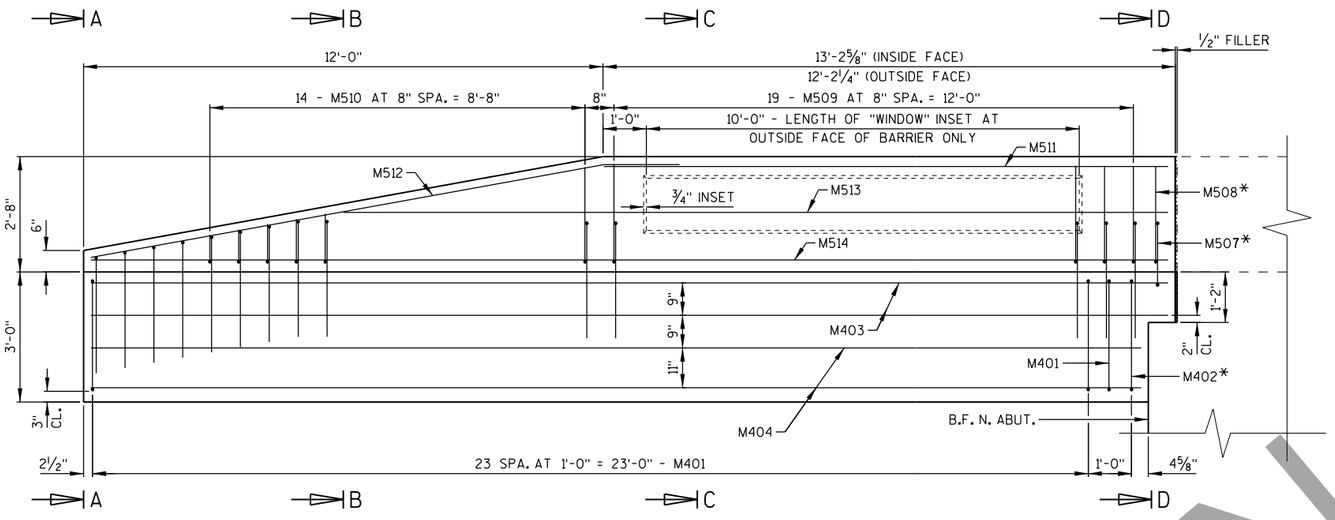
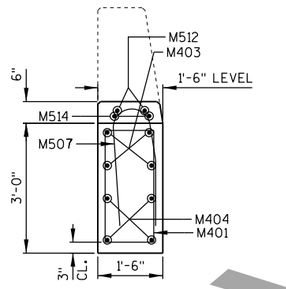
STATE PROJECT NUMBER

4992-03-71

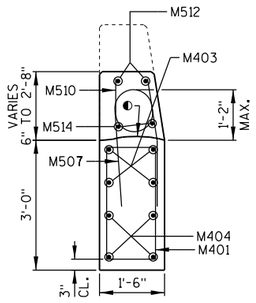


INSIDE ELEVATION OF EAST BARRIER

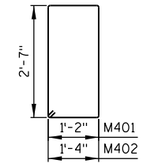
* INDICATES THAT BAR IS ROTATED AND PLACED PARALLEL TO PAVING NOTCH



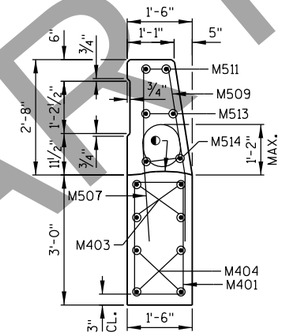
SECTION A-A



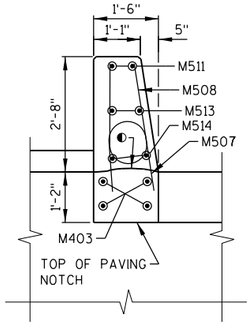
SECTION B-B



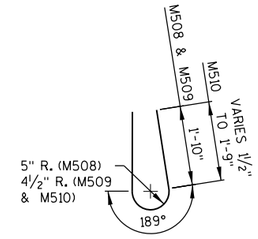
M401 & M402



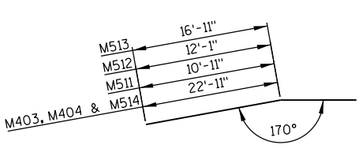
SECTION C-C



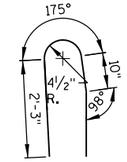
SECTION D-D



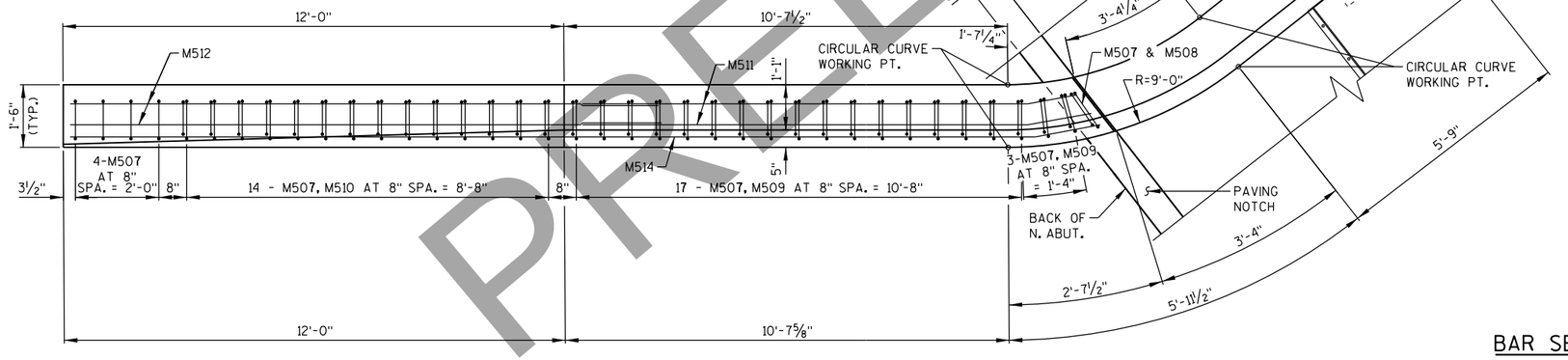
M508, M509 & M510



M403, M404, M511, M512, M513 & M514



M507



PLAN

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 800 LBS	
M401	25	8 - 0	X		FOOTING STIRRUP	VERT.
M402	1	8 - 4	X		FOOTING STIRRUP	VERT.
M403	4	23 - 10	X		FOOTING	HORIZ.
M404	4	23 - 1	X		FOOTING	HORIZ.
M405					BAR NOT USED	
M506					BAR NOT USED	
M507	38	5 - 10	X		BARRIER	VERT.
M508	1	5 - 2	X		BARRIER	VERT.
M509	19	5 - 0	X		BARRIER	VERT.
M510	14	3 - 3	X	◆	BARRIER	VERT.
M511	2	12 - 1	X		BARRIER	HORIZ.
M512	2	15 - 0	X		BARRIER	HORIZ.
M513	2	17 - 10	X		BARRIER	HORIZ.
M514	2	23 - 10	X		BARRIER	HORIZ.

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
M510	1 SERIES OF 14	1'-7" TO 4'-10"

NOTES:

◐ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH

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

FOR LIMITS OF PIGMENTED SURFACE SEALER, SEE DETAIL "SECTION THRU CONCRETE BARRIER" ON SHEET "DECK DETAILS OVER MACHINERY ROOM".

TRIM BOTTOM LEGS OF BAR M507 AS NEEDED TO AVOID INTERFERENCE WITH APPROACH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY CEB | PLANS CK'D. MJA

EAST SINGLE SLOPE BARRIER 32SS & FOOTING DETAILS

DRAWING P93

PRE_369

PRELIMINARY
DRAFT 2020

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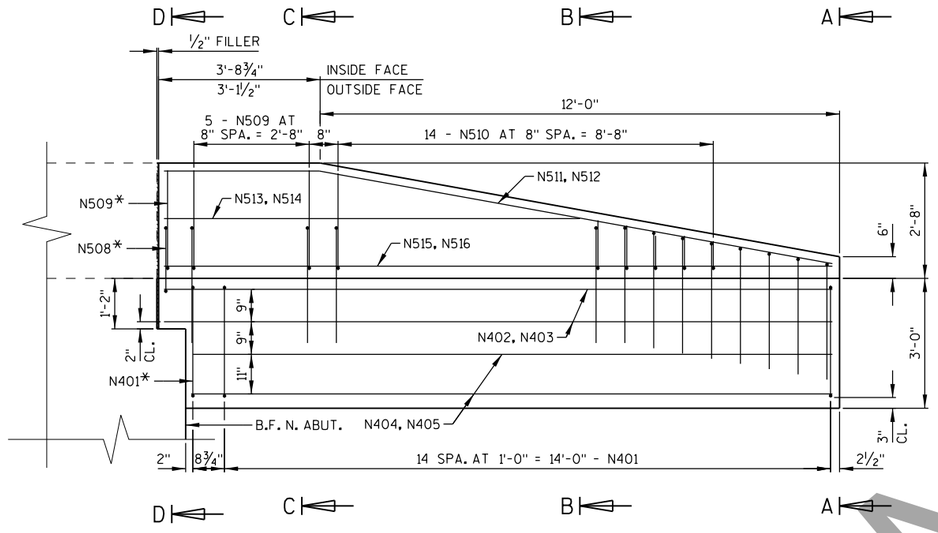
BATCH PRINT SHEET 91 OF 93

DRAFT FOR 2020

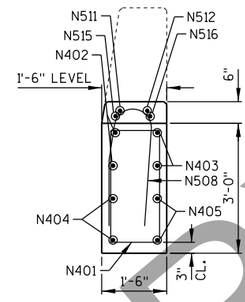
STATE PROJECT NUMBER

4992-03-71



INSIDE ELEVATION OF WEST BARRIER

* INDICATES THAT BAR IS ROTATED AND PLACED PARALLEL TO PAVING NOTCH



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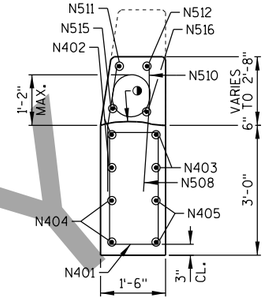

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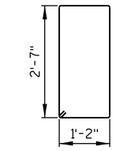
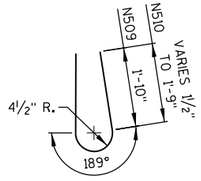
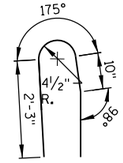


N401



N509 & N510



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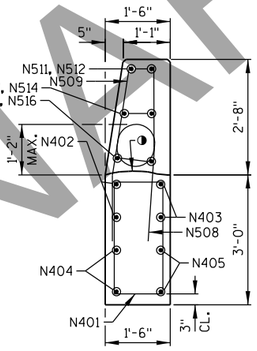

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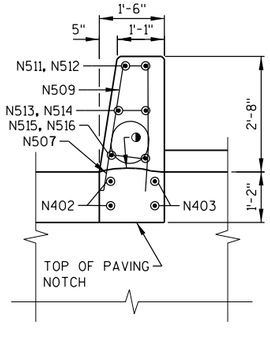

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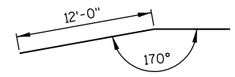
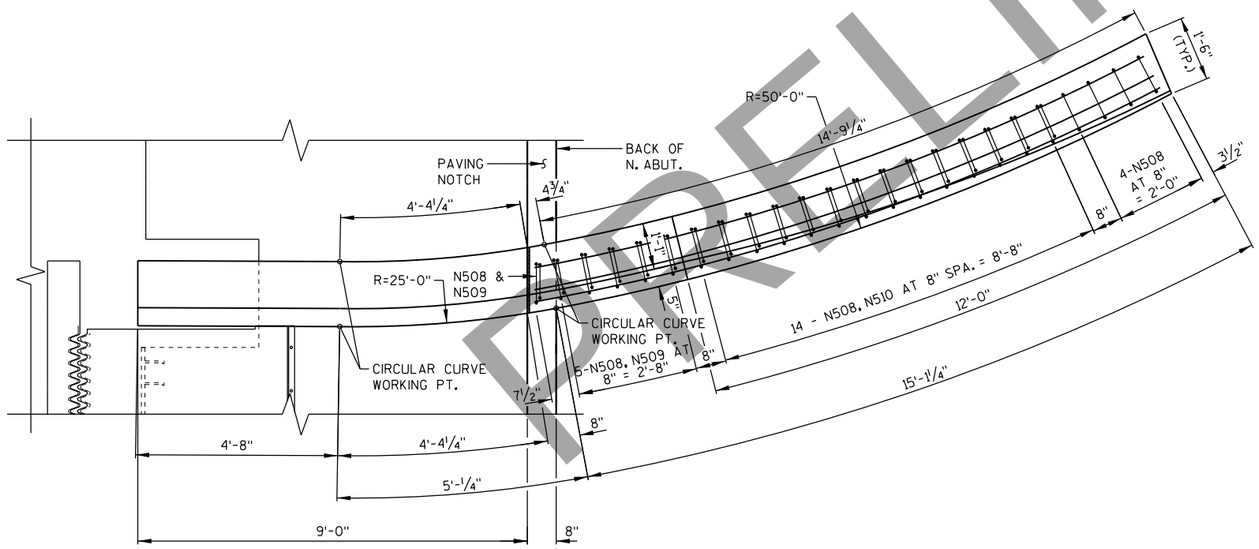


N511 & N512



PLAN

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 470 LBS	
N401	15	8-0	X		FOOTING STIRRUP	VERT.
N402	2	15-4			FOOTING - INSIDE FACE	HORIZ.
N403	2	14-9			FOOTING - OUTSIDE FACE	HORIZ.
N404	2	14-9			FOOTING - INSIDE FACE	HORIZ.
N405	2	14-2			FOOTING - OUTSIDE FACE	HORIZ.
N406					BAR NOT USED	
N507					BAR NOT USED	
N508	24	5-10	X		BARRIER	VERT.
N509	6	5-0	X		BARRIER	VERT.
N510	14	3-3	X	◆	BARRIER	VERT.
N511	1	15-7	X		BARRIER - INSIDE FACE	HORIZ.
N512	1	14-11	X		BARRIER - OUTSIDE FACE	HORIZ.
N513	1	9-4			BARRIER - INSIDE FACE	HORIZ.
N514	1	8-9			BARRIER - OUTSIDE FACE	HORIZ.
N515	1	15-4			BARRIER - INSIDE FACE	HORIZ.
N516	1	14-9			BARRIER - OUTSIDE FACE	HORIZ.

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
N510	1 SERIES OF 14	1'-7" TO 4'-10"

NOTES:

◐ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH

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

FOR LIMITS OF PIGMENTED SURFACE SEALER, SEE DETAIL "SECTION THRU CONCRETE BARRIER" ON SHEET "DECK DETAILS OVER MACHINERY ROOM".

TRIM BOTTOM LEG OF BAR N508 AS NEEDED TO AVOID INTERFERENCE WITH APPROACH

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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WEST SINGLE SLOPE BARRIER 32SS & FOOTING DETAILS

DRAWING P93

PRE_370

PRELIMINARY

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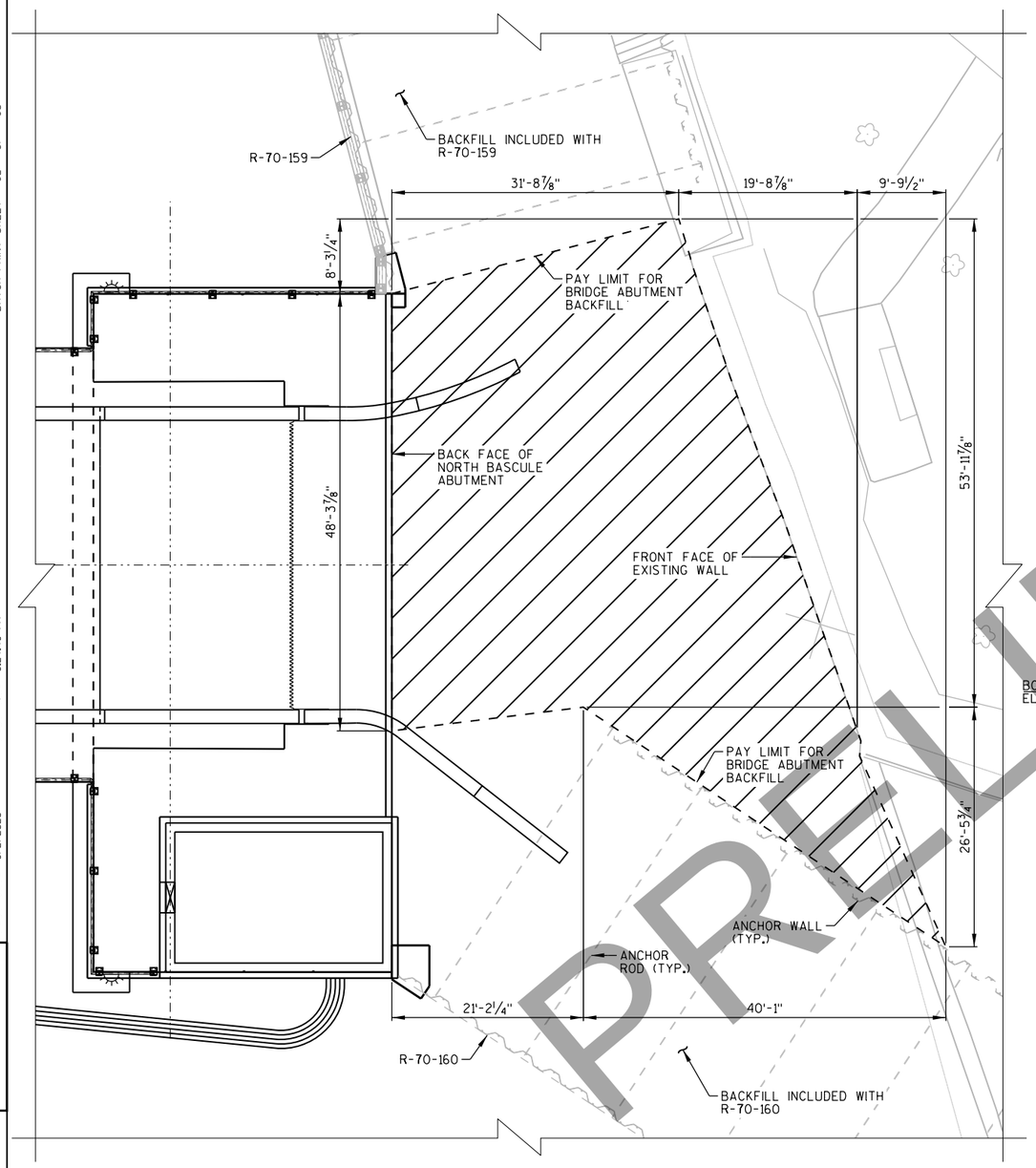
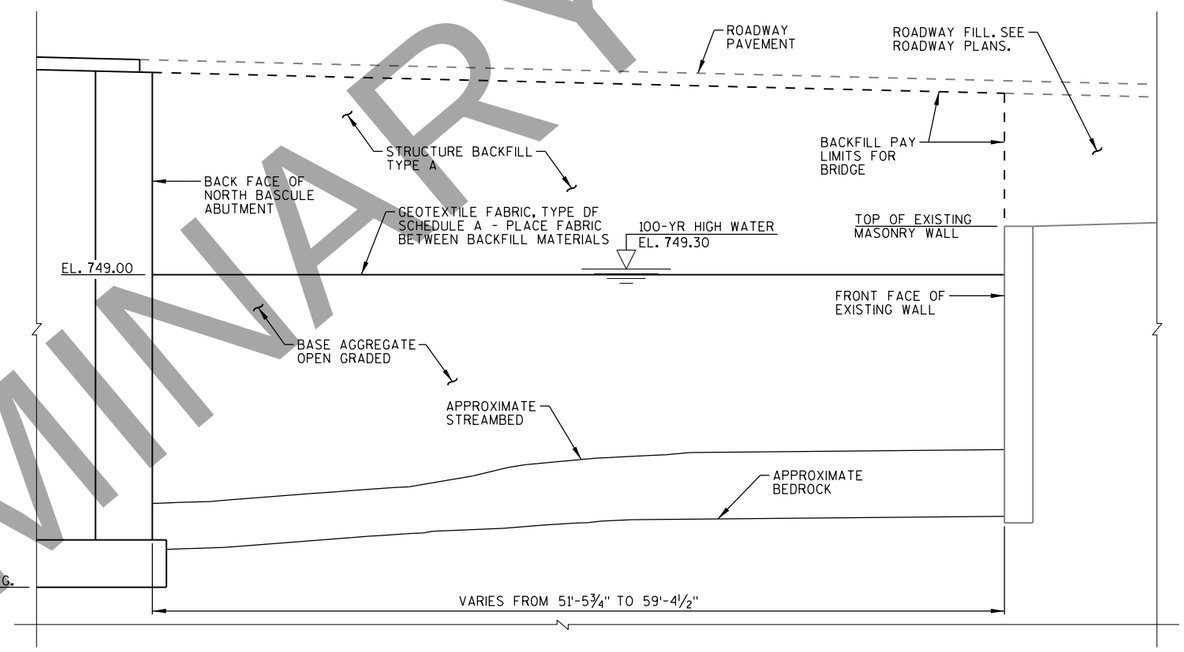
BATCH PRINT SHEET 92 OF 93
DRAFT - April 20, 2020

STATE PROJECT NUMBER

4992-03-71



NORTH BASCULE ABUTMENT
BACKFILL LIMITS



TYPICAL SECTION THRU
NORTH BASCULE ABUTMENT

PRELIMINARY

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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NORTH ABUTMENT BACKFILL DETAILS

DRAWING PRE_371

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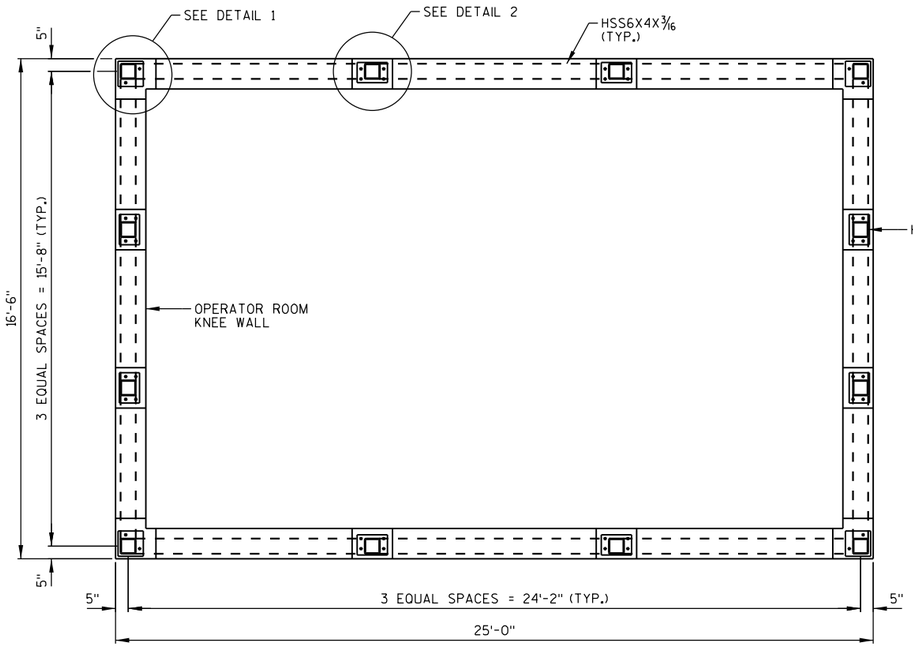
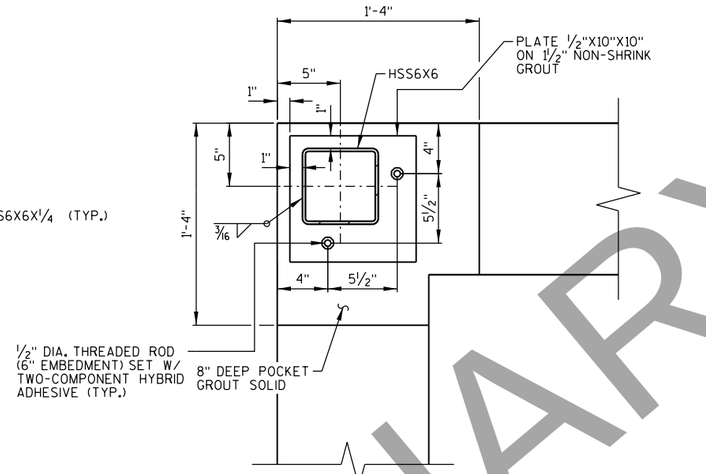


PLAN



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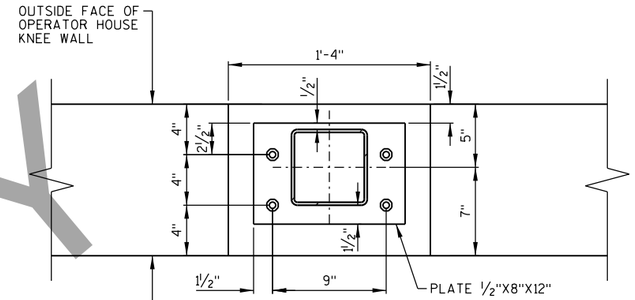

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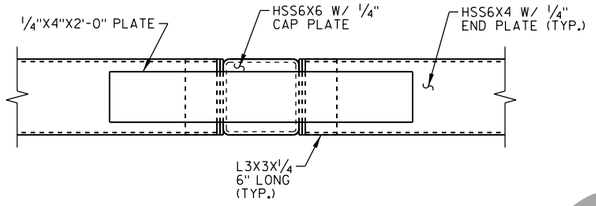
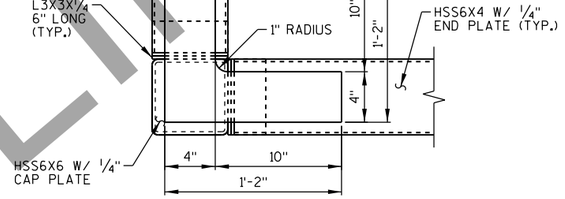
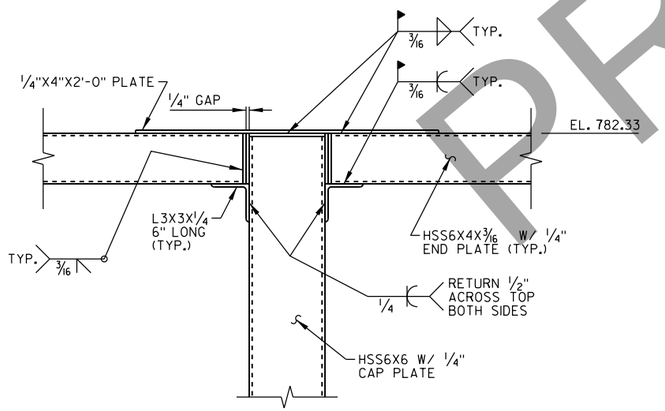


INTERIOR CONNECTION DETAIL PLAN

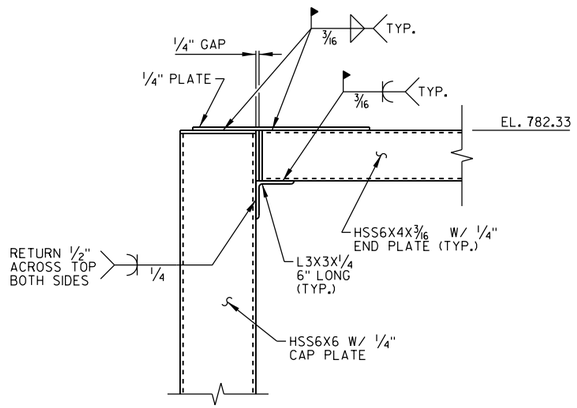


CORNER CONNECTION DETAIL PLAN

BASE PLATE DETAIL



INTERIOR CONNECTION DETAIL ELEVATION



CORNER CONNECTION DETAIL ELEVATION

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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OPERATOR HOUSE STEEL FRAMING DETAILS

DRAWING PRE_372

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DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

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A05	WALL TYPES AND ASSEMBLIES
A06	WALL TYPES
A07	FLOOR PLAN - SERVICE LEVEL
A08	FLOOR PLAN - ENTRY LEVEL
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A22	SCHEDULES
A23	MOUNTING HEIGHTS
A24	MOUNTING HEIGHTS

PROJECT DATA

OWNER	
	WI DOT
LOCATION	
MUNICIPALITY:	MENASHA
COUNTY:	WINNEBAGO
STATE:	WISCONSIN
APPLICABLE BUILDING CODES	
	WISCONSIN COMMERCIAL BUILDING CODE 2015 IBC AS MODIFIED BY CHAPTERS SPS 361-366 SEPTEMBER 1, 2011
CONSTRUCTION CLASSIFICATION	
	(IBC) IIIB
OCCUPANCY GROUP	
	U (UTILITY ANS MISCELLANEOUS)
PROJECT TYPE	
	NEW CONSTRUCTION
NUMBER OF STORIES	
	2 + BASEMENT
BLDG GROSS AREA (SQ FT)	
	911 SF ABOVE GRADE + 413 SF BASEMENT
FIRE PROTECTION	
FIRE ALARM	COMPLETE
FIRE SUPRESSION:	COMPLETE
MONITORING TYPE	CENTRAL STATION
NFPA STANDARD USED	13
FIRE RESISTIVE RATINGS	
STAIR ENCLOSURES	NA
ELEVATOR ENCLOSURES	NA
SHAFT ENCLOSURES	NA
FLOORS	0 HOUR
ROOFS	0 HOUR
EXTERIOR WALLS	1 HOUR BEARING
LOWER LEVEL STORAGE SPACES	NA
ELEVATOR EQUIPMENT ROOMS	NA
SPRAY FIREPROOFING REQUIREMENTS	
COLUMNS - HSS, 1 & 3 HOUR	_
COLUMNS - WIDE FLANGE, NA	_
BEAMS - FLOOR, NA	_
FLOOR DECK - NA	_

ALL LEVELS ARE CONSIDERED "EQUIPMENT SPACE" PER IBC 1103.2.9

PRELIMINARY

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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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PROJECT DATA

DRAWING A01 OF A24

PRE_373

ABBREVIATIONS

A	
@	at
A/C	air condition
A/E	Architect/Engineer
ACC	accessible
ACT	acoustical ceiling tile
ADDL	additional
ADDM	addendum
AFC	above finished counter
AFF	above finished floor
AFG	above finished grade
AFS	above finished slab
ALT	alternate
ALUM	aluminum
APPD	approved
AP	acoustic panel
APPROX	approximate
ASC	above suspended ceiling
ARCH	Architectural/ Architect
AV	Audio Visual
B	
BD	board
BLDG	building
BLKG	blocking/ block
BLT	borrowed light
BLW	below
BPL	base plate
BO	bottom of
BOD	basis of design
BOS	bottom of steel
BRG	bearing
BUR	built-up roofing
C	
C	channel
CA	construction administration
CAB	cabinet
CB	catch basin
CB	construction bulletin
CD	construction documents
CF/CI	contractor furnished, contractor installed
CFMF	cold form metal framing
CF/OI	contractor furnished, owner installed
CF/VI	contractor furnished, vendor installed
CG	corner guard
CIP	cast-in-place concrete
CJ	control joint
CNJ	construction joint
COMP	composite
CORR	corridor
CR	card reader
CTR	center

C	(continued)
CNTR	counter
CL	centerline
CLG	ceiling
CLR	clear
CM	construction management
CMU	concrete masonry unit
CO	cleanout
COL	column
CONC	concrete
CORR	corridor
CONT	continuous
CPT	carpet
CSWK	casework
CT	ceramic tile
CTB	ceramic tile base
D	
DD	design development
DEMO	demolition
DEPT	department
DF	drinking fountain
DIA	diameter
DIAG	diagonal
DIM	dimension
DISP	dispenser
DR	door
DR FR	door frame
DTL	detail
DN	down
DS	downspout
DW	dishwasher
DWG	drawing
E	
E	east
EIFS	exterior insulation & finish system
EL	elevation
EJ	expansion joint
ELEC	electric, electrical
ELEV	elevator
EMBED	embedded
ENCL	enclosure
EPS	expanded polystyrene board
EQ	equal
EQUIP	equipment
ETR	existing to remain
EXIST	existing
EXP	expand, expansion
EXT	exterior

F	
F	filler
FA	fire alarm
FA	fluid applied
FAB	fabric
FB	floor box
FC	file cabinet
FD	floor drain
FE	fire extinguisher
FEC	fire extinguisher cabinet
FF	finished floor
FHC	fire hose cabinet
FIXT	fixture
FLR	floor
FO	finished opening
FP	fire protection
FP	fireproof
FR	fire retardant/ resistant
FRP	fiberglass reinforced panel/ polyester/ plastic
FRT	fire resistant treated
FT	feet, foot
FTG	footing
G	
GA	gauge
GALV	galvanized
GB	grab bar
GC	general contractor
GFCI	ground fault circuit interrupter
GL	glass
GLT	glass tile
GLU LAM	glue laminated wood
GR	grade, grading
GT	grout
GWB	gypsum wall board
GYP BD	gypsum board
H	
HB	hose bibb
HC	hollow core
HCP	handicapped
HDWD	hardwood
HM	hollow metal
HORIZ	horizontal
HGT	height
HVAC	heating,ventilating & air conditioning
HSS	hollow structural shape
HW	hot water
I	
ID	inside diameter
INSUL	insulation
IN	inch(es)
INCL	include
INFO	information
INT	interior

J	
JAN	janitor
J/BOX	junction box
JS	janitor sink
JT	joint
L	
L	angle
L	length/ long
LAB	laboratory
LAM	laminate
LAV	lavatory
LBS	Pound(S)
LF	linear foot
LH	left hand
LKR	locker
LL	live load
M	
MACH	machine
MATL	material
MAX	maximum
MB	marker board
MC	modular carpet tile
MECH	mechanical
MED	medium
MEP	mechanical, electrical, plumbing.
MEZZ	mezzanine
MFR	manufacturer
MICRO	microwave oven
MIN	minimum, minute
MISC	miscellaneous
MJ	movement joint
MO	masonry opening
MS	mop sink
MTL	metal
N	
N	north
NA	not applicable
NIC	not in contract
NO	number
NM	nominal
NS	no scale
NTS	not to scale
O	
OC	on center
OCC	occupancy
OD	Drain (overflow)
OD	outside diameter
OF/CI	owner furnished, contractor installed
OF/OI	owner furnished, owner installed
OF/VI	owner furnished, vendor installed
OH DR	overhead coiling door
OPH	opposite hand
OPP	opposite
OPNG	opening
OSHA	occupational safety and health association

P	
PCF	pounds per cubic foot
PERF	perforated
PLAM	plastic laminate
PLYWD	plywood
PLBG	plumbing
PLF	pounds per linear foot
PNL	panel
PREFAB	prefabricated
PREFIN	prefinished
PSF	pounds per square foot
PSI	pounds per square inch
PT	paint, painted
PTN	partition
PVC	polyvinyl chloride
Q	
QT	quarry tile
QTB	quarry tile base
QTY	quantity
R	
R	radius
RB	resilient base
RCP	reflected ceiling plan
RD	roof drain
REBAR	reinforcing steel bars
REC	recess
REF	reference
REF	refrigerator
RF	resilient flooring
REINF	reinforced/ reinforcing/ reinforcment
REQ	required
REV	revision
RFS	room finish schedule
RH	right hand
RM	room
RO	rough opening
S	
S	south
SAN	sanitary
SC	sealed concrete
SCHED	schedule
SC	solid core
SD	schematic design
SF	square foot
SHT	sheet
SHWR	shower
SIM	similar
SPEC	specification
SPKR	speaker
SS	solid surface
SSG	structural silicone glazed
SST	stainless steel
ST	stain, stair
STD	standard
STL	steel
STN	stone
STNB	stone base
STRUCT	structure, structural
SV	sheet vinyl
SVT	solid vinyl tile
T	
T&M	time & materials
T&G	tongue and groove
TB	tackboard
TBD	to be determined
TEMP	temperature
TER	terrazzo
TERB	terrazzo base
TFF	top of finish floor
TLT	toilet
TO	top of
TOB	top of beam
TOC	top of concrete
TOJ	top of joist
TOPO	topography
TOS	top of slab, top of steel
TP	toilet partitions
TS	tube steel
TSTAT	thermostat
TYP	typical
U	
UIO	unless inicated otherwise
UL	underwriters laboratory
UV	ultraviolet
V	
VCT	vinyl composition tile
VEND	vending machine
VERT	vertical
VEST	vestibule
VF/CI	vendor furnished, contractor installed
VF/OI	vendor furnished, owner installed
VF/VI	vendor furnished, vendor installed
VNR	veneer
VIF	verify in field
W	
W	west
W	width
W/	with
W/O	without
WC	water closet, wall covering
WD	wood
WDB	wood base
WDV	wood veneer
WH	water heater
WP	wall protection, workpoint
WT	window treatment
X	
XPS	extruded polystyrene board

PRELIMINARY

DRAFT April 20, 2020

STATE PROJECT NUMBER

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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ABBREVIATIONS

DRAWING A24

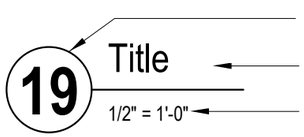
PRE_374

8

STATE PROJECT NUMBER
4992-03-71

SYMBOL LEGEND

CALLOUTS



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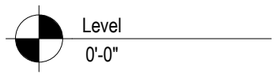
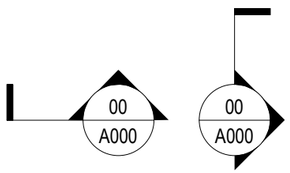
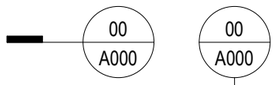


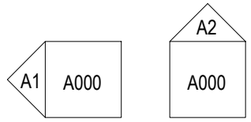
ELEVATION MARKER



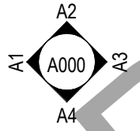
BUILDING OR WALL SECTION



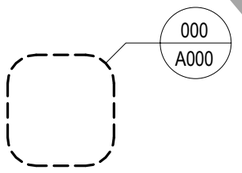
DETAIL SECTION



BUILDING ELEVATION

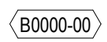


INTERIOR ELEVATIONS



CALLOUT

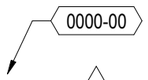
TAGS



BUILDING ASSEMBLY

PARTITION TYPE

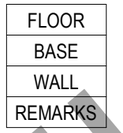
DOOR



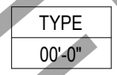
KEYNOTE

REVISION

WINDOW



FINISHES



CEILING

ROOM

STOREFRONT TYPE

GRAPHICS

NORTH ARROW

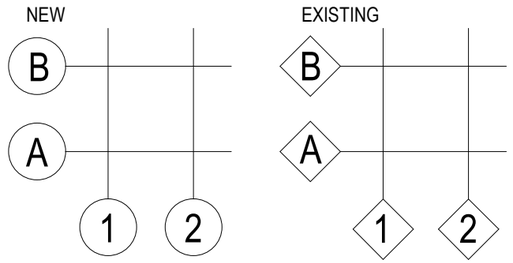
DIMENSION REFERENCES

TO OBJECT CENTER

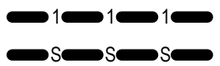
TO OBJECT FACE OR OTHER GEOMETRY

CONSTRUCTION PHASES

GRID AND GRID IDENTIFICATION



RATED WALLS



FIRE RATED (NUMBER INDICATES HR)

SMOKE RATED

PRELIMINARY

DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

SYMBOL LEGEND

DRAWING A03 OF A24

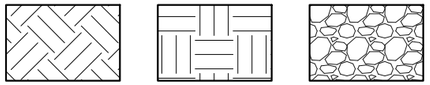
PRE_375

STATE PROJECT NUMBER

4992-03-71

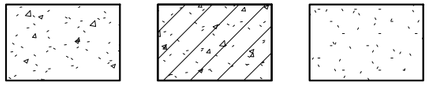
ARCHITECTURAL MATERIAL LEGEND

EARTHWORK



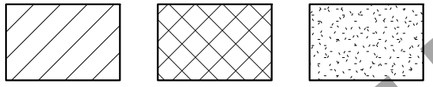
UNDISTURBEDEARTH | ENGINEERED FILL | GRAVEL

CONCRETE



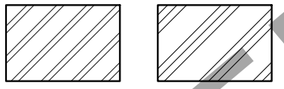
CAST-IN-PLACE | PRECAST | GROUT

MASONRY



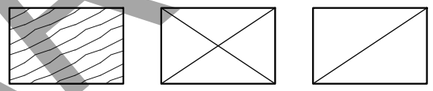
BRICK | CMU | STONE

METAL

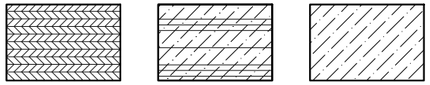


STEEL | ALUM

WOOD

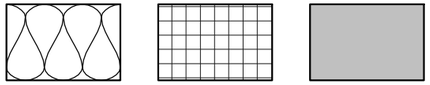


FINISH | ROUGH | BLOCKING



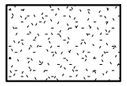
PLYWOOD | OSB | PARTICLE BOARD

INSULATION



BATT | RIGID | SPRAY

FINISHES



GYPSUM WALL BOARD

PRELIMINARY

DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	KD	PLANS CK'D.	JP

MATERIAL LEGEND

DRAWING A24 OF A24

PRE_376

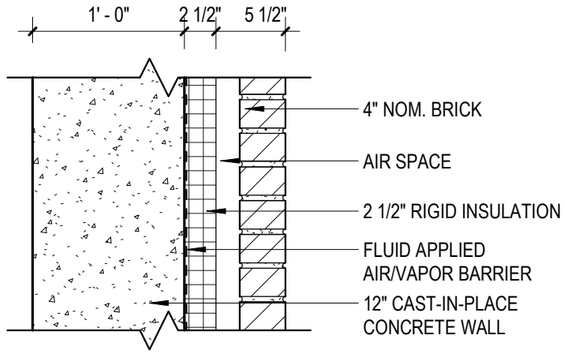
8

8

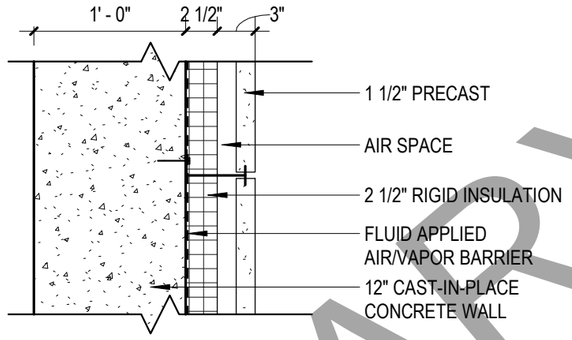
STATE PROJECT NUMBER

4992-03-71

B2010-01



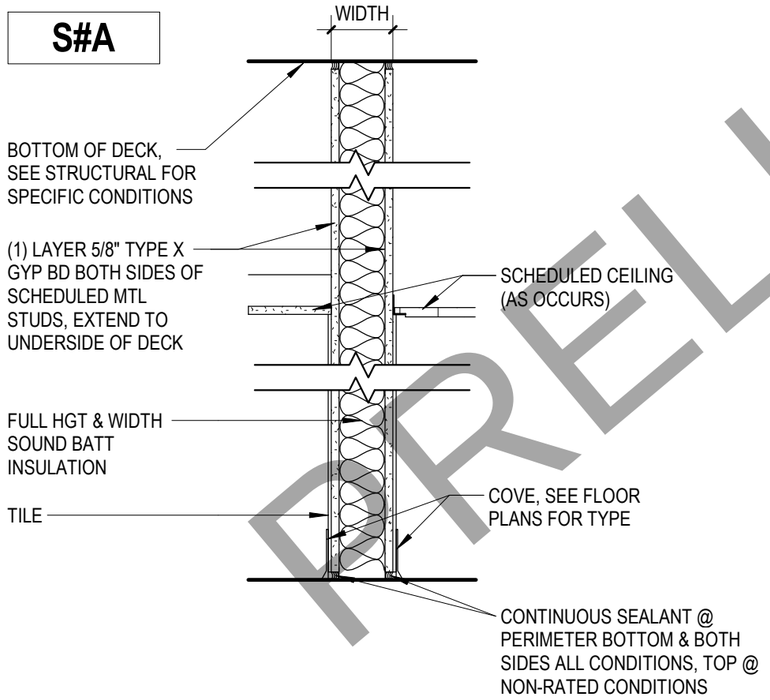
B2010-01A



SHEET NOTES - WALL TYPES

1	REFER TO LIFE SAFETY SHEETS FOR WALL RATINGS, LOCATIONS AND REQUIREMENTS.
2	MAINTAIN RATED WALL ASSEMBLIES BEHIND PREFABRICATED SHOWER / BATH ENCLOSURES AT RATED WALL LOCATIONS.
3	PROVIDE MOISTURE AND MOLD RESISTANT GYP BD ON WALLS AT ALL WET LOCATIONS INCLUDING BUT NOT LIMITED TO TOILET ROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, DRINKING FOUNTAINS, SINKS AND LAVATORIES AT CASEWORK AND EYEWASHES.
4	REPLACE GYP BD LAYER WITH GLASS MAT WATER RESISTANT BACKER BOARD WHERE WALLS ARE SCHEDULED TO RECEIVE CERAMIC TILE OR SOLID SURFACE WALL CLADDING.
5	SEAL ALL PENETRATIONS AND OPENINGS INCLUDING WALL PERIMETER AT SOUND RATED WALLS.
6	PROVIDE FIRE STOP SYSTEMS AT ALL PENETRATIONS AND OPENINGS THROUGH RATED WALL ASSEMBLIES TO MAINTAIN THE INTEGRITY OF CONSTRUCTION WITH UL LISTING.

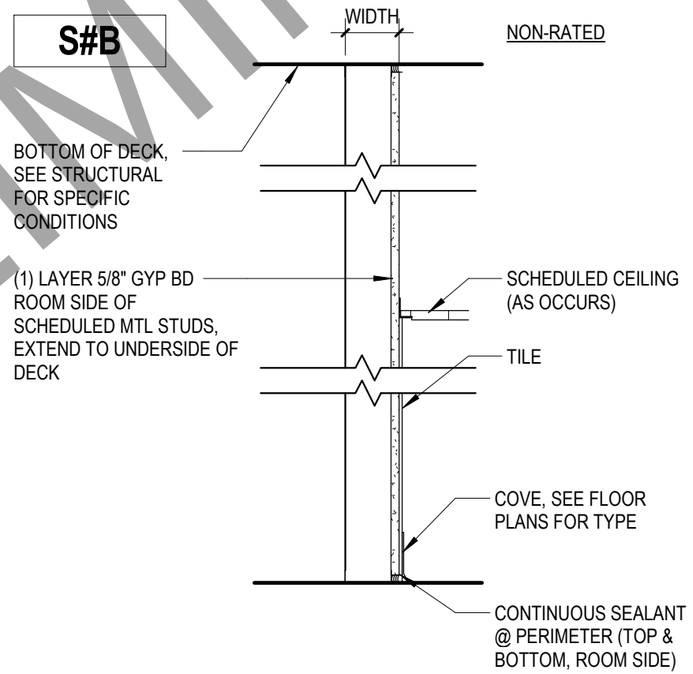
S#A



WALL TYPE #	DESCRIPTION	WIDTH	REF TEST	STC
S3A	3-5/8" MTL STUDS	4-7/8"	UL U465	45

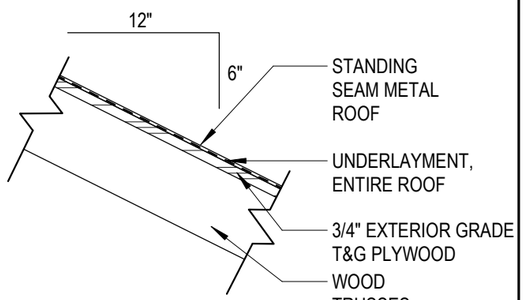
S#B

NON-RATED



WALL TYPE #	DESCRIPTION	WIDTH	REF TEST	STC
S2B	2-1/2" MTL STUDS	3-1/8"	-	-

B3010-01



PRELIMINARY

DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

WALL TYPES AND ASSEMBLIES

DRAWING A05 OF A24

PRE_377

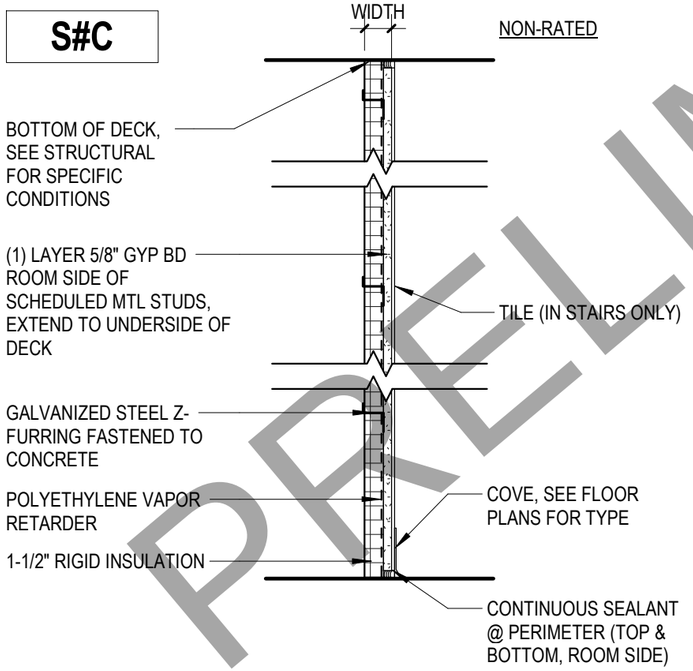
8

8

SHEET NOTES - WALL TYPES

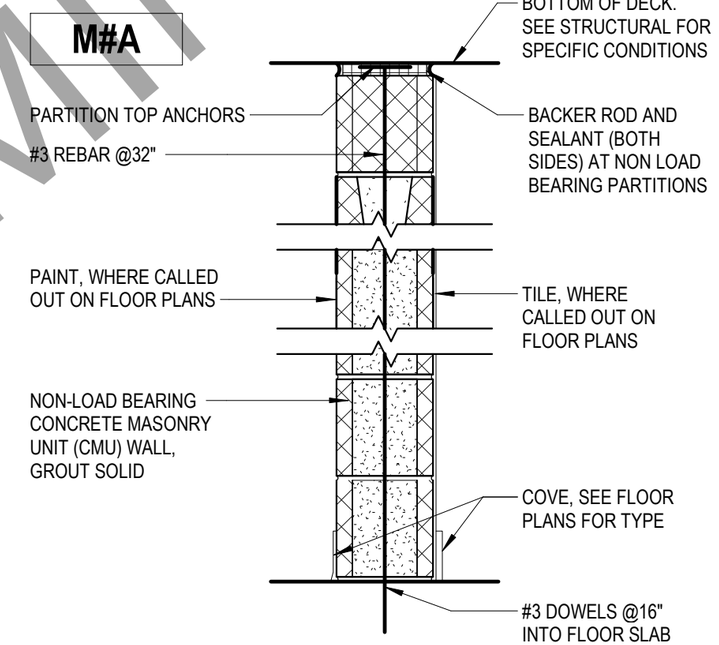
1	REFER TO LIFE SAFETY SHEETS FOR WALL RATINGS, LOCATIONS AND REQUIREMENTS.
2	MAINTAIN RATED WALL ASSEMBLIES BEHIND PREFABRICATED SHOWER / BATH ENCLOSURES AT RATED WALL LOCATIONS.
3	PROVIDE MOISTURE AND MOLD RESISTANT GYP BD ON WALLS AT ALL WET LOCATIONS INCLUDING BUT NOT LIMITED TO TOILET ROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, DRINKING FOUNTAINS, SINKS AND LAVATORIES AT CASEWORK AND EYEWASHES.
4	REPLACE GYP BD LAYER WITH GLASS MAT WATER RESISTANT BACKER BOARD WHERE WALLS ARE SCHEDULED TO RECEIVE CERAMIC TILE OR SOLID SURFACE WALL CLADDING.
5	SEAL ALL PENETRATIONS AND OPENINGS INCLUDING WALL PERIMETER AT SOUND RATED WALLS.
6	PROVIDE FIRE STOP SYSTEMS AT ALL PENETRATIONS AND OPENINGS THROUGH RATED WALL ASSEMBLIES TO MAINTAIN THE INTEGRITY OF CONSTRUCTION WITH UL LISTING.

S#C



WALL TYPE #	DESCRIPTION	WIDTH	REF TEST	STC
S1C	1-1/2" MTL Z--FURRING CHANNELS	2-1/8"	-	-

M#A



WALL TYPE #	DESCRIPTION	WIDTH	REF TEST	STC SOLID	STC HOLLOW
M6A	6" CONC MASONRY UNIT	5-5/8"	-	-	-

PRELIMINARY
DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

WALL TYPES

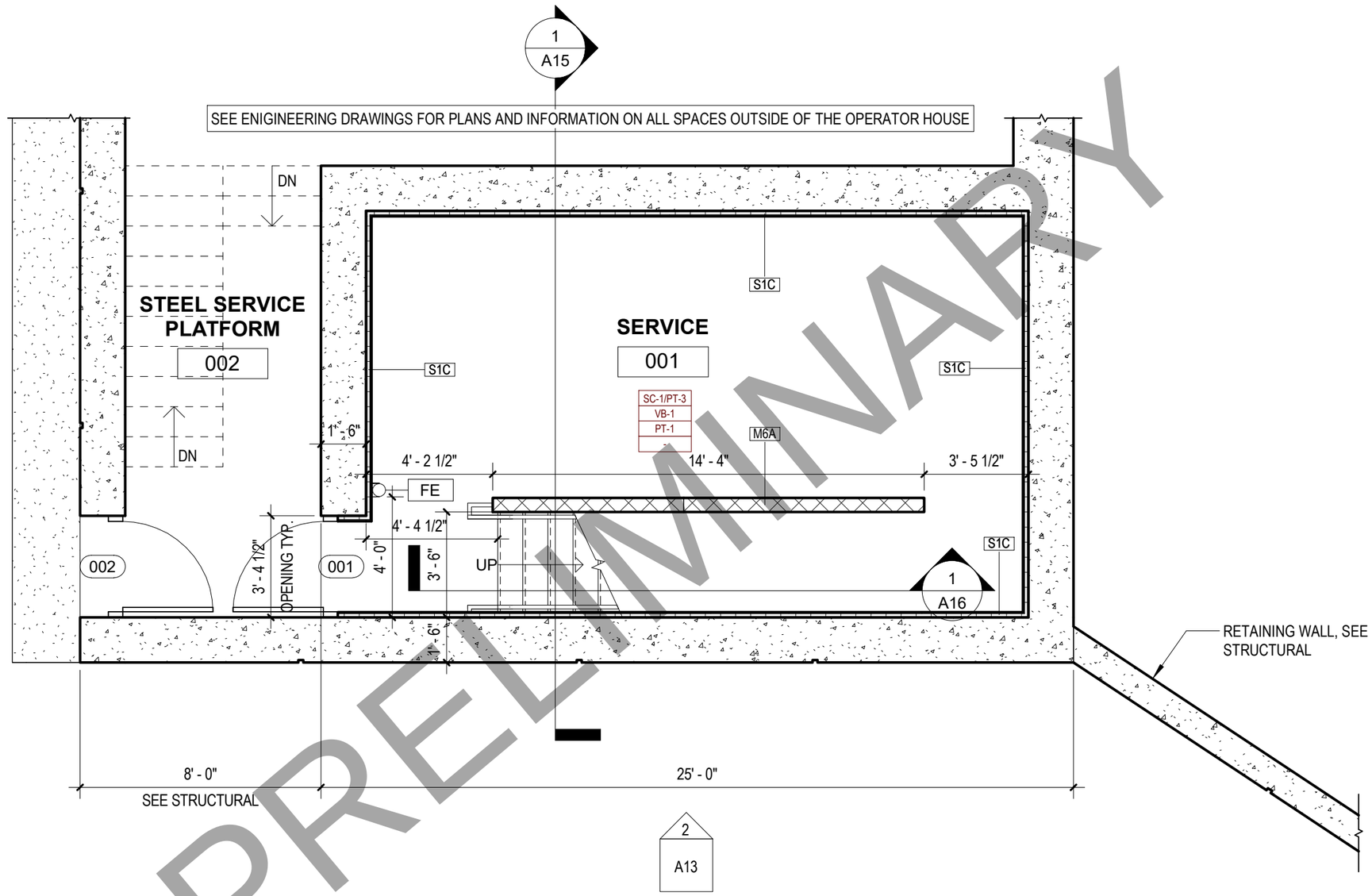
DRAWING A06 OF A24

PRE_378

8

STATE PROJECT NUMBER

4992-03-71



1 SERVICE LEVEL
1/4" = 1'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

FLOOR PLAN - SERVICE LEVEL

DRAWING A07 OF A24

PRE_379

PRELIMINARY

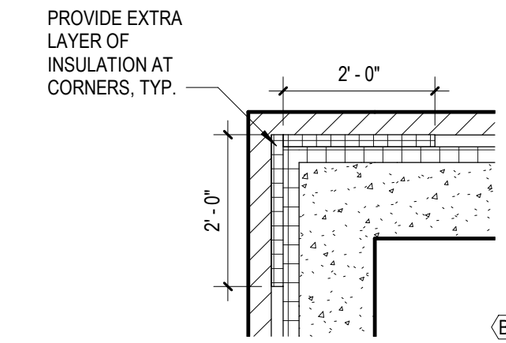
DRAFT April 20, 2020

8

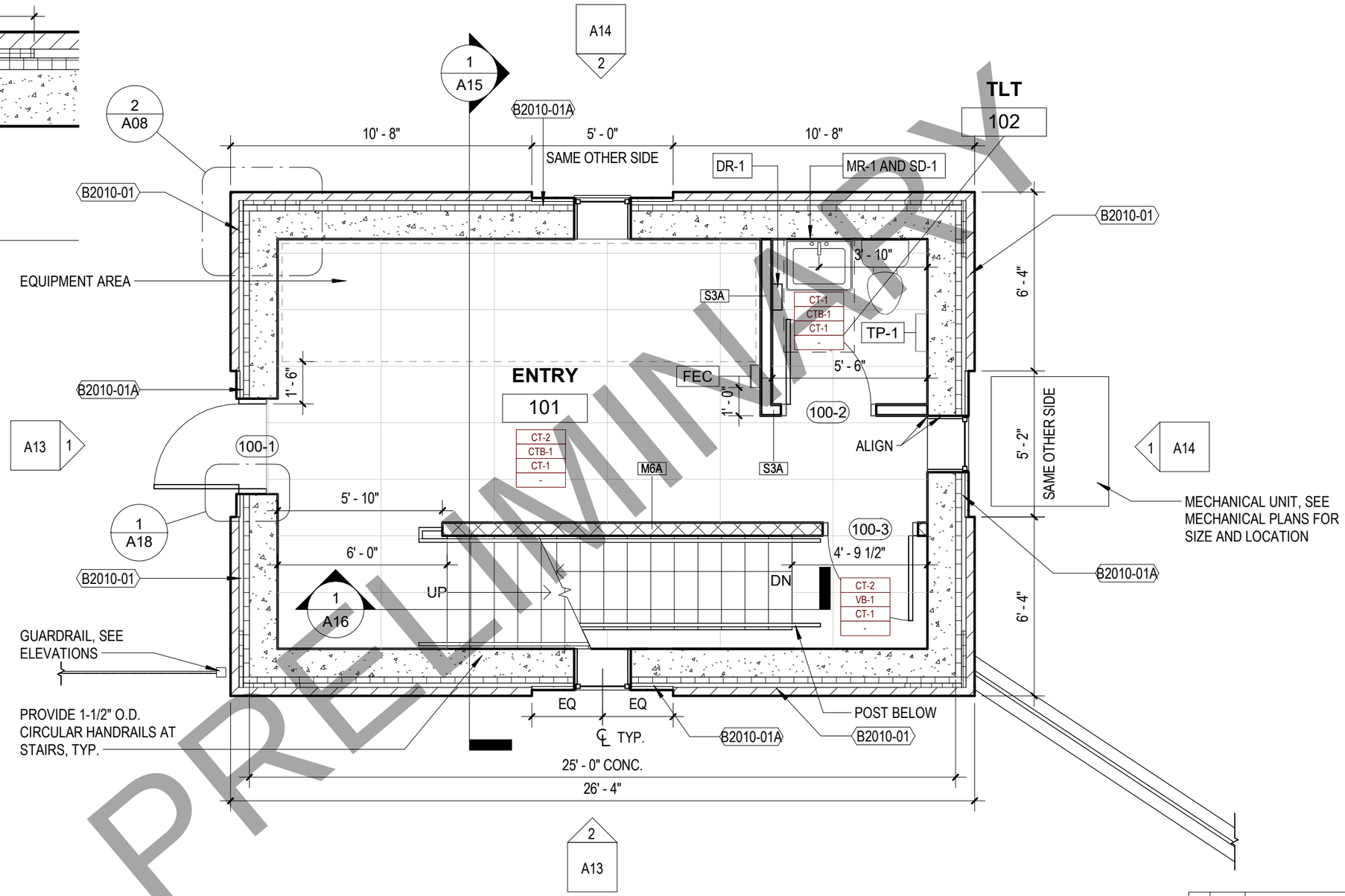
8

STATE PROJECT NUMBER

4992-03-71



2 CORNER DETAIL
1/2" = 1'-0"



1 ENTRY LEVEL
1/4" = 1'-0"

PRELIMINARY

DRAFT April 20, 2020

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

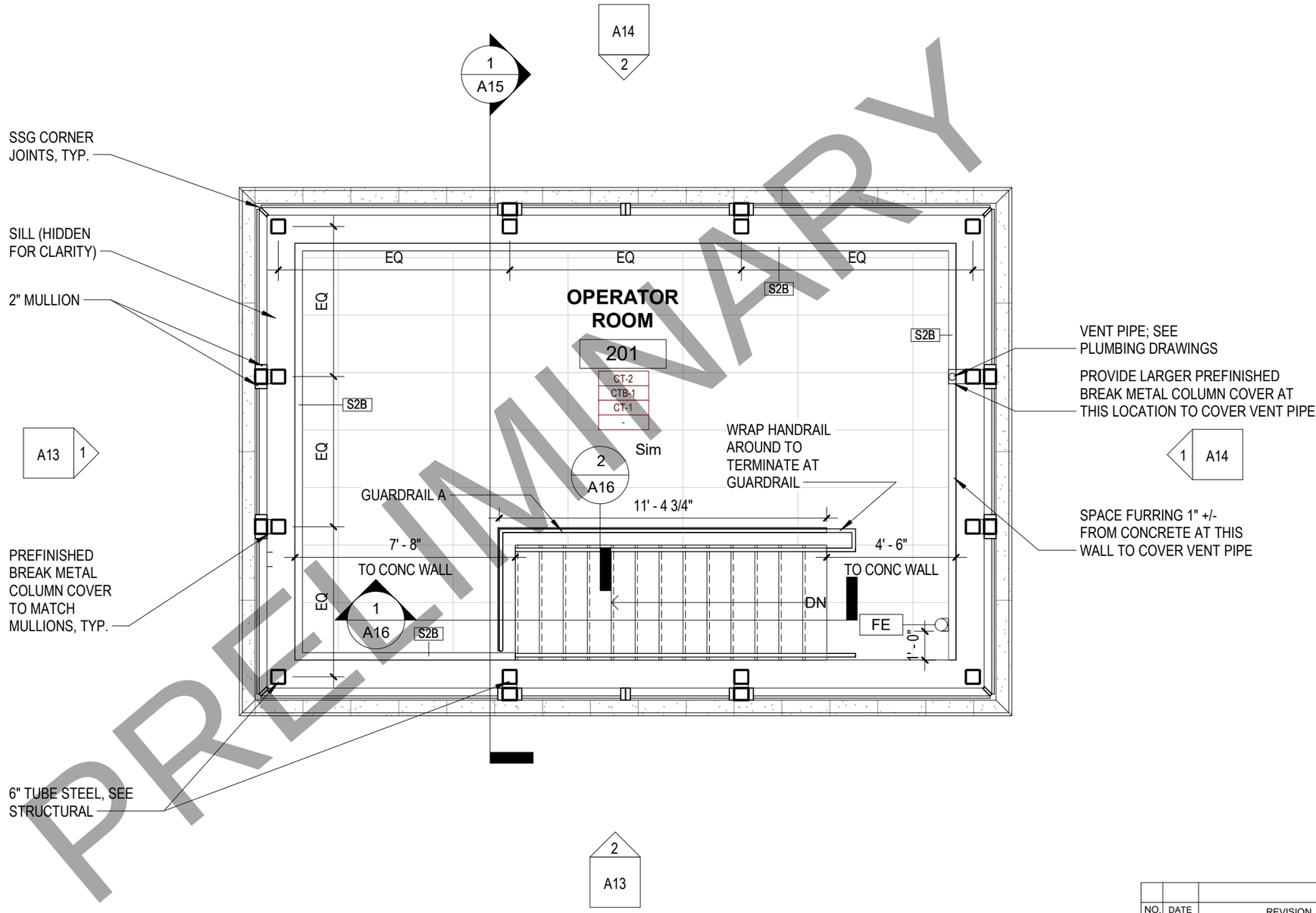
FLOOR PLAN - ENTRY LEVEL

DRAWING A08 OF A24

PRE_380

STATE PROJECT NUMBER
4992-03-71

DRAFT April 20, 2020



PRELIMINARY

1 OPERATOR LEVEL
1/4" = 1'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

FLOOR PLAN - OPERATOR LEVEL

DRAWING A00 OF A24

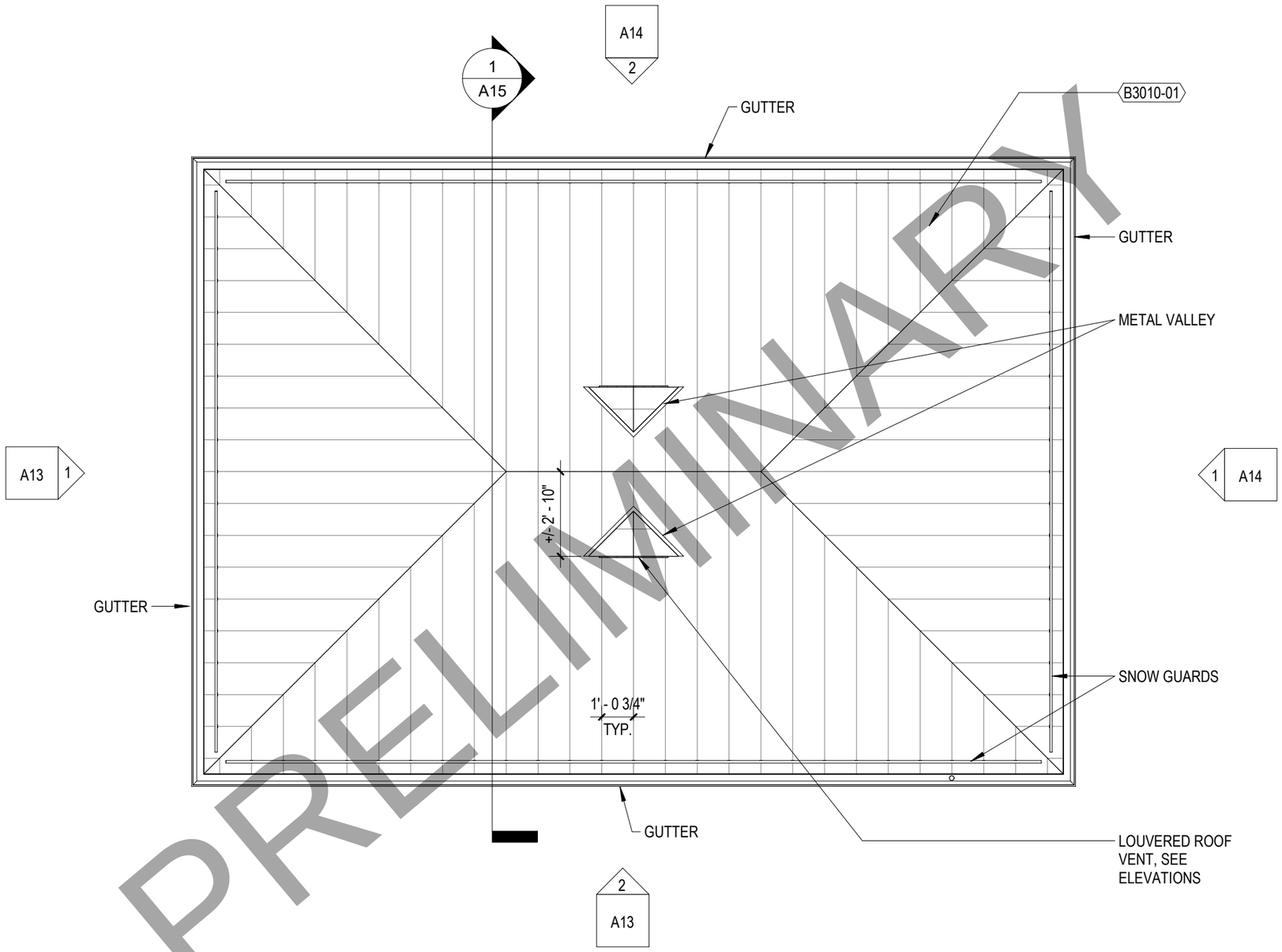
PRE_381

8

8

DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



1 ROOF PLAN
1/4" = 1'-0"

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

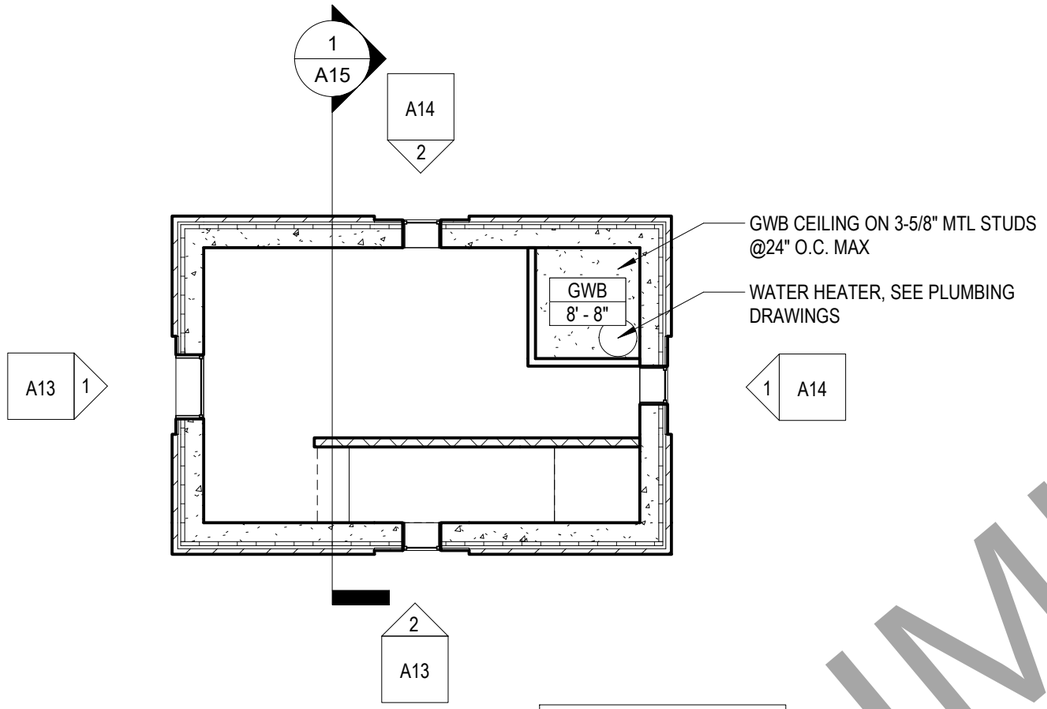
ROOF PLAN

DRAWING A10 OF A24

8

8

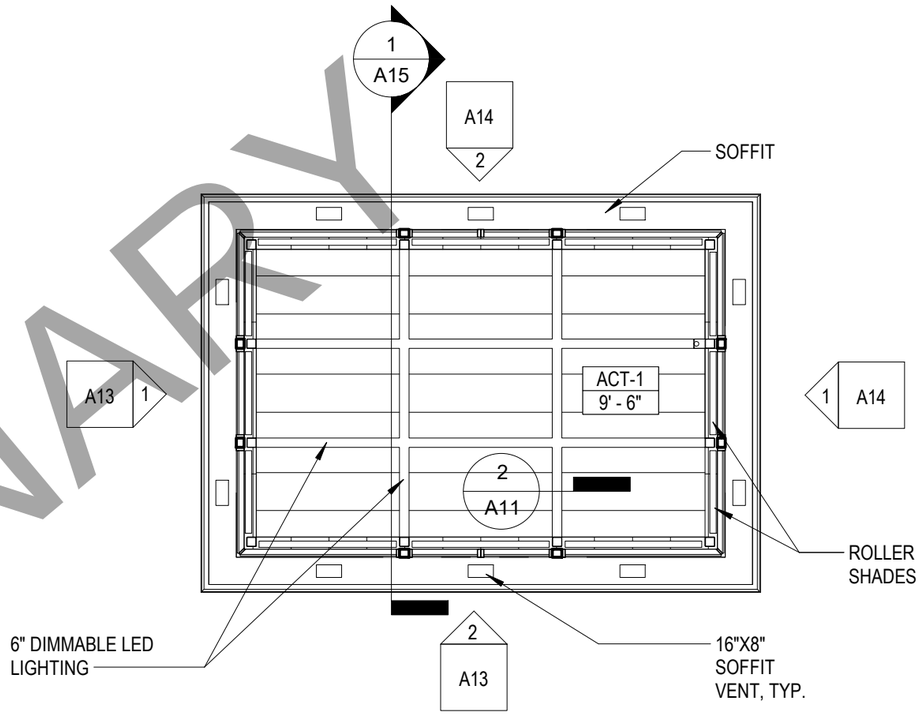
STATE PROJECT NUMBER
4992-03-71



SEE ELECTRICAL PLAN FOR LIGHTING

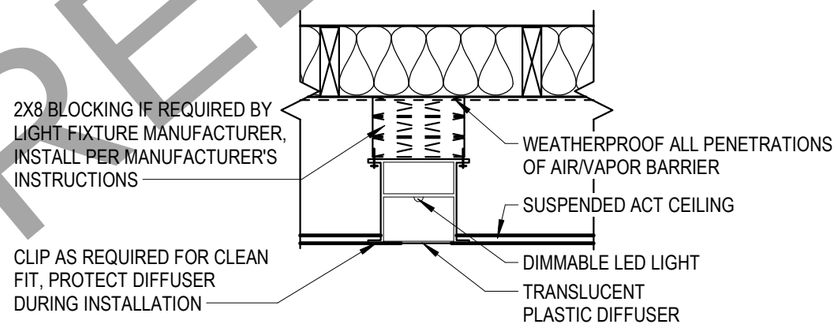
SEE ELECTRICAL PLAN FOR LIGHTING FOR SERVICE LEVEL, PAINTED CONCRETE CEILING FINISH, PT-1

3 RCP - ENTRY LEVEL
1/8" = 1'-0"



ALIGN LIGHTING PATTERN WITH COLUMNS, CUT 2'X8' ACT AS NEEDED, CENTER WHOLE TILE ON BAYS

1 RCP - OPERATOR LEVEL
1/8" = 1'-0"



2 LIGHT FIXTURE SECTION - BASIS OF DESIGN
1" = 1'-0"

PRELIMINARY

DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

CEILING PLANS

DRAWING A11 OF A24

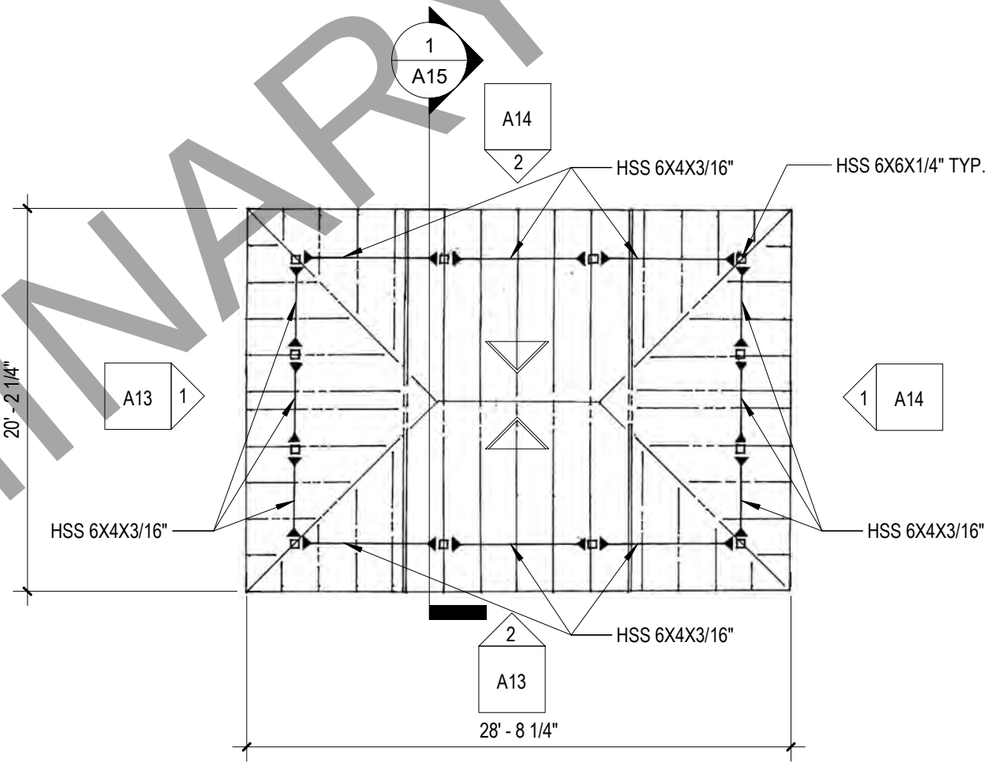
PRE_383

8

8

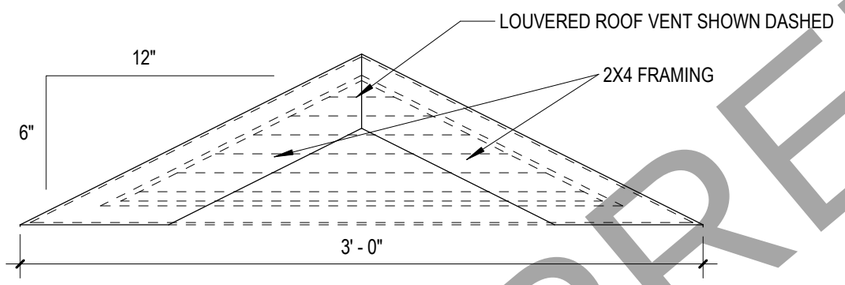
STATE PROJECT NUMBER
4992-03-71

DRAFT April 20, 2020



SEE SHEET P94 FOR STRUCTURAL STEEL DETAILS. ROOF FRAMING DESIGN BY CONTRACTOR.

1 ROOF FRAMING PLAN - ROOF TRUSSES
1/8" = 1'-0"



2 ROOF VENT
1 1/2" = 1'-0"

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

ROOF FRAMING PLAN

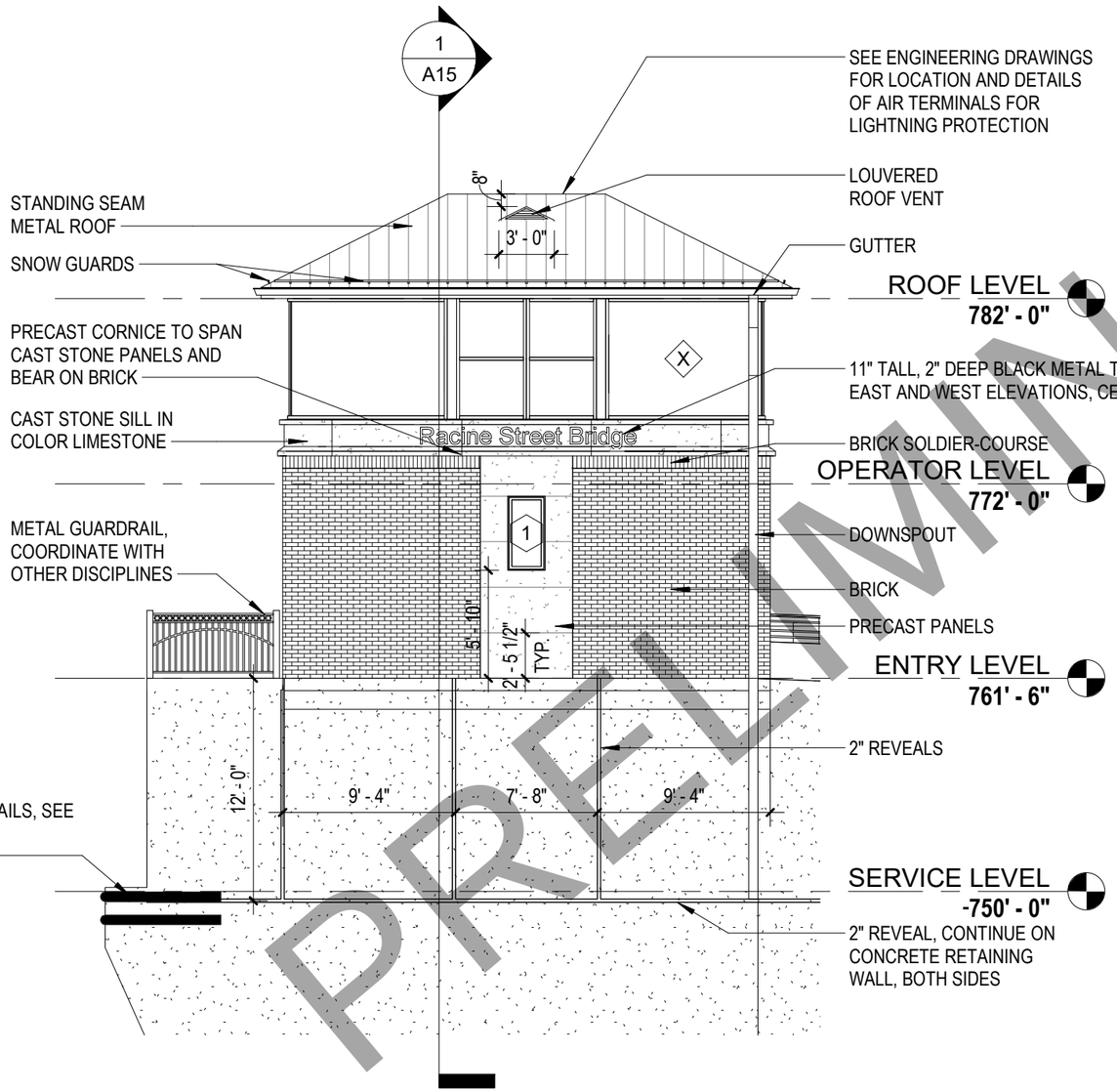
DRAWING A12 OF A24

PRE_384

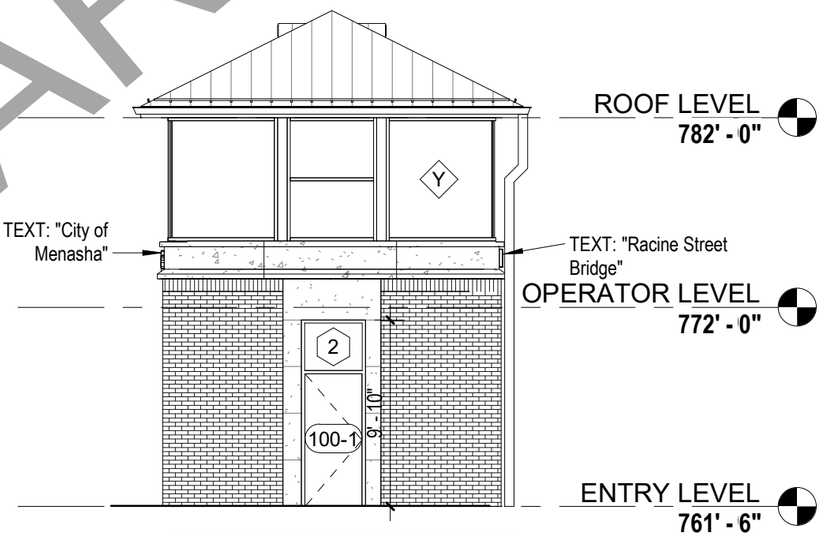
8

8

STATE PROJECT NUMBER
4992-03-71



2 EAST ELEV
1/8" = 1'-0"



SEE NOTES FROM EAST ELEVATION

1 SOUTH ELEV
1/8" = 1'-0"

PRELIMINARY

DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

EXTERIOR ELEVATIONS

DRAWING A13 OF A24

PRE_385

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STATE PROJECT NUMBER
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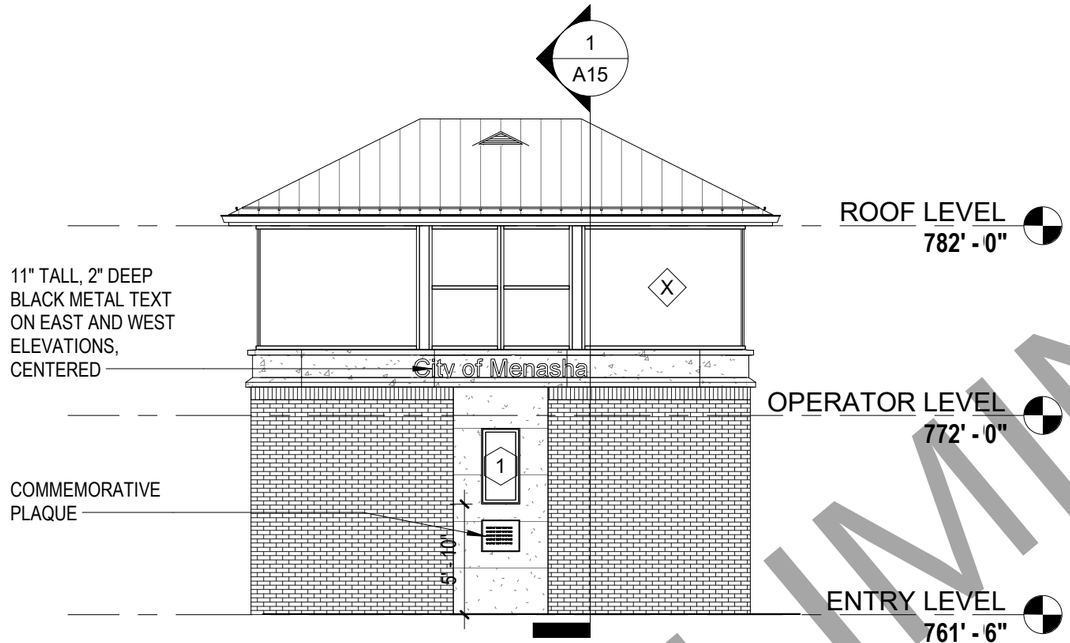
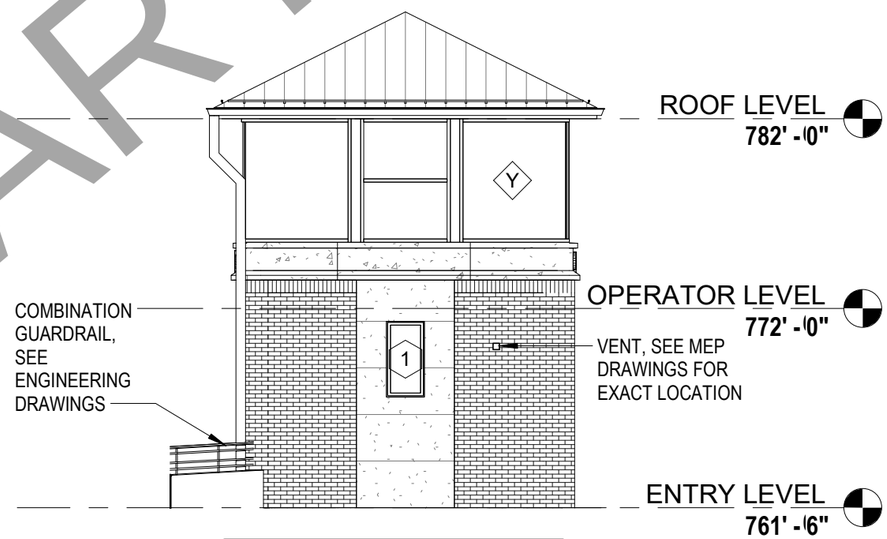


2 WEST ELEV
1/8" = 1'-0"



1 NORTH ELEV
1/8" = 1'-0"

PRELIMINARY

DRAFT April 20, 2020

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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EXTERIOR ELEVATIONS

DRAWING A14 OF A24

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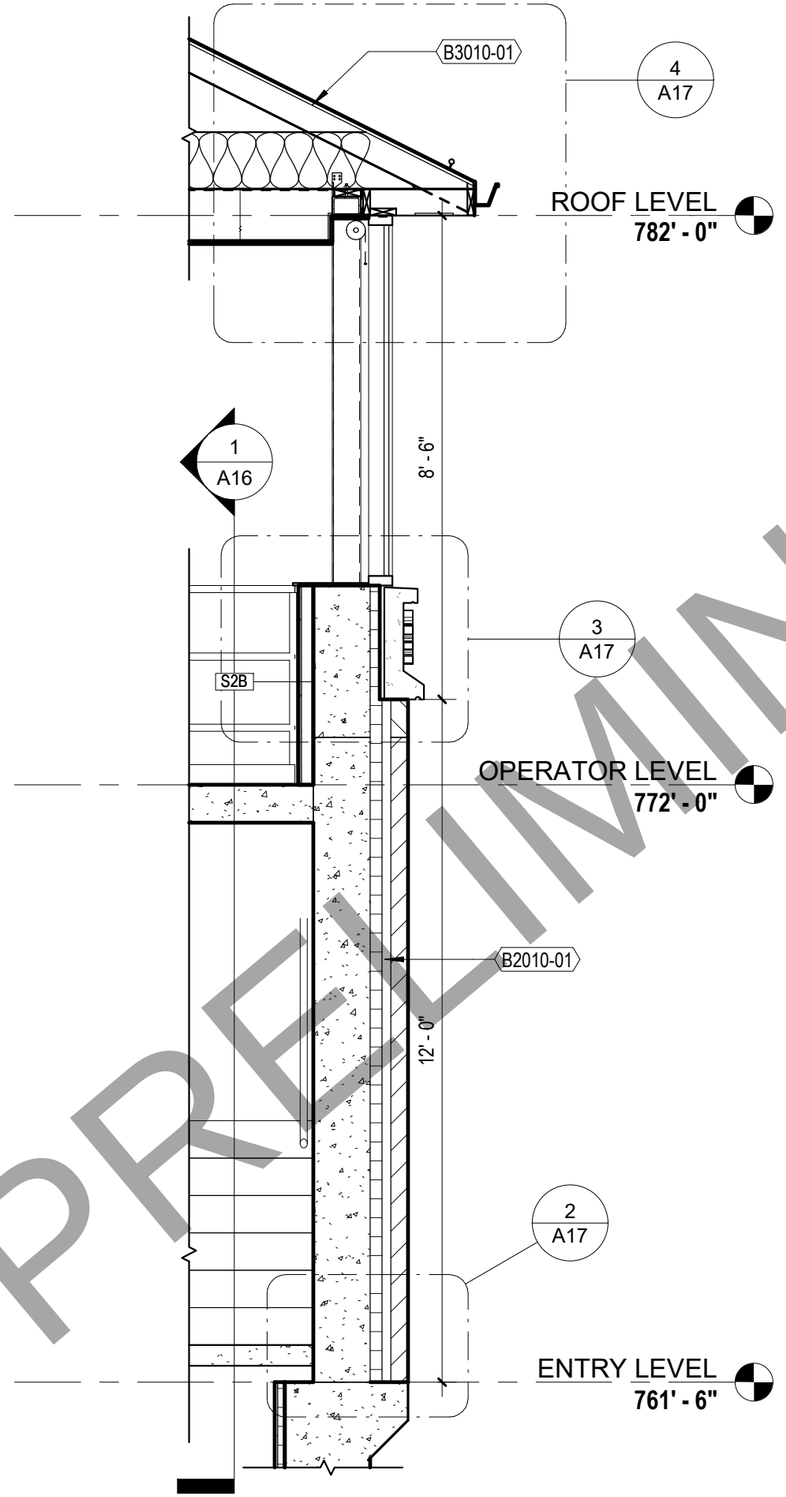
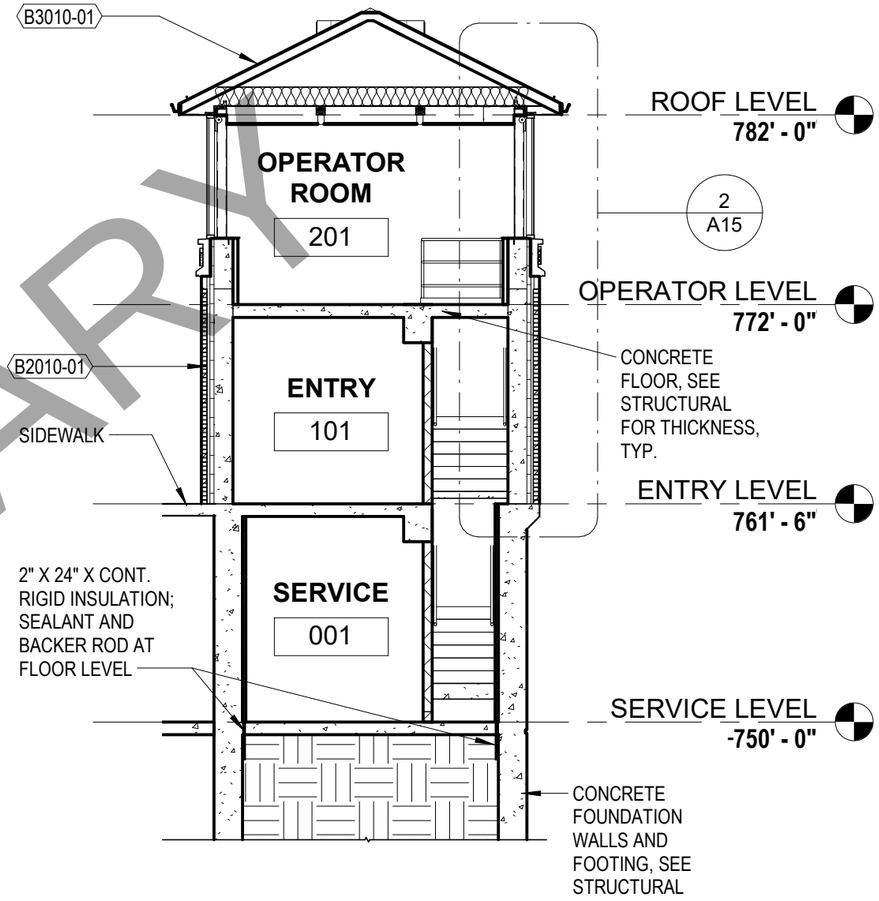


2 EXTERIOR WALL SECTION
3/8" = 1'-0"



1 BUILDING SECTION
1/8" = 1'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
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STRUCTURE B-70-324

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SECTIONS

DRAWING A15 OF A24

PRE_387

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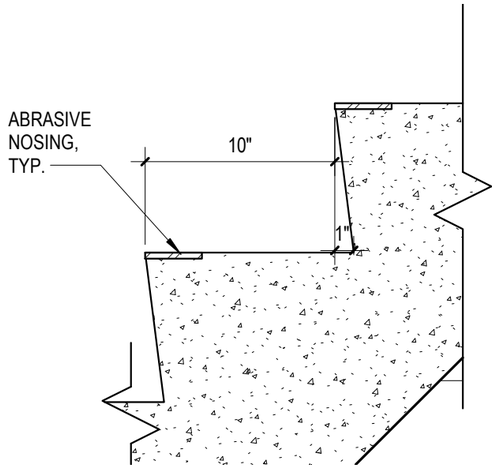
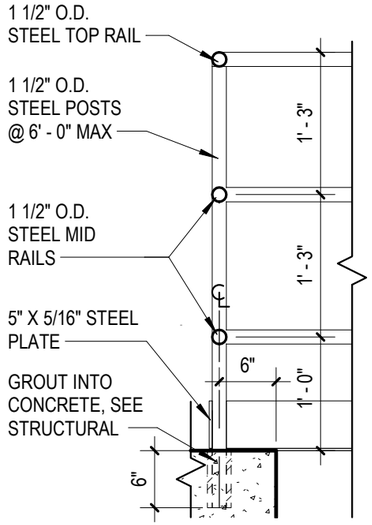
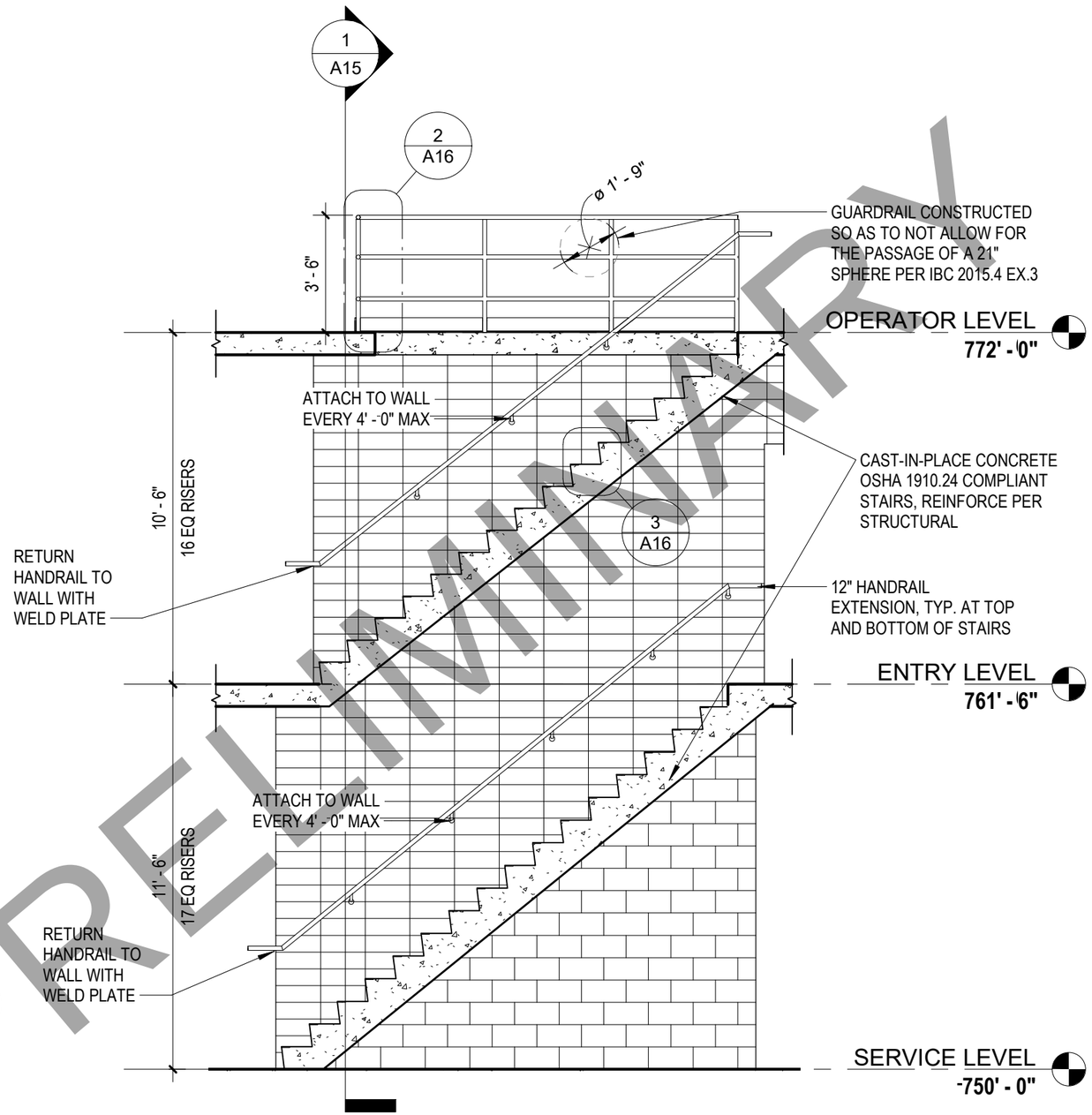


3 STAIR DETAIL
1 1/2" = 1'-0"



2 GUARDRAIL A DETAIL
3/4" = 1'-0"



1 STAIR SECTION
1/4" = 1'-0"

PRELIMINARY
DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
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STRUCTURE B-70-324

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STAIR SECTION AND DETAILS

DRAWING A16 OF A24

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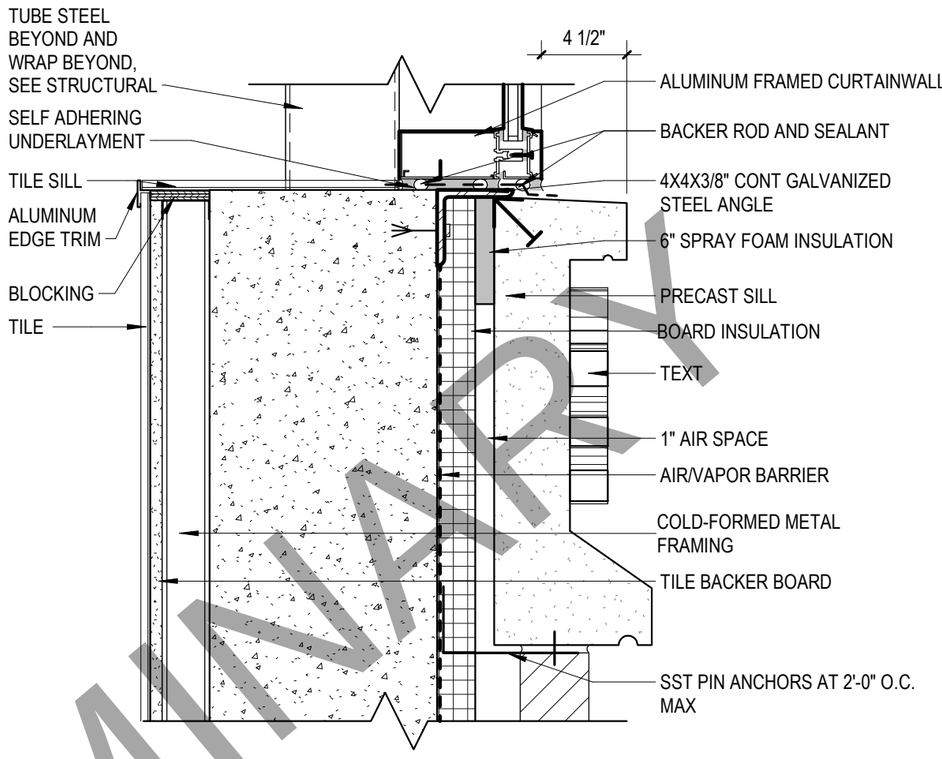
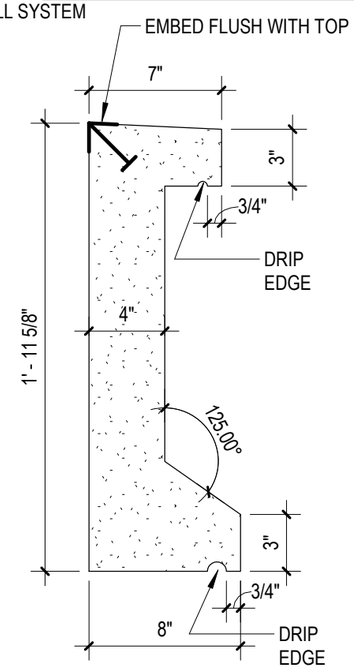
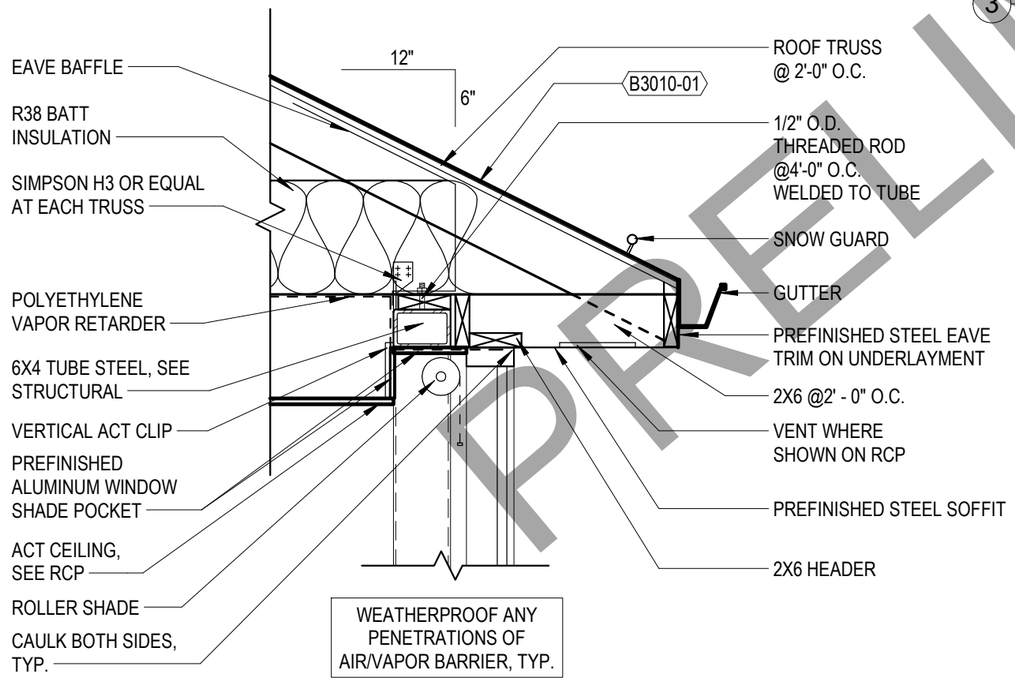


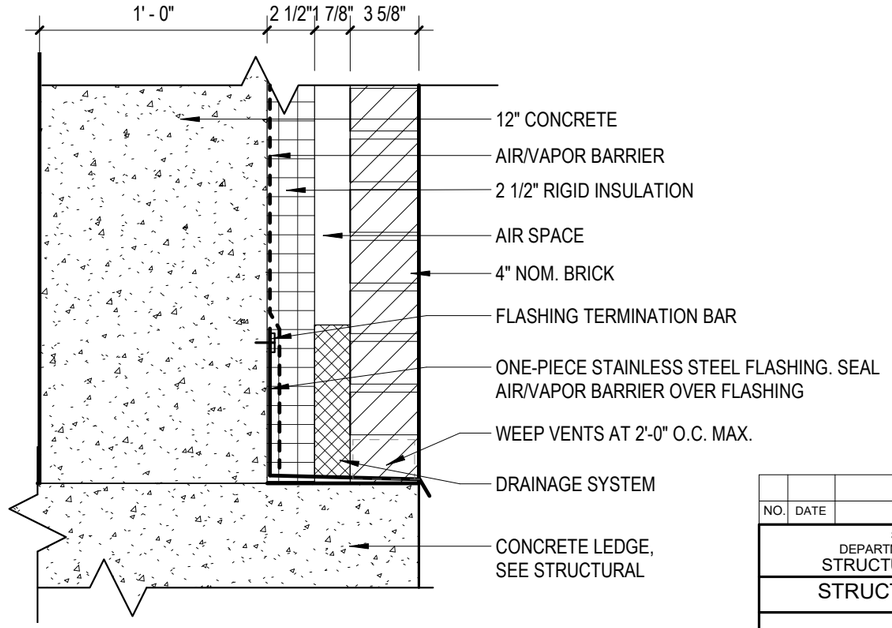
3 DETAIL AT CURTAINWALL SILL
1 1/2" = 1'-0"



1 SILL DETAIL
1 1/2" = 1'-0"



4 DETAIL AT ROOF
3/4" = 1'-0"



2 BASE DETAIL AT WALL
1 1/2" = 1'-0"

PRELIMINARY

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
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STRUCTURE B-70-324

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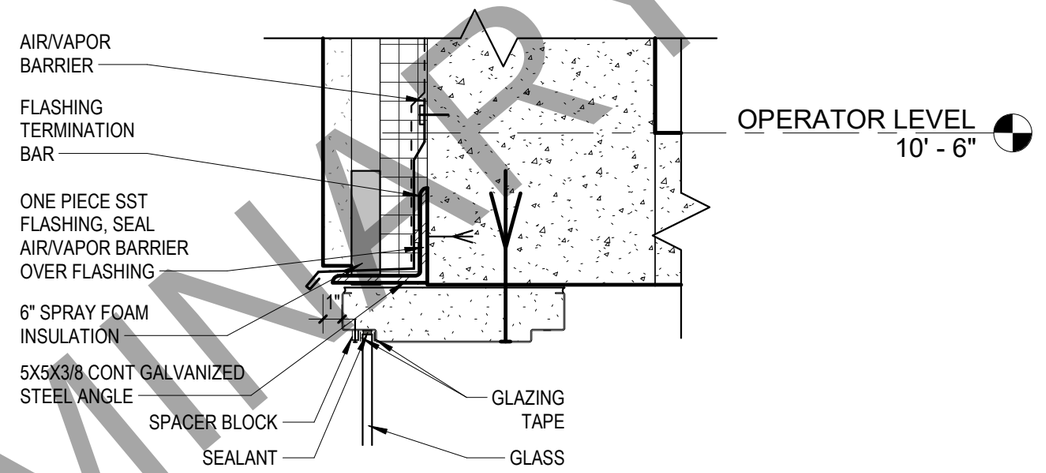
EXTERIOR DETAILS

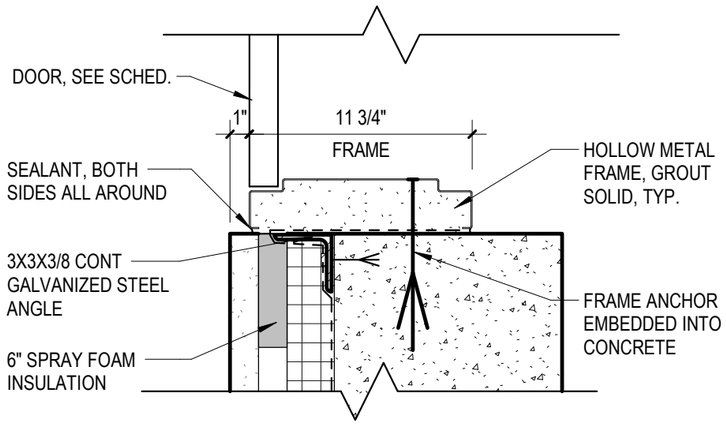
DRAWING A17 OF A24

PRE_389

STATE PROJECT NUMBER
4992-03-71



2 ENTRY DOOR/TRANSOM HEAD DETAIL
1 1/2" = 1'-0"



1 ENTRY DOOR JAMB DETAIL
1 1/2" = 1'-0"

PRELIMINARY

DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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EXTERIOR DETAILS

DRAWING A18 OF A24

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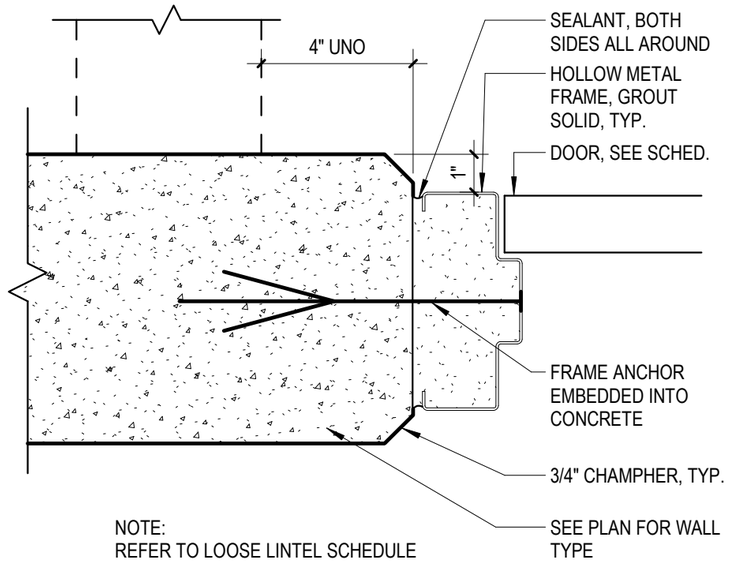
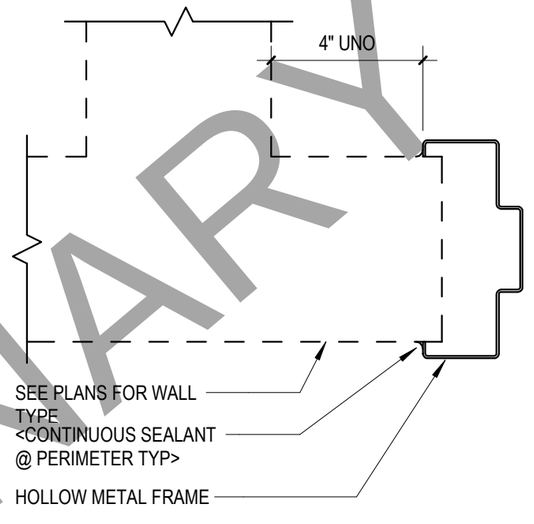
DRAFT April 20, 2020

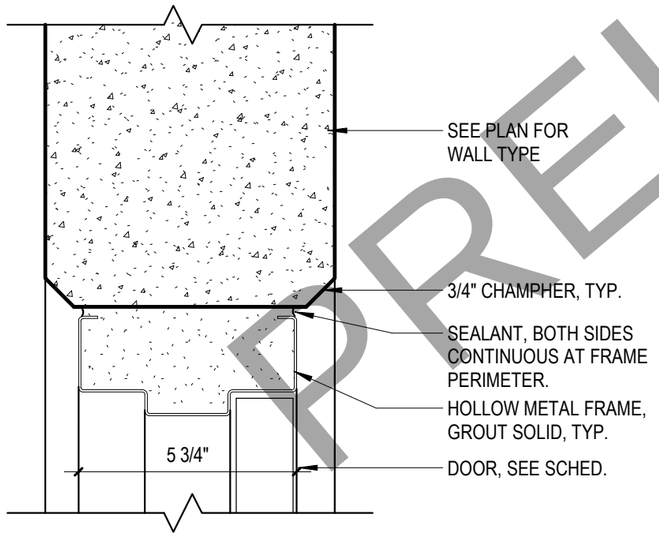


NOTE:
REFER TO LOOSE LINTEL SCHEDULE FOR NON-LOAD BEARING WALL LINTELS.

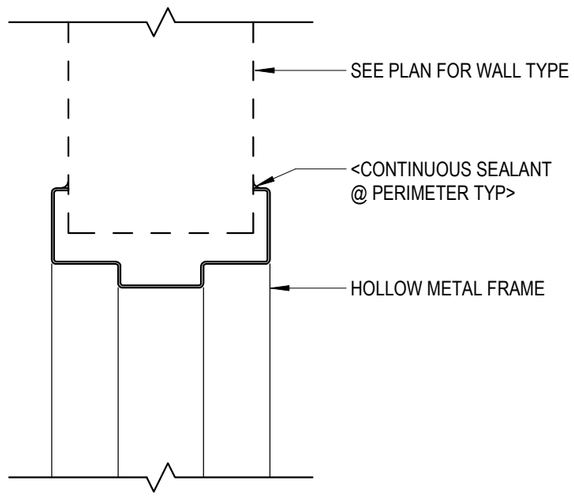
4 HM JAMB @ CAST IN PLACE CONCRETE OR CMU
3" = 1'-0"



2 HM DOOR JAMB - GYP BD
3" = 1'-0"



3 HM HEAD @ CAST IN PLACE CONCRETE OR CMU
3" = 1'-0"



1 HM DOOR HEAD - GYP BD
3" = 1'-0"

PRELIMINARY

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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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DOOR DETAILS

DRAWING A10 OF A24

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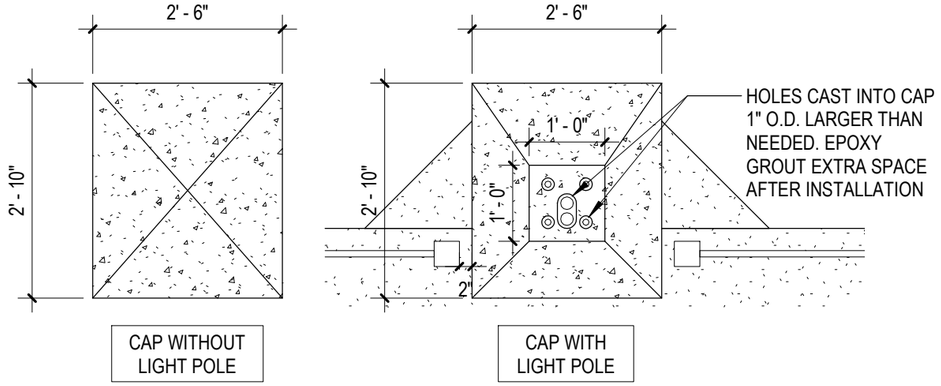
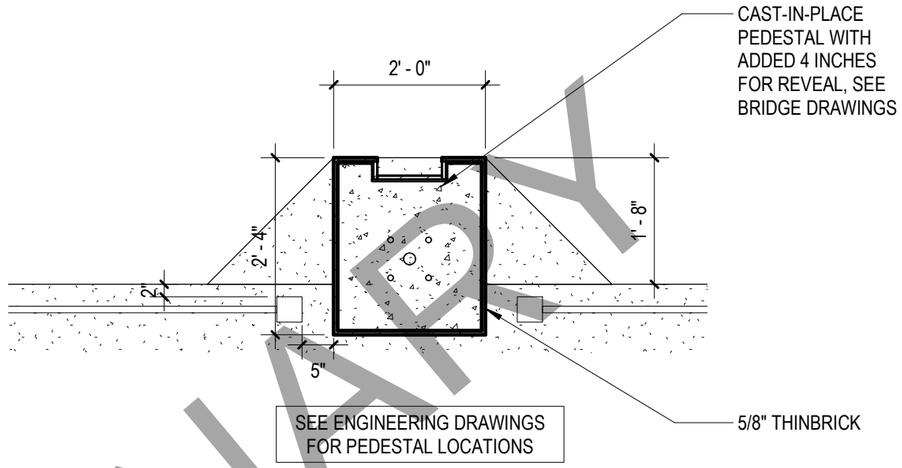
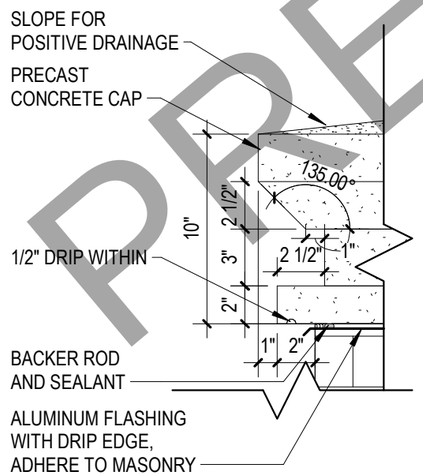


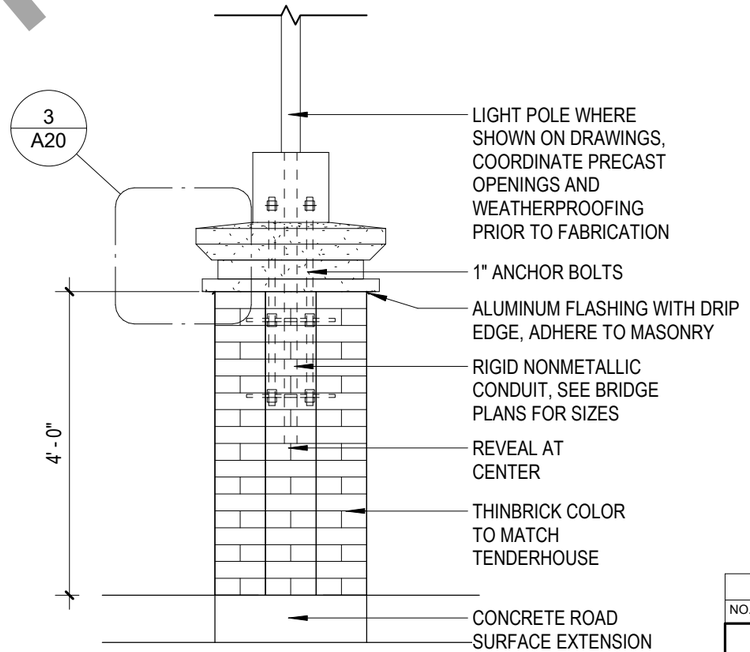
4 PEDESTAL CAP PLAN
1/2" = 1'-0"



2 PEDESTAL PLAN
1/2" = 1'-0"



3 PEDESTAL CAP DETAIL
1 1/2" = 1'-0"



1 PEDESTAL ELEVATION
1/2" = 1'-0"

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STRUCTURE B-70-324

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PEDESTAL DETAILS

DRAWING A20 OF A24

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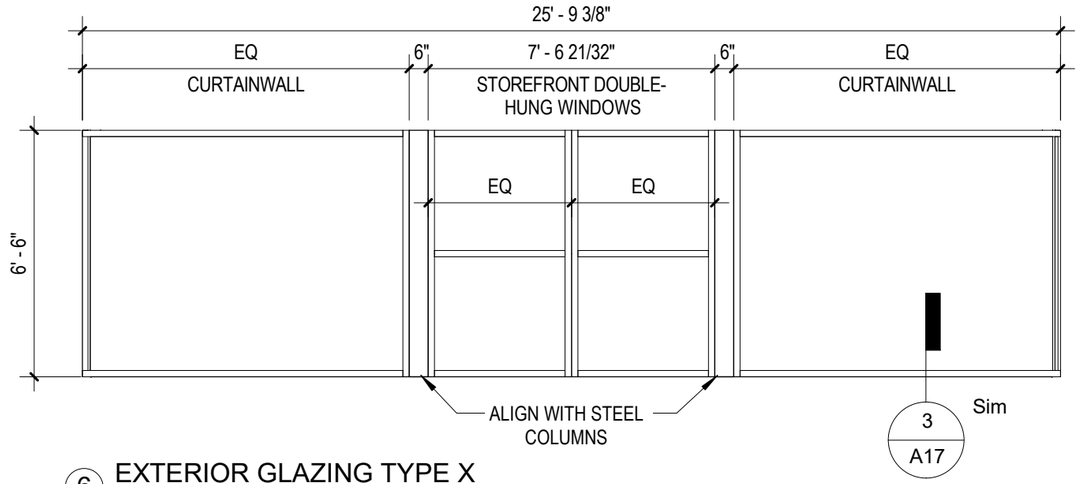
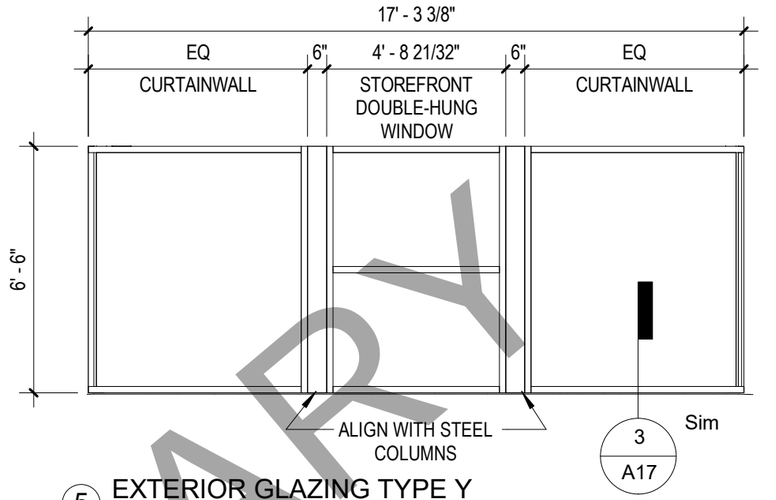


6 EXTERIOR GLAZING TYPE X
1/4" = 1'-0"

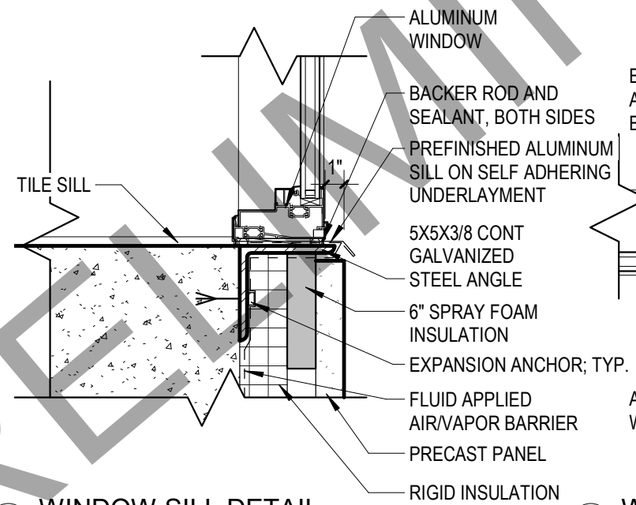


5 EXTERIOR GLAZING TYPE Y
1/4" = 1'-0"

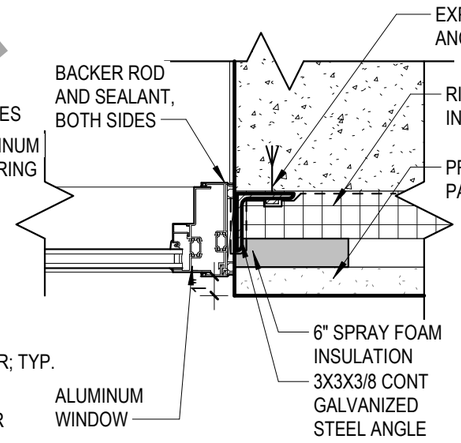
WINDOW TYPE A
(DETAILS 1,2,3/A21)

WINDOW TYPE B
(TRANSOM, DOOR FRAME
DETAILS 1,2/A18)

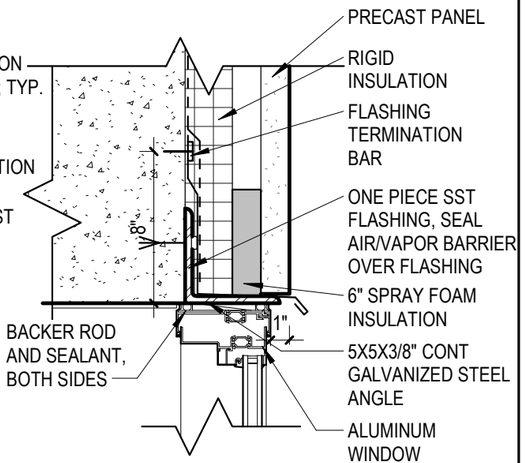
4 WINDOW TYPES
1/4" = 1'-0"



3 WINDOW SILL DETAIL
1 1/2" = 1'-0"



2 WINDOW JAMB DETAIL
1 1/2" = 1'-0"



1 WINDOW HEAD DETAIL
1 1/2" = 1'-0"

NOTE: PAINT EXPOSED PORTIONS OF STEEL LINTELS AND SUPPORT ANGLES

PRELIMINARY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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WINDOW AND GLAZING LEGENDS AND DETAILS

DRAWING A21 OF A24

PRE_393

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DOOR AND FRAME SCHEDULE

NUMBER	DOOR							FRAME						HDWE TAG	RATING (MIN)	REMARKS
	SIZE			TYPE	MAT	FIN	GL	TYPE	MAT	FIN	DETAIL					
	LEAF QTY	WIDTH	HGT								HEAD	JAMB	SILL			
001	1	3' - 0"	7' - 0"	F	HM	PT-2	-	01	HM	PT-2	3/A19	4/A19	-	2	-	-
002	1	3' - 0"	7' - 0"	F	HM	PT-2	-	01	HM	PT-2	3/A19	4/A19	-	4	-	-
100-1	1	3' - 0"	7' - 0"	F	HM	PT-2	-	01	HM	PT-2	2/A18	1/A18	-	1	-	-
100-2	1	3' - 0"	7' - 0"	F	HM	PT-2	-	01	HM	PT-2	1/A19	2/A19	-	3	-	-
100-3	1	3' - 0"	7' - 0"	F	HM	PT-2	-	01	HM	PT-2	3/A19	4/A19	-	2	-	-
S001	1	3' - 0"	7' - 0"	F	HM	PT-2	-	01	HM	PT-2	3/A19	4/A19	-	1	-	SOUTH BASCULE PIER DOOR - SEE ENGINEERING DRAWINGS.
S101	1	3' - 0"	7' - 0"	F	HM	PT-2	-	01	HM	PT-2	3/A19	4/A19	-	1	-	SOUTH BASCULE PIER DOOR - SEE ENGINEERING DRAWINGS.

MATERIAL SCHEDULE

MANUFACTURERS AND COLORS ARE PROVIDED AS A BASIS OF DESIGN. SEE SPEC FOR MORE INFORMATION.

CODE	DESCRIPTION	MANUFACTURER	PRODUCT	COLOR	FINISH	SIZE	REMARKS
A							
ACT-1	ACOUSTICAL CEILING TILE	ARMSTRONG		FLAT CHARCOAL GRAY	-	2' X 8'	-
C							
CT-1	CERAMIC TILE	DALTILE	ANAPOLIS	AP06	GLOSSY	6" X 16"	WALL TILE AND INTERIOR WINDOW SILLS
CT-2	CERAMIC TILE	DALTILE	DIGNITARY	EMINANCE GREY DR10	MATTE	24" X 48"	FLOOR TILE
CTB-1	CERAMIC TILE BASE	DALTILE	DIGNITARY	EMINANCE GREY DR10	MATTE	24" X 48" CUT TO 6" BASE HEIGHT	WALL BASE AT OPERATOR LEVEL
P							
PT-1	PAINT	BENJAMIN MOORE		MARITIME WHITE OC-5	SATIN	-	BASE WALL PAINT
PT-2	PAINT	BENJAMIN MOORE		BLACK BEAUTY 2128-10	SATIN	-	DOOR AND FRAME PAINT
PT-3	PAINT			LIGHT GRAY	SATIN, TEXTURED	-	SERVICE LEVEL FLOOR EPOXY PAINT/COATING
S							
SC-1	SEALED CONCRETE	-	-	-	-	-	PREPARE TO RECEIVE PAINT FINISH
V							
VB-1	VINYL BASE	ARMSTRONG	COLOR-INTEGRATED VINYL WALL BASE	02 IRON	-	4"	-

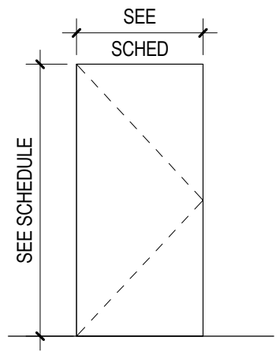
DOOR HARDWARE SCHEDULE

SET 1: 3 BUTTS
STOREROOM LOCKSET WITH LEVER HANDLE
AUTOMATIC CLOSER
THRESHOLD
WEATHERSTRIPPING
DRIP CAP
KICK PLATE
WALL STOP OR OVERHEAD STOP (WHERE OCCURS)

SET 2: 3 BUTTS
LEVER HANDLE
AUTOMATIC CLOSER
KICK PLATE
WALL STOP

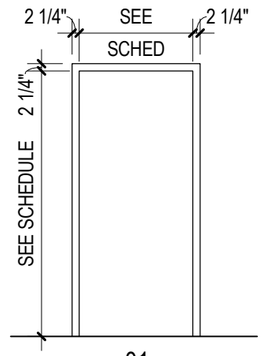
SET 3: 3 BUTTS
PRIVACY LOCKSET WITH LEVER HANDLE
WALL STOP

SET 4: 3 BUTTS
LEVER HANDLE
AUTOMATIC CLOSER
THRESHOLD
WEATHERSTRIPPING
KICK PLATE
WALL STOP



F
FLUSH

2 DOOR TYPES
1/4" = 1'-0"



01

1 FRAME TYPES
1/4" = 1'-0"

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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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SCHEDULES

DRAWING A22 OF A24

PRE_394

PRELIMINARY

DRAFT April 20, 2020

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STATE PROJECT NUMBER
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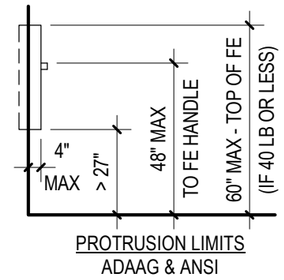
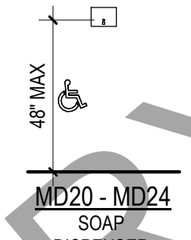
DIMENSION NOTES

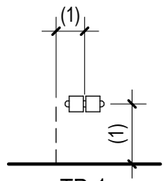
(1) SEE TP DISPENSER DIAGRAM
FOR ADDITIONAL MOUNTING INFORMATION
(2) NON-ACCESSIBLE
(3) TOP OF SHELF
(4) TOP OF BAR OR PIN
(5) TOP OF WASTE OPENING
(6) TOP OF DISPENSER OPENING
(7) TOP OF HOOK
(8) TOP OF OPERABLE PART
(9) BOTTOM ROLL
(10)TOP OF CHANGING BED



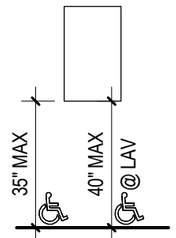
FEC FIRE EXTINGUISHER CABINET



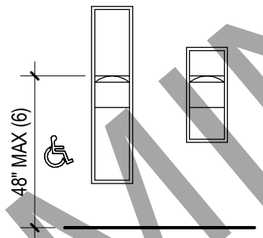
SD SOAP DISPENSER



TP TOILET PAPER DISPENSER



MR MIRRORS



DR DISPENSER & WASTE

PRELIMINARY

DRAFT April 20, 2020

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1 TYP MOUNTING HEIGHTS
1/4" = 1'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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MOUNTING HEIGHTS

DRAWING A23 OF A24

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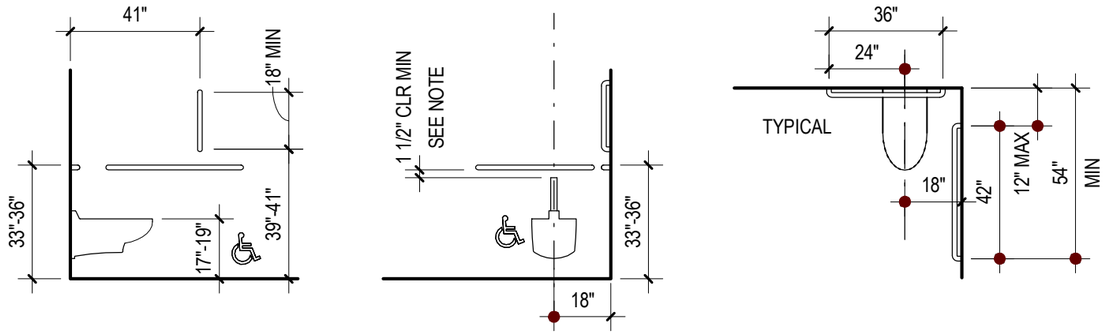
4992-03-71

NOTE
CLEAR DIMENSION IS FROM BOTTOM OF GRAB BAR TO ***ANY*** PLUMBING COMPONENT

NOTE
PROVIDE BLOCKING IN WALL AS REQUIRED FOR GRAB BARS

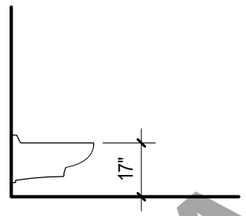


SIDE ELEVATION
WATER CLOSET
ADAAG & ANSI

FRONT ELEVATION
WATER CLOSET
ADAAG & ANSI

PLAN
WATER CLOSET
ADAAG & ANSI

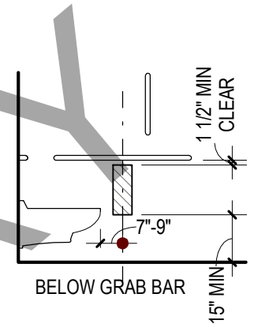
TOILETS & GRAB BARS



SIDE ELEVATION
WATER CLOSET
NON-ACCESSIBLE

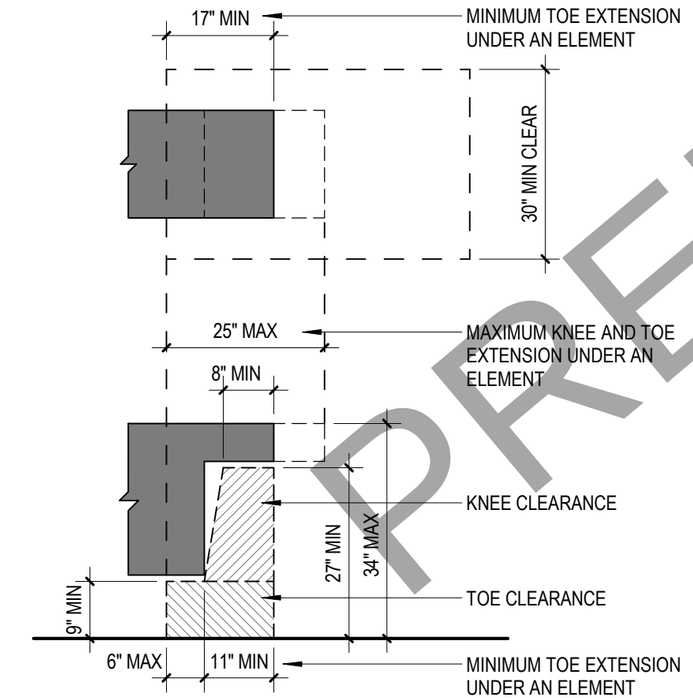
TOILETS

NOTE
MIN & MAX DIMENSIONS ARE TO THE BOTTOM OF THE DISPENSER

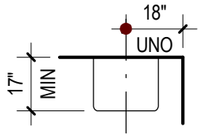


SIDE ELEVATIONS
ADAAG & ANSI

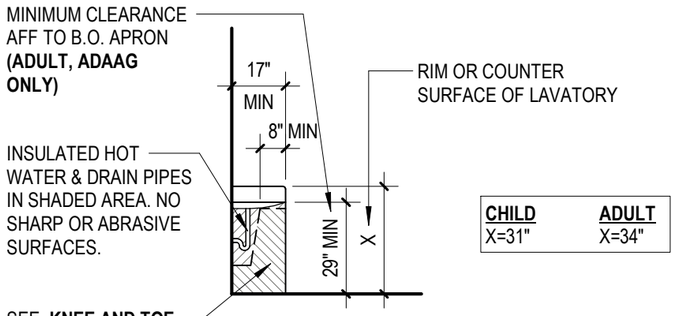
TP DISPENSERS



KNEE & TOE CLEARANCE ADULT (NTS)



PLAN
WALL MOUNT
ADAAG ONLY



CHILD	ADULT
X=31"	X=34"

SIDE ELEVATION

LAVATORIES

1 PLUMBING FIXTURE MOUNTING
1/4" = 1'-0"

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY KD | PLANS CK'D. JP

MOUNTING HEIGHTS

DRAWING A24 OF A24

PRE_396

PRELIMINARY

DRAFT April 20, 2020

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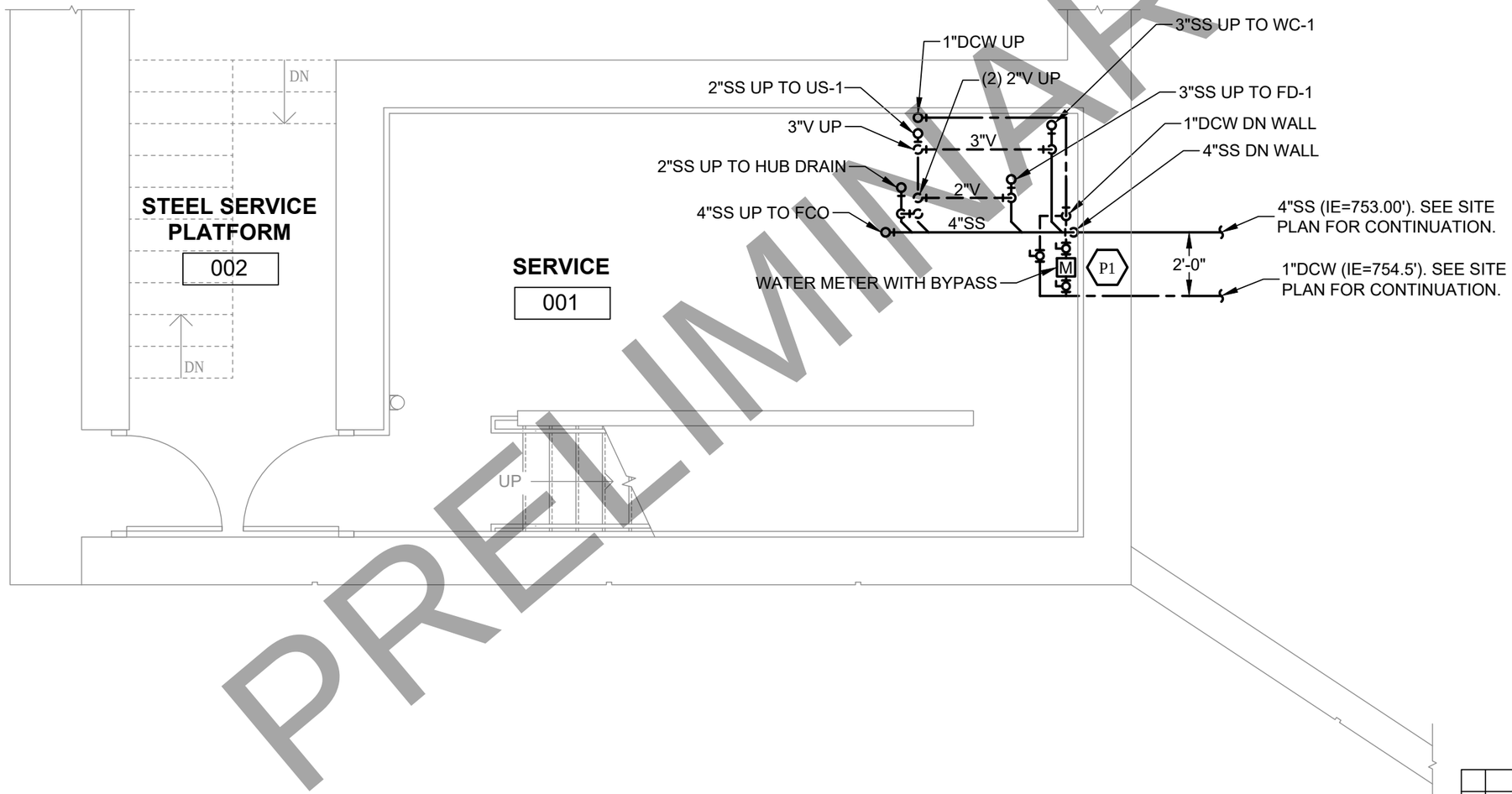
STATE PROJECT NUMBER
4992-03-71

KEY NOTES

P1	MOUNT WATER METER ON WALL. FIELD VERIFY EXACT LOCATION. COORDINATE WATER METER SIZE WITH LOCAL UTILITY.



1 SERVICE LEVEL PLUMBING PLAN
1/4" = 1'-0"

PRELIMINARY

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY MB | PLANS CK'D. MR

PLUMBING FLOOR PLAN - SERVICE LEVEL

DRAWING PRE_397 H10

8

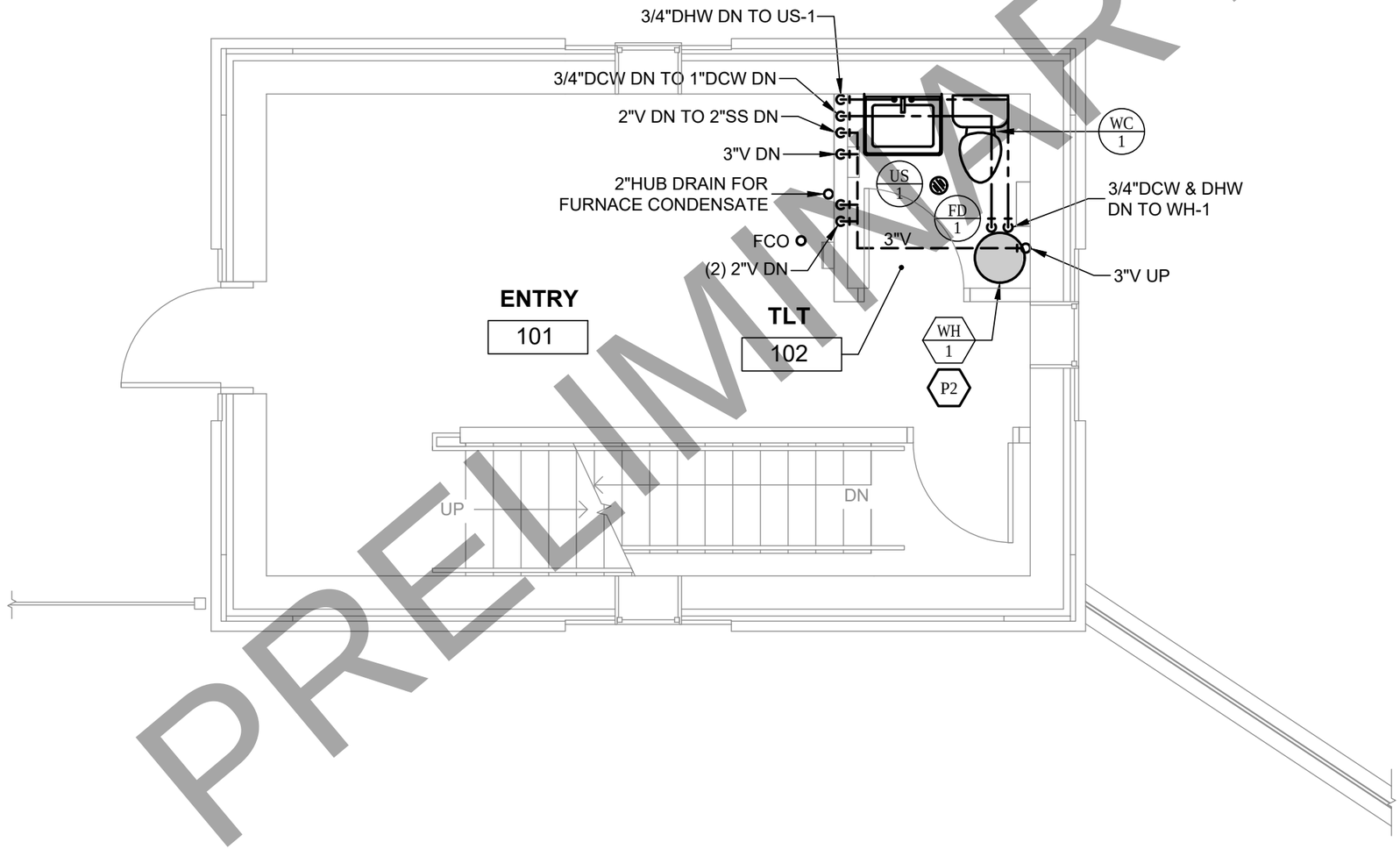
8

DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71

KEY NOTES

P#	
P2	MOUNT WATER HEATER (WH-1) ON WALL AT A HEIGHT OF 7'-0"AFF. SEE THE ELECTRIC WATER HEATER DETAIL LOCATED ON SHEET H05. FIELD VERIFY EXACT LOCATION.



PRELIMINARY

1 ENTRY LEVEL PLUMBING PLAN
1/4" = 1'-0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	MB	PLANS CK'D.	MR

PLUMBING FLOOR PLAN - ENTRY LEVEL

DRAWING H10

PRE_398

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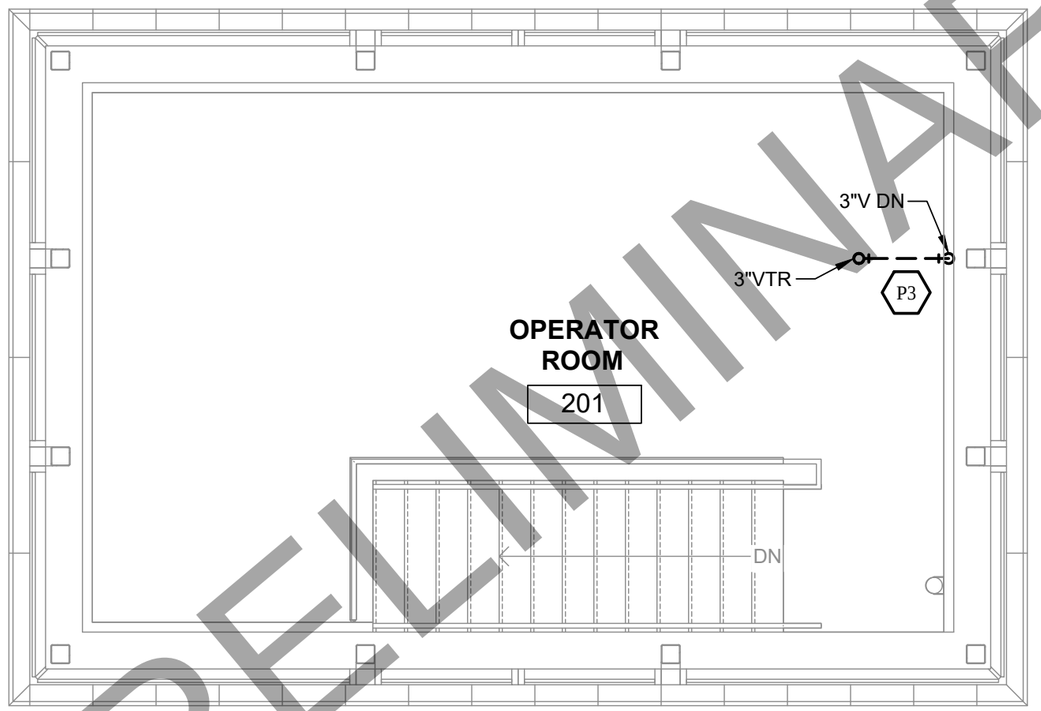
STATE PROJECT NUMBER
4992-03-71

KEY NOTES (KN)

P3	OFFSET 3"V IN ATTIC SPACE. FIELD VERIFY EXACT LOCATION OF 3"VTR.



PRELIMINARY

1 OPERATOR LEVEL PLUMBING PLAN
1/4" = 1'-0"

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	MB	PLANS CK'D.	MR

PLUMBING FLOOR PLAN - OPERATOR LEVEL

DRAWING H10

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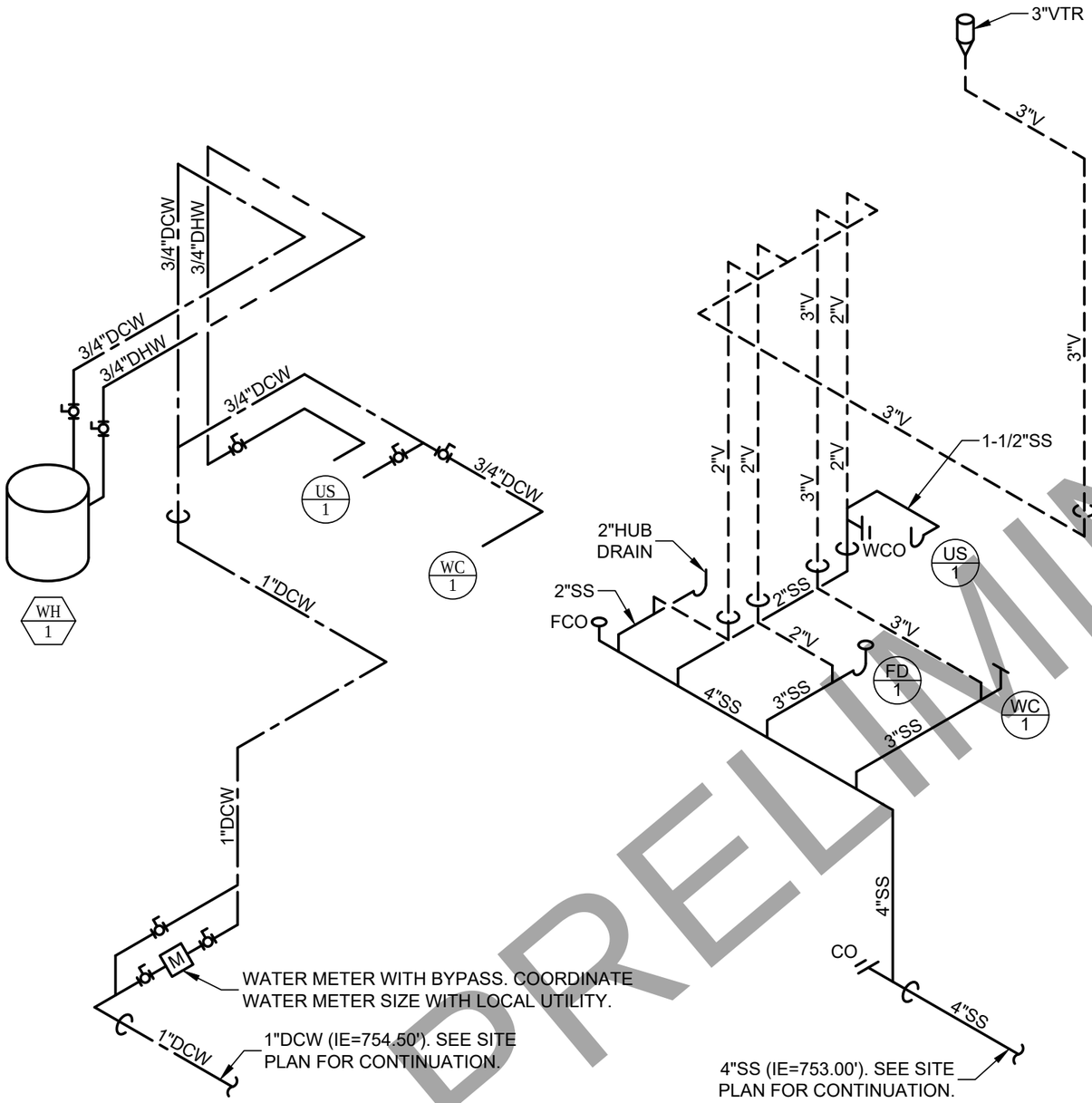

2 DOMESTIC WATER ISOMETRIC
NTS

1 SANITARY WASTE & VENT ISOMETRIC
NTS

PLUMBING LEGEND

- PLUMBING EQUIPMENT
- P# — KEY NOTE
- DCW — DOMESTIC COLD WATER
- DHW — DOMESTIC HOT WATER
- SS — SANITARY SEWER
- V — SANITARY VENT
- WH / XX — PLUMBING EQUIPMENT TAG ELECTRICALLY POWERED
- WC / XX — PLUMBING EQUIPMENT TAG NOT ELECTRICALLY POWERED
- BALL VALVE
- HOSE BIBB/DRAIN VALVE
- PRESS & TEMP RELIEF VALVE
- PIPE BREAK
- PIPE CAPPED END
- PIPE CLEANOUT
- PIPE ELBOW/TEE DOWN
- PIPE ELBOW/TEE UP
- UNION

GENERAL NOTES

1. DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL REQUIRED OFFSETS FOR A COMPLETE INSTALLATION. CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT TO CONFORM TO THE STRUCTURE, EQUIPMENT CONNECTIONS AND SHALL MAINTAIN APPROPRIATE CLEARANCES.
2. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE, LOCAL CODES, FEDERAL AND STATE REGULATIONS, AND ALL REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
3. CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
4. THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE FULL EXTENT OF WORK AND PROJECT CONDITIONS. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
CO	CLEANOUT
DN	DOWN
FCO	FLOOR CLEANOUT
FD-*	FLOOR DRAIN
IE	INVERT ELEVATION
L-*	LAVATORY
WC-*	WATER CLOSET
WCO	WALL CLEANOUT
WH-*	WATER HEATER

DRAFT April 20, 2020

PRELIMINARY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY MB | PLANS CK'D. MR

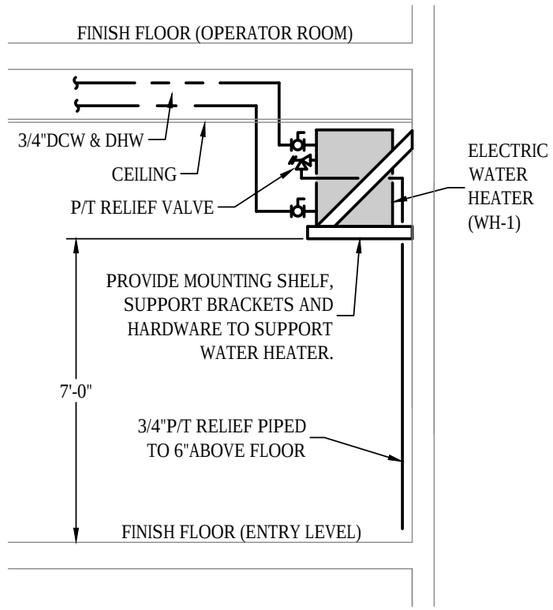
PLUMBING GENERAL NOTES
LEGEND & ISOMETRICS

DRAWING H10

PRE_400

STATE PROJECT NUMBER

4992-03-71



1 ELECTRIC WATER HEATER DETAIL
NTS

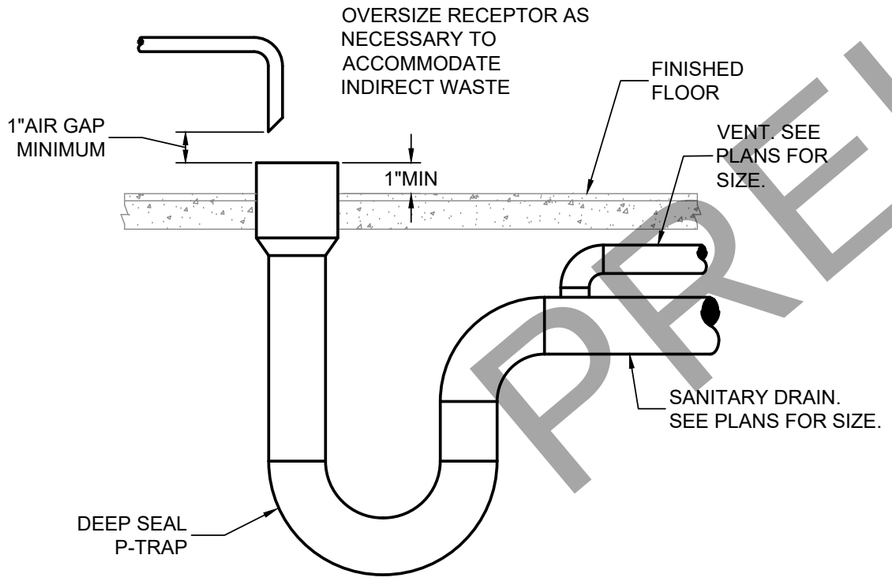
PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER	MODEL	DESCRIPTION	MISC.			DFU
				EA	CA	TOTAL	VALUE
FD-1	SMITH-EF	3834NR	ADJUSTABLE 8" FLOOR DRAIN, PVC ADAPTER BODY, ABS TOP HOLDING AND FLASHING COLLAR WITH ROUND CAST BRONZE RING AND STRAINER, PROVIDE 3"SCH-80 SOLVENT WELD ADAPTER	NA	NA	NA	3
LS-1	KOHLER	K-2884	20"X27"X12" DEEP WALL HUNG VITREOUS CHINA LAVATORY SINK WITH 3 FAUCET OPENINGS ON 4" CENTERS AND 8" DRAIN OPENING FAUCET: KOHLER MODEL K-7304-4, DESIGNER SERIES CONNECTIONS 3/4" GOOSENECK SPOUT K-10425 WRISTBLADE HANDLES AND POLISHED CHROME FINISH DRAIN: KOHLER K-8801 BRASS SINK DRAIN AND STRAINER AND KOHLER K-8800 1 1/4"X1 1/2" CAST BRASS ADJUSTABLE P-TRAP WITH CLEANOUT PLUG SUPPLIES & STOPS: CHICAGO FAUCETS 1006 ANGLE VALVE WITH LOOSE KEY HANDLE 1/2" FEMALE INLET 1/2"OD X 1/2" FLEXIBLE RISER QUANTITY OF 2 SINK SUPPORT: KOHLER K-9444 WALL HUNG SINK BRACKETS COLOR TO BE WHITE	1.0	1.0	2.0	2.0
WC-1	KOHLER	K-3999 - 0-NA	ADA COMPLIANT FLOOR MOUNT VITREOUS CHINA PRESSURE ASSISTED TANK WATER CLOSET WITH ELONGATED BOWL, 16 1/2" RIM HEIGHT AND 1.6 GALLON FLUSH SEAT: KOHLER K-4636 SOLID PLASTIC OPEN FRONT WITH COVER SUPPLIES & STOPS: CHICAGO FAUCETS 1006 ANGLE VALVE WITH LOOSE KEY HANDLE 1/2" FEMALE INLET 1/2"OD X 1/2" RISER COLOR TO BE WHITE	NA	3.0	3.0	3.0

ELECTRIC WATER HEATERS

MARK	MANUFUFACTURER	TYPE	MODEL	STORAGE CAPACITY	ELECTRICAL			DIMENSIONS	REMARKS
					WATTS	VOLTS	PHASE		
WH-1	OA SMITH	TANK	DEL-10	10 GALLONS	2,500	208	1Ø	18"Ø x 18.25"T	1, 2, 3

1. PROVIDE DISCONNECT.
2. PROVIDE WITH INTEGRALLY MOUNTED THERMOSTAT WITH HIGH TEMPERATURE CUTOFF SWITCH.
3. PROVIDE WITH PRESSURE RELIEF VALVE AND DRAIN VALVE.



2 HUB DRAIN DETAIL
NTS

PRELIMINARY

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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PLUMBING SCHEDULES & DETAILS

DRAWING H10

PRE_401

8

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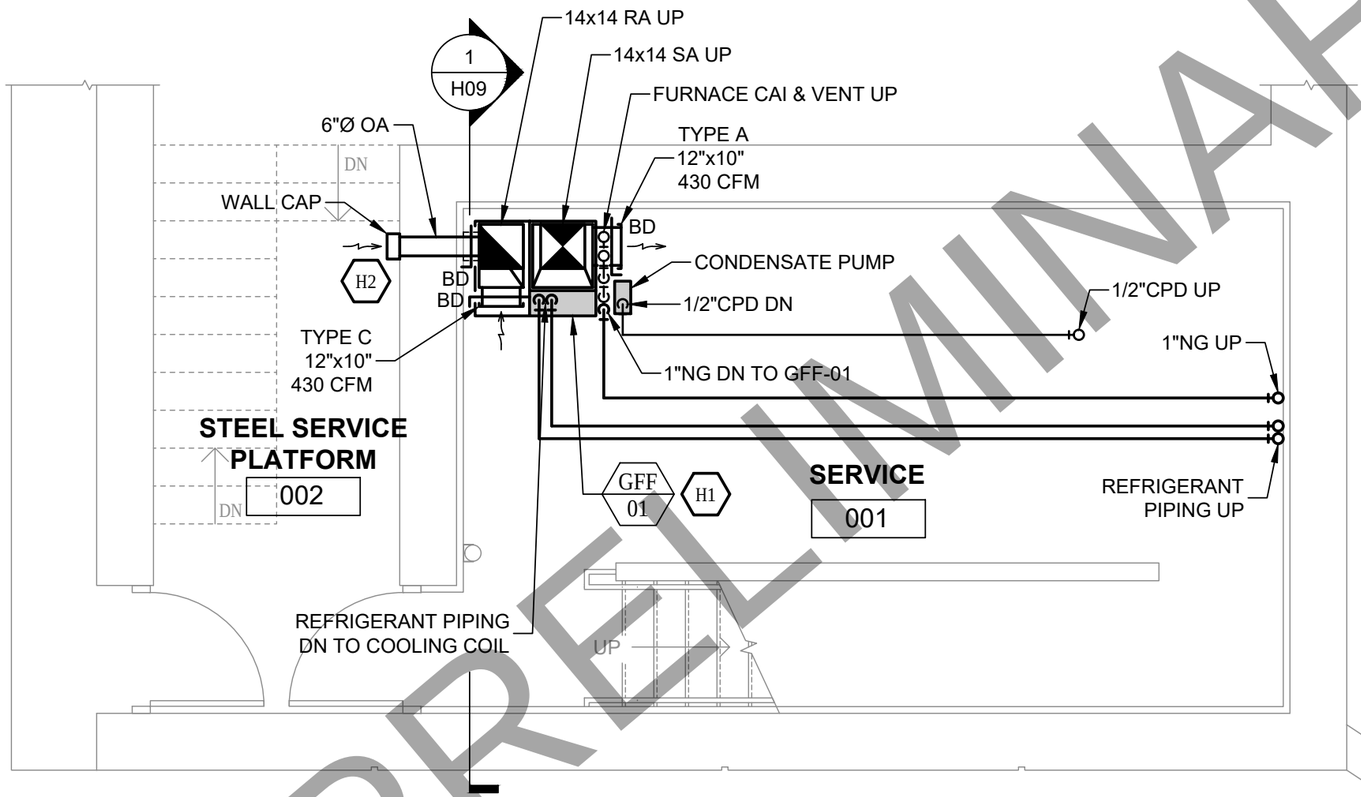
STATE PROJECT NUMBER
4992-03-71

KEY NOTES

H#	
H1	GAS FIRED FURNACE TO BE MOUNTED ON RETURN AIR PLENUM/FURNACE STAND ON CONCRETE HOUSEKEEPING PAD. FIELD VERIFY EXACT LOCATION SO AS TO MAINTAIN ALL MANUFACTURER RECOMMENDED SERVICE CLEARANCES. PIPE CONDENSATE TO CONDENSATE PUMP LOCATED ON FLOOR NEXT TO FURNACE.
H2	INSTALL ALUMINUM HOODED WALL CAP AT A MINIMUM HEIGHT OF 8'-0"AFF. FIELD VERIFY EXACT LOCATION. BALANCE OA INTAKE TO 30 CFM.



1 SERVICE LEVEL HVAC PLAN
1/4" = 1'-0"

PRELIMINARY

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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HVAC FLOOR PLAN - SERVICE LEVEL

DRAWING H10

PRE_402

STATE PROJECT NUMBER

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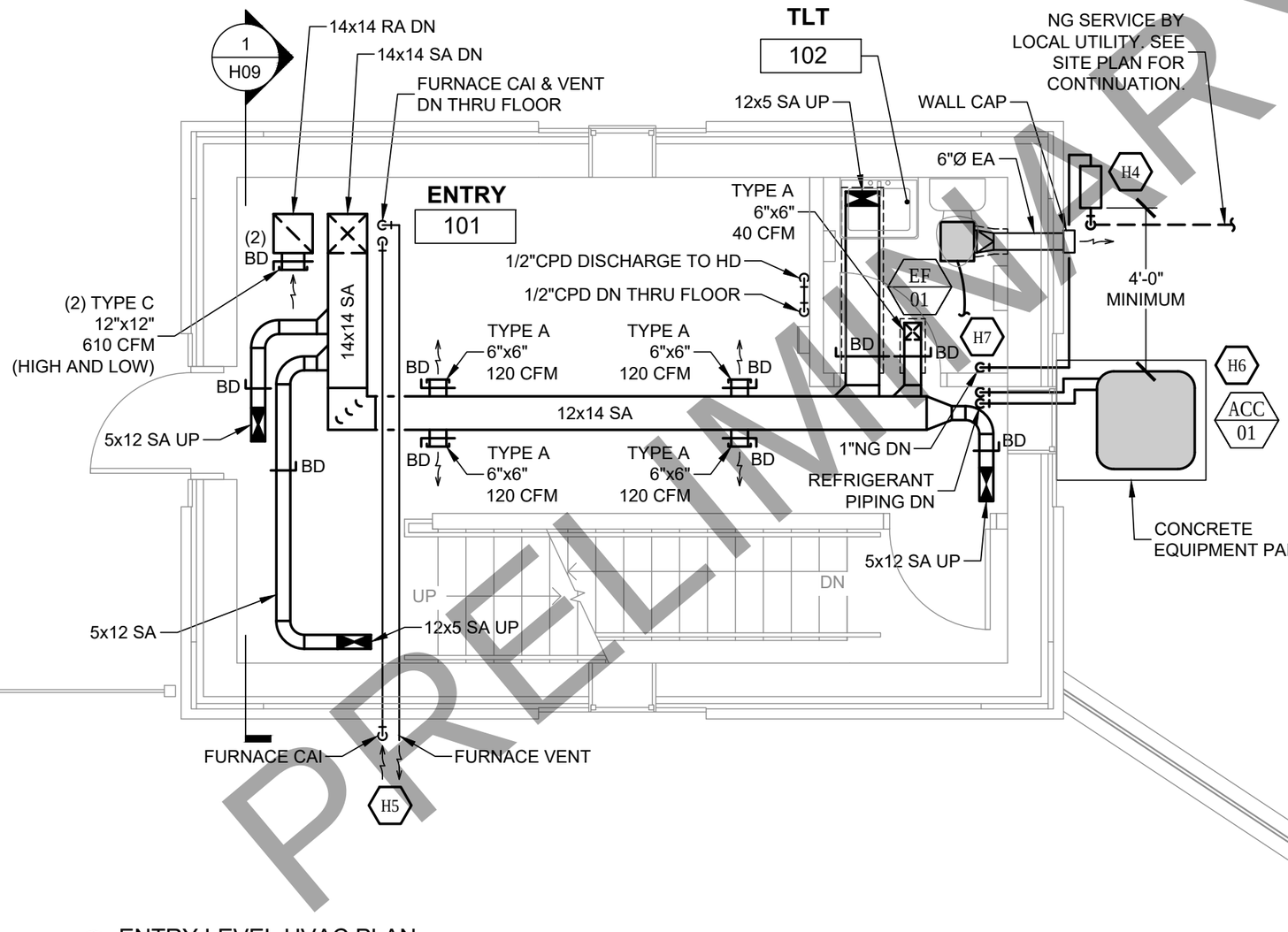

1 ENTRY LEVEL HVAC PLAN
1/4" = 1'-0"

KEY NOTES

H4	NATURAL GAS METER BY LOCAL UTILITY. METER SHALL BE CAPABLE OF SUPPLYING 80 MBH AT AN INITIAL PRESSURE OF 7"-11"WC. MAINTAIN A MINIMUM DISTANCE OF 4'-0" FROM GAS REGULATOR TO AIR COOLED CONDENSING UNIT. FIELD VERIFY EXACT LOCATION. ALL EXTERIOR NG PIPING SHALL BE PAINTED WITH UV RESISTANT PAINT TO MATCH BUILDING COLOR.
H5	INSTALL FURNACE CAI & VENT TERMINATIONS AT A MINIMUM HEIGHT OF 8'-0"AFF. FIELD VERIFY EXACT LOCATION. SIZE AND INSTALL CAI & VENT PIPING PER MANUFACTURERS RECOMMENDATIONS.
H6	MOUNT ACC-01 ON CONCRETE EQUIPMENT PAD. FIELD VERIFY EXACT LOCATION SO AS TO MAINTAIN ALL MANUFACTURER RECOMMENDED SERVICE CLEARANCES. MAINTAIN A MINIMUM DISTANCE OF 4'-0" FROM NATURAL GAS REGULATOR. SIZE AND INSTALL REFRIGERANT PIPING PER MANUFACTURES RECOMMENDATIONS. ALL EXTERIOR REFRIGERANT PIPING SHALL BE PAINTED WITH UV RESISTANT PAINT TO MATCH BUILDING COLOR.
H7	INTERLOCK OPERATION OF TOILET ROOM EXHAUST FAN (EF-01) WITH ROOM LIGHT SWITCH.

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STRUCTURES DESIGN SECTION

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HVAC FLOOR PLAN - ENTRY LEVEL

DRAWING PRE_403 H10

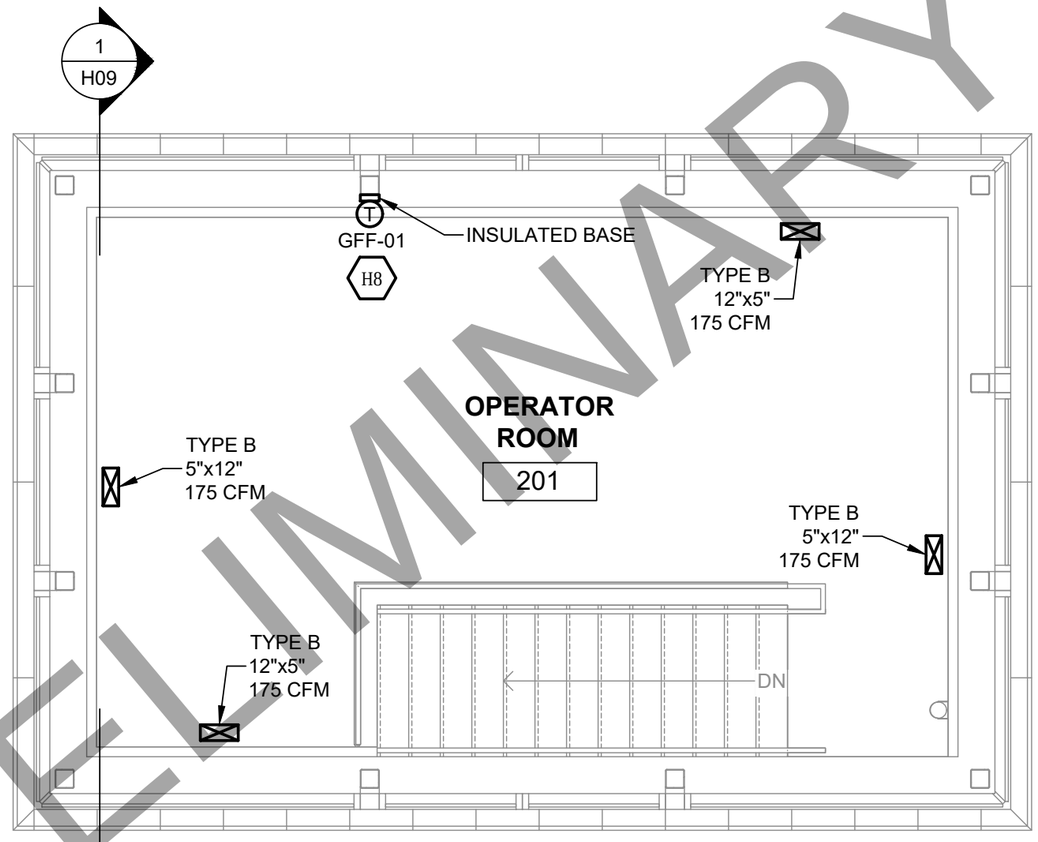
8

STATE PROJECT NUMBER

4992-03-71

KEY NOTES

H#	
H8	MOUNT GFF-01 THERMOSTAT WITH INSULATED BASE TO STEEL COLUMN. RUN CONTROL WIRE IN WIRE MOLD DOWN COLUMN.



1 OPERATOR LEVEL HVAC PLAN
1/4" = 1'-0"

PRELIMINARY

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HVAC FLOOR PLAN - OPERATOR LEVEL

DRAWING H10

PRE_404

8

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STATE PROJECT NUMBER

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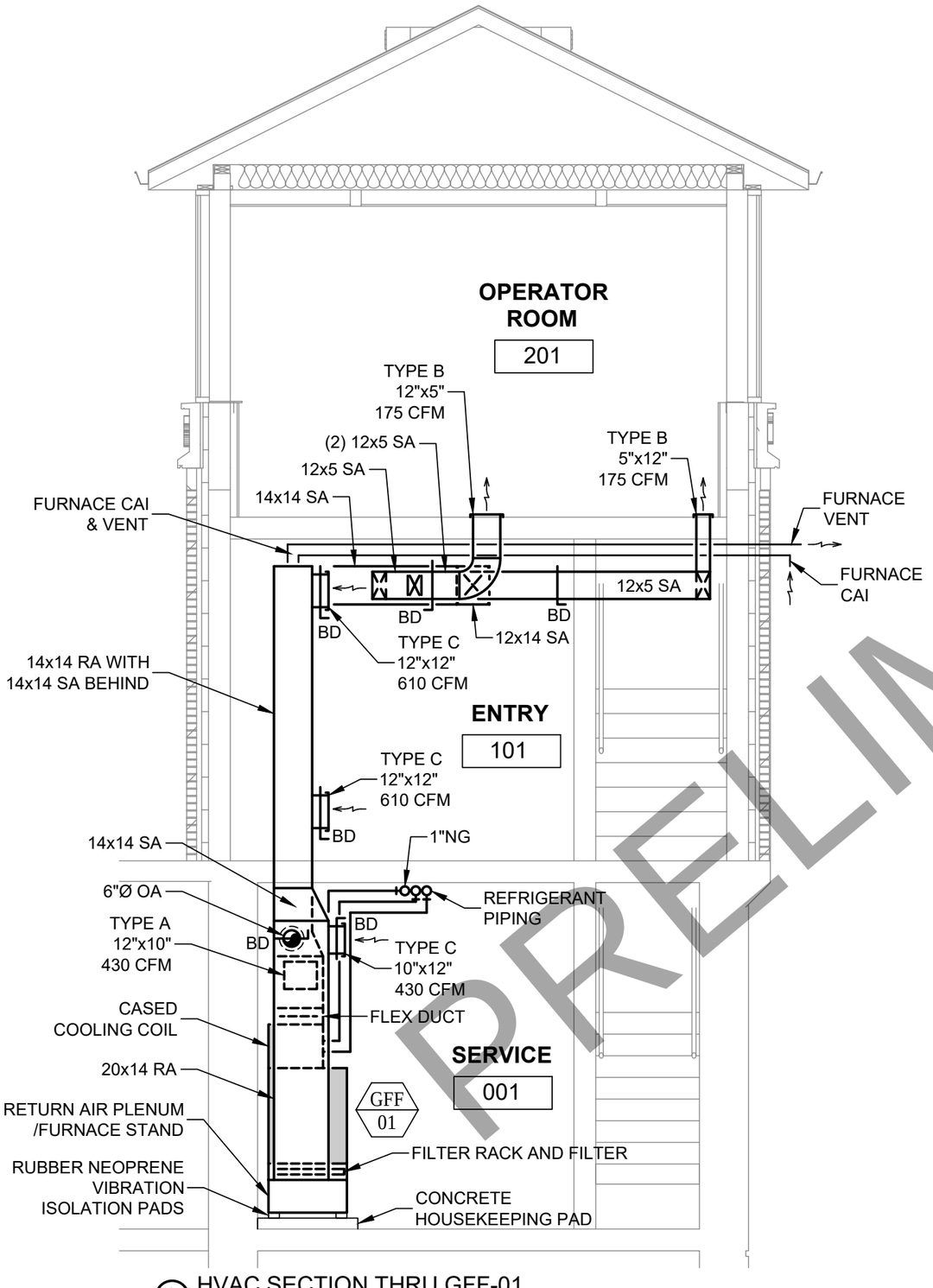

1 HVAC SECTION THRU GFF-01
1/4" = 1'-0"

HVAC LEGEND

- HVAC EQUIPMENT
- DUCTWORK
- INSULATED DUCTWORK
- H# — KEY NOTE
- SUPPLY AIR DUCT UP
- SUPPLY AIR DUCT DOWN
- RETURN AIR DUCT UP
- RETURN AIR DUCT DOWN
- FLEX DUCT
- BALANCING DAMPER
- ELBOW WITH TURNING VANES
- AIR FLOW INDICATOR
- T — THERMOSTAT
- WH / XX — HVAC EQUIPMENT TAG ELECTRICALLY POWERED
- WC / XX — HVAC EQUIPMENT TAG NOT ELECTRICALLY POWERED
- BALL VALVE
- PIPE BREAK
- PIPE CAPPED END
- PIPE ELBOW/TEE DOWN
- PIPE ELBOW/TEE UP

GENERAL NOTES

1. DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL REQUIRED OFFSETS FOR A COMPLETE INSTALLATION. CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT TO CONFORM TO THE STRUCTURE, EQUIPMENT CONNECTIONS AND SHALL MAINTAIN APPROPRIATE CLEARANCES.
2. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE, LOCAL CODES, FEDERAL AND STATE REGULATIONS, AND ALL REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
3. CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION.
4. THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE FULL EXTENT OF WORK AND PROJECT CONDITIONS. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF THE OBLIGATIONS OF THE CONTRACT.
5. ALL CONTROL WIRING SHALL BE RUN IN CONDUIT.
6. KEYNOTES PERTAIN ONLY TO THE DRAWING THEY ARE LOCATED ON.
7. DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
8. MAINTAIN 10' MINIMUM DISTANCE FROM OUTSIDE AIR INTAKE TO ANY EXHAUST OR PLUMBING VENTS.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BOD	BOTTOM OF DUCT
CAI	COMBUSTION AIR INTAKE
CD	CONDENSATE DRAIN
CPD	CONDENSATE PUMP DISCHARGE
DN	DOWN
EA	EXHAUST AIR
MIN	MINIMUM
MAX	MAXIMUM
NG	NATURAL GAS
OA	OUTSIDE AIR
RA	RETURN AIR
RL	REFRIGERATION LIQUID
RS	REFRIGERATION SUCTION
SA	SUPPLY AIR

DRAFT April 20, 2020

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY MB | PLANS CK'D. MR

HVAC GENERAL NOTES, LEGEND & SECTION VIEWS

DRAWING H10

PRE_405

STATE PROJECT NUMBER

4992-03-71

GAS FIRED FURNACE

MARK	MANUFACTURER	MODEL	SERVICE	LOCATION	VENTING TYPE	CONFIGURATION	AIR			HEATING			SUPPLY FAN		ELECTRICAL			REMARKS
							SUPPLY AIR	OUTSIDE AIR	ESP	INPUT	OUTPUT	EFFICIENCY	HP	RPM	AMPS	MOP	VOLTS / PH	
GFF-01	CARRIER	59TP6A080-20	BRIDGE HOUSE	SERVICE	SEALED COMB.	UPFLOW	1,650 CFM	30 CFM	0.75"WC	80 MBH	78 MBH	97.5%	1	600 - 1,200	14.7	20	115V / 1Ø	1, 2, 3, 4, 5

1. PROVIDE DISCONNECT.
2. PROVIDE RETURN AIR PLENUM / FURNACE STAND WITH 2" PLEATED MERV 8 FILTERS.
3. DRAIN CONDENSATE TO CONDENSATE PUMP EQUAL TO LITTLE GIANT MODEL VCMX-20ULS-C, 115V/1Ø, 1/30 HP, 1.5 FLA, 42 GPH @ 15' HEAD. PROVIDE WITH ANTI-SWEAT SLEEVE, OVERFLOW DETECTION SWITCH, BUILT-IN CHECK VALVE AND 6' POWER CORD.
4. PROVIDE 4 TON CASED DX COOLING COIL EQUAL TO CARRIER MODEL CNPVP48.
5. PROVIDE 6"Ø ALUMINUM HOODED WALL CAP.

AIR COOLED CONDENSING UNIT

MARK	MANUFACTURER	MODEL	SERVICE	COOLING CAPACITY		CONDENSER FANS			REFRIGERANT	ELECTRICAL				DIMENSIONS			OPERATING WEIGHT	REMARKS
				TONS	SEER	QUANTITY	HP EACH	AIRFLOW		MCA	MOCP	LRA	VOLTS / PH	LENGTH	WIDTH	HEIGHT		
ACC-01	CARRIER	24ACC648	BRIDGE HOUSE	4	16	1	1/4	4,046 CFM	R-410A	26.1	40	109	208V / 1Ø	35"	35"	33"	250 LBS	1, 2, 3

1. PROVIDE DISCONNECT.
2. SEER ARE SPECIFIED AT ARI CONDITIONS.
3. PROVIDE FACTORY CHARGED REFRIGERANT LINE KIT.

EXHAUST FANS

MARK	MANUFACTURER	MODEL	SERVICE	LOCATION	CONSTRUCTION			AIR			ELECTRICAL			WEIGHT (LBS)	SONES	REMARKS
					TYPE	FAN MATERIAL	DRIVE	AIRFLOW	ESP	RPM	INPUT	BHP	VOLTS/PH			
EF-01	GREENHECK	SP-A200	TOILET	TOILET	CEILING	ALUMINUM	DIRECT	75 CFM	0.25"WC	583	13 WATTS	--	115V / 1Ø	24 LBS	1.1	1, 2, 3, 4, 5

1. PROVIDE GRAVITY BACKDRAFT DAMPER.
2. PROVIDE FACTORY MOUNTED AND WIRED DISCONNECT SWITCH.
3. PROVIDE WHITE ALUMINUM GRILLE AND SPEED CONTROL MOUNTED ON FAN FOR BALANCING PURPOSES.
4. PROVIDE NEOPRENE VIBRATION ISOLATION HANGERS.
5. PROVIDE WALL CAP EQUAL TO GREENHECK MODEL WC-6.

DIFFUSERS AND GRILLES

TYPE	MANUFACTURER	MODEL	TYPE	SERVICE	MATERIAL	BLADES			MOUNTING / FRAME	FINISH	REMARKS
						THICKNESS	SPACING	ANGLE			
A	TITUS	300FL	DOUBLE DEFLECTION	SUPPLY	ALUMINUM	-	3/4"	-	SIDEWALL	WHITE	
B	TITUS	CT-PP-0	LINEAR BAR	SUPPLY	ALUMINUM	7/32"	7/16"	0°	FLOOR	WHITE	
C	TITUS	350FS	FIXED BLADES	RETURN	ALUMINUM	-	3/4"	35°	SIDEWALL	WHITE	PROVIDE WITH OPPOSED BLADE DAMPER

PRELIMINARY

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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HVAC SCHEDULES

DRAWING H10

PRE_406

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PLOT DATE: 3/2/2020 PLOT TIME: 5:01:21 PM BATCH PRINT SHEET 1 OF 19

MACHINERY NOTES

1. DESIGN METHODOLOGY

THE MACHINERY FOR THE BRIDGE DRIVE CONSISTS OF ALL SPAN DRIVE MACHINERY, LOAD SHARING IS TO BE PROVIDED THROUGH A DIFFERENTIAL ASSEMBLY IN THE PRIMARY SPEED REDUCER. CONFORM DESIGN OF MACHINERY AND ITS INSTALLATION TO THE AASHTO STANDARD SPECIFICATIONS FOR MOVABLE HIGHWAY BRIDGES.

2. DRIVE ASSEMBLY OPERATION

THE SPAN DRIVE IS TO PROVIDE A FULLY REDUNDANT BACKUP MOTOR AND DRIVE ASSEMBLY, CAPABLE OF OPERATING THE LEAF UNDER A WIND LOAD OF UP TO 10 PSF AND AN ICE LOAD OF 2.5 PSF NORMAL TO THE DECK AT ALL ANGLES OF OPERATION WITH A SINGLE MOTOR. MACHINERY IS CAPABLE OF HOLDING THE LEAF UNDER A WIND LOAD OF UP TO 20 PSF.

3. DESIGN LOADS FOR MACHINERY

ALL MACHINERY IS DESIGNED FOR A MAXIMUM LOAD OF 329 FT-LBS AT THE PRIMARY REDUCER INPUT SHAFT WHICH IS 1.5 TIMES FULL LOAD TORQUE FROM ONE DRIVE MOTOR.

4. DESIGN LOADS FOR BEARINGS

SEE DETAILS THIS SHEET. THE "A" PINION SHAFT BEARING IS DESIGNED FOR THE FOLLOWING LOADINGS:

LOAD CASE	LOAD	SPEED	CYCLES
MAX. OPERATING	244 KIPS	1.604 RPM	37,500
NORM. OPERATING	75.3 KIPS	1.604 RPM	750,000
HOLDING LOADS	275.3 KIPS	N/A	18,750

THE "B" PINION SHAFT BEARING IS DESIGNED FOR THE FOLLOWING LOADINGS:

LOAD CASE	LOAD	SPEED	CYCLES
MAX. OPERATING	84 KIPS	0.989 RPM	37,500
NORM. OPERATING	26 KIPS	0.989 RPM	750,000
HOLDING LOADS	95 KIPS	N/A	18,750

PINION SHAFT ROTATES 1.00 REVOLUTIONS PER LOAD CYCLE. ALL LOADS ARE RADIAL. ASSUME A COMBINED AXIAL LOAD OF 15% OF THE RADIAL LOAD FOR ALL LOAD CASES.

PINION BEARING "A" IS AN ADAPTER MOUNTED SPHERICAL ROLLER BEARING WITH A CUSTOM HOUSING AS SHOWN IN THE PLANS. (SKF 23080 CCK/W33 OR APPROVED EQUAL WITH AN SKF (OR APPROVED EQUAL) OH 3080 ADAPTER SLEEVE AND SKF (OR APPROVED EQUAL) CR 380X420X20 HDS1R SEALS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS, FITS, & FINISHES. BEARING INSTALLATION SHALL FOLLOW MANUFACTURER'S RECCOMENDED PROCEDURES AND MANUFACTURER SHALL BE PRESENT DURING BEARING INSTALLATION.

LOAD RATINGS AND DIMENSIONS IN PLANS FOR PINION BEARING "B" ARE BASED ON CATALOG SIZE OF AN SKF (OR APPROVED EQUAL) ADAPTER MOUNTED SPHERICAL ROLLER BEARING, 23068 KA/12.5 WITH ADAPTER SLEEVE AND SPHEROIDAL GRAPHITE CAST IRON PILLOW BLOCK. CONTRACTOR SHALL VERIFY ALL MANUFACTURER'S DIMENSIONS, TOLERANCES, AND FITS PRIOR TO FABRICATION. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER FIT.

5. DESIGN BRAKE TORQUES

PROVIDE BRAKES WITH THE FOLLOWING TORQUE:

BRAKE	RATED TORQUE	TORQUE SETTING
MACHINERY BRAKE (EACH)	2650 FT-LBS	1325 FT-LBS
MOTOR BRAKE (EACH)	250 FT-LBS	130 FT-LBS

6. INSTALLATION AND ALIGNMENT EQUIPMENT

PROVIDE ALL EQUIPMENT REQUIRED TO INSTALL THE MACHINERY TO THE SPECIFIED TOLERANCES SHOWN ON THE PLANS AND IN THE SPECIFICATIONS, INCLUDING SPECIAL SURVEYING, JACKING FRAMES, JIGS, LEVELING SCREWS, ETC. SUBMIT DETAILED PROCEDURES OUTLINING THE ASSEMBLY AND INSTALLATION OF THE MACHINERY, FOR APPROVAL, PRIOR TO FABRICATION.

7. BRAKE OPERATION

THE MACHINERY BRAKES SHALL FUNCTION TO PROVIDE TORQUE TO HOLD THE LEAF IN A FIXED POSITION AGAINST WIND AND UNBALANCED LOADS. THE MOTOR BRAKES SHALL FUNCTION TO STOP THE LEAF DURING AN EMERGENCY STOP OR LOSS OF DRIVE POWER AND TO ASSIST THE MACHINERY BRAKES IN HOLDING THE LEAF IN A FIXED POSITION. UNDER NORMAL CONDITIONS, MACHINERY BRAKES SHALL NOT BE USED FOR STOPPING THE LEAF WHILE IN MOTION. MACHINERY BRAKES SHALL ASSIST THE MOTOR BRAKES IN STOPPING THE LEAF IN A HIGH WIND, EMERGENCY STOP CONDITION.

ESTABLISH FINAL BRAKE APPLICATION TIMES DURING FUNCTIONAL TESTING. INITIALLY SET THE BRAKES FOR THE FOLLOWING APPLICATION TIMES (I.E., THE TIME FROM INITIALIZATION OF THE SET SIGNAL OR LOSS OF POWER REQUIRED FOR THE BRAKE TO PRODUCE ITS SPECIFIED TORQUE):

MOTOR BRAKES: 1-2 SECONDS
MACHINERY BRAKES: 3-4 SECONDS

8. COUPLINGS

PROVIDE COUPLINGS WITH SHROUDED BOLTS WHERE AVAILABLE. COUPLINGS SHALL BE INSTALLED AND ALIGNED SUCH THAT ALL MANUFACTURER'S TOLERANCES ARE MET.

9. WELDMENTS

CONNECT ADJOINING PLATES WITH COMPLETE JOINT PENETRATION (CJP) WELDS UNLESS OTHERWISE NOTED. MILL-TO-BEAR ALL STIFFENERS TO BE CONNECTED BY FILLET WELDS PRIOR TO WELDING. STRESS RELIEVE ALL WELDMENTS AFTER WELDING AND PRIOR TO MACHINING. PROVIDE ULTRASONIC (UT) AND MAGNETIC PARTICLE (MT) TESTING TO ALL CJP AND FILLET WELDED JOINTS RESPECTIVELY, IN ACCORDANCE WITH AWS D1.5 CONSIDERING EACH TO BE A MAIN MEMBER.

10. FASTENERS

WHERE REQUIRED, PROVIDE TURNED BOLTS IN ACCORDANCE WITH THE TYPICAL TURNED BOLT DETAIL. ALL HIGH STRENGTH FASTENERS FOR BOLTING WILL BE 7/8" DIA. H.S. BOLTS UNLESS OTHERWISE NOTED.

11. SHIMS

PROVIDE STAINLESS STEEL SHIMS FOR LEVELING AND ALIGNING ALL MACHINERY COMPONENTS. SHIM PACKS SHALL BE 1/2" NOMINAL THICKNESS UNLESS OTHERWISE SPECIFIED, WITH ADJUSTMENT VARIATIONS OF 1/64". MATERIAL FOR SHIMS SHALL BE ASTM A666 TYPE 316.

12. PAINT

PAINT FERROUS MACHINERY AND SUPPORT WELDMENTS IN ACCORDANCE WITH THE SPECIFICATIONS FOR NEW STRUCTURAL STEEL, UNLESS GALVANIZING IS SPECIFIED OR THE SURFACES SLIDE IN CONTACT DURING OPERATION.

13. SPARE PARTS AND TOOLS

PROVIDE SPARE MACHINERY PARTS AND SPECIAL TOOLS IN ACCORDANCE WITH THE SPECIFICATIONS.

14. BID ITEM NOTES

A. UNLESS SO SPECIFIED ELSEWHERE, THE FOLLOWING ITEMS SHALL BE INCIDENTAL TO THE BID ITEM COVERING THE MACHINERY OF WHICH THEY ARE ASSOCIATED:

TURNED BOLTS, NUTS, WASHERS	SHIM PACKS AND HARDWARE
DOWEL PINS	EPOXY GROUT
TEMPORARY FASTENERS	LUBRICATION, LINES, & FITTINGS
LIFTING EYE BOLTS	SUPPORT WELDMENTS
PAINTING/GALVANIZING	TEMPORARY SUPPORTS

B. SPECIFIC ITEMS ARE SHOWN TO ESTABLISH CONFIGURATION AND RATING REQUIREMENTS. COMPONENTS ARE BASED ON CATALOG DATA CURRENT AT THE TIME THE PLANS WERE PREPARED. ITEMS OF EQUAL OR GREATER QUALITY AND RATING MAY BE SUBSTITUTED WITH APPROVAL OF THE ENGINEER. IF OTHER ITEMS ARE APPROVED FOR USE, MAKE ALL REVISIONS NECESSARY TO ACCOMMODATE THEM AT NO ADDITIONAL COST TO THE DEPARTMENT.

C. UNLESS OTHERWISE NOTED, QUANTITIES SHOWN ARE FOR EACH LEAF.

D. ALL WORK RELATED TO PROVIDING, INSTALLING AND TESTING ONE COMPLETE BASCULE LEAF MECHANICAL DRIVE SYSTEM, INCLUDING, BUT NOT LIMITED TO: SPEED REDUCERS, BEARINGS, FLOATING SHAFTS, COUPLINGS, DRIVE PINIONS, PINION SHAFTS, RACKS, BEARINGS, SUPPORT WELDMENTS, BRAKES AND ALL ASSOCIATED MISCELLANEOUS ITEMS, IS INCLUDED IN THE LUMP SUM BID ITEM, MECHANICAL WORK BASCULE SPAN.

E. ALL WORK RELATED TO PROVIDING, INSTALLING AND TESTING TWO COMPLETE BASCULE LEAF REAR LOCK SYSTEMS, INCLUDING, BUT NOT LIMITED TO: STRUT ASSEMBLIES, STRIKE PLATES, ELECTRIC ACTUATORS, TRUNNION COLUMNS, ACTUATOR SUPPORTS, CONNECTIONS AND ALL ASSOCIATED MISCELLANEOUS ITEMS, IS INCLUDED IN THE LUMP SUM BID ITEM, REAR LOCKS BASCULE SPAN.

SYMBOL LEGEND:

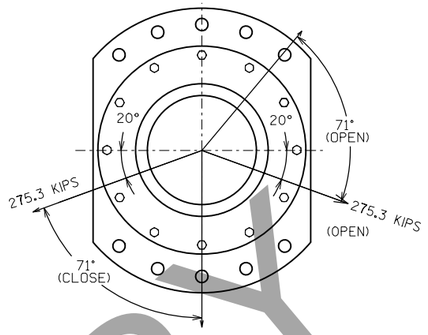
XXX — SIGNIFIES THAT THE ACTUAL OR CERTIFIED DIMENSION OF THE MATING COMPONENT IS TO BE USED TO DETERMINE THE EXACT VALUE.

XX.XX — MAXIMUM SURFACE ROUGHNESS (RA) PER ANSI/ ASME B46.1, IN MICROINCHES. IMPLIES FLATNESS REQUIREMENT AS DEFINED IN THE SPECIFICATIONS.

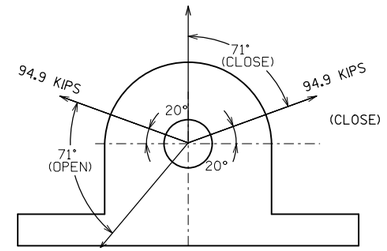
(XXX) — REFERENCE DIMENSION INDICATING THAT THE DIMENSION IS SHOWN ONLY FOR INFORMATION AND IS DEFINED ELSEWHERE IN THE PLANS OR SPECIFICATIONS.

FIT AND SURFACE FINISHES

SURFACE	FIT	FINISH
MACHINERY BASE ON STEEL	--------	250
MACHINERY PARTS IN FIXED CONTACT	--------	125
SHAFT JOURNALS	RC6	8
JOURNAL BUSHINGS	RC6	16
SOLID BUSHING IN BASE (TO 1/4" WALL)	FN1	63
SOLID BUSHING IN BASE (OVER 1/4" WALL)	FN2	63
SPLIT BUSHING IN BASE	LC1	125
HUBS ON SHAFTS (UP TO 2" DIAMETER)	FN2	32
HUBS ON SHAFTS (OVER 2" DIAMETER)	FN2	63
KEY AND KEYWAYS	LC4	63
TEETH OF OPEN SPUR GEARS	--------	125
PERMANENT DOWELS	FN4	32



BEARING "A" LOADS



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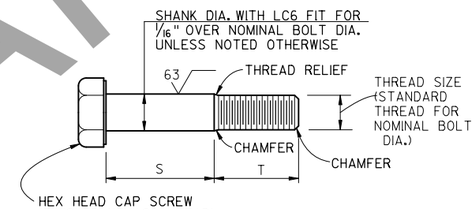

S = SHANK LENGTH, GRIP LESS NOMINAL SHIM THICKNESS

T = SUFFICIENT FOR DOUBLE NUTS PLUS NOMINAL SHIM THICKNESS

TYPICAL TURNED BOLT DETAIL - STUDS SIMILAR

MATERIAL: BOLT- ASTM F3125 GRADE 325
NUTS- ASTM A563
WASHERS- ASTM F436

MACHINERY TOLERANCE UNLESS OTHERWISE SPECIFIED	
X	± 1/16"
X/X, X.X	± 1/32"
X.XX	± 0.020"
X.XXX	± 0.005"
ANGLES	± 1/2°
BREAK ALL EDGES 0.015"	

TABLE OF GEARING AND GEAR REDUCERS

MARK	RATIO	QTY	DESCRIPTION
PRIMARY REDUCER	24.0 : 1	1	HIGH SPEED, DIFFERENTIAL, BEVEL-HELICAL TWO STAGE REDUCER, HORIZONTAL, SOLID SHAFTS, RATED FOR INPUT SPEED 1170 RPM AND 120 HP, WITH A 1.0 SERVICE FACTOR.
SECONDARY REDUCER	50.6 : 1	2	HELICAL GEAR PARALLEL SHAFT DRIVE. THREE STAGE, SOLID SHAFTS, HORIZONTAL, RATED FOR INPUT SPEED 103 RPM AND 60 HP, WITH A 1.0 SERVICE FACTOR.
RACK AND PINION	N/A	2	SPUR 20° STUB INVOLUTE (SEE TABLE ON DRAWING M4)

TABLE OF COUPLINGS AND COUPLING KEYS

COUPLING LOCATION	MIN. TORQUE RATING	MIN. KEY SIZE
MOTOR (C4)	3,950 IN-LB	1/2" SQ.
FLOATING SHAFT (C2, C3)	100,000 IN-LB	2 X 3/4" SQ.
PINION SHAFT (C1)	2,400,000 IN-LB	2 X (1 1/2X2")

PRELIMINARY

STATE PROJECT NUMBER

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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MACHINERY NOTES

DRAWING M1 OF M19

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DRAWING APPROVED FOR CONSTRUCTION
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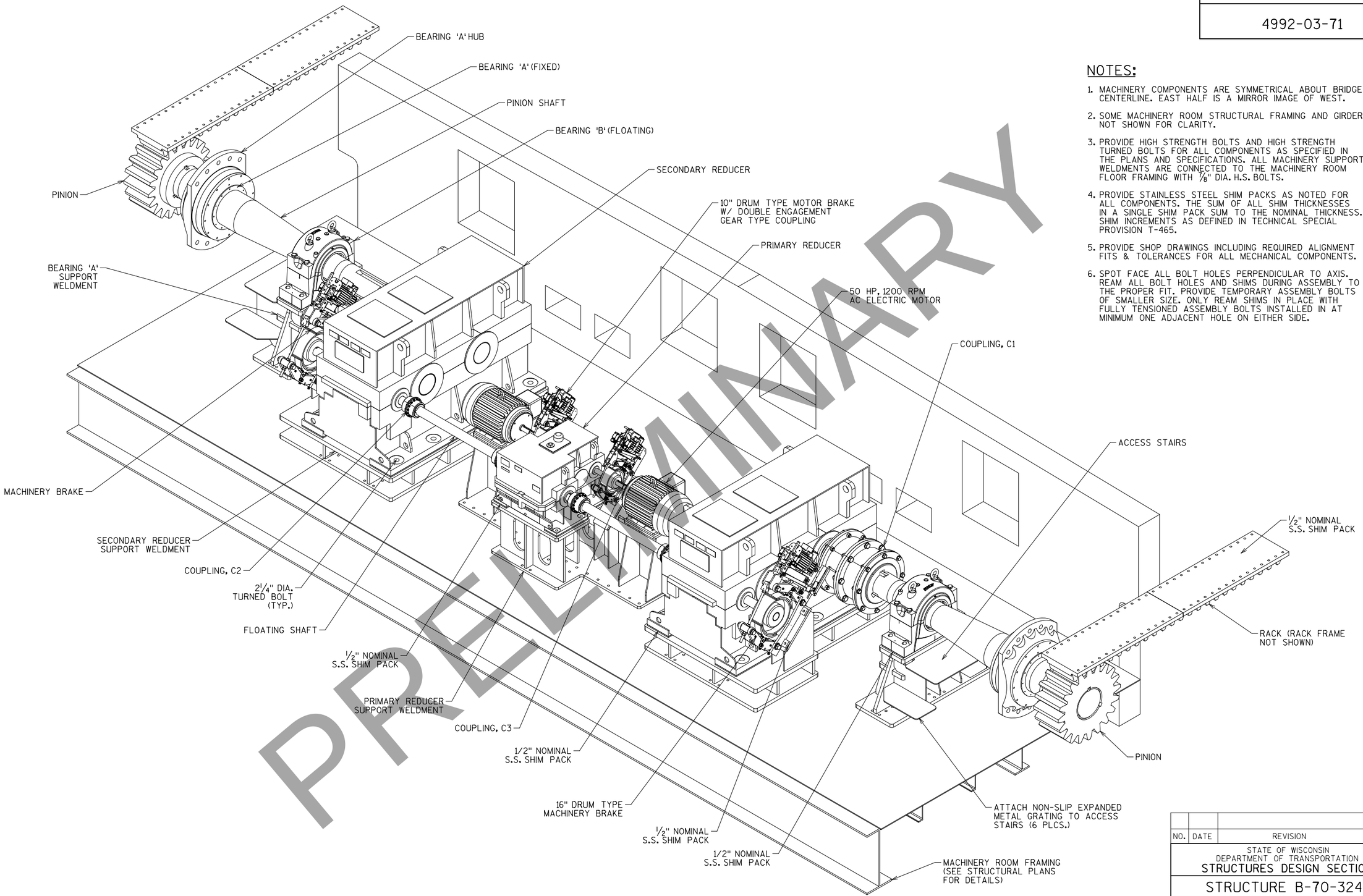

MACHINERY ROOM TRIMETRIC VIEW

(SOUTH SHOWN, NORTH OPPOSITE)

NOTES:

1. MACHINERY COMPONENTS ARE SYMMETRICAL ABOUT BRIDGE CENTERLINE. EAST HALF IS A MIRROR IMAGE OF WEST.
2. SOME MACHINERY ROOM STRUCTURAL FRAMING AND GIRDERS NOT SHOWN FOR CLARITY.
3. PROVIDE HIGH STRENGTH BOLTS AND HIGH STRENGTH TURNED BOLTS FOR ALL COMPONENTS AS SPECIFIED IN THE PLANS AND SPECIFICATIONS. ALL MACHINERY SUPPORT WELDMENTS ARE CONNECTED TO THE MACHINERY ROOM FLOOR FRAMING WITH 7/8" DIA. H.S. BOLTS.
4. PROVIDE STAINLESS STEEL SHIM PACKS AS NOTED FOR ALL COMPONENTS. THE SUM OF ALL SHIM THICKNESSES IN A SINGLE SHIM PACK SUM TO THE NOMINAL THICKNESS. SHIM INCREMENTS AS DEFINED IN TECHNICAL SPECIAL PROVISION T-465.
5. PROVIDE SHOP DRAWINGS INCLUDING REQUIRED ALIGNMENT FITS & TOLERANCES FOR ALL MECHANICAL COMPONENTS.
6. SPOT FACE ALL BOLT HOLES PERPENDICULAR TO AXIS. REAM ALL BOLT HOLES AND SHIMS DURING ASSEMBLY TO THE PROPER FIT. PROVIDE TEMPORARY ASSEMBLY BOLTS OF SMALLER SIZE. ONLY REAM SHIMS IN PLACE WITH FULLY TENSIONED ASSEMBLY BOLTS INSTALLED IN AT MINIMUM ONE ADJACENT HOLE ON EITHER SIDE.

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MACHINERY TRIMETRIC VIEW

DRAWING M19

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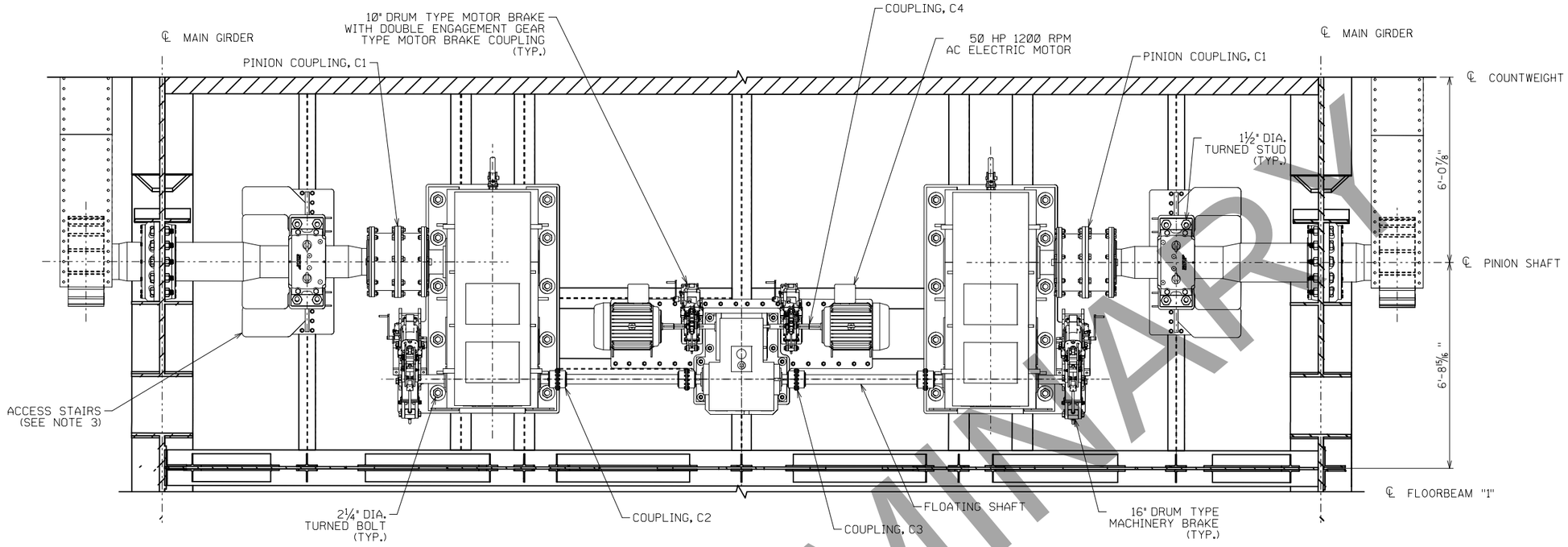
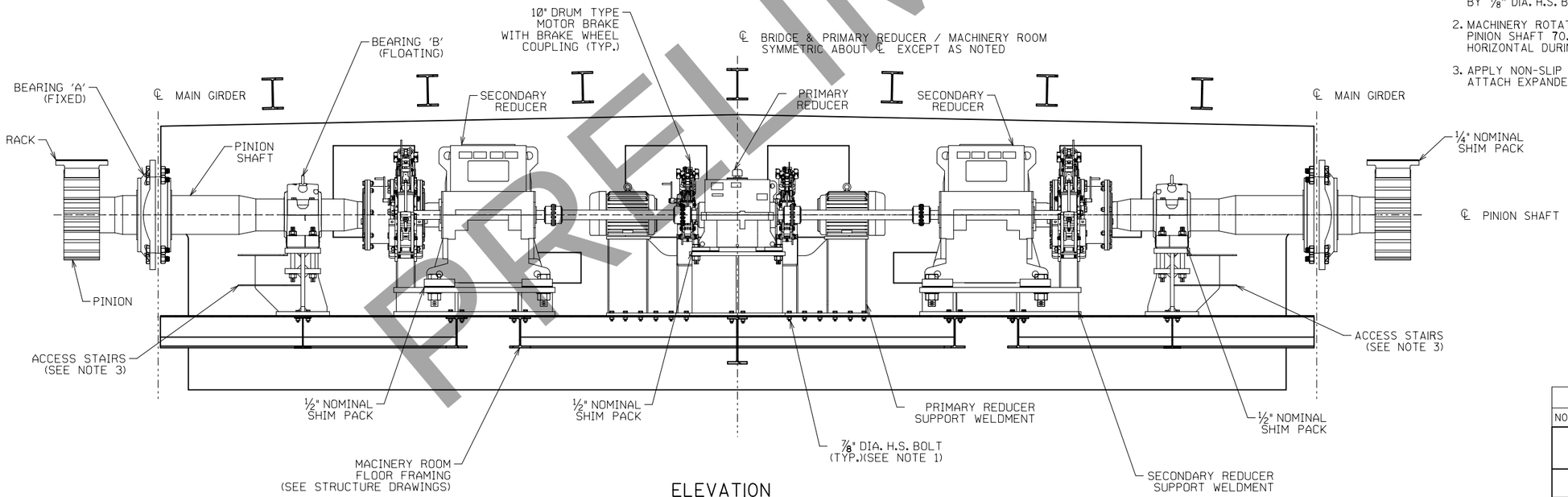


PLAN



ELEVATION

NOTES:

1. ALL MACHINERY SUPPORT WELDMENTS ARE CONNECTED TO MACHINERY ROOM FLOOR FRAMING BY ⅞" DIA. H.S. BOLTS.
2. MACHINERY ROTATES ABOUT THE CENTERLINE OF PINION SHAFT 70.7 DEGREES FROM HORIZONTAL DURING OPERATION.
3. APPLY NON-SLIP SURFACE TO ACCESS STAIRS OR ATTACH EXPANDED METAL GRATING TO EACH STEP.

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MACHINERY PLAN AND ELEVATION

DRAWING M19

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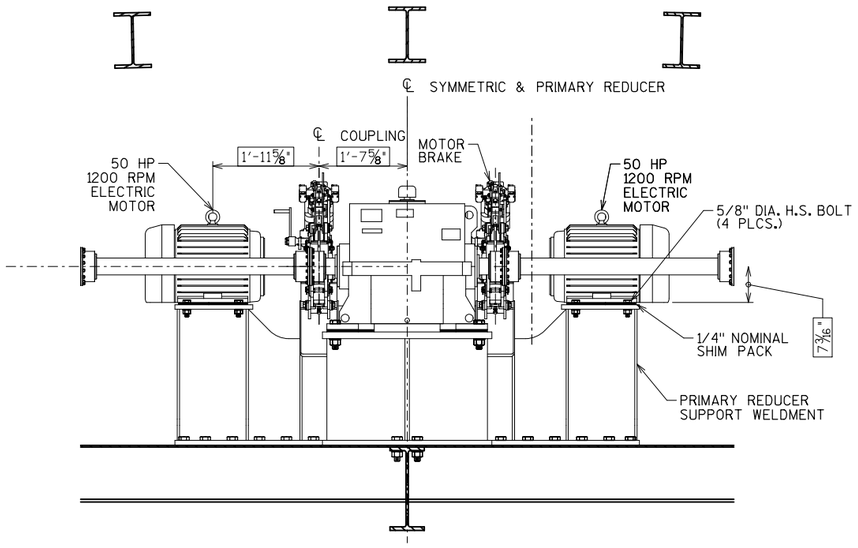
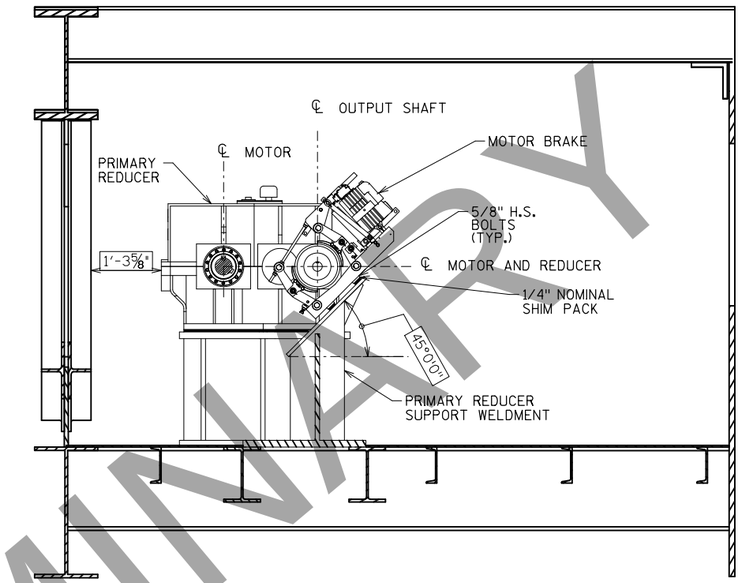


MOTOR & MOTOR BRAKE ELEVATION



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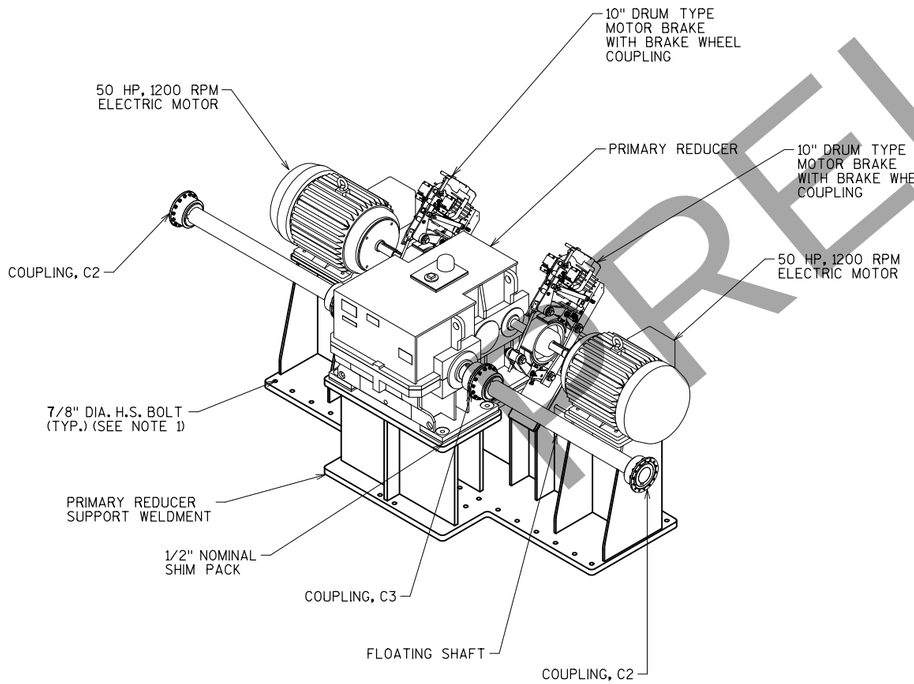

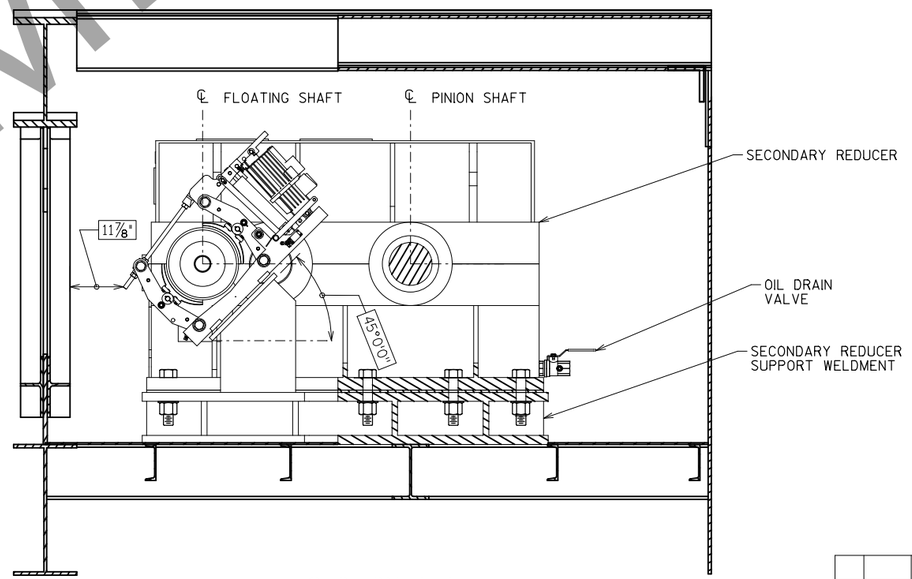

SECTION A-A

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MACHINERY PLAN & ELEVATION 2

DRAWING M4 OF M19

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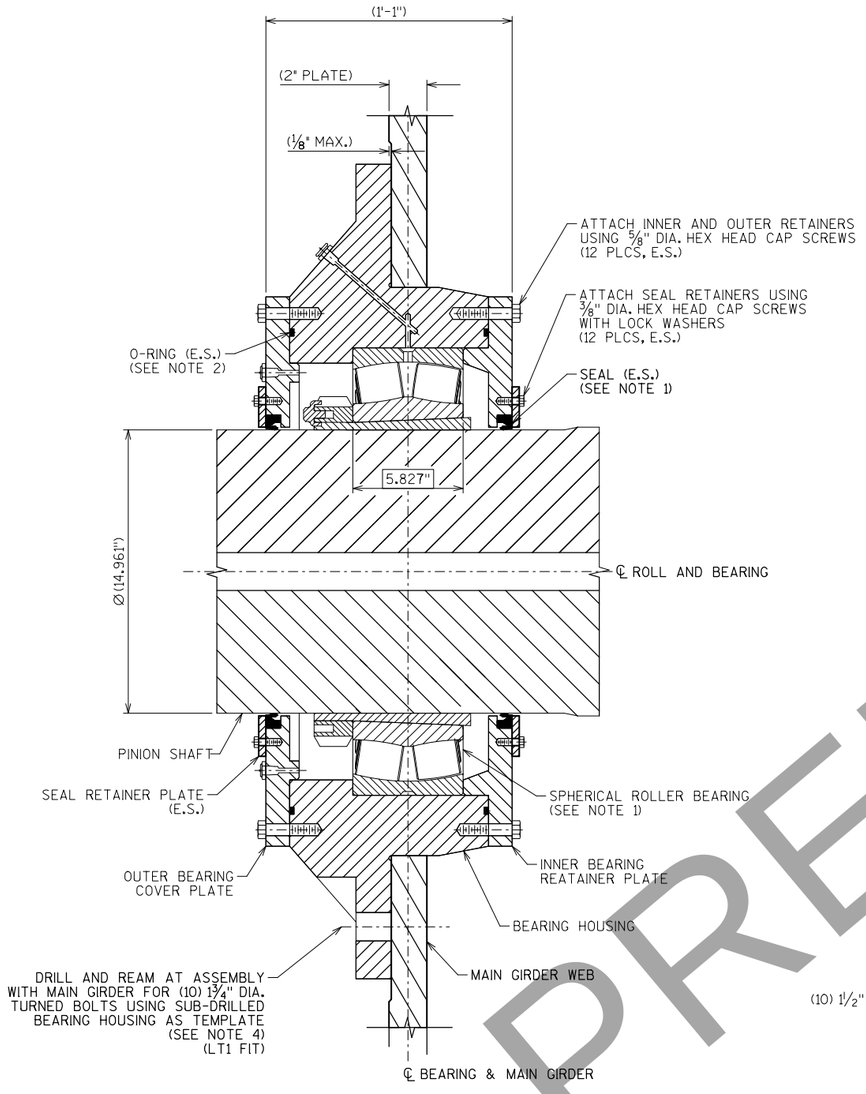

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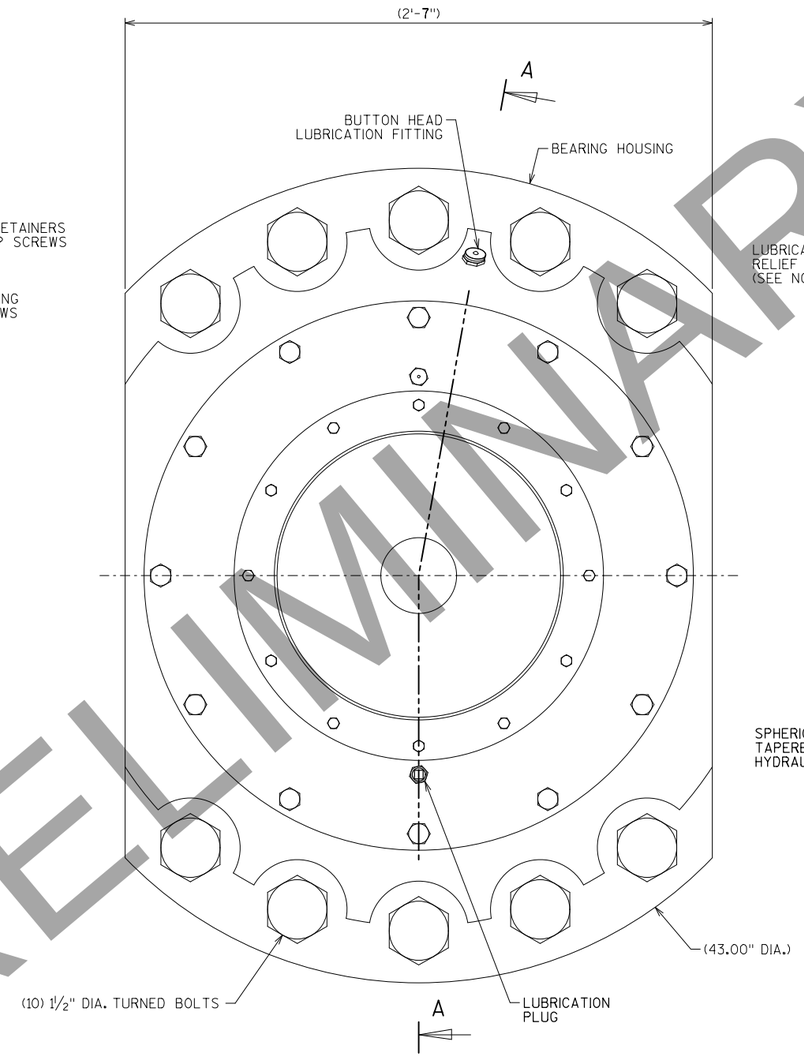
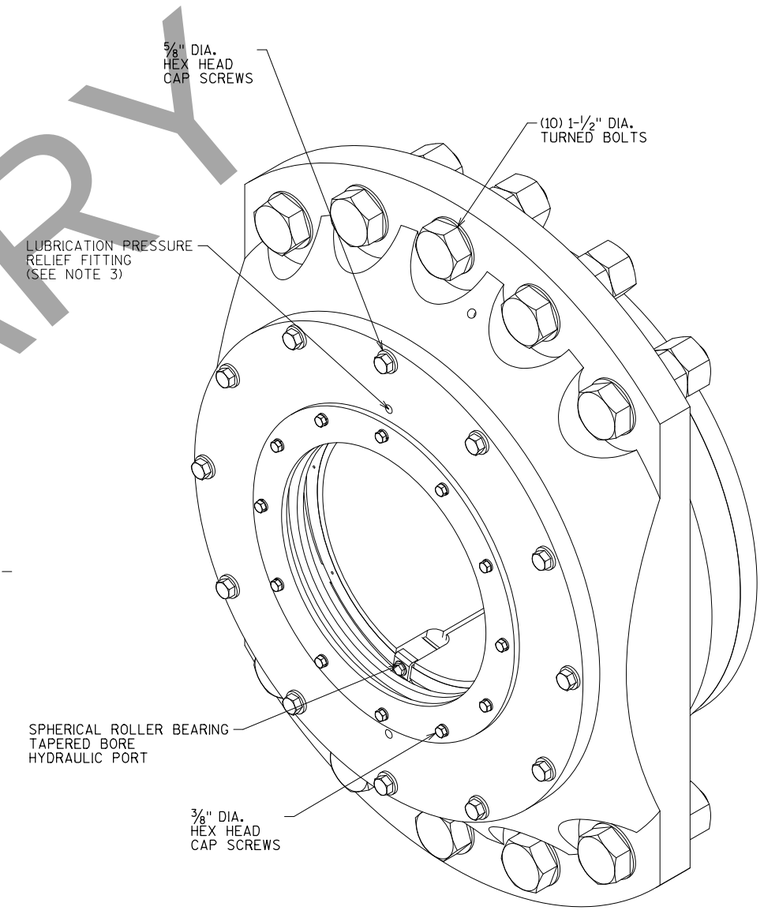


ELEVATION

BEARING 'A' HUB ASSEMBLY

ASSEMBLED WEIGHT: 2,068 POUNDS DRY
SEE DETAILS M-06 & M-07



TRIMETRIC

NOTES:

1. LOAD RATINGS AND HOUSING DIMENSIONS FOR BEARING "A" ARE BASED ON CATALOG SIZE OF A SKF (23080 CCK/W33) ADAPTER MOUNTED SPHERICAL ROLLER BEARING WITH AN (OH 3080 H) ADAPTER SLEEVE AND SKF (CR 380X420X20 HDS1R) SHAFT SEALS.
2. PROVIDE BUNA-N AS568A-474 O-RING.
3. PROVIDE PRESSURE RELIEF VENT WITH A RANGE OF 1-5 PSI.
4. HYDRAULICALLY TENSION BEARING HOUSING TURNED BOLTS TO 85% OF YIELD STRENGTH OF MATERIAL BASED ON TENSILE STRESS AREA OF THREADED PORTION OF BOLT.

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BEARING 'A' ASSEMBLY

DRAWING M19

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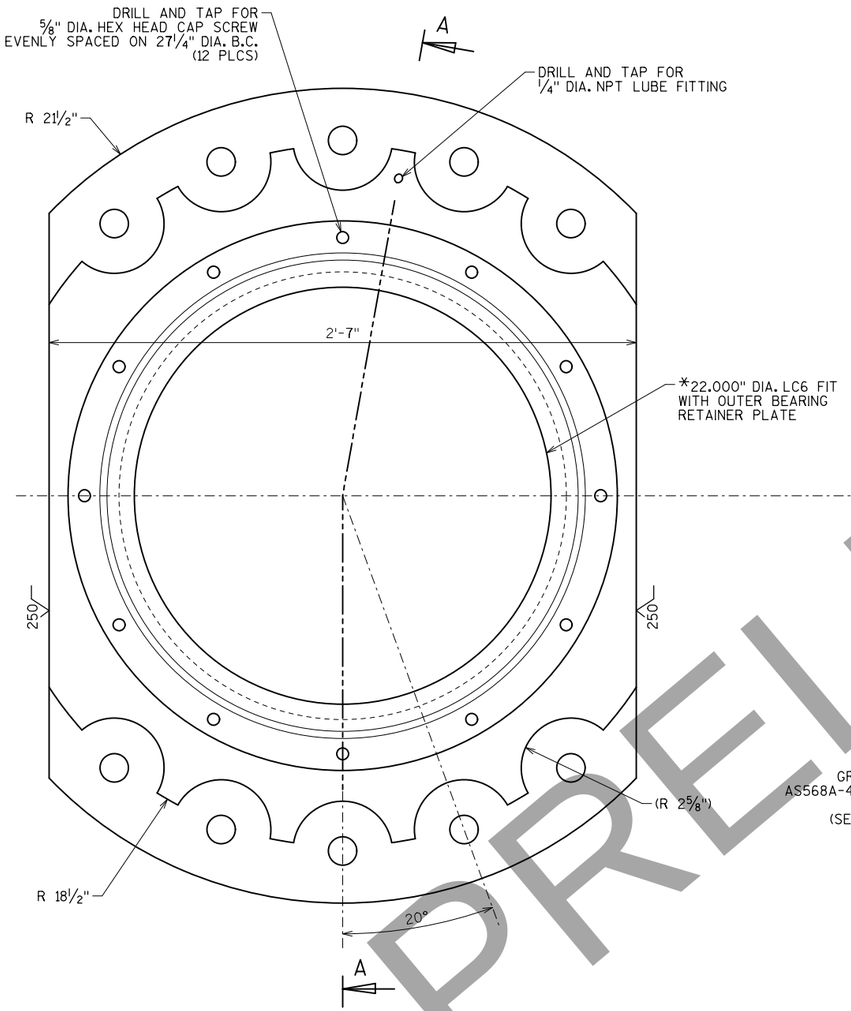
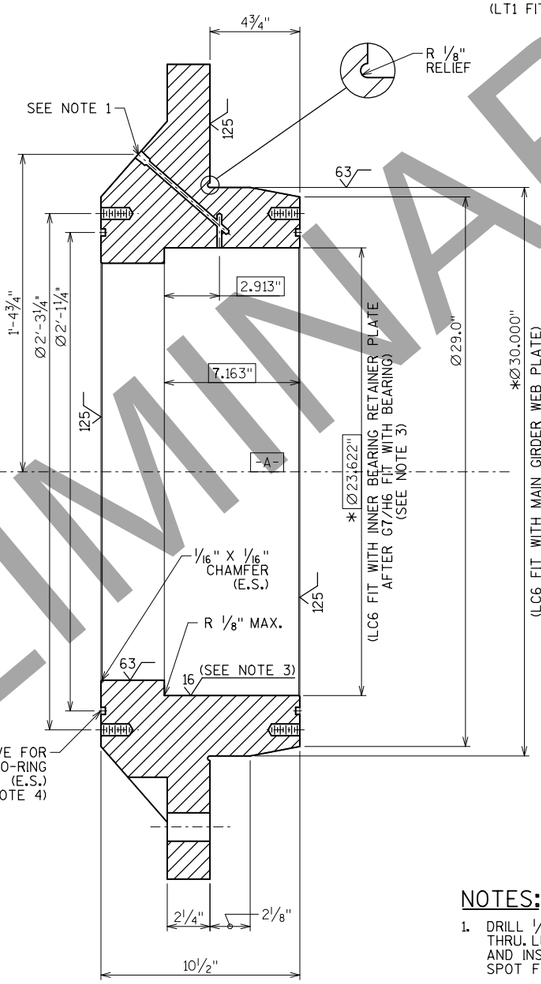


BEARING "A" HOUSING

MATERIAL: ASTM A668, CLASS G
WEIGHT: 1,230 POUNDS EACH
QUANTITY: 2 PER LEAF - 4 TOTAL



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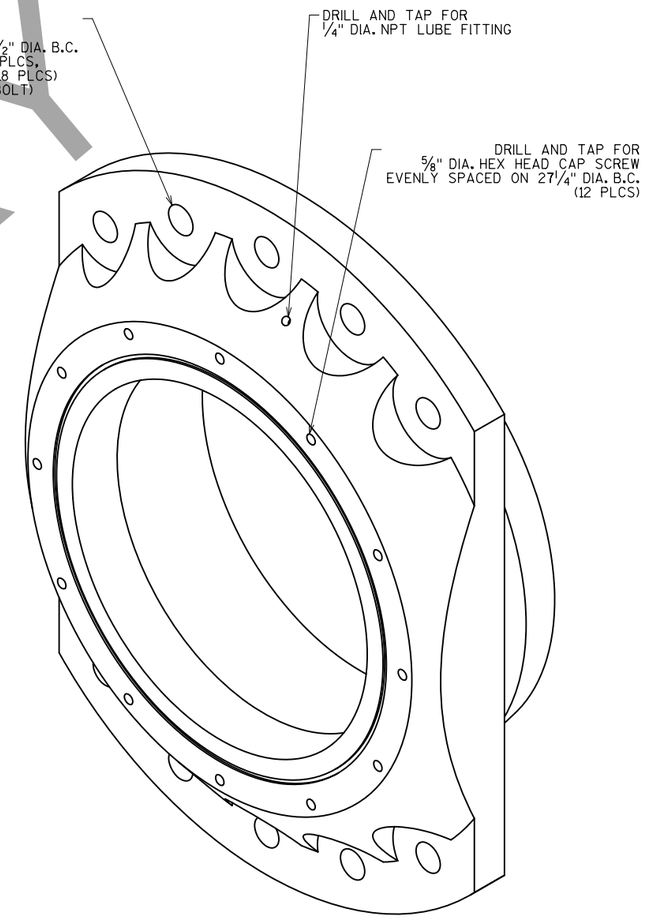

NOTES:

1. DRILL 1/4" DIA. LUBRICATION PORT. DO NOT DRILL THRU. LUBRICATION PORT DRILLED FROM OUTSIDE AND INSIDE BEARING HOUSING MUST INTERSECT. SPOT FACE FOR OUTSIDE PORT AS REQUIRED.
2. * PROVIDE CONCENTRICITY OF 0.005" FOR NOTED RADIAL DIMENSIONS ABOUT DATUM "A".
3. HOUSING BORE FIT AND FINISH TO BE PER BEARING MFG RECOMMENDATIONS AND AT LEAST AS STRICT AS INDICATED HEREIN.
4. DETAIL O-RING GROOVE IN SHOP DRAWINGS, PER MFG RECOMMENDATIONS.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

BEARING 'A' DETAILS 1 OF 2

DRAWING M6 OF M19

PRE_412

8

8

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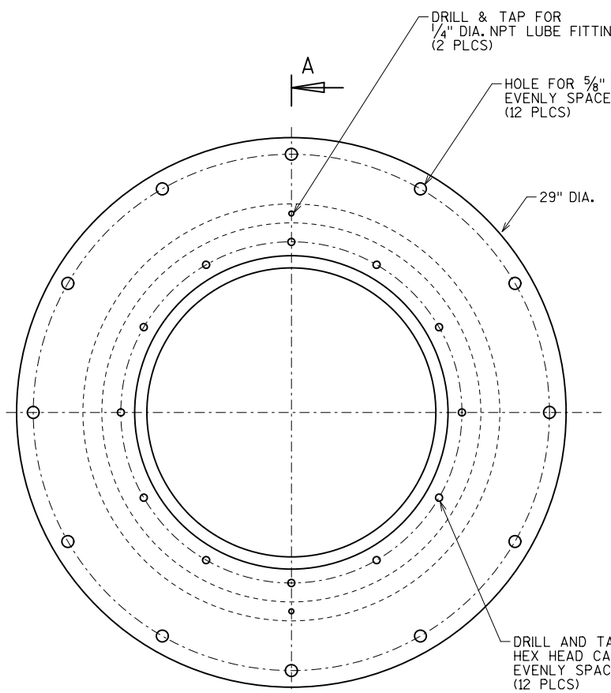
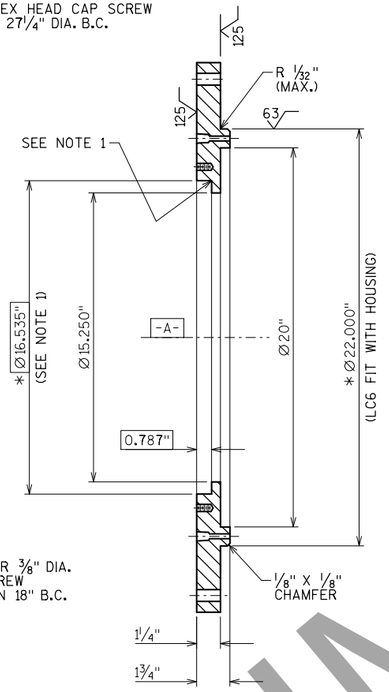
BATCH PRINT SHEET 7 OF 19

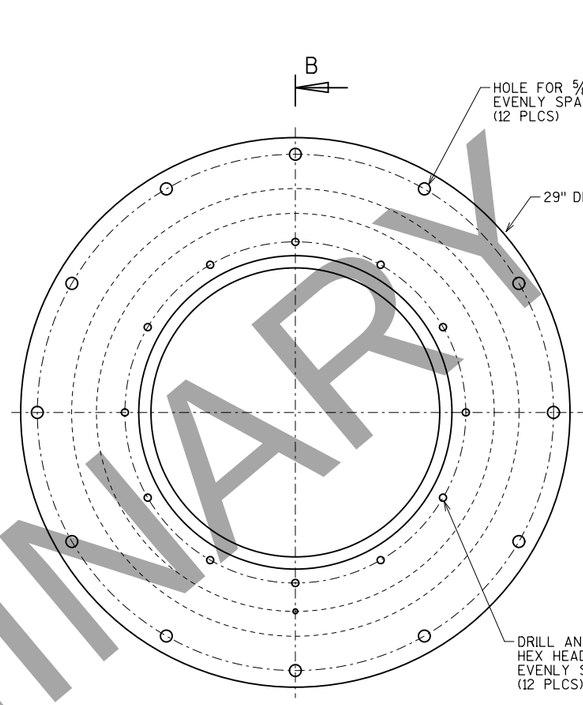


OUTER BEARING COVER PLATE

MATERIAL: ASTM A36
WEIGHT: 170 POUNDS EACH
QUANTITY: 2 REQ'D PER LEAF - 4 TOTAL

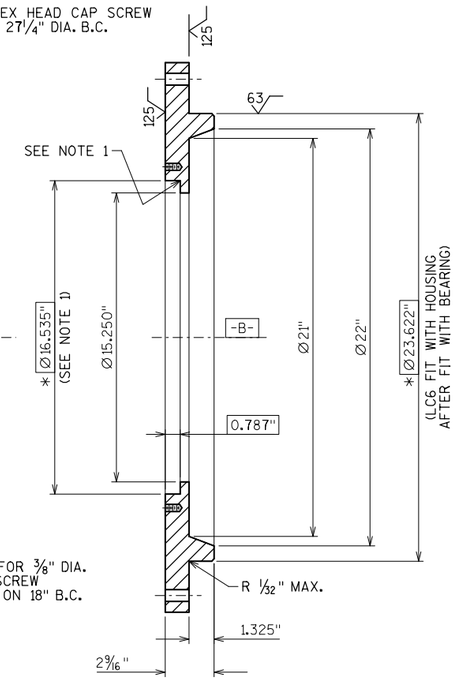


SECTION A-A



INNER BEARING RETAINER PLATE

MATERIAL: ASTM A709 GRADE 50
WEIGHT: 187 POUNDS EACH
QUANTITY: 2 REQ'D PER LEAF - 4 TOTAL



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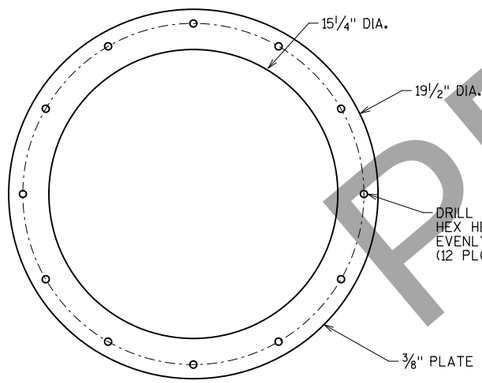
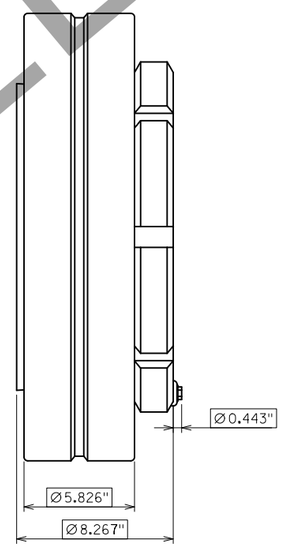
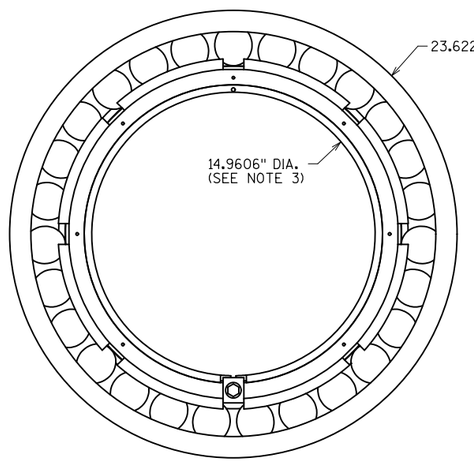


SEAL RETAINER PLATE

MATERIAL: ASTM A666 300 SERIES S.S.
WEIGHT: 12 POUNDS EACH
QUANTITY: 4 REQ'D PER LEAF - 8 TOTAL





SPHERICAL ROLLER BEARING

QTY. (1) BEARING: SKF 23080 CCK/W33
QTY. (1) ADAPTER SLEEVE: OH 3080H
QTY. (2) SEALS: SKF CR 380X420X20 HDS1 R
WEIGHT: 331 POUNDS EACH
QUANTITY: 2 ASSEMBLIES AS LISTED ABOVE PER LEAF - 4 TOTAL

NOTES:

1. BEARING RETAINER PLATE AND COVER PLATE BORE AND WIDTH FOR SEAL TO BE PER SEAL MFG RECOMMENDATIONS.

* 2. PROVIDE CONCENTRICITY OF 0.005" FOR NOTED RADIAL DIMENSIONS ABOUT DATUM "A" AND "B".

PROVIDE HYDRAULIC TENSIONING EQUIPMENT RECOMMENDED BY THE MANUFACTURER FOR SETTING INTERNAL ROLLER CLEARANCE. SEE INSTALLATION INSTRUCTIONS ON M-05 AND THE SPECIFICATIONS. NOTIFY ENGINEER IF BEARING MANUFACTURER RECOMMENDS A DIFFERENT PROCEDURE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

BEARING 'A' DETAILS 2 OF 2

DRAWING M19

PRE_413

PRELIMINARY

8

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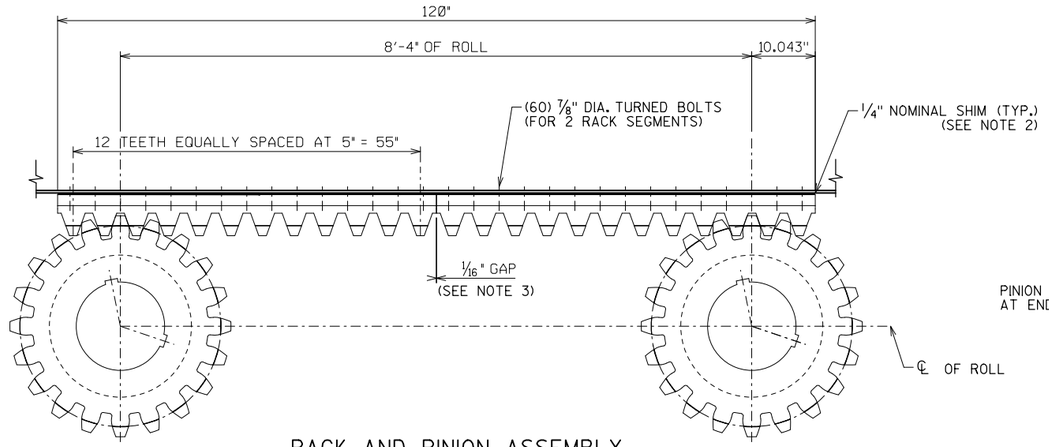
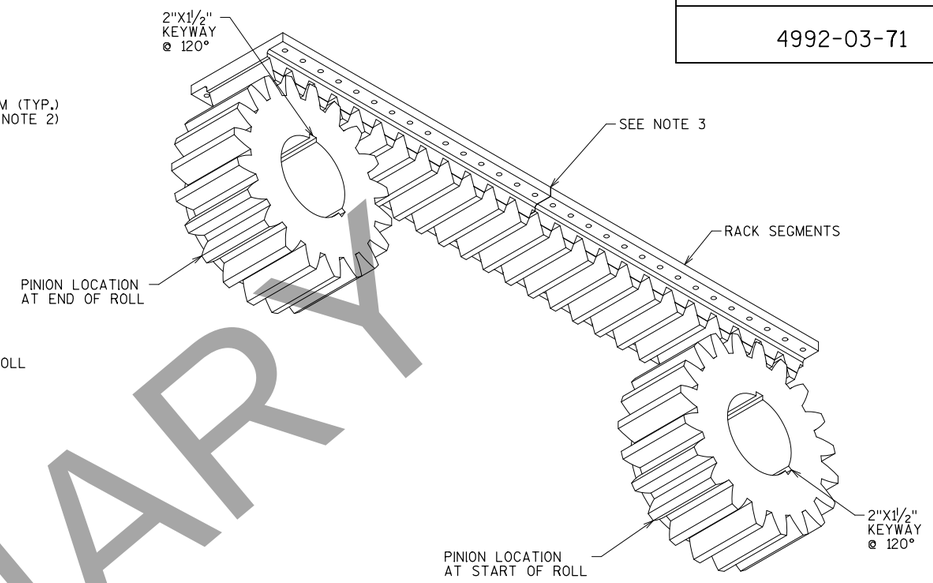
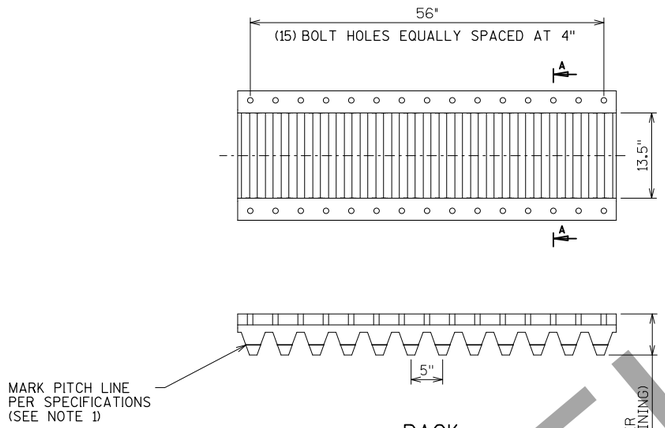


RACK AND PINION ASSEMBLY

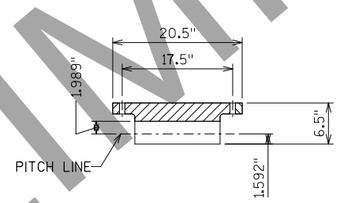
(SOUTH ASSEMBLY SHOWN LOOKING NORTH, NORTH ASSEMBLY SIMILAR)



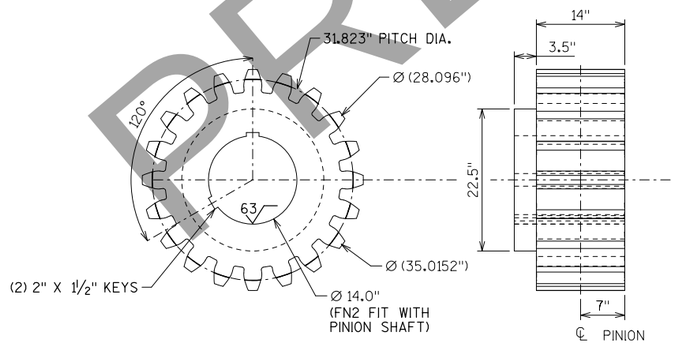


RACK

WEIGHT: 1,280 POUNDS EACH
QUANTITY: 4 PER LEAF - 8 TOTAL



SECTION A-A



PINION

WEIGHT: 2,740 POUNDS EACH
QUANTITY: 2 PER LEAF - 4 TOTAL

	RACK	PINION
MATERIAL	AGMA GRADE 1 STEEL THROUGH HARDENED	AGMA GRADE 1 STEEL THROUGH HARDENED
QUAN. REQ'D	4	2
HARDNESS	BHN 280 +/- 10	BHN 320 +/- 10
TOOTH DP	0.6283	0.6283
TOOTH FORM	20° STUB TOOTH INVOLUTE	20° STUB TOOTH INVOLUTE
MIN. AGMA QUALITY	Q = 7	Q = 7
NUMBER OF TEETH	12 PER SEGMENT	20
PITCH DIAMETER	N/A	31.83"
FACE WIDTH	13 1/2"	14"
WEIGHT	1,280 POUNDS PER SEGMENT	2,740 POUNDS EACH

QUANTITIES ARE PER LEAF (2 LEAFS TOTAL)

NOTES:

1. MACHINE V-NOTCH PITCH LINE ON BOTH SIDES OF RACK AND PINION 1/32" DEEP.
2. SHIM RACK ALONG LENGTH OF ROLL SUCH THAT THE PITCH LINE OF THE RACK IS ALIGNED WITH THE PITCH LINE OF THE PINION THROUGHOUT THE ROLL OF THE LEAF.
3. AFTER INSTALLATION AND ALIGNMENT OF THE RACK FILL GAPS BETWEEN RACK SEGMENTS WITH OIL RESISTANT RTV SILICONE, COLOR BLACK.

PRELIMINARY
DRAWING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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RACK AND PINION

DRAWING M8 OF M19

PRE_414

8

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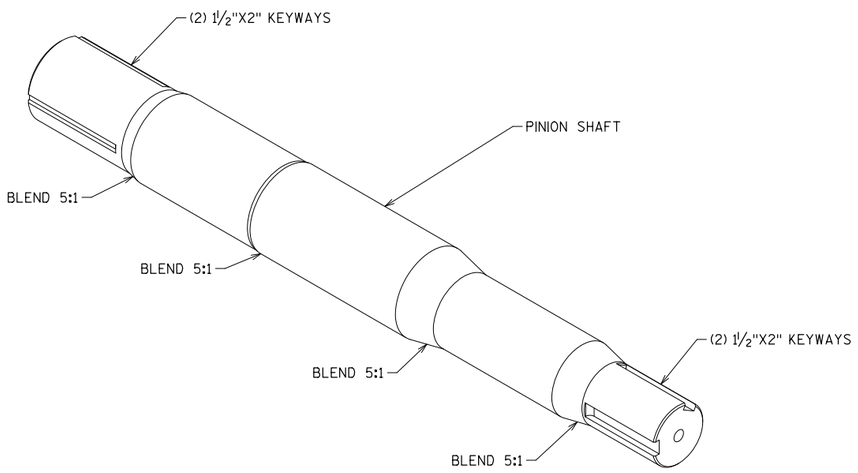
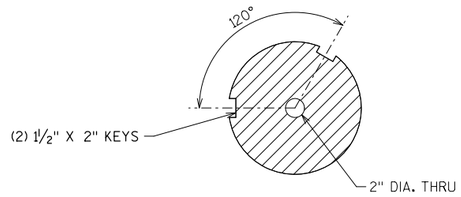
STATE PROJECT NUMBER

4992-03-71





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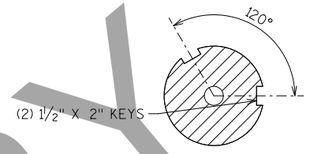

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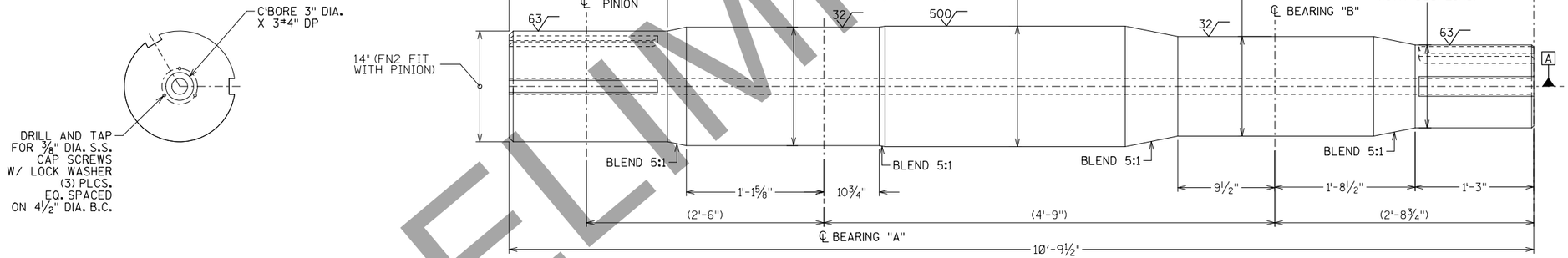
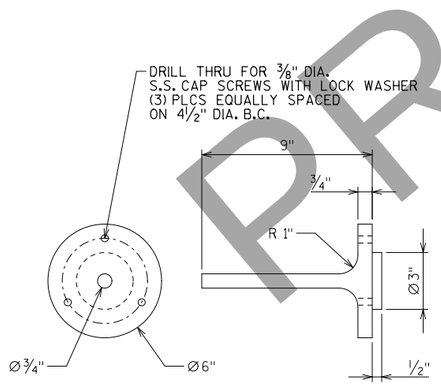


PINION SHAFT

MATERIAL: ASTM A668 CLASS K
WEIGHT: 5,350 POUNDS
QUANTITY: 2 PER LEAF - 4 TOTAL



SPAN POSITION INDICATOR

MATERIAL: ASTM A36
QUANTITY: 1 PER LEAF - 2 TOTAL

NOTES:

1. FABRICATE KEYS FROM ASTM A668 CLASS L OR AISI 4140, BHN 255-320.
* 2. PROVIDE FITS AND FINISHES PER MANUFACTURER'S TOLERANCE. IF TOLERANCE ON DRAWING CONFLICTS WITH MANUFACTURER'S TOLERANCE THE TIGHTER TOLERANCE SHALL APPLY.
3. CUT ALL DIAMETERS CONCENTRIC WITH THE CENTER LINES OF PINION SHAFT, DATUM -A- WITHIN 0.005".
4. AFTER MACHINING, BLAST INDICATED AREAS TO APPROPRIATE ANCHOR PATTERN PRIOR TO PAINTING.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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PINION SHAFT

DRAWING M19

PRE_415

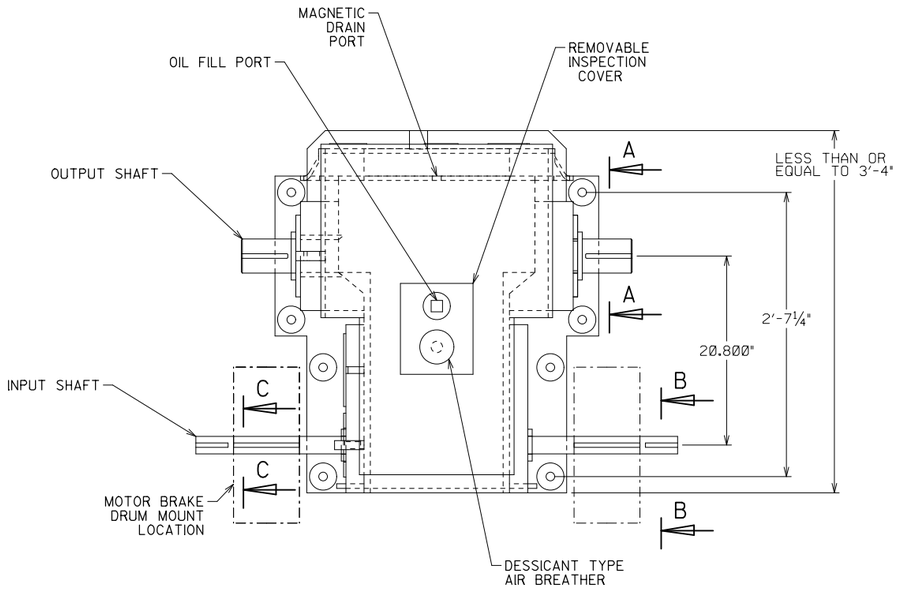
PRELIMINARY

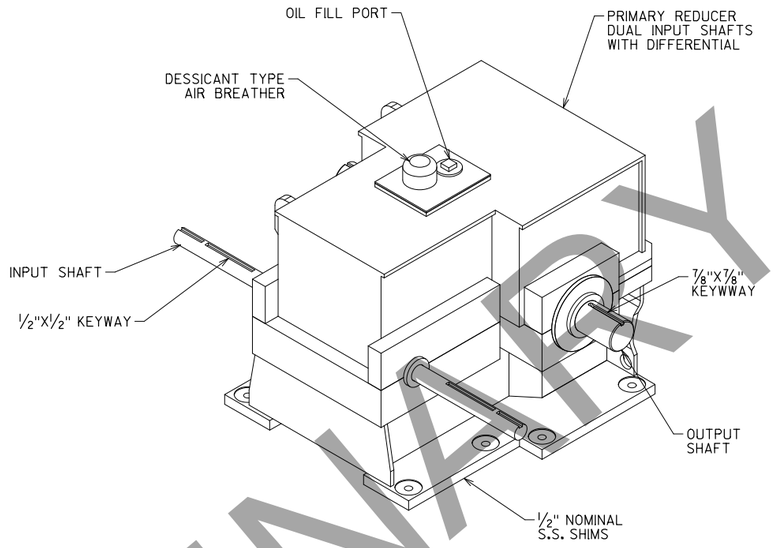
8

8

STATE PROJECT NUMBER

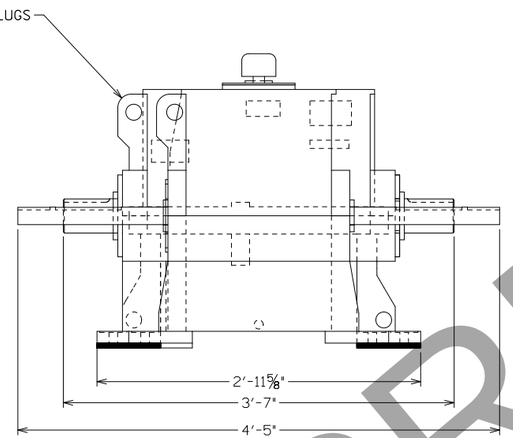
4992-03-71

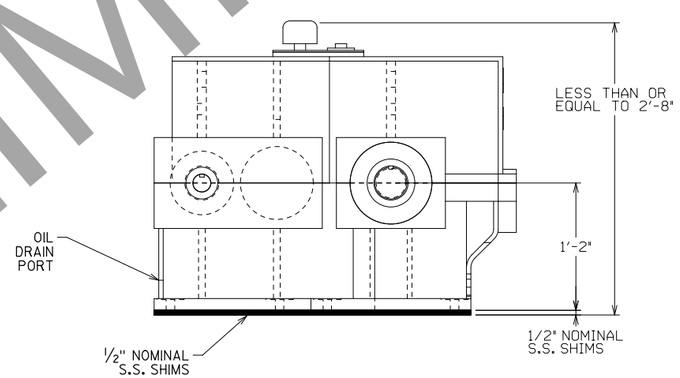




NOTES:

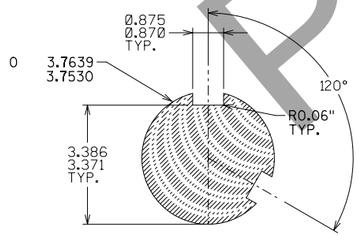
1. REDUCER SHALL COMPLY WITH ALL AASHTO SPECIFICATIONS FOR MOVABLE HIGHWAY BRIDGES, THE PLANS, AND THE SPECIFICATIONS. MACHINERY ROTATES WITH LEAF DURING SPAN MOTION.
2. PROVIDE REDUCER WITH A LOCKING DIFFERENTIAL FOR OPERATION IN A REDUCED WIND MAINTENANCE MODE WITH A SINGLE RACK AND PINION.
3. REDUCER INPUT AND OUTPUT SHAFT SEALS SHALL BE SPLIT TYPE SUCH THEY ARE REMOVABLE AND FULLY REPLACEABLE WITHOUT REDUCER HOUSING DISASSEMBLY. IF NECESSARY TO PREVENT LEAKAGE DURING NORMAL OPERATION, PROVIDE AN OIL CAPTURE RESERVOIR TO RETURN OIL TO HOUSING.
4. DELIVER WITH UNDERSIZED MOUNTING HOLES AT MINIMUM 0.06" SMALLER DIAMETER. FIELD DRILL AND REAM REDUCER, SHIMS, AND MACHINERY SUPPORTS FOR FINAL SIZE.
5. HOUSING SHALL BE FABRICATED AND INSPECTED PER AWS D1.1.
6. GEARS, PINIONS, AND SHAFTS SHALL BE FABRICATED FROM THROUGH HARDENED AISI 4150 STEEL. ALL GEARS SHALL MEET AGMA QUALITY 8 MINIMUM.
7. ROLLING ELEMENT BEARINGS SHALL HAVE AT MINIMUM L10 LIFE = 40,000 HOURS
8. FABRICATE KEYS FROM ASTM A668 CLASS L OR AISI 4140. AFTER MACHINING, BLAST INDICATED AREAS TO APPROPRIATE ANCHOR PATTERN PRIOR TO PAINTING.
9. PROVIDE STAINLESS STEEL SHIM PACKS 1/2" NOMINAL SIZE. SEE SPECIFICATIONS FOR SHIM PACK DETAILS.
10. MOUNT REDUCER WITH 1" DIA. HIGH STRENGTH TURNED BOLTS.
11. PROVIDE MAGNETIC DRAIN PLUG ON OPPOSITE SIDE FROM OIL DRAIN PORT VALVE. OIL DRAIN VALVE SHALL FIT EITHER DRAIN PORT LOCATION FOR MOUNTING ON EITHER SIDE.



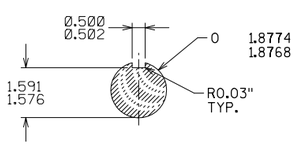


PRIMARY REDUCER

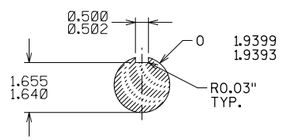
24:1 RATIO, SF=1.5, 100 IN-KIP CAPACITY WITH DIFFERENTIAL
WEIGHT: 2,475 POUNDS DRY - 2,695 POUNDS W/ OIL
QUANTITY: 1 REQ'D PER LEAF - 2 TOTAL



OUTPUT SHAFT
SECTION A-A



INPUT SHAFT
SECTION B-B



MOTOR BRAKE
SECTION C-C

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

PRIMARY REDUCER

DRAWING M10 OF M19

PRE_416

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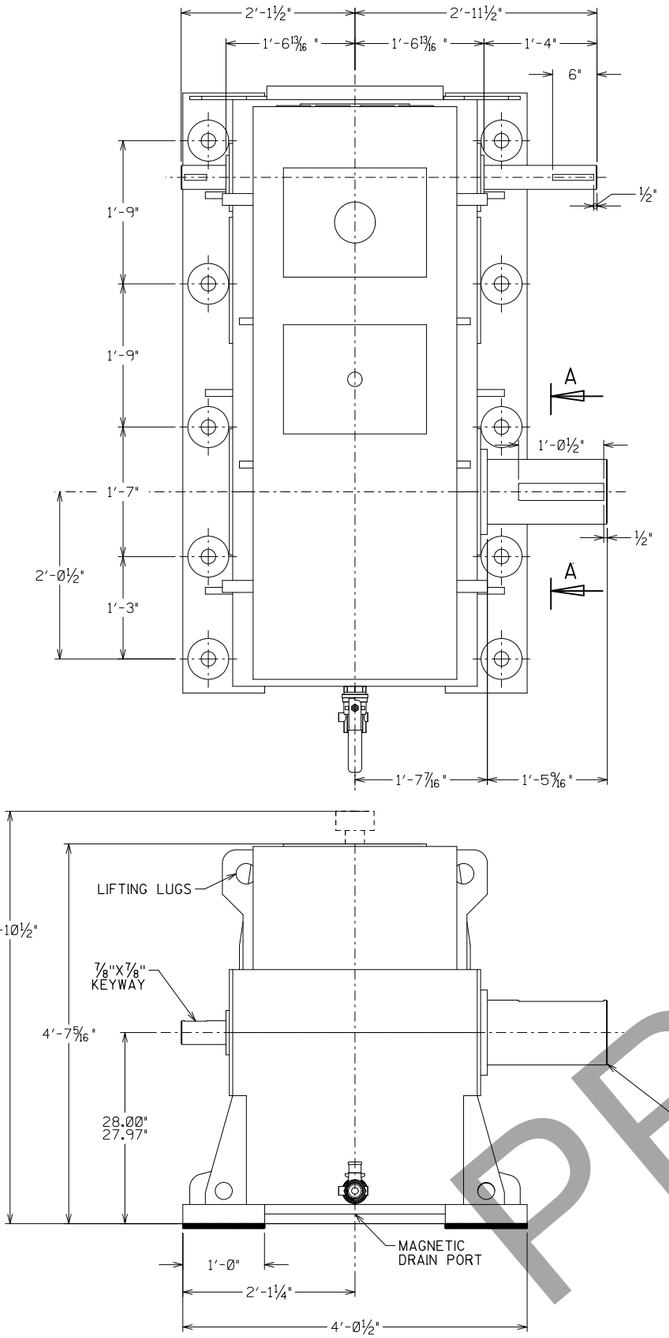
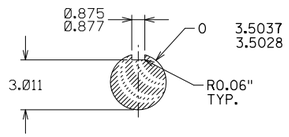
PRELIMINARY

STATE PROJECT NUMBER

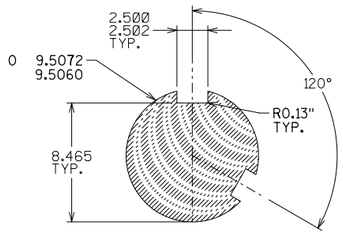
4992-03-71





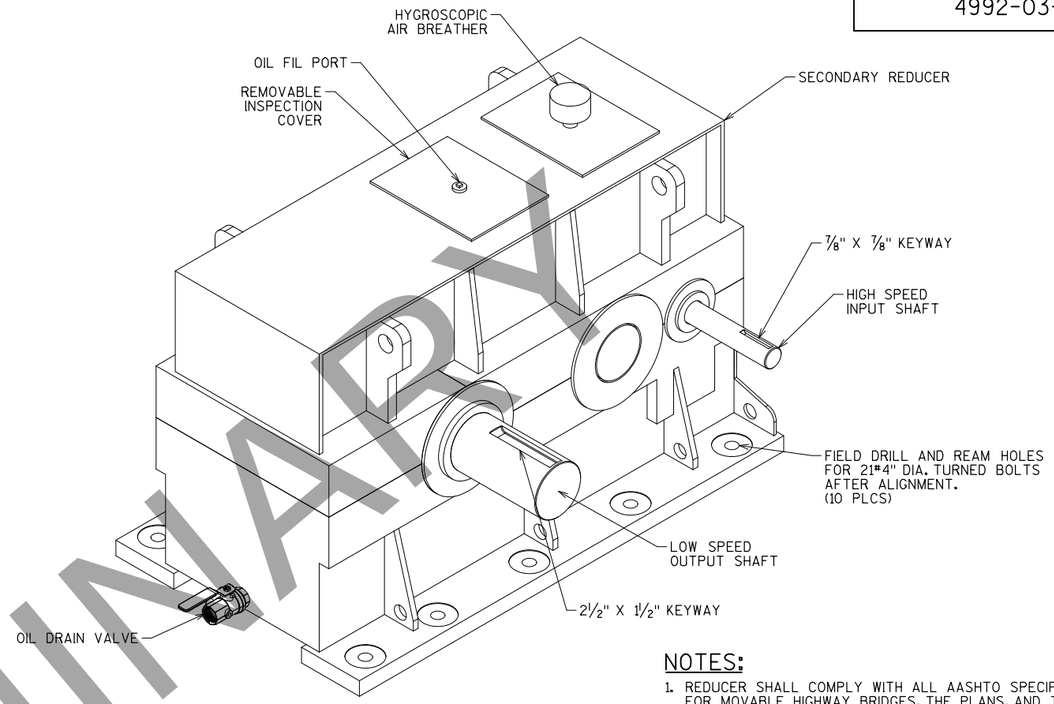
INPUT SHAFT

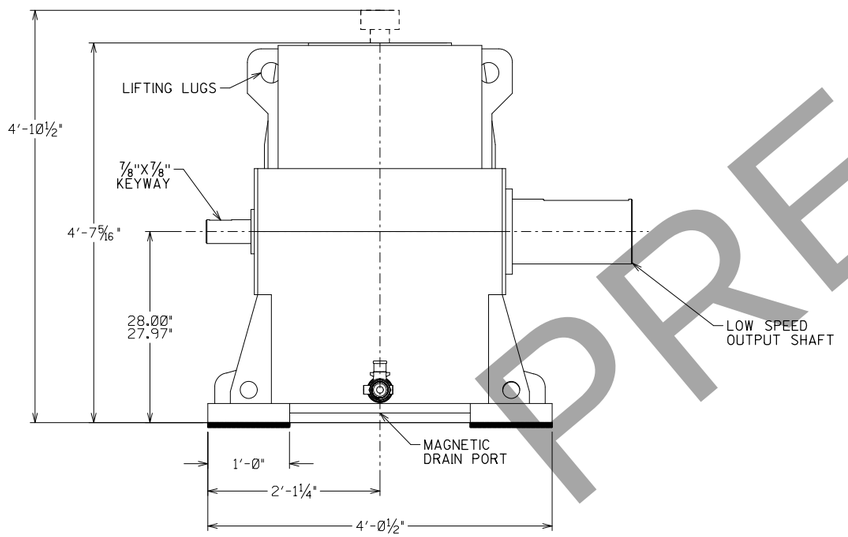
SECTION B-B

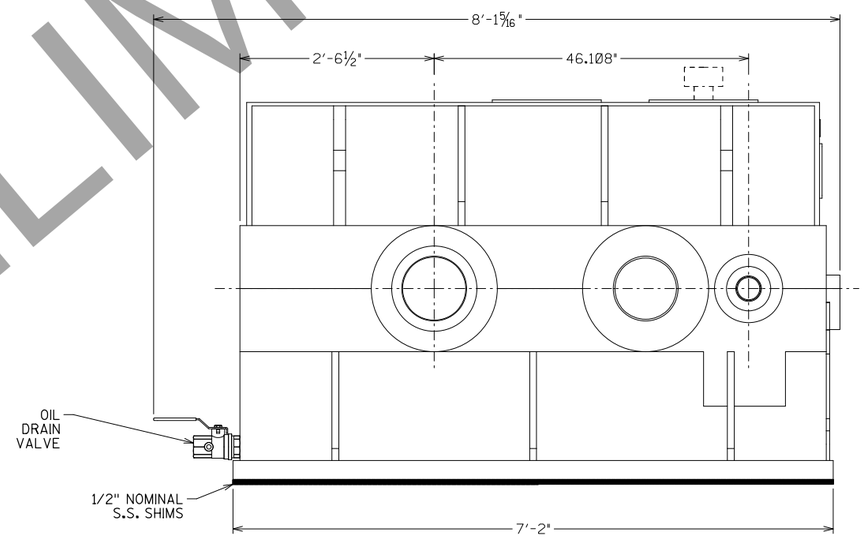


OUTPUT SHAFT

SECTION A-A







NOTES:

1. REDUCER SHALL COMPLY WITH ALL AASHTO SPECIFICATIONS FOR MOVABLE HIGHWAY BRIDGES, THE PLANS, AND THE SPECIFICATIONS. MACHINERY ROTATES WITH LEAF DURING SPAN MOTION.
3. REDUCER INPUT AND OUTPUT SHAFT SEALS SHALL BE SPLIT TYPE SUCH THEY ARE REMOVABLE AND FULLY REPLACEABLE WITHOUT REDUCER HOUSING DISASSEMBLY. IF NECESSARY TO PREVENT LEAKAGE DURING NORMAL OPERATION, PROVIDE AN OIL CAPTURE RESERVOIR TO RETURN OIL TO HOUSING.
4. DELIVER WITH UNDERSIZED MOUNTING HOLES AT MINIMUM 0.06" SMALLER DIAMETER. FIELD DRILL AND REAM REDUCER, SHIMS, AND MACHINERY SUPPORTS FOR FINAL SIZE.
5. HOUSING SHALL BE FABRICATED AND INSPECTED PER AWS D1.1.
6. GEARS, PINIONS, AND SHAFTS SHALL BE FABRICATED FROM THROUGH HARDENED AISI 4150 STEEL. ALL GEARS SHALL MEET AGMA QUALITY 8 MINIMUM.
7. ROLLING ELEMENT BEARINGS SHALL HAVE AT MINIMUM L10 LIFE = 40,000 HOURS
8. FABRICATE KEYS FROM ASTM A668 CLASS L OR AISI 4140. AFTER MACHINING, BLAST INDICATED AREAS TO APPROPRIATE ANCHOR PATTERN PRIOR TO PAINTING.
9. PROVIDE STAINLESS STEEL SHIM PACKS 1/2" NOMINAL SIZE. SEE SPECIFICATIONS FOR SHIM PACK DETAILS.
10. MOUNT REDUCER WITH 2¼" DIA. HIGH STRENGTH TURNED BOLTS.
11. PROVIDE MAGNETIC DRAIN PLUG ON OPPOSITE SIDE FROM OIL DRAIN PORT VALVE. OIL DRAIN VALVE SHALL FIT EITHER DRAIN PORT LOCATION FOR MOUNTING ON EITHER SIDE.

SECONDARY REDUCER

50.6:1 RATIO, SF=1.5, 2400 IN-KIP CAPACITY
WEIGHT: 15,500 POUNDS DRY - 17,180 POUNDS W/ OIL
QUANTITY: 2 REQ'D PER LEAF - 4 TOTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

SECONDARY REDUCER

DRAWING M11 OF M19

PRE_417

8

8

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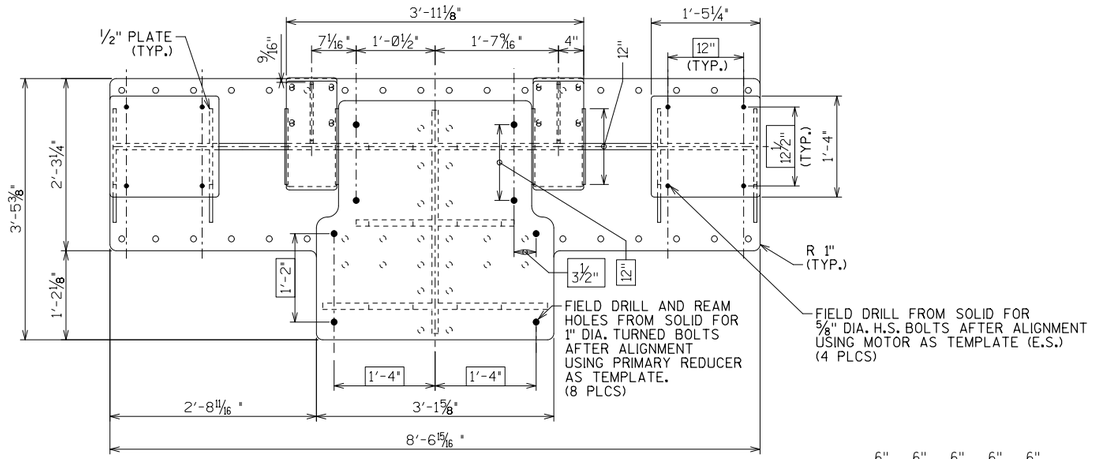
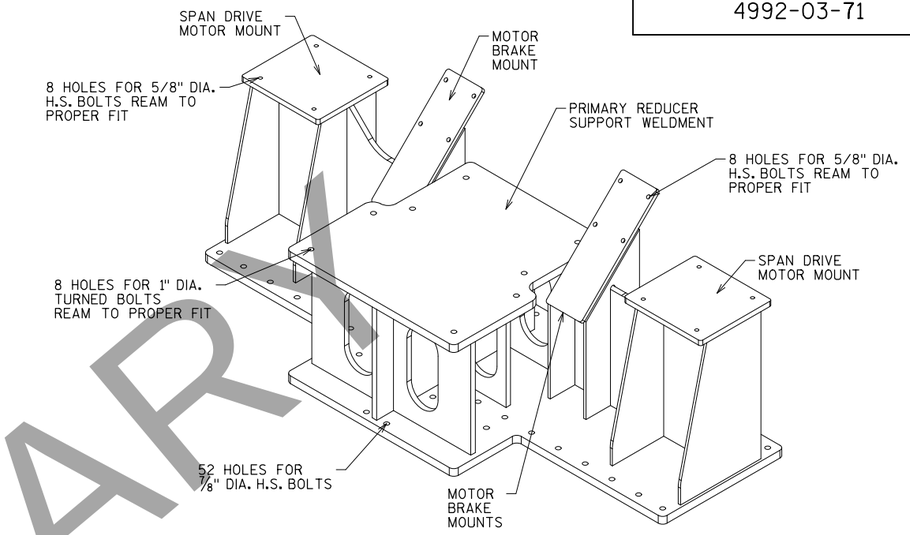
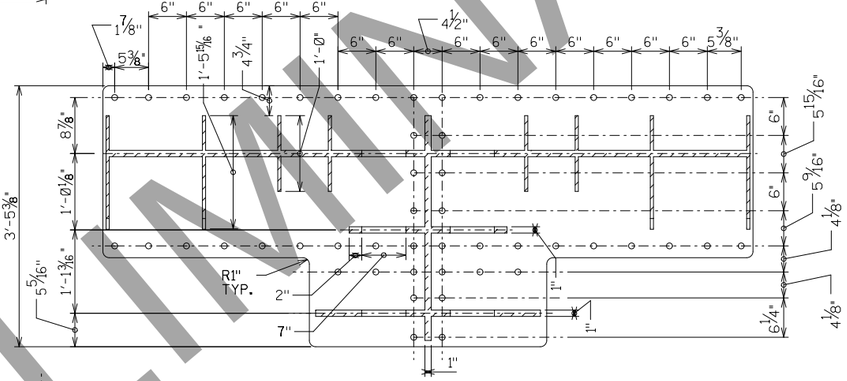
DRAFT 2020

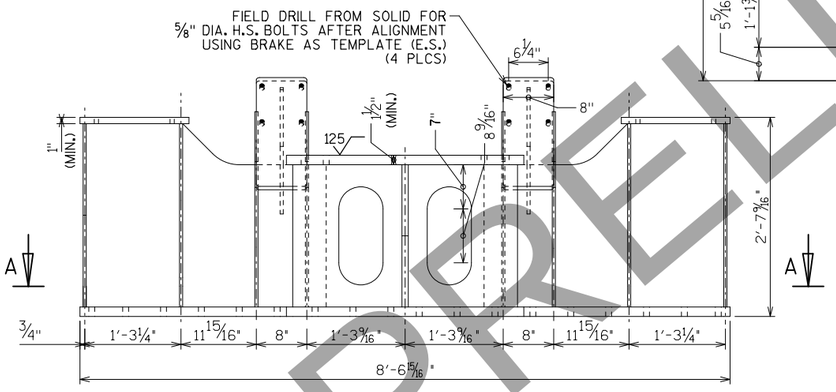
STATE PROJECT NUMBER
4992-03-71

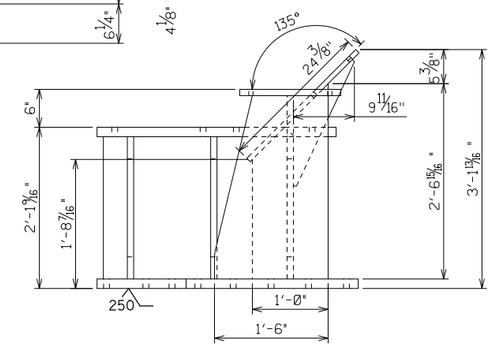






SECTION A-A





PRIMARY REDUCER SUPPORT WELDMENT

MATERIAL: ASTM A709 GRADE 50
WEIGHT: 3,750 POUNDS PRIOR TO WELDING
QUANTITY: (1) PER SPAN, (2) PROJECT TOTAL

NOTES:

1. ALL STIFFENERS SUPPORTING REDUCER ARE 1" PLATES UNLESS NOTED OTHERWISE.
2. ALL STIFFENERS SUPPORTING DRIVE MOTORS AND BRAKES ARE 1/2" PLATES UNLESS NOTED OTHERWISE.
3. CLIP ALL STIFFENERS 1½" X 1½" UNLESS NOTED OTHERWISE.
4. ALL PLATE CONNECTED BY 5/16 FILLET WELDS EACH SIDE UNLESS NOTED OTHERWISE.
5. CONNECT ADJOINING PLATES WITH COMPLETE JOINT PENETRATION (CJP) WELDS UNLESS OTHERWISE NOTED. MILL-TO-BEAR ALL STIFFENERS TO BE CONNECTED BY FILLET WELDS PRIOR TO WELDING. STRESS RELIEVE ALL WELDMENTS AFTER WELDING AND PRIOR TO MACHINING. PROVIDE ULTRASONIC (UT) AND MAGNETIC PARTICLE (MT) TESTING TO ALL CJP AND FILLET WELDED JOINTS RESPECTIVELY, IN ACCORDANCE WITH AWS D1.5 CONSIDERING EACH TO BE A MAIN MEMBER.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WITH MOTOR, BRAKE, AND SPEED REDUCER MANUFACTURER INCLUDING AS-BUILT CONDITIONS OF MACHINERY ROOM SUPPORT FRAMING. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER FIT.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

PRIMARY REDUCER SUPPORT WELDMENT 1

DRAWING M19

PRE_418

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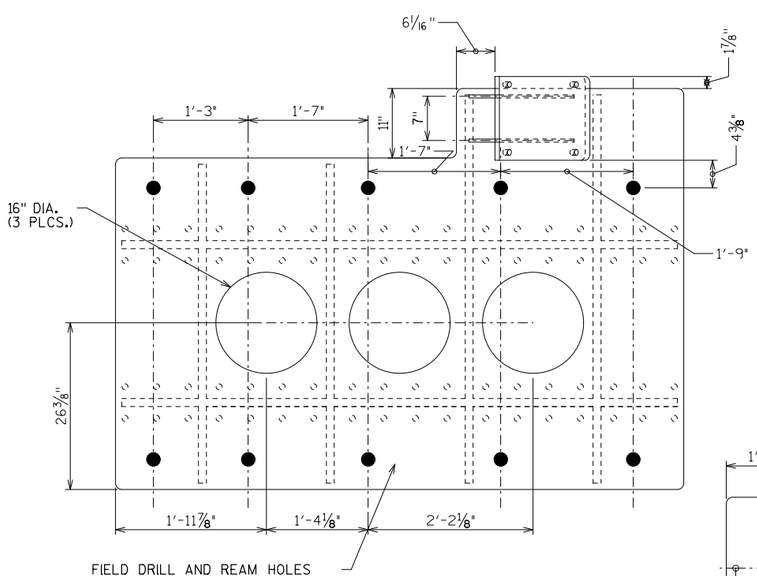
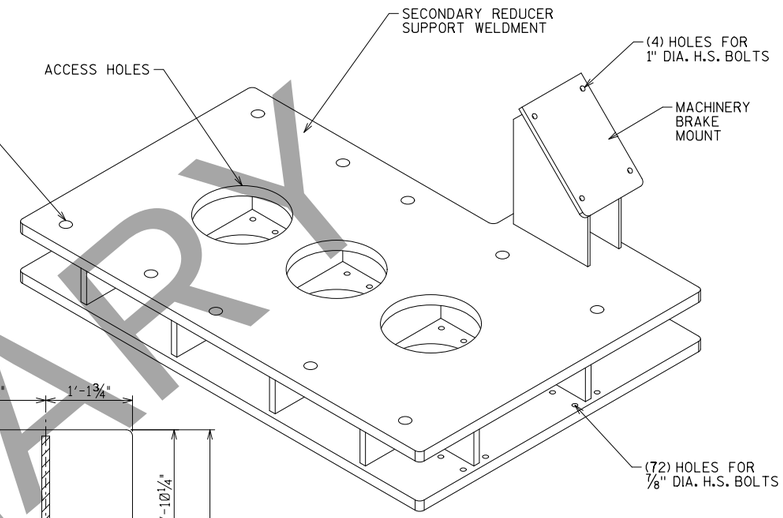
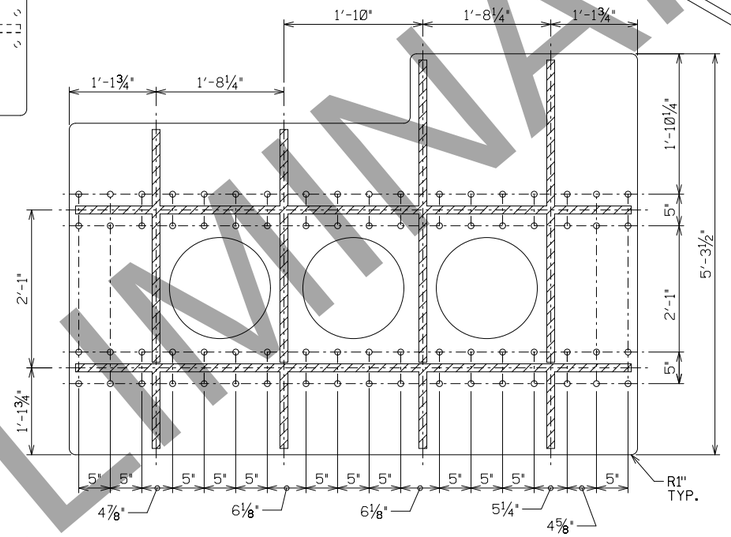
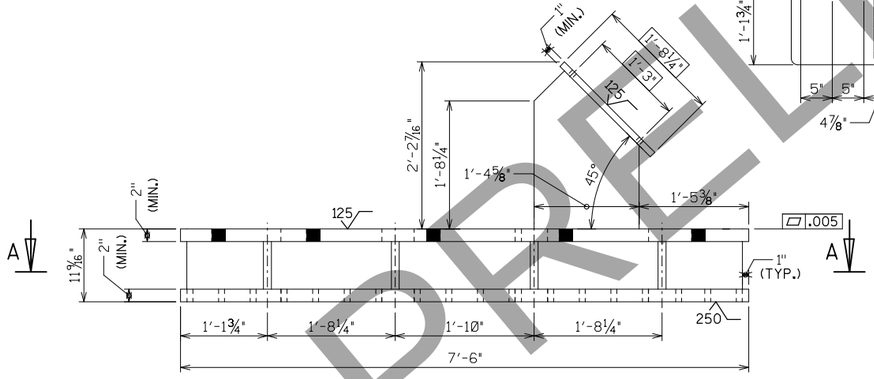
DRAWING APPROVED FOR CONSTRUCTION
DATE 2020

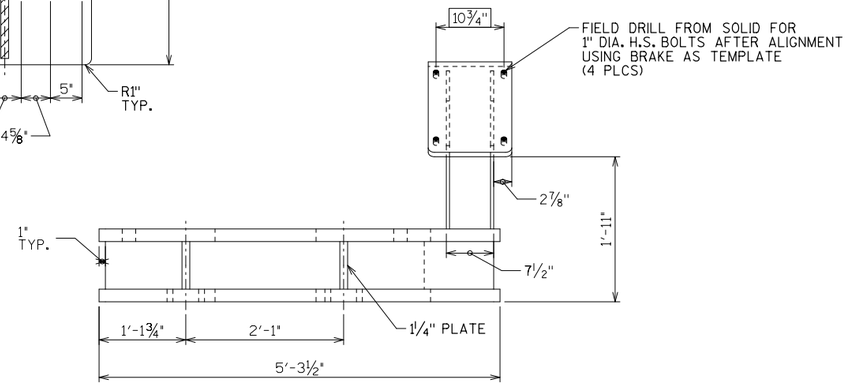






SECTION A-A





NOTES:

1. ALL STIFFENERS SUPPORTING REDUCER ARE 1¼" PLATES UNLESS NOTED OTHERWISE.
2. ALL STIFFENERS SUPPORTING MACHINERY BRAKES ARE 1/2" PLATES UNLESS NOTED OTHERWISE.
3. CLIP ALL STIFFENERS 1½" X 1½" UNLESS NOTED OTHERWISE.
4. ALL PLATE CONNECTED BY 5/16 FILLET WELDS EACH SIDE UNLESS NOTED OTHERWISE.
5. CONNECT ADJOINING PLATES WITH COMPLETE JOINT PENETRATION (CJP) WELDS UNLESS OTHERWISE NOTED. MILL-TO-BEAR ALL STIFFENERS TO BE CONNECTED BY FILLET WELDS PRIOR TO WELDING. STRESS RELIEVE ALL WELDMENTS AFTER WELDING AND PRIOR TO MACHINING. PROVIDE ULTRASONIC (UT) AND MAGNETIC PARTICLE (MT) TESTING TO ALL CJP AND FILLET WELDED JOINTS RESPECTIVELY, IN ACCORDANCE WITH AWS D1.5 CONSIDERING EACH TO BE A MAIN MEMBER.
6. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS WITH BRAKE AND REDUCER MANUFACTURER INCLUDING AS-BUILT CONDITIONS OF MACHINERY ROOM SUPPORT FRAMING. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER FIT.

SECONDARY REDUCER SUPPORT WELDMENT

MATERIAL: ASTM A709 GRADE 50
WEIGHT: 6,285 POUNDS PRIOR TO WELDING
QUANTITY: (2) PER SPAN, (4) PROJECT TOTAL

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

2ND REDUCER SUPPORT WELDMENT 2

DRAWING M19

PRE_419

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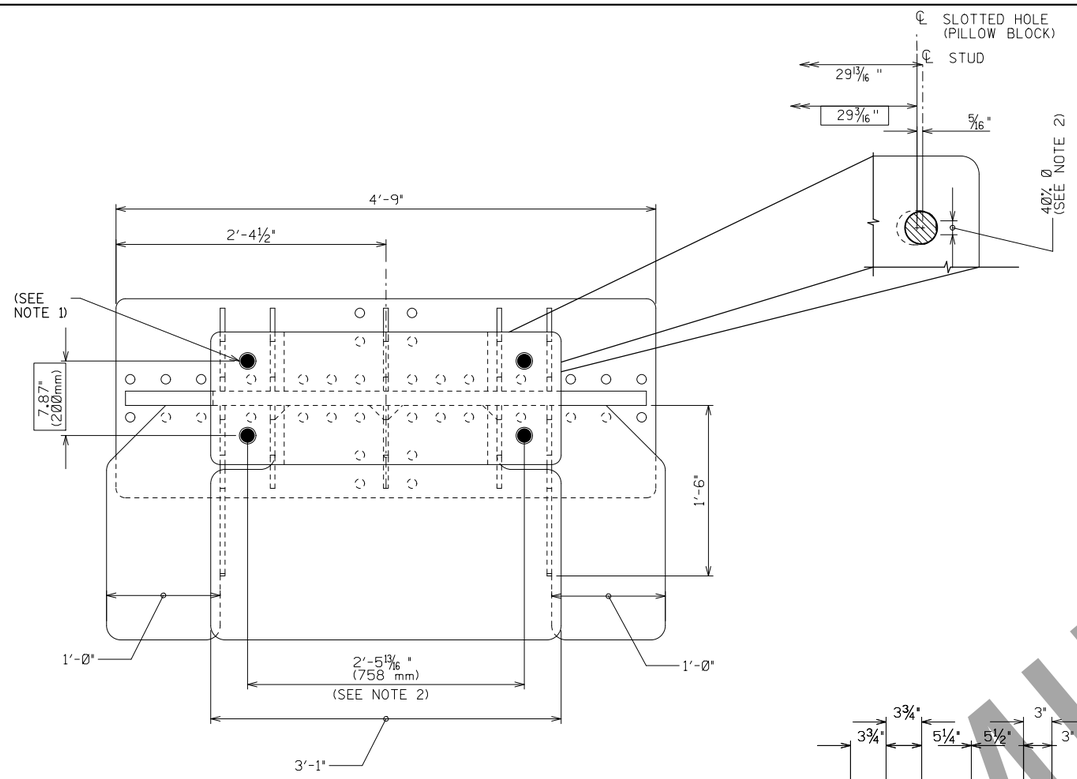
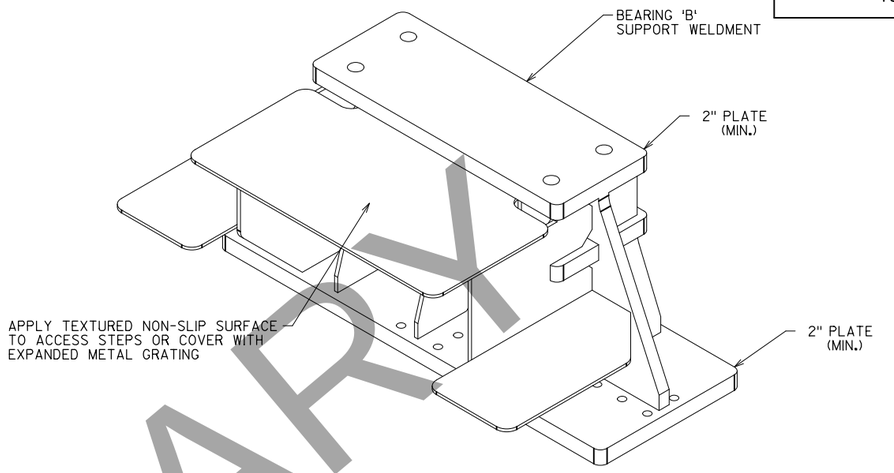
BATCH PRINT SHEET 14 OF 19

STATE PROJECT NUMBER

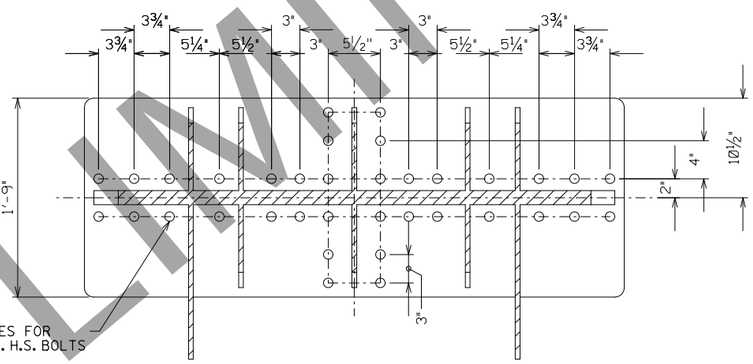
4992-03-71



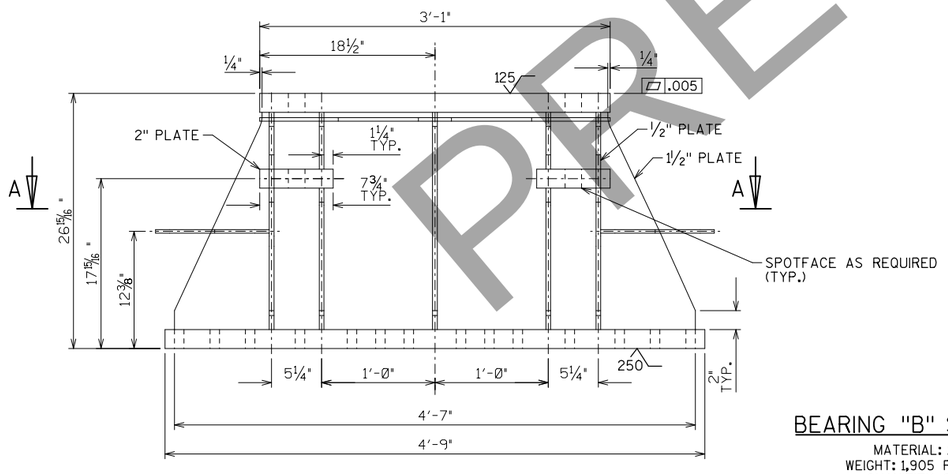


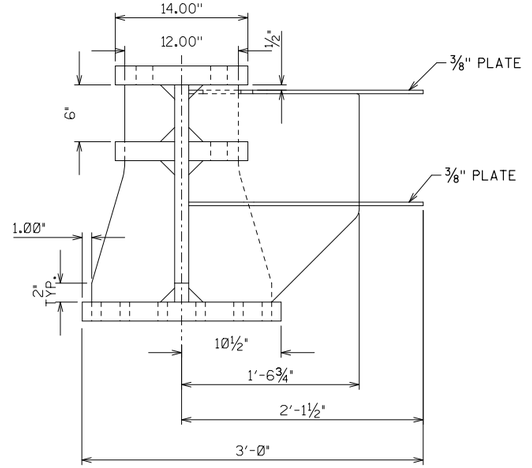
NOTES:

1. FIELD DRILL AND REAM HOLES FROM SOLID FOR 1½" DIA. TURNED STUDS AFTER ALIGNMENT USING PILLOW BLOCK AS TEMPLATE, 4 PLCS.
2. BEARING "B" PILLOW BLOCKS ARE PROVIDED WITH SLOTTED HOLES FROM THE MANUFACTURER. AFTER LOCATING BEARING "B" HOUSING MACHINE HOLES SUCH THAT THE STUD IS IN CONTACT WITH THE BEARING HOUSING A MINIMUM OF 40% OF THE DIAMETER.
3. ALL STIFFENERS ARE ½" PLATES UNLESS NOTED OTHERWISE.
4. CLIP ALL STIFFENERS 1½" X 1½" UNLESS NOTED OTHERWISE.
5. ALL PLATES CONNECTED BY 5/16 FILLET WELDS EACH SIDE UNLESS NOTED OTHERWISE.
6. DIMENSIONS OF BEARING 'B' WERE TAKEN FROM A 3D MODEL PROVIDED BY SKF (23160 CCK/W33 + OH 3160 H) AND ARE EXPECTED TO BE PRECISE. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ACTUAL DIMENSIONS AND PROPER FIT WITH MANUFACTURER INCLUDING ANY MANUFACTURING TOLERANCES OR ERRORS.
7. CONNECT ADJOINING PLATES WITH COMPLETE JOINT PENETRATION (CJP) WELDS UNLESS OTHERWISE NOTED. MILL-TO-BEAR ALL STIFFENERS TO BE CONNECTED BY FILLET WELDS PRIOR TO WELDING. STRESS RELIEVE ALL WELDMENTS AFTER WELDING AND PRIOR TO MACHINING. PROVIDE ULTRASONIC (UT) AND MAGNETIC PARTICLE (MT) TESTING TO ALL CJP AND FILLET WELDED JOINTS RESPECTIVELY, IN ACCORDANCE WITH AWS D1.5 CONSIDERING EACH TO BE A MAIN MEMBER.



SECTION A-A





BEARING "B" SUPPORT WELDMENT

MATERIAL: ASTM A709 GRADE 50
WEIGHT: 1,905 POUNDS PRIOR TO WELDING
QUANITITY: 2 PER LEAF - 4 TOTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

BEARING 'B' SUPPORT WELDMENT

DRAWING M14 OF M19

PRE_420

PRELIMINARY
DRAWING
NOT FOR CONSTRUCTION

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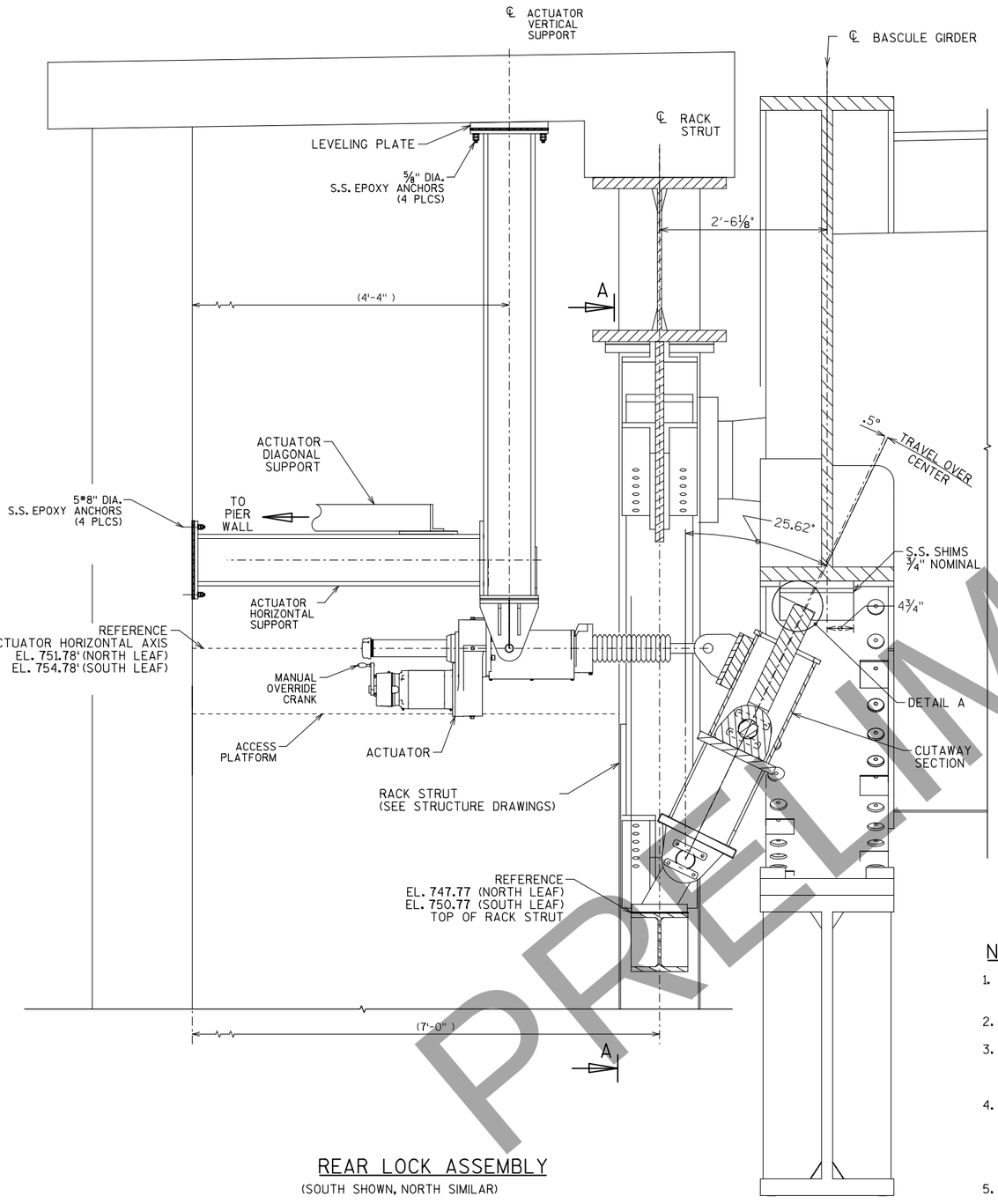


REAR LOCK ASSEMBLY

(SOUTH SHOWN, NORTH SIMILAR)

INSTALLATION SEQUENCE:

A. INSTALL PRE-ASSEMBLED REAR LOCK STRUT AND ROCKER ARM ONTO RACK FRAME. ALIGN STRUT ON RACK FRAME SO THAT THE TRAVEL OF THE STRUT IS PARALLEL WITH THE WEB OF THE MAIN GIRDER.

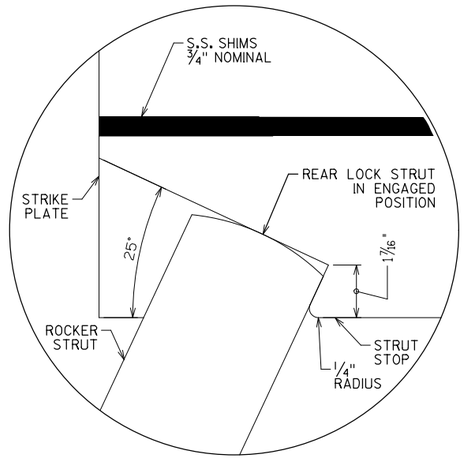
B. PLACE ACTUATOR SUPPORT IN POSITION.

C. ATTACH ACTUATOR PERMANENTLY TO SUPPORT AND TO REAR LOCK STRUT UPPER BRACKET WITH THE CONNECTING PINS.

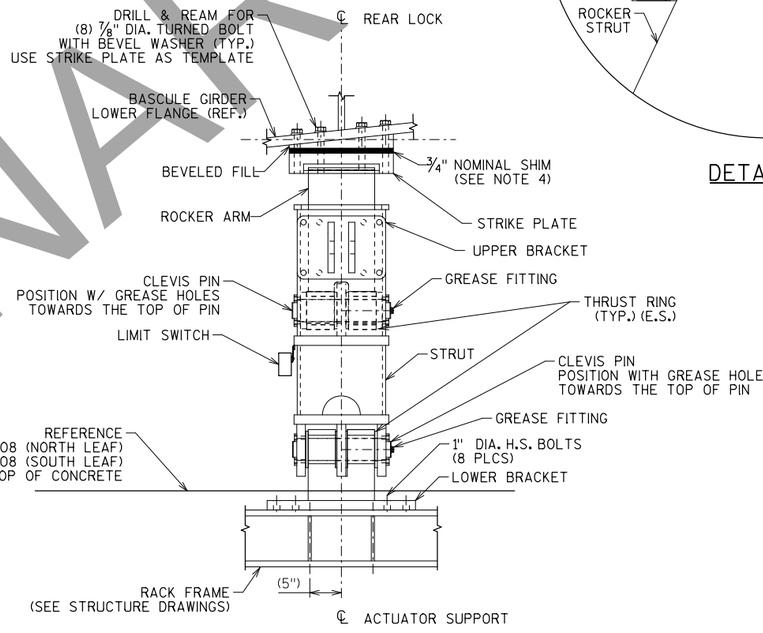
D. ALIGN AND INSTALL STRIKE PLATE, TAPERED SHIM AND 3/4" NOMINAL SHIMS WITH TEMPORARY FASTENERS.

E. ADJUST SHIMS AT STRIKE PLATE TO PROVIDE BETWEEN 0.19"-0.17" CLEARANCE BETWEEN STRIKE PLATE AND ROCKER ARM WHEN ROCKER ARM HAS JUST CONTACTED THE STRUT STOP. AFTER FULLY ENGAGING THE ROCKER ARM, A 0.004" FEELER GAUGE SHALL NOT BE ABLE TO BE PASSED BETWEEN THE ROCKER ARM AND STRIKE PLATE. PERFORM AT ANNUAL AVERAGE AMBIENT TEMPERATURE OR ACCOUNT FOR THERMAL EXPANSION IF AMBIENT TEMPERATURE IS NOT WITHIN 5°F.

F. INSTALL FINAL TURNED BOLTS AT STRIKE PLATE ASSEMBLY.



DETAIL A



VIEW A-A

(ACTUATOR NOT SHOWN FOR CLARITY)

NOTES:

1. PRIOR TO INSTALLATION OF THE REAR LOCK ASSEMBLY THE BASCULE LEAF MUST BE ERECTED AND ALIGNED.
2. REFER TO THE SPECIAL PROVISIONS FOR ALIGNMENT TOLERANCES.
3. DO NOT SHIM PLATE TO BEAR ON ROCKER ARM OR FULLY DRIVE ROCKER ARM INTO STRIKE PLATE UNTIL THE RACK FRAME HAS BEEN EMBEDDED AND IS FULLY SUPPORTED.
4. SHIM STRIKE PLATE, AT FINAL ASSEMBLY, TO PROVIDE BETWEEN 0.000-0.004" GAP BETWEEN STRIKE PLATE AND ROCKER STRUT WHEN THE ASSEMBLY IS FULLY DRIVEN 1/2° OF TRAVEL OVER CENTER. IF THE STANDARD 1/64 " THICKNESS STAINLESS STEEL SHIMS CANNOT PROVIDE THE DESIRED GAP, PROVIDE A PRECISION BRASS SHIM OR SHIMS TO ADJUST STRIKE PLATE TO THE DESIRED TOLERANCE.
5. FORM AND PLACE EPOXY GROUT BARRIERS AROUND EMBEDDED SUPPORTS.
6. PROVIDE SHOP DRAWINGS INCLUDING LIMIT SWITCH MOUNTING BRACKETS AND DETAILS.
7. INSTALL AND PLUMB GREASE LINES PER THE SPECIFICATIONS FOR ALL GREASE FITTINGS. ROUTE LINES TO A SINGLE ACCESS POINT ON THE ACCESS PLATFORM.
8. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS OF THE AS-BUILT CONDITIONS OF THE SUPPORT FRAMING AND THE STRIKE PLATE MOUNTING LOCATION ON THE GIRDER. VERIFY ALL DIMENSIONS WITH THE ACTUATOR MANUFACTURER. CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER FIT.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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REAR LOCK ASSEMBLY

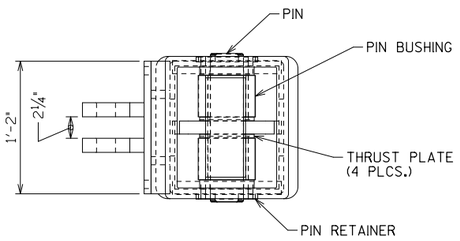
DRAWING M19

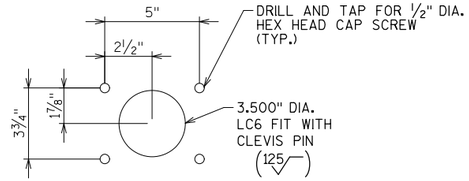
PRE_421

8

STATE PROJECT NUMBER

4992-03-71





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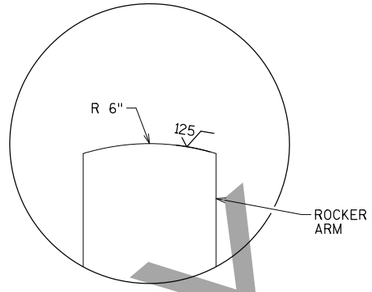

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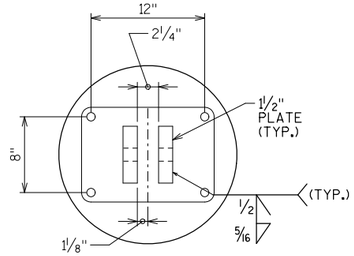

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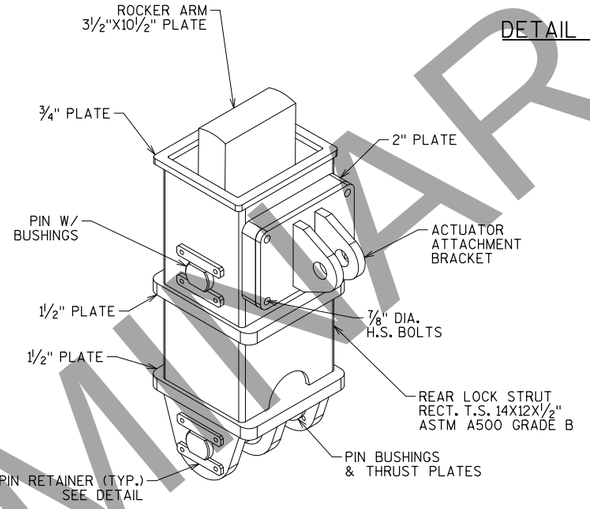
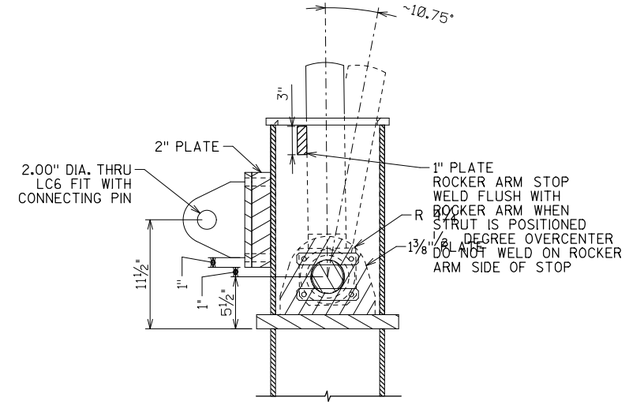
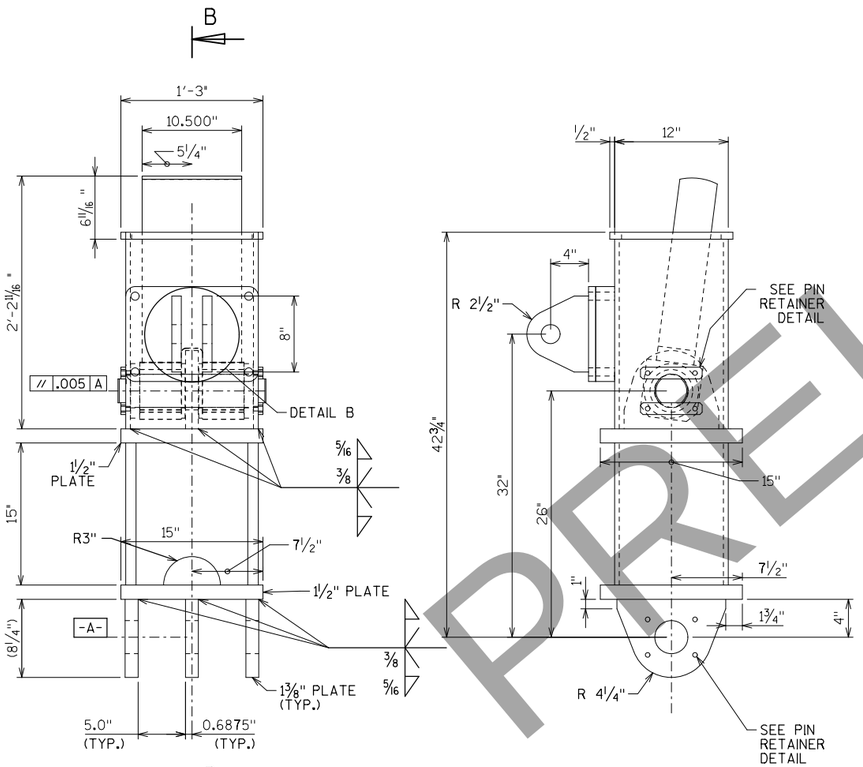


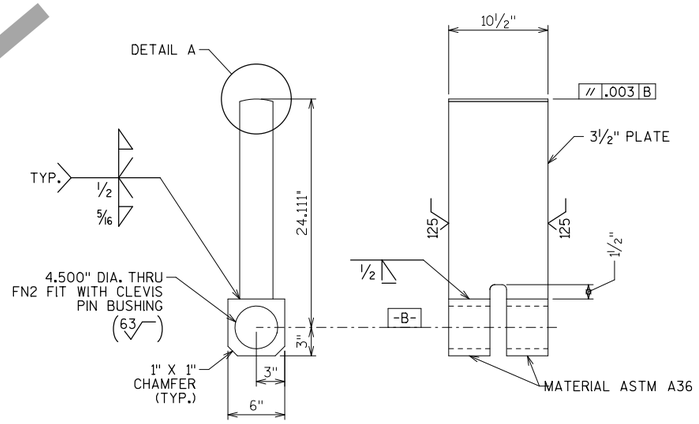


SECTION B-B



STRUT

MATERIAL: ASTM A709 GRADE 50
WEIGHT: 1,390 POUNDS EACH
QUANTITY: 2 PER LEAF - 4 TOTAL



ROCKER ARM

MATERIAL: ASTM A709 GRADE 50 EXCEPT AS NOTED
WEIGHT: 378 POUNDS EACH
QUANTITY: 2 PER LEAF - 4 TOTAL

NOTES:

1. ALL PLATES CONNECTED BY 5/16 FILLET WELDS EACH SIDE UNLESS NOTED OTHERWISE.
2. CONNECT ADJOINING PLATES WITH COMPLETE JOINT PENETRATION (CJP) WELDS UNLESS OTHERWISE NOTED. MILL-TO-BEAR ALL STIFFENERS TO BE CONNECTED BY FILLET WELDS PRIOR TO WELDING. STRESS RELIEVE ALL WELDMENTS AFTER WELDING AND PRIOR TO MACHINING. PROVIDE ULTRASONIC (UT) AND MAGNETIC PARTICLE (MT) TESTING TO ALL CJP AND FILLET WELDED JOINTS RESPECTIVELY, IN ACCORDANCE WITH AWS D1.5 CONSIDERING EACH TO BE A MAIN MEMBER.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

REAR LOCK DETAILS 1 OF 3

DRAWING M19

PRE_422

PRELIMINARY

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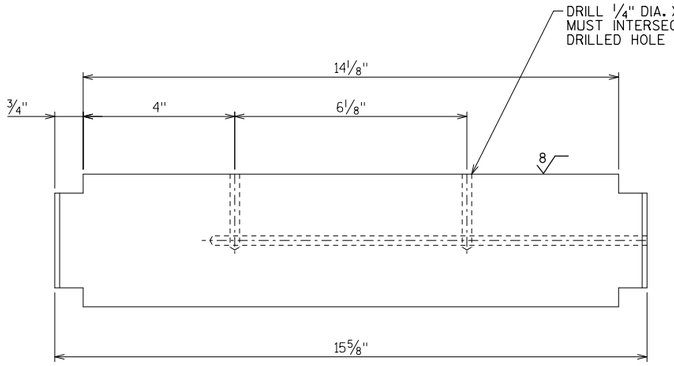
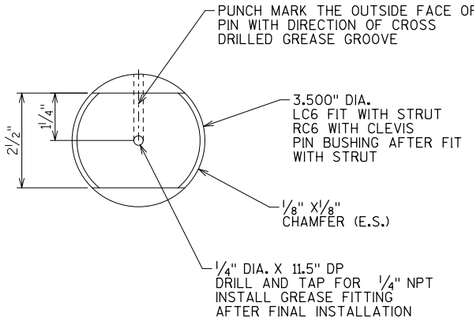
DRAFT 2020

STATE PROJECT NUMBER

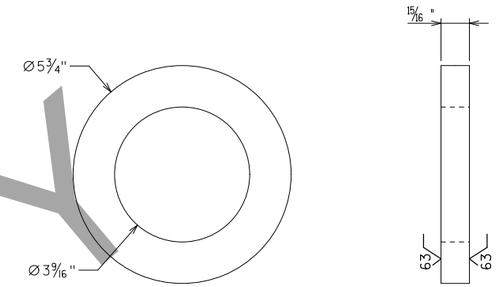
4992-03-71





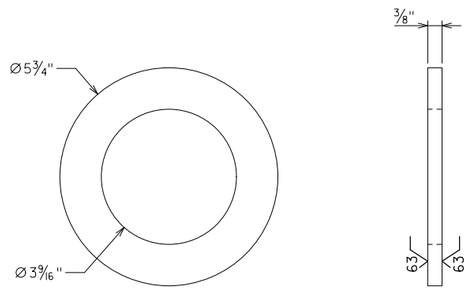
CLEVIS PIN

MATERIAL : ASTM A668 CLASS L
WEIGHT: 42 POUNDS EACH
QUANTITY: 4 PER LEAF, 8 TOTAL



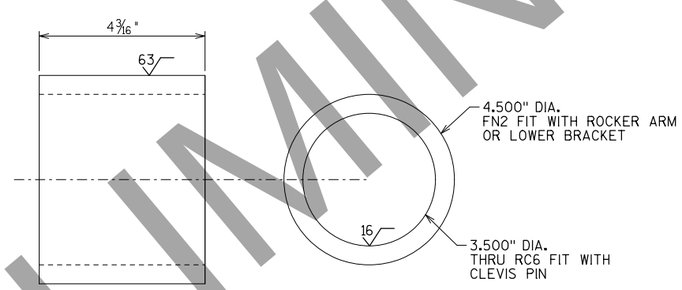
THRUST PLATE

MATERIAL : ASTM B148 C95500 BH 200
WEIGHT: 4 POUNDS EACH
QUANTITY: 4 PER LEAF, 8 TOTAL



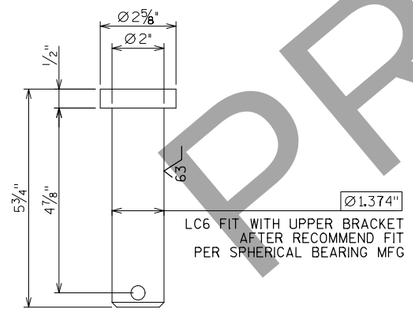
THRUST PLATE

MATERIAL : ASTM B148 C95500 BH 200
WEIGHT: 2 POUNDS EACH
QUANTITY: 12 PER LEAF, 24 TOTAL



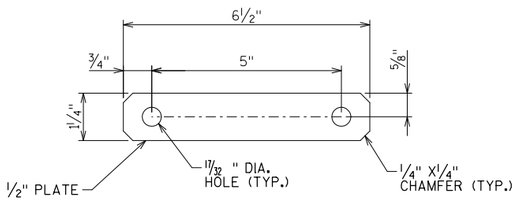
CLEVIS PIN BUSHING

MATERIAL : ASTM B148 C95500 BH 200
WEIGHT: 7 POUNDS EACH
QUANTITY: 8 PER LEAF, 16 TOTAL



ACTUATOR CONNECTING PIN

MATERIAL : ASTM A668 CLASS L
WEIGHT: 5 POUNDS EACH
QUANTITY: 2 PER LEAF, 4 TOTAL



RETAINING PLATE

MATERIAL : ASTM A36
WEIGHT: 1 POUND EACH
QUANTITY: 16 PER LEAF, 32 TOTAL

STRUT CAP PLATE

MATERIAL : ASTM A36
WEIGHT: 14 POUNDS EACH
QUANTITY: 2 PER LEAF, 4 TOTAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

REAR LOCK DETAILS 2 OF 3

DRAWING M17 OF M19

PRE_423

PRELIMINARY
DRAWING
NOT FOR CONSTRUCTION
2020

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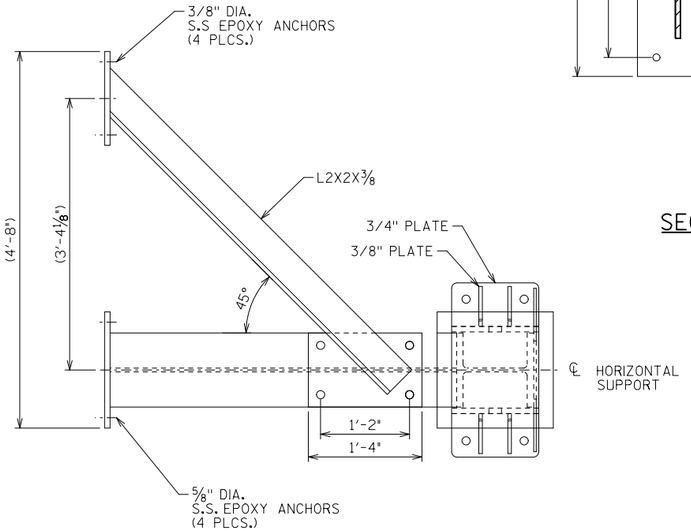
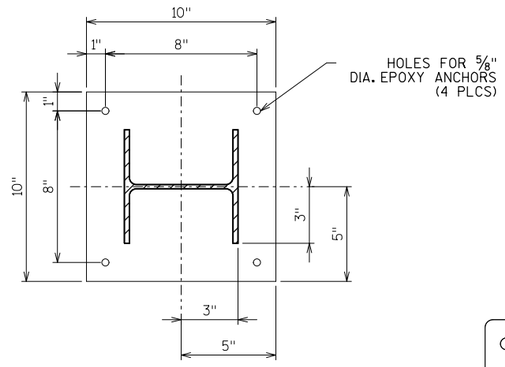
STATE PLANE 2020





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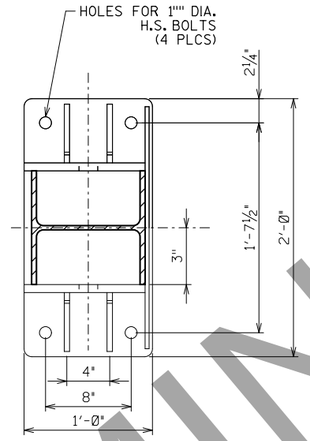

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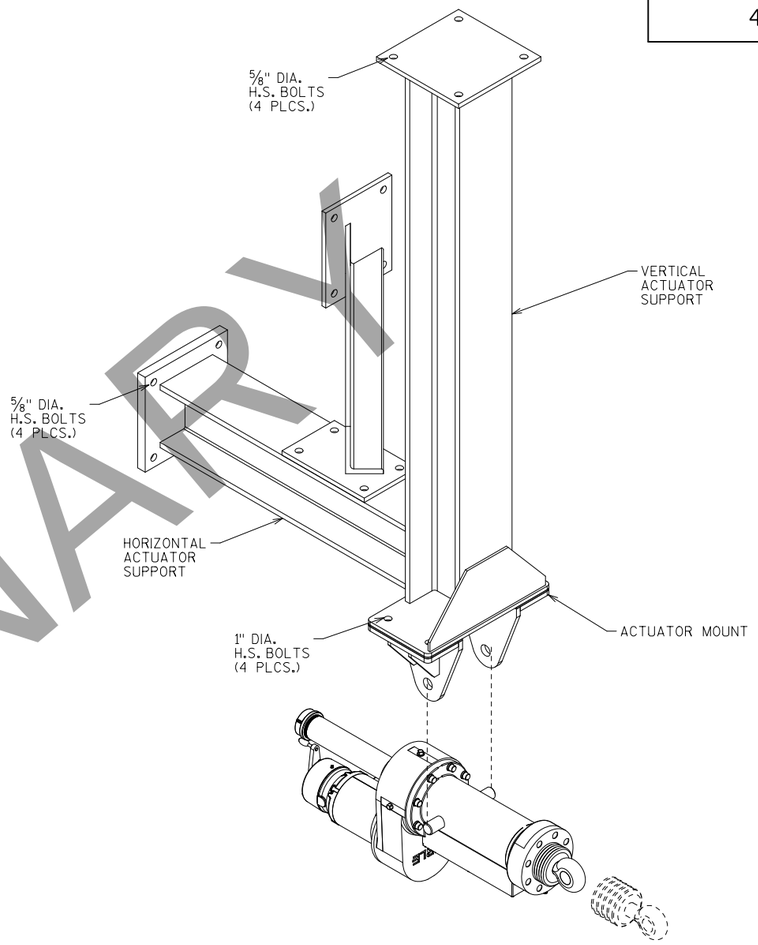
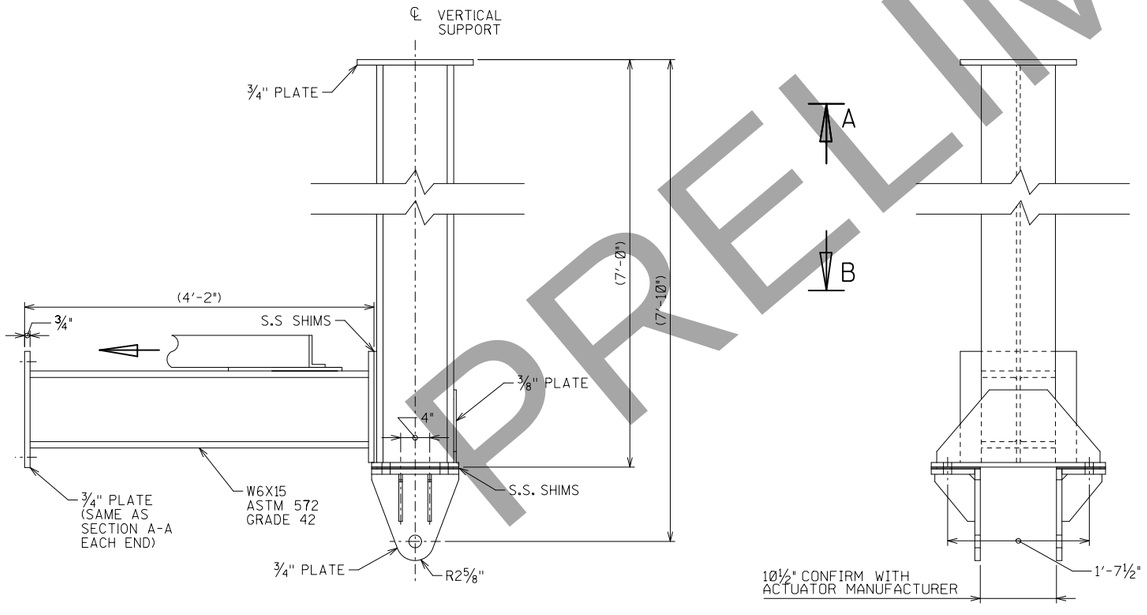
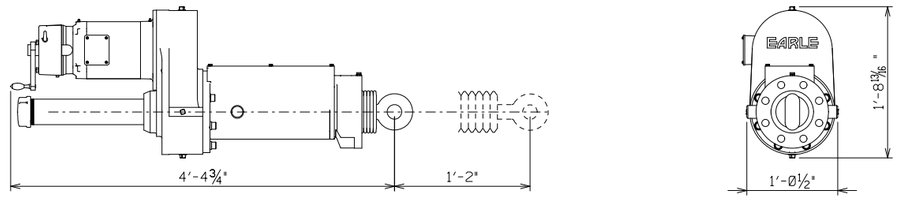




ACTUATOR SUPPORT

MATERIAL: ASTM A36, EXCEPT AS NOTED
QUANTITY: 2 PER LEAF - 4 TOTAL



EARLE ACTUATOR (OR APPROVED EQUAL)

MATERIAL: EARLE EG-2B W/ 14" STROKE
QUANTITY: 2 PER LEAF - 4 TOTAL

NOTES:

1. CONNECT ADJOINING PLATES WITH COMPLETE JOINT PENETRATION (CJP) WELDS UNLESS OTHERWISE NOTED. MILL-TO-BEAR ALL STIFFENERS TO BE CONNECTED BY FILLET WELDS PRIOR TO WELDING. STRESS RELIEVE ALL WELDMENTS AFTER WELDING AND PRIOR TO MACHINING. PROVIDE ULTRASONIC (UT) AND MAGNETIC PARTICLE (MT) TESTING TO ALL CJP AND FILLET WELDED JOINTS RESPECTIVELY, IN ACCORDANCE WITH AWS D1.5 CONSIDERING EACH TO BE A MAIN MEMBER.
2. CONTRACTOR SHALL VERIFY AS-BUILT CONDITIONS AND REQUIRED DIMENSIONS FOR PROPER FIT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

REAR LOCK DETAILS 3 OF 4

DRAWING M18 OF M19

PRE_424

PRELIMINARY

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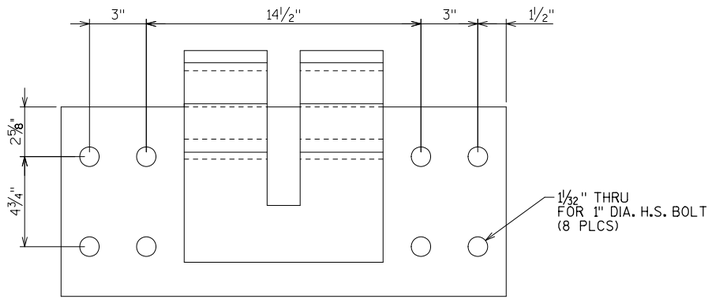
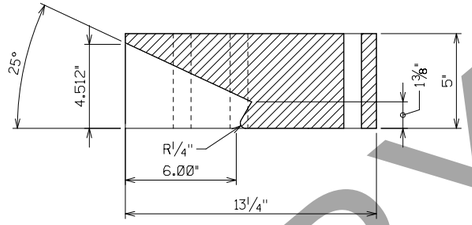
DRAFT 2020

STATE PROJECT NUMBER

4992-03-71





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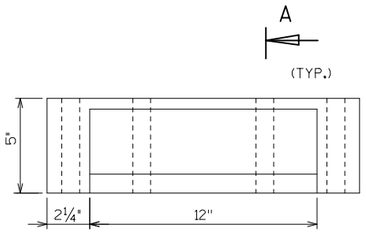
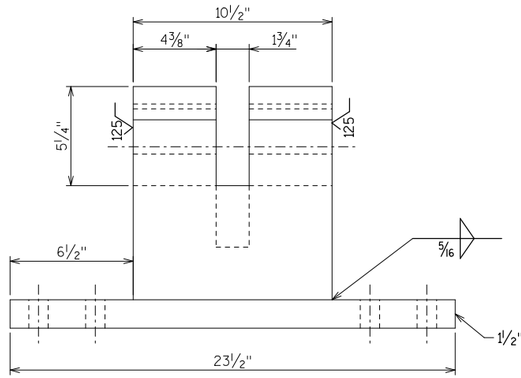
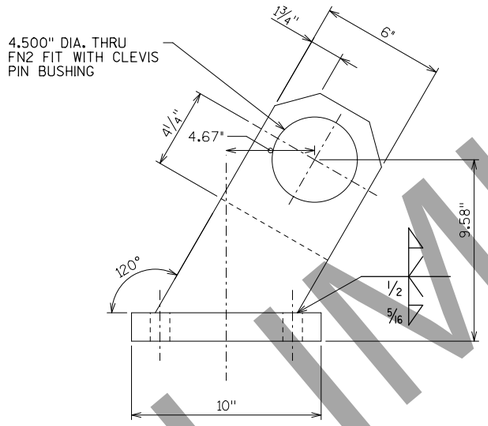
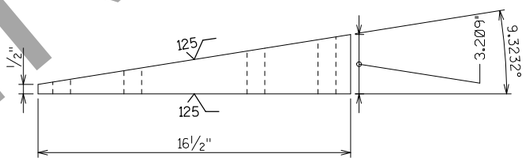
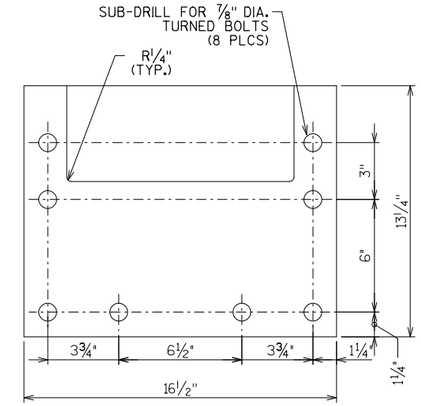




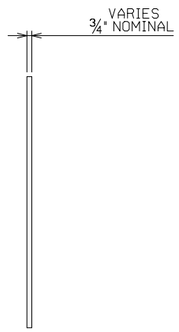


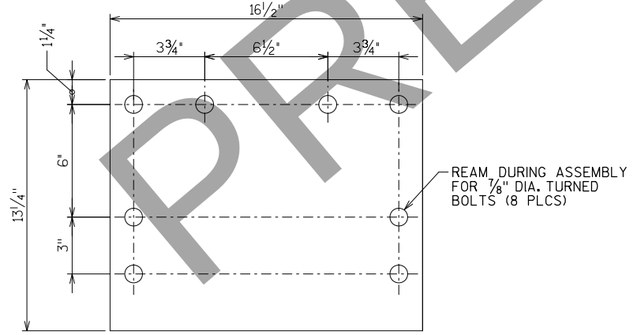




LOWER BRACKET

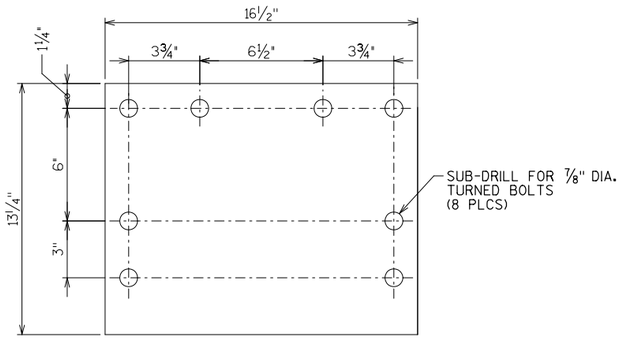
MATERIAL: ASTM A36
WEIGHT: 222 POUNDS EACH
QUANTITY: 2 PER LEAF, 4 TOTAL





STRIKE PLATE SHIMS

MATERIAL: ASTM A3XX S.S.
WEIGHT: VARIES R44 POUNDS TOTAL
QUANTITY: ¾" NOMINAL (SEE SPECIFICATIONS)



BEVELED FILL

MATERIAL: ASTM A709 GRADE 50
WEIGHT: 110 POUNDS EACH
QUANTITY: 2 PER LEAF, 4 TOTAL

STRIKE PLATE

MATERIAL: ASTM A709 GRADE 50
WEIGHT: 190 POUNDS EACH
QUANTITY: 2 PER LEAF, 4 TOTAL
(FINISH 125 ALL OVER)

NOTES

1. CONNECT ADJOINING PLATES WITH COMPLETE JOINT PENETRATION (CJP) WELDS UNLESS OTHERWISE NOTED. MILL-TO-BEAR ALL STIFFENERS TO BE CONNECTED BY FILLET WELDS PRIOR TO WELDING. STRESS RELIEVE ALL WELDMENTS AFTER WELDING AND PRIOR TO MACHINING. PROVIDE ULTRASONIC (UT) AND MAGNETIC PARTICLE (MT) TESTING TO ALL CJP AND FILLET WELDED JOINTS RESPECTIVELY, IN ACCORDANCE WITH AWS D1.5 CONSIDERING EACH TO BE A MAIN MEMBER.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY JCJ | PLANS CK'D. *

REAR LOCK DETAILS 4 OF 4

DRAWING M19

PRE_425

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DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71

ELECTRICAL SCOPE OF WORK

SEE SPECIAL PROVISIONS FOR SCOPE OF WORK AND REQUIREMENTS FOR EACH PAY ITEM.

TASK E-1 - CONTROL CABINETS

A. CONTROL CONSOLE - FURNISH, INSTALL AND TEST A NEW NEMA 12 CONSOLE WITH STAINLESS STEEL TOP. CABINET INCLUDES ALL WIRING AND DEVICES SHOWN IN PLANS. INSTALL MIN AN ENCLOSURE THAT IS ATTACHED TO CONSOLE WITH A 3-AXES MOUNTING ARM.

B. PLC CABINET - FURNISH, INSTALL AND TEST A NEMA 12 PLC CABINET WITH VENTILATION AS REQUIRED. THE CABINET SHALL INCLUDE ALL PLC COMPONENTS, POWER SUPPLIES, UPS, RELAYS, TERMINALS, WIRING AND MISCELLANEOUS EQUIPMENT NECESSARY FOR A COMPLETE SYSTEM.

C. DRIVE CABINETS - FURNISH, INSTALL AND TEST FOUR NEW NEMA 12 DRIVE CABINETS WITH FLANGE MOUNTED DISCONNECTS AND VENTILATION AS REQUIRED.

TASK E-2 - DISCONNECTS, PANELBOARDS & TRANSFORMERS

A. FURNISH & INSTALL NEW ELECTRICAL SERVICE FROM CITY OWNED UTILITY TO INCLUDE: TRANSFORMER, MOUNTING PAD, METER SOCKET, CONDUIT AND CONDUCTORS.

B. FURNISH AND INSTALL REDUNDANT 400 AMP ELECTRICAL SERVICES, WITH A SERVICE ENTRANCE RATE AUTOMATICD TRANSFER SWITCH THAT INCLUDES BREAKER PROTECTION . THE SERVICE SHALL INCLUDE NEW METER SOCKETS, CT CABINETS, CONDUIT AND CONDUCTORS FROM SERVICE METER TO UTILITY TRANSFORMERS.

C. COORDINATE NEW ELECTRICAL SERVICE WITH MENASHA UTILITIES.

D. FURNISH & INSTALL A THREE PHASE 480: 208/120, 45 KVA TRANSFORMER.

E. FURNISH & INSTALL A 42 CIRCUIT PANELBOARD FOR LIGHTING AND OTHER MISCELLANEOUS ELECTRICAL LOADS.

TASK E-3 - MOTOR CONTROL CENTER

A. FURNISH, INSTALL AND TEST MOTOR CONTROL CENTER.

B. PROVIDE MCC'S AS FREE STANDING ENCLOSURES, RATED 400 AMP, 65KA WITH A TOP ENTRY MAIN BREAKER.

C. PROVIDE NEMA RATED STARTERS WITH HOA AND CONTROL POWER TRANSFORMERS.

D. PROVIDE SHIPPING SPLITS AS NECESSARY TO INSTALL IN OPERATOR HOUSE.

TASK E-4 - MOTORS AND DISCONNECTS

A. MAIN SPAN MOTORS - FURNISH, INSTALL AND TEST TWO 40 HP 1170 RPM MOTORS. MOTORS SHALL BE SUPPLIED AND TESTED BY THE DRIVE MANUFACTURER.

B. DISCONNECTS - FURNISH NEMA 4X KNIFE SWITCH DISCONNECTS FOR EACH BRAKE, REAR LOCK AND MAIN SPAN MOTOR.

TASK E-5 - PROGRAM PLC SYSTEM AND HMI

A. PROGRAM, TEST AND INTEGRATE THE CONTROL SYSTEM TO OPERATE AS DESCRIBED IN THE SPECIAL PROVISIONS AND FUNCTION BLOCK SEQUENCE IN THE PLANS.

B. PROGRAM THE PLC USING LADDER LOGIC.

C. DOCUMENT ALL RUNGS, CONTACTS, COILS AND FUNCTION BLOCKS IN THE PROGRAM.

D. FURNISH, INSTALL, PROGRAM, AND TEST A TOUCH SCREEN GRAPHIC TERMINAL FOR INFORMATION AND DIAGNOSTICS.

TASK E-6 - SUBMARINE CABLE

A. FURNISH, TEST AND INSTALL SUBMARINE CABLES AS SHOWN IN PLANS.

B. PROVIDE TERMINATION CABINETS WITH TERMINAL BLOCKS, HEATERS, AND CONNECTIONS TO ALL REQUIRED DEVICES.

C. ROUTE SUBMARINE CABLES BETWEEN THE TWO BASCULE PIERS AS SHOWN IN THE PLANS BELOW THE CHANNEL AT A DEPTH AS APPROVED BY THE USCG. OBTAIN NECESSARY PERMITS. SEE ROADWAY PLANS FOR CABLE DEPTH AND TAMPING METHODS.

TASK E-7 - PA SYSTEM

A. FURNISH, INSTALL, MOUNT AND ADJUST A PUBLIC ADDRESS SYSTEM CONSISTING OF A MASTER PUSH-TO-TALK MICROPHONE SYSTEM AND A PAGING/PARTY SYSTEM WITH STATIONS AS SHOWN IN THE PLANS.

B. PROVIDE PA SYSTEM THAT INCLUDES ALL INCIDENTALS, REQUIRED FOR A FULLY OPERATIONAL, NOISE FREE AND INTEGRATED SYSTEM.

C. ADJUST AND TEST THE SPEAKERS AS DIRECTED BY THE ENGINEER.

TASK E-8 - LIGHTNING AND SURGE DETECTION

A. FURNISH AND INSTALL A LIGHTNING PROTECTION SYSTEM PER NFPA 780.

B. FURNISH AND INSTALL TRANSIENT VOLTAGE SURGE PROTECTORS FOR INCOMING POWER AND 120 VAC CIRCUITS SHOWN ON PLANS

TASK E-9 - NEW LIMITS AND SENSORS

A. FURNISH, INSTALL, TEST AND ADJUST SPAN POSITION PROXIMITY SENSORS AND PLUNGER SEATED SWITCHES.

B. FURNISH, INSTALL, TEST AND ADJUST SPAN POSITION INCLINOMETER IN A NEMA 12 CABINET AS SHOWN IN THE PLANS.

C. FURNISH, INSTALL, TEST AND ADJUST REAR LOCK PROXIMITY SWITCHES AS SHOWN IN PLANS.

D. BRAKE LIMITS FOR SET, RELEASE AND HAND RELEASED ARE FURNISHED AS PART OF ASSEMBLY. FURNISH, INSTALL, AND TEST ALL CONDUIT FOR THE LIMITS.

E. INSTALL ALL LIMITS WITH 3-AXIS ADJUSTABILITY USING STAINLESS STEEL HARDWARE.

TASK E-10 - TRAFFIC SIGNALS & TRAFFIC GATES

A. FURNISH, INSTALL AND TEST A RED/YELLOW/GREEN LED TRAFFIC SIGNALS. SEE ROADWAY PLANS FOR DETAILS.

B. FURNISH, INSTALL AND TEST FOUR TRAFFIC GATES AS SHOWN ON THE PLANS.

C. FURNISH, INSTALL, TEST "DRAWBRIDGE AHEAD" ADVANCED WARNING SIGNS WITH FLASHING AMBER LED ADVANCED WARNING SIGNAL LIGHTS AS SHOWN ON THE PLANS. SEE ROADWAY PLANS FOR DETAILS.

TASK E-11 - CCTV

A. FURNISH AND INSTALL A NEW I.P. CCTV SYSTEM THAT INCLUDES DIGITAL RECORDING CAPABILITIES AND CONTROL. CAMERAS SHALL BE MOUNTED AS SHOWN ON THE PLANS

B. CCTV VIDEO SHALL BE DISPLAYED ON A SINGLE 55 INCH FLAT SCREEN PANEL.

TASK E-12 - TESTING & TRAINING

A. DEMONSTRATE THE FUNCTION OF THE ENTIRE ELECTRICAL CONTROL AND DRIVE SYSTEM AT MANUFACTURERS SHOP. SEE SPECIFICATIONS FOR DETAILED REQUIREMENTS.

B. DEMONSTRATE THE OPERATION OF THE BRIDGE AT A PARTIAL ACCEPTANCE TEST IN THE PRESENCE OF THE ENGINEER AND/OR HIS REPRESENTATIVES.

C. PROVIDE OPERATOR TRAINING FOR CITY OPERATORS.

D. PROVIDE MAINTENANCE TRAINING FOR CITY MAINTENANCE PERSONNEL.

E. FURNISH COMPLETE OPERATION AND MAINTENANCE MANUALS.

TASK E-13 - MISCELLANEOUS ELECTRICAL WORK

A. FURNISH AND INSTALL ALL RELATED CONDUITS, CONDUCTORS, COMM., DATA, AND POWER CABLES, INTERCONNECTIONS, JUNCTION & PULL BOXES, STAINLESS STEEL FASTENERS, AND RELATED INCIDENTAL ITEMS REQUIRED FOR FULLY OPERATIONAL CONTROL SYSTEM.

B. PROVIDE SUBMITTALS AS REQUIRED IN ELECTRICAL GENERAL NOTES, DRAWINGS, AND SPECIAL PROVISIONS.

C. NAVIGATION LIGHTS - FURNISH RED/GREEN LED NAVIGATION LIGHTS ON SWING ARMS AT TIPS OF SPAN.

D. PIER LIGHTS - FURNISH FOUR NEW RED LED PIER LIGHTS.

E. AIR HORN - FURNISH NEW AIR HORN WITH COMPRESSOR.

F. FURNISH AND INSTALL FIRE ALARM AND SECURITY SYSTEMS. EACH SYSTEM COMPLETE WITH CONTROL PANELS, DETECTORS, SENSORS, SECURITY KEYPADS AT ENTRANCE DOORS, WIRING AND OTHER INCIDENTALS.

G. FURNISH AND INSTALL LIGHTING, RECEPTACLES, AND MISCELLANEOUS ELECTRICAL EQUIPMENT IN BRIDGE OPERATOR HOUSE, MACHINERY ROOM, AND BASCULE PIER.

H. FURNISH SPARE PARTS FOR ALL EQUIPMENT INSTALLED INCLUDING LIGHT BULBS, RELAYS, CONTACTORS, FUSES, TRAFFIC GATE ARMS, ETC.

TASK E-14 - TAYCO STREET REMOTE OPERATIONS

A. REMOVE AND STORE EXISTING TAYCO STREET REMOTE OPERATION EQUIPMENT IN THE EXISTING RACINE STREET BRIDGE. THIS SHALL INCLUDE A CONTROL CONSOLE, VIDEO MONITOR WITH LOCAL CAMERA CONTROL, PA SYSTEM MASTER STATION, FIBER OPTIC MULTIPLEXOR AND ANY MISCELLANEOUS EQUIPMENT ASSOCIATED WITH REMOTE OPERATIONS.

B. THE EQUIPMENT SHALL BE STORED IN A CLEAN, DRY AND TEMPERATURE CONTROLLED IN ENVIRONMENT.

C. NEW EQUIPMENT SHALL BE INSTALLED IN THE NEW RACINE STREET BRIDGE AS SHOWN ON PLANS.

D. INSTALL A NEW 12 STRAND SINGLE MODE FIBER FROM THE OPERATOR HOUSE TO A HANDHOLE NEAR THE MENASHA UTILITIES SERVICE TRANSFORMERS. MENASHA UTILITIES WILL SPLICE THE NEW FIBER INTO THEIR NETWORK.

ELECTRICAL GENERAL NOTES

A. ALL CONTROL SYSTEMS RELATED SUBMITTALS AND WORK SHALL BE REVIEWED AND APPROVED BY THE PROJECT "SYSTEMS INTEGRATOR" PRIOR TO REVIEW BY THE ENGINEER. REVIEW AND APPROVAL INCLUDES ALL SYSTEMS INTEGRATION, SHOP & FIELD TESTING, PLC SYSTEMS, PA AND DRIVE SYSTEMS. REFER TO PLANS AND SPECIAL PROVISIONS FOR ADDITIONAL DETAILS. PROVIDE SUBMITTALS THAT INCLUDE ALL MATERIALS, DATA SHEETS, AND DRAWINGS AS REQUIRED BY THE CONTRACT DOCUMENTS. MATERIALS SHALL NOT BE PURCHASED UNTIL THE RELATED SUBMITTAL IS APPROVED BY THE ENGINEER.

B. CONFORM TO ALL NEC, UL, IEEE, NEMA, AND AASHTO CODES, STANDARDS AND PRACTICES.

C. ELECTRICAL DEVICES AND EQUIPMENT ARE SHOWN SYMBOLICALLY ON THE PLANS. THE USE OF SYMBOLS AND NOTATIONS (OR THE OMISSION THEREOF) DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING A SAFE, COMPLETE AND FULLY FUNCTIONAL SYSTEM. FIELD LOCATE DEVICES AND EQUIPMENT TO FACILITATE ACCESSIBILITY WITH RESPECT TO OPERATIONS AND MAINTENANCE CONDITIONS.

D. ALL MOUNTING HARDWARE SHALL BE 300 SERIES STAINLESS STEEL. ALL EXTERIOR BOXES SHALL BE NEMA 4X.

E. MINIMUM CONDUIT SIZE IS ¾". ALL INTERCONNECT WIRES SHALL BE MIN. #14 AWG FOR CONTROL AND #10 AWG FOR POWER THWN/MTW UNLESS OTHERWISE NOTED. CABINET WIRING SHALL BE MIN. #16 AWG MTW UNLESS OTHERWISE NOTED. USE CAT 6 FOR DATA, AND RG-11 OR RG-59 FOR COAX. PROVIDE SPECIALIZED CABLES AS RECOMMENDED BY EQUIPMENT MANUFACTURERS.

F. INSTALL A COMPLETE, INTEGRATED, GROUNDING AND BONDING SYSTEM FOR ALL NEW EQUIPMENT AND DEVICES PER NEC 250.

G. PULL BOXES SHALL BE UTILIZED FOR CONTINUOUS PULLING OF WIRES, NO SPLICING ALLOWED. JUNCTION BOXES SHALL BE UTILIZED TO BRING WIRES INTO AND BE TERMINATED ONTO TERMINAL BOXES. WIRE NUTS AND COMPRESSION SPLICES ARE NOT PERMITTED. DO NOT EXCEED 3-90 DEGREE CONDUIT BENDS WITHOUT PROVIDING A PULL BOX.

SHEET	DESCRIPTION	SHEET	DESCRIPTION
E01	ELECTRICAL NOTES	E34	RAISE SEQUENCE CHART 2
E02	ELECTRICAL SYMBOLS & LEGENDS	E35	LOWER SEQUENCE CHART
E03	GENERAL PLAN AND ELEVATION BASCULE SPAN	E36	LOWER SEQUENCE CHART
E04	GENERAL PLAN AND ELEVATION	E37	TRAFFIC GATE
E05	OPERATOR'S HOUSE ELECTRICAL FLOOR PLANS	E38	SUBMARINE CABLE DETAILS
E06	TAYCO STREET REMOTE OPERATION PLAN	E39	DROOP CABLE DETAILS
E07	SINGLE LINE DIAGRAM (1 OF 2)	E40	LIMIT SWITCH DETAILS
E08	SINGLE LINE DIAGRAM (2 OF 2)	E41	SUMP PIT DETAILS
E09	CONTROL POWER SCHEMATIC - 1	E42	CCTV CAMERA CONFIGURATION
E10	TRAFFIC SIGNALS SCHEMATIC - 2	E43	TRAFFIC SIGNALS
E11	TRAFFIC GATES SCHEMATIC - 3	E44	ENTRY, SERVICE, AND OPERATOR LEVEL AND RECEPTACLE PLAN
E12	REAR LOCKS & GATE SCHEMATIC - 4	E45	NORTH BASCULE ABUTMENT PLAN AT PIT LEVEL
E13	NORTH SPAN DRIVE SCHEMATIC - 5	E46	SOUTH BASCULE PIER PLAN AT PIT LEVEL
E14	SOUTH SPAN DRIVE SCHEMATIC - 6	E47	NORTH BASCULE ABUTMENT PLAN AT TRACK LEVEL
E15	SPAN DRIVE SCHEMATIC - 7	E48	SOUTH BASCULE PIER PLAN AT TRACK LEVEL
E16	NORTH EAST SPAN MOTOR & DRIVE SCHEMATIC -8	E49	NORTH BASCULE ABUTMENT PLAN AT MACHINERY LEVEL
E17	NORTH WEST SPAN MOTOR & DRIVE SCHEMATIC -9	E50	SOUTH BASCULE PIER PLAN AT MACHINERY LEVEL
E18	SOUTH EAST SPAN MOTOR & DRIVE SCHEMATIC -10	E51	NORTH MACHINERY PLAN AND ELEVATION
E19	SOUTH WEST SPAN MOTOR & DRIVE SCHEMATIC -11	E52	SOUTH MACHINERY PLAN AND ELEVATION
E20	NAVIGATIONAL LIGHTS SCHEMATIC - 12	E53	CONDUIT BLOCK DIAGRAM
E21	MCC CABINET & MCC BUCKETS	E54	CONDUIT BLOCK DIAGRAM
E22	ELECTRICAL SCHEDULE & PLC I/O	E55	CONDUIT SCHEDULE (1 OF 10)
E23	INCLINOMETER CABINET, LIMITS, & TIMING SCHEDULES	E56	CONDUIT SCHEDULE (2 OF 10)
E24	FIRE ALARM AND SECURITY DETAIL	E57	CONDUIT SCHEDULE (3 OF 10)
E25	PA SYSTEM WIRING DIAGRAM	E58	CONDUIT SCHEDULE (4 OF 10)
E26	CCTV CAMERA WIRING DIAGRAM & DETAILS	E59	CONDUIT SCHEDULE (5 OF 10)
E27	GROUNDING AND LIGHTNING PROTECTION DETAILS	E60	CONDUIT SCHEDULE (6 OF 10)
E28	GROUNDING RISER	E61	CONDUIT SCHEDULE (7 OF 10)
E29	OPERATOR CONSOLE	E62	CONDUIT SCHEDULE (8 OF 10)
E30	PLC & DRIVE CABINETS	E63	CONDUIT SCHEDULE (9 OF 10)
E31	SEQUENCE LEGEND & PROGRAMMING NOTES	E64	CONDUIT SCHEDULE (10 OF 10)
E32	HMI SCREENS		
E33	RAISE SEQUENCE CHART 1		

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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ELECTRICAL NOTES

DRAWING E01 OF E64

PRE_426

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PLOT DATE: 2/26/2020 PLOT TIME: 1:41:33 PM
BATCH PRINT SHEET 2 OF 64

DRAFT April 20, 2020

ELECTRICAL SYMBOLS

CB, #AF, #AT, 2P — CIRCUIT BREAKER
- #AF = Amp Frame Size
- #AT = Amp Trip Rating
- 2P = Two Pole
- 3 Pole unless noted

OVERLOAD RELAY

M — COIL
- M = MOTOR STARTER
- MF = MOTOR FORWARD
- MR = MOTOR REVERS
- CR = CONTROL RELAY
- LC = LIGHTING CONTACTOR
- IR = CURRENT RELAY
- PE = PHOTE ELECTRIC RELAY
- L = LATCHING RELAY
- U = UNLATCHING RELAY

TDENL — TIMER COIL

CR-XX — RELAY/CONTACTOR/STARTER CONTACTS
- N.O. = NORMALLY OPEN

CR-XX — N.C. = NORMALLY CLOSED

R — NAV., TRAFFIC OR WARNING LIGHTS

SPEAKER, HORN

PA, INTERCOM SPEAKER

FUSE

TX — TRANSFORMER, VOLTAGE, or PT

TRANSFORMER, CURRENT, CT

VS — SWITCH SELECTOR
- AS = Ammeter Sw.
- VS = Voltmeter Sw.

V — VOLTMETER

A — AMMETER

W — WATTMETER

WHITE XENON STROBE

MICROPHONE

KLAXONS

AIR HORN

WARNING BELL

A-C-a — LIGHTING FIXTURE, FLUORESCENT
- A = TYPE
- C = CIRCUIT NO.
- a = SWITCHED LEG

EMERGENCY LAMP PACK WITH BATTERY

PP — PANELBOARD
- LP = Lighting Panel
- PP = Power Panel

WP-C-G — DUPLEX RECEPTACLE 120 VAC, 20A
- WP = Weather Proof
- C = Circuit No.
- G = GFI

C-C — SINGLE RECEPTACLE 240 VAC, 30A
- C = Circuit No.

S_c — WALL SWITCH
- 125 VAC, 20 A
- 2 = 2 Pole
- 3 = 3 Way
- C = Switched Leg

HEATER RECEPTACLE

JB — BOX, CABINET
- JB = Junction Box (w/TB'S)
- PB = Pull Box (No TB'S)
- TC = Termination Cabinet

LIMIT SWITCHES

LS — Plunger Type

CAM — Rotary CAM Type

LS — Lever Type

LP CONDUIT

GROUND

NEUTRAL

SWITCHED LEG

HOT

WIRING
- EXTERNAL
- INTERNAL
- Shielded Pair
- Twisted Pair
- Outer Shield
- Connected
- Not connected

UG — UNDERGROUND CONDUIT
- Buried conduit per NEC depths

1 PHASE WIRING

3 PHASE WIRING

External wiring shown as dashed

R — INDICATING LIGHT
- R = Red
- G = Green
- Y = Yellow
- A = Amber
- B = Blue
- W = White

SWITCHES

0X — 2 POSITION SELECTOR SWITCH

00X — 3 OR MORE POSITION SELECTOR SWTICH

SPRING RETURN INDICATION

X00 — NORMALLY OPEN CONTACT

SW4 — 2 POSITION TOGGLE SWITCH

PUSH BUTTON, MOMENTARY
- NORMALLY CLOSED
- NORMALLY OPEN

PUSH BUTTON, MAINTAINED
- Normally Closed
- Push-To-Open

FOOT SWITCH

TIMER RELAY CONTACTS
- N.O., Close on Energization
- N.C., Open on Energization

LIMIT SWITCHES
- N.C. IN Closed POSITION
- N.C. HELD Open
- N.O. IN Open POSITION
- N.O. HELD Closed

TEMPERATURE SWITCH
- N.C. OPEN ON HIGH TEMP.

GROUND

A3 / SS — SURGE SUPPRESSOR
- A3, B3, C3 = Category

DO-XXX — PLC DIGITAL OUTPUT

DI-XXX — PLC DIGITAL INPUT

ABBREVIATIONS

A, AMP	AMPERES
BP	BYPASS
C.	CONDUIT, CONTACTOR
CAM	ROTARY CAM LIMIT SWITCH
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CD	CONTROL DESK
CL	CLEARANCE LIGHT
CP	CONTROL PANEL
CR	CONTROL RELAY
D, DN	DOWN
DISC	DISCONNECT
DR	DOOR
E.G.	EARTH GROUND
ESTOP	EMERGENCY STOP
F	FAR
FC	FULLY CLOSED (SPAN)
FL	FLASHING LIGHTS
FO	FULLY OPEN (SPAN)
F/O	FIBER OPTIC
FOC	FAR ON-COMING
FOG	FAR OFF-GOING
FU	FUSE
FVR	FULL VOLTAGE REVERSING
FVNR	FULL VOLTAGE NON-REVERSING
G, GND	GROUND
GL	GAUGE LIGHT
GONG	GONG
GRN, GN	GREEN
HOA	HAND-OFF-AUTO SWITCH
HORN	HORN
HMI	HUMAN MACHINE INTERFACE
HP	HORSEPOWER, HEAT PUMP
IL	INDICATOR LIGHT
JB	JUNCTION BOX
KW	KILOWATT
LA	LIGHTNING ARRESTOR
LC	LIGHTING CONTACTOR
LGT, LGTS	LIGHT, LIGHTS
LP	LIGHTING PANEL
LS	LIMIT SWITCH
MHB	MACHINERY BRAKE
M	MOTOR CONTACTOR
MCC	MOTOR CONTROL CENTER
MD	MAIN DISCONNECT SWITCH
MIC	MICROPHONE
MTR	MOTOR
MOB	MOTOR BRAKE
NAV	NAVIGATION
N	NEAR
NC	NEARLY CLOSED, NORMALLY CLOSED
NO	NEARLY OPEN, NORMALLY OPEN
NOC	NEAR ON-COMING
NOG	NEAR OFF-GOING
OL	OVERLOAD
PA/IC	PUBLIC ADDRESS/INTERCOM
PB	PUSH BUTTON, PULL BOX (NO TB'S)
PE	PHOTO-EYE
PL	PIER LIGHT, PULL, PILOT LIGHT
PRGS	PVC-COATED RGS CONDUIT
PTZ	PAN-TILT-ZOOM
RECPT	RECEPTACLE
RED	RED LIGHT
RES	RESISTOR BANK
RGS	RIGID GALVANIZED STEEL
SIG	SIGNAL
SL	SPAN LOCK
SPKR	SPEAKER
SS	SUBMARINE
SUB	SELECTOR SWITCH, SURGE SUPPRESSOR
T	TIMER
TB	TERMINAL BLOCK
TC	TERMINATION CABINET
TG	TRAFFIC GATE
TL	TRAFFIC LIGHT, TAIL LOCK
TS	TRAFFIC SIGNAL
T-STAT	THERMOSTAT SWITCH
UG	UNDERGROUND
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
W	WATTS, WIRE
XDCR	TRANSDUCER
XFMR	TRANSFORMER
Y	YELLOW
ZI	POSITION INDICATOR
ZT	POSITION TRANSMITTER

A/B/C Suffix added to indicate additional devices with same function.

STATE PROJECT NUMBER

4992-03-71

LOCATION LEGEND

- C — CONSOLE
- P — PLC CABINET
- M — COMBINATION MOTOR STARTER
- D — DRIVE
- I — INCLINOMETER CABINET
- SS — SURGE SUPPRESSOR
- NE — NORTHEAST DRIVE
- NW — NORTHWEST DRIVE
- SE — SOUTHEAST DRIVE
- SW — SOUTHWEST DRIVE

THE LIST OF SYMBOLS AND ABBREVIATIONS IS NOT MEANT TO BE ALL INCLUSIVE. SYMBOLS SHOWN ARE TYPICAL FOR MOVABLE BRIDGES AND AND CONTROL DIAGRAMS. VARIATIONS AND ADDITIONAL SYMBOLS AND ABBREVIATIONS MAY BE INCLUDED IN PLANS.

PRELIMINARY

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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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ELECTRICAL SYMBOLS & LEGEND

DRAWING E02 OF E64

PRE_427

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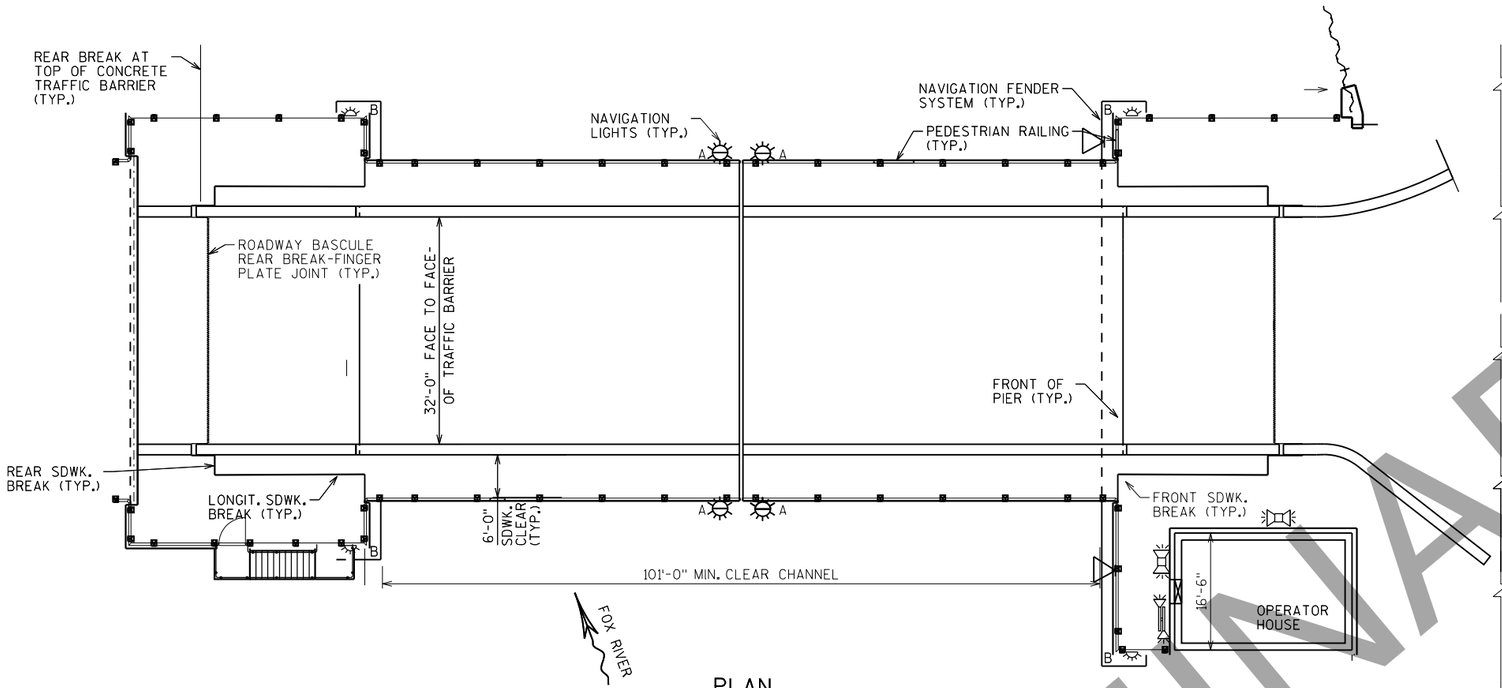
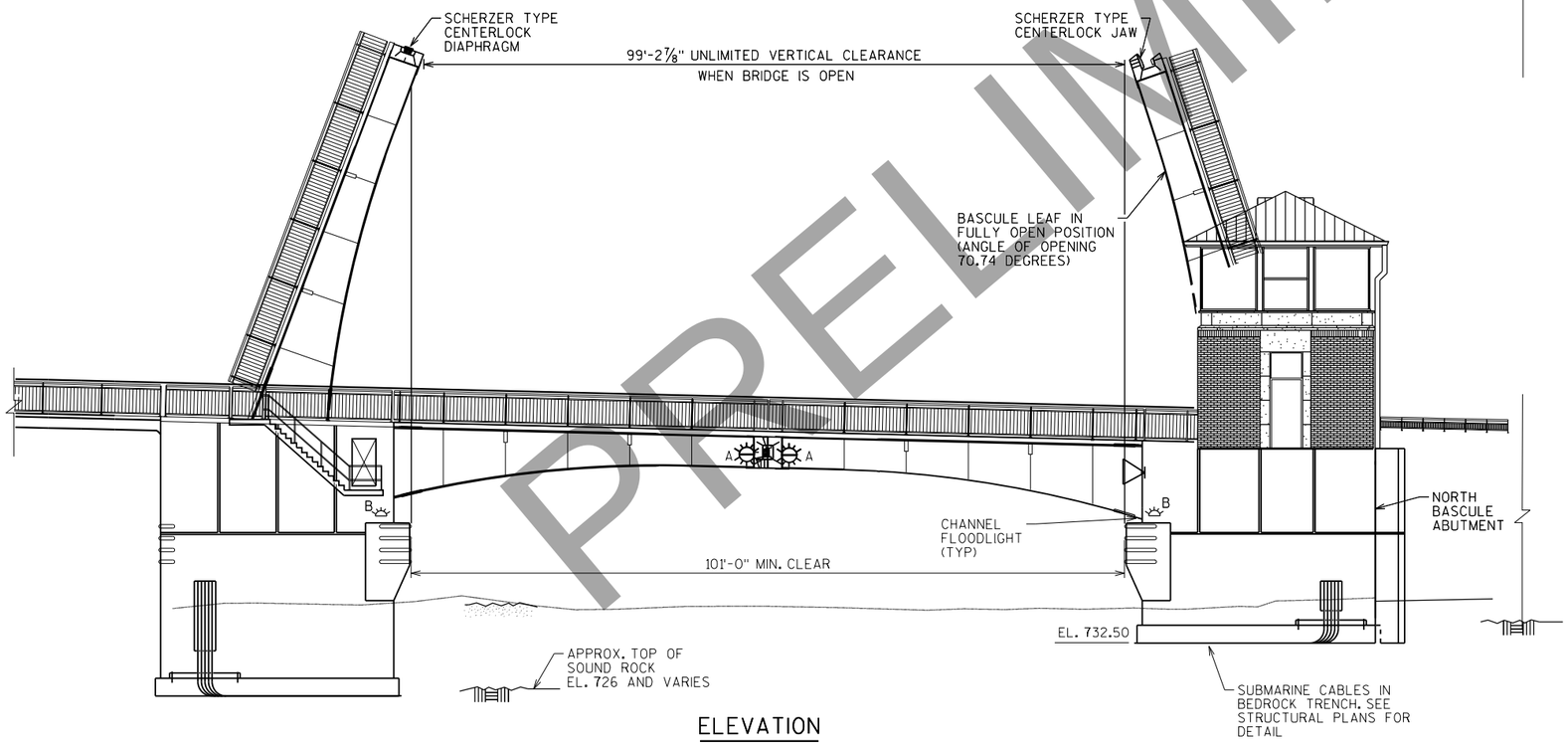
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



PLAN



ELEVATION

NOTES

1. CL - CLEARANCE LIGHT (A) RED 180 DEG. LENS, GREEN 180 DEG. LENS; 120 VOLT FIXTURES EQUIPPED WITH SHOCK RESISTANT LED LAMPS. EQUIPPED WITH A PIVOT MOUNT AND A S.S. RETRIEVAL CHAIN. HANGER STEM SHALL BE LONG ENOUGH SO THAT LANTERN IN LOWERED POSITION HANGS NEAR BOTTOM OF GIRDER AT THE TIP. LANTERN SHALL BE LATCHABLE IN DOWN POSITION. CLEARANCE LIGHTS SHALL MEET U.S. COAST GUARD REQUIREMENTS FOR VISIBILITY.
2. CHANNEL LEVEL PA SPEAKERS NOT SHOWN FOR CLARITY
3. AIR HORN AND PA SPEAKERS SHOWN IN APPROXIMATE LOCATIONS. COORDINATE WITH ARCHITECTURAL AND STRUCTURAL PLANS TO DETERMINE EXACT LOCATIONS. MOUNTING AND INSTALLATION DETAILS. SUBMITTALS SHALL BE APPROVED BY ENGINEER PRIOR TO INSTALLATION. INSTALL A MINIMUM OF 8' FROM SIDEWALK LEVEL.
4. SEE CCTV & PUBLIC ADDRESS SYSTEM DETAIL DRAWINGS FOR ADDITIONAL INFORMATION.
5. SEE SHEET E04 FOR TRAFFIC SIGNAL AND GATE LOCATIONS.
6. DIMENSIONS SHOWN ARE FOR GENERAL REFERENCE. SEE STRUCTURAL AND ROADWAY PLANS FOR FINAL DIMENSIONS.

LEGEND

- A — CENTER CHANNEL CLEARANCE LIGHTS ON BASCULE SPAN - 360°GREEN WHEN FULLY OPEN 360°RED FOR ALL OTHER POSITIONS
- B — PIER LIGHTS ON PIERS - 180°RED
- AIR HORN
- CHANNEL FLOOD LIGHTS
- PA SYSTEM SPEAKERS

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STATE OF WISCONSIN
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STRUCTURE B-70-324

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GENERAL PLAN AND ELEVATION BASCULE SPAN

DRAWING E03 OF E34

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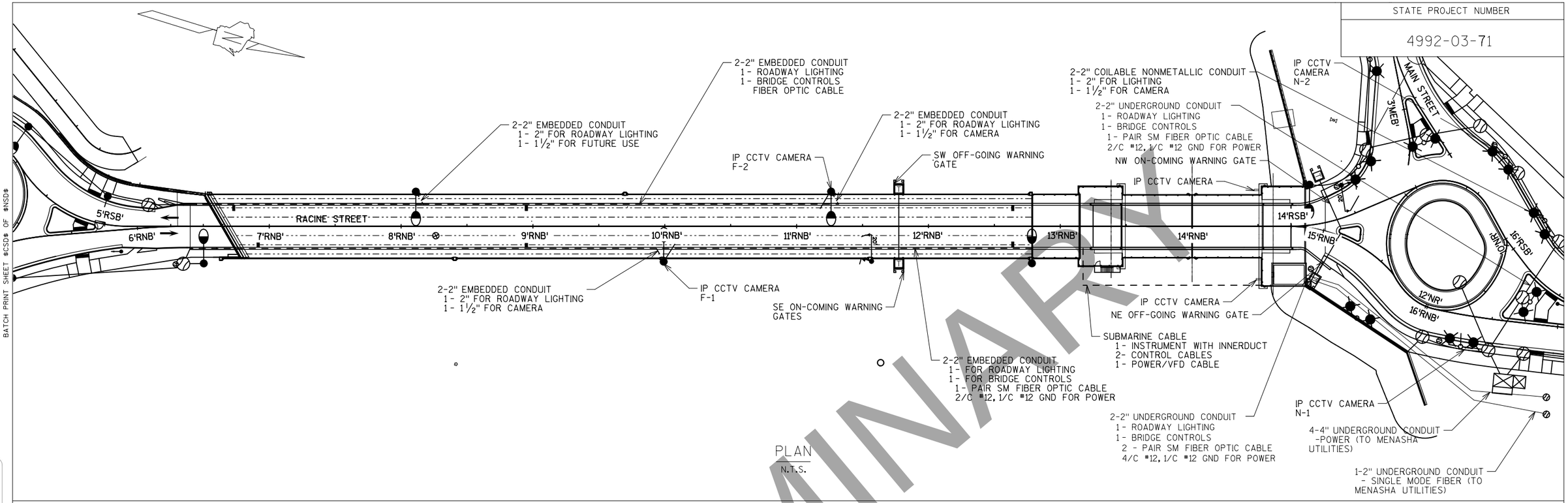
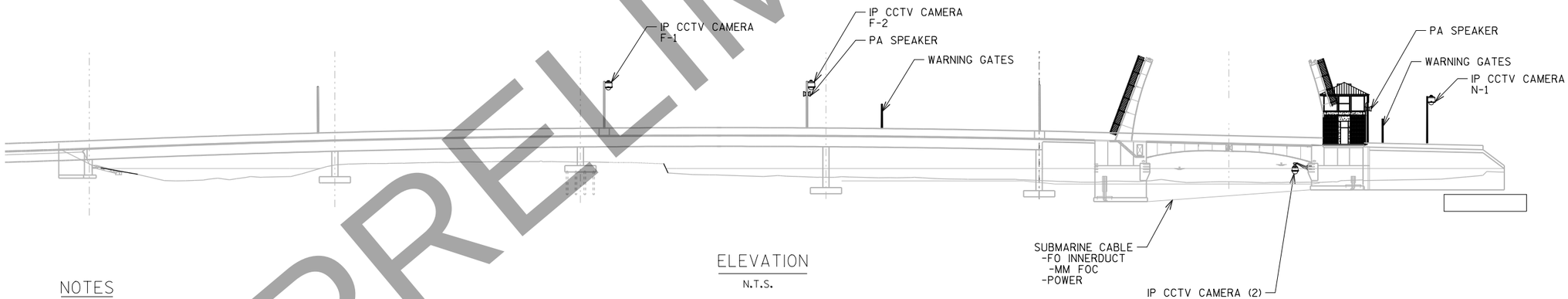
STATE PROJECT NUMBER

4992-03-71



PLAN

N.T.S.



ELEVATION

N.T.S.

NOTES

1. COORDINATE ALL UTILITY CONNECTIONS WITH MENASHA UTILITIES.
2. INSTALL NEW SERVICE CONDUIT AND CONDUCTORS. INTERCEPT EXISTING SECONDARY UTILITY TRANSFORMER CONDUITS INSTALLED BY MENASHA UTILITIES.
3. INSTALL NEW 12 STRAND SINGLE MODE FIBER FROM BRIDGE HOUSE TO MENASHA UTILITIES FIBER OPTIC HAND HOLE. MENASHA UTILITIES WILL SPLICE CONNECTIONS IN HAND HOLE.
4. FOR CCTV COMMUNICATIONS, INSTALL AN INNERDUCT FOR FIBER PAIR IN CONTROL/POWER CONDUITS. FIBER INNERDUCT IN BRIDGE PARAPETS WILL BE SHARED WITH BRIDGE CONTROL CONDUCTORS, UNLESS NOTED OTHERWISE. INNERDUCT ON NORTH ROADWAY LIGHT POLES WILL SHARE THE CONDUIT WITH THE CCTV POWER CONDUCTORS.
5. INSTALL DRAINAGE "TEE" OR HOLES IN EMBEDDED CONDUITS, BOXES, AND HANDHOLES TO PREVENT MOISTURE ACCUMULATION.
6. SEE CONDUIT PLANS + SCHEDULE FOR GATE AND SIGNAL WIRING.

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STRUCTURE B-70-324

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GENERAL PLAN AND ELEVATION

DRAWING PRE_429

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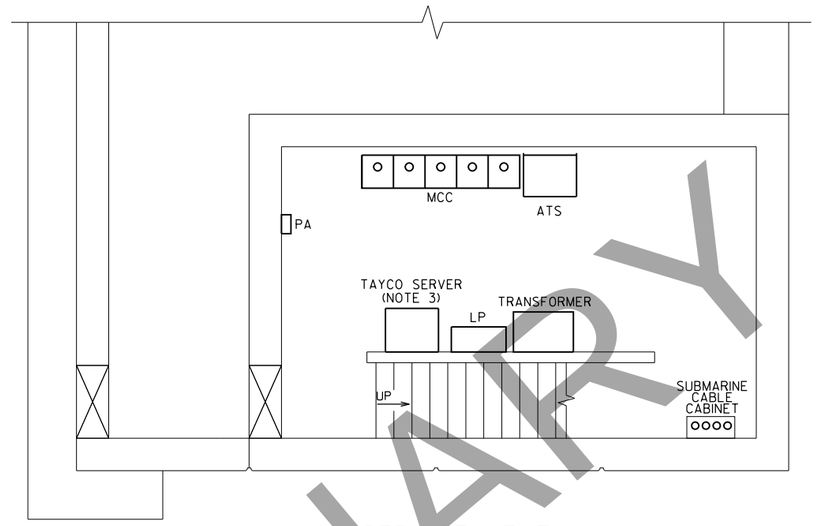
PLOT DATE: 2/24/2020 PLOT TIME: 10:42:10 AM
BATCH PRINT SHEET 5 OF 64
DRAFT April 20,

NOTES:

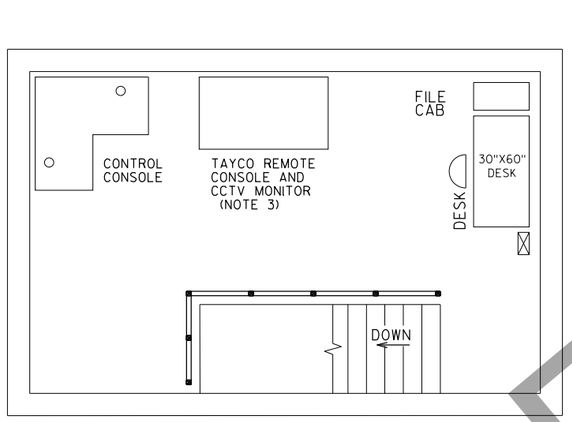
1. PROVIDE ADEQUATE SPACE FOR SERVICING ALL EQUIPMENT.
2. FURNISH AND INSTALL A COMPLETE BUILDING SECURITY SYSTEM WITH A KEYPAD AT THE ENTRANCE TO THE BUILDING. INCLUDE A CONTROL PANEL, ALL SENSORS, MOTION DETECTORS, SIRENS, AND ASSOCIATED WIRING, CONDUITS, PROGRAMMING, TRAINING, AND MISCELLANEOUS HARDWARE TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL SECURITY SYSTEM.
3. RELOCATE EXISTING TAYCO STREET REMOTE CONTROL EQUIPMEN. SEE SHEET E-06
4. ATTACH NEW CCTV MONITOR FROM CEILING. FIELD ADJUST HEIGHT FOR PROPER VIEWING.

STATE PROJECT NUMBER

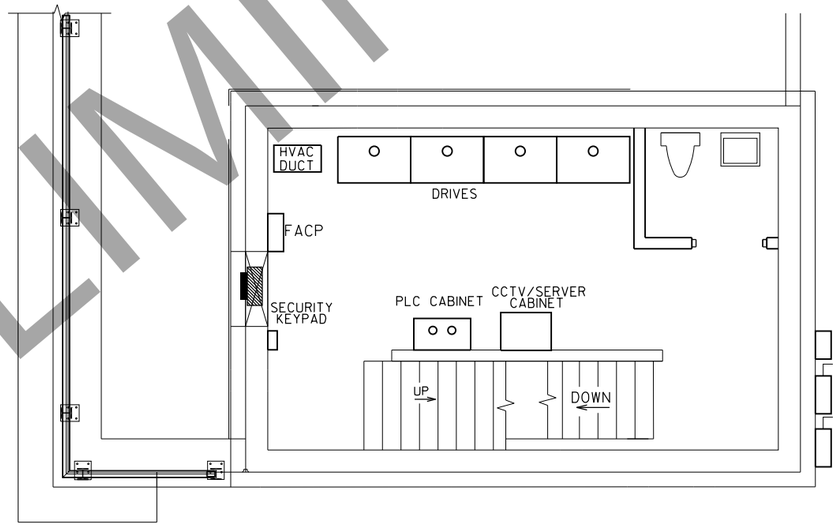
4992-03-71



SERVICE LEVEL
N.T.S



OPERATOR LEVEL
N.T.S.



ENTRY LEVEL
N.T.S

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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OPERATOR'S HOUSE ELECTRICAL FLOOR PLANS

DRAWING
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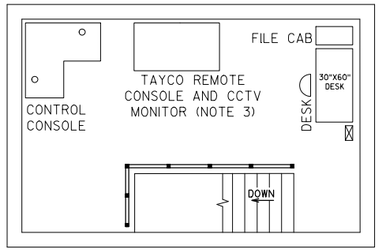

OPERATOR LEVEL

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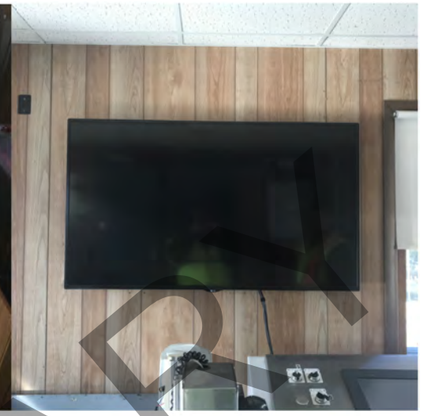
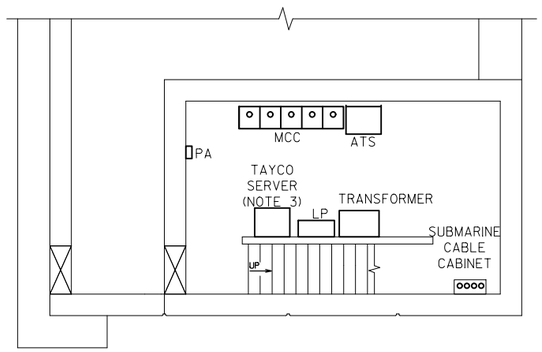
EXISTING REMOTE CONSOLE



EXISTING REMOTE MONITOR



SERVICE LEVEL

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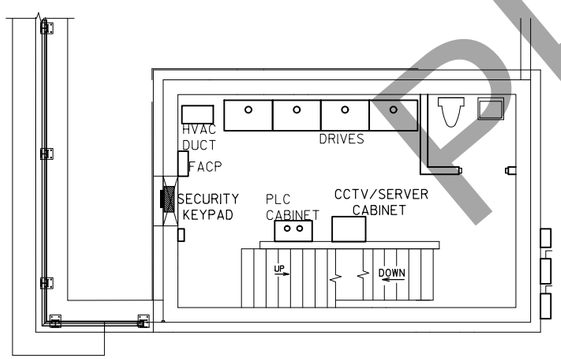
EXISTING CCTV SERVERS

EXISTING MULTIPLEXER CABINET



ENTRY LEVEL

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NOTES

1. THE PLC IS INSTALLED IN THE CONTROL CONSOLE. THE PLC PROCESSOR COMMUNICATES WITH THE MULTIPLEXER USING ETHERNET PROTOCOL. HMI IN CONSOLE COMMUNICATES USING ETHERNET PROTOCOL. UPS IS INSTALLED IN BASE OF CONTROL CONSOLE.
2. OTHER THAN A FEW CONTROL CONDUCTORS FOR CCTV OR PA CONTROL, ALL I/O CONDUCTORS ARE INTERNAL TO CONSOLE. FOR BIDDING PURPOSES ALLOW FOR 10 CONDUCTORS.
3. PA SYSTEM COMMUNICATES ANALOG AUDIO SIGNALS BETWEEN MASTER STATION AND MULTIPLEXER. THE SELECTOR SWITCH ON MASTER SYSTEM USES DIGITAL I/O TO PLC THAT IS TRANSMITTED TO PLC LOCATED AT TAYCO STREET BRIDGE.
4. CCTV MONITORS AND CONTROLS ARE NOT ORIGINAL. EXISTING CCTV CABINET HOUSES CAMERA CONTROLS FOR BOTH TAYCO STREET AND RACINE STREET BRIDGES. COORDINATE WITH THE ENGINEER PRIOR TO REMOVAL OF CAMERA CONTROL EQUIPMENT.
5. MULTIPLEXER HAS I/O FOR CAMERAS, PLC DATA AND PA SYSTEM THAT CONVERTS SIGNALS TO 2 PAIR OF FIBER. THE FIBER BETWEEN THE BRIDGES IS LEASED FROM MENASHA UNTILITES.

SCOPE

1. PRIOR TO REMOVAL OF THE EXISTING REMOTE CONTROL EQUIPMENT, BACKUP PLC, HMI PROGRAMS TO USB STORAGE DRIVE. ALL COPIES SHALL BE CLEARLY LABELED WITH THE DATE OF BACKUP. ONE COPY SHALL BE STORED WITH EQUIPMENT, ONCE COPY BY THE CONTRACTOR AND ONCE COPY PROVIDED TO DEPARTMENT.
2. REMOVE ALL EXISTING DOCUMENTATION AND ASBUILTS STORED IN CABINET. COORDINATE WITH THE DEPARTMENT ANY DOCUMENATION FOUND.
3. REMOVE THE CONTROL CONSOLE, PA MASTER STATION, CCTV MONITOR/CONTROLLER, MULTIPLEXER CABINET.
4. THE REMOVED EQUIPMENT SHALL BE STORED OFFSITE IN A ENVIRONMENTALLY AND CONTROLLED ENVIRONMENT. SUBMIT STORING INFORMATION TO ENGINEER FOR APPROVAL.
5. THE EXISTING EQUIPMENT SHALL BE INSTALLED IN THE NEW RACINE STREET BRIDGE AS SHOWN ON PLANS.
6. THE CONTRACTOR SHALL INSTALL NEW COMMUNICATION, POWER AND INTERCONNECTION CONDUCTORS BETWEEN CABINETS.
7. THE CONTRACTOR SHALL INSTALL A NEW 12 STRAND SINGLE MODE FIBER FROM THE NEW BRIDGE HOUSE TO A MENASHA UTILITES HAND HOLE LOCATED NEAR THE UTILITY TRANSFORMERS.
8. COORDINATE NEW FIBER WITH INSTALLATION AND SPLICING WITH MENASHA UTILITIES.
9. POWER UP THE RELOCATED SYSTEM AND TEST FOR PROPER OPERATION. COORDINATE TESTING WITH THE DEPARTMENT.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

TAYCO STREET REMOTE OPERATION PLAN

DRAWING
PRE_431

8

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BATCH PRINT SHEET 7 OF 64
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

UTILITY TRANSFORMER 13.4KV/480V

ELECTRIC UTILITY METER

400 AMP SERVICE DISCONNECT IN ATS

UTILITY TRANSFORMER 35KV/480V

Lightning Arrestors

ATS

M

3-1/C 600MCM
1-1/C 600 MCM GND

NEW INCOMING SURGE SUP. SS

MOTOR CONTROL CENTER (MCC)

480V, 3-PH, 4-W, 400A BUS

1G MCB 350AT 400AF

1J CBPR

P.T.

PFR
PHASE FAILURE

DIGITAL POWERMONITOR VOLTMETER & AMMETER

CT

3ML CBT1 60A

2KL CBNEMD 115A

2KR CBNWMD 115A

2B CBNEMOB 15A

2D CBNWMOB 15A

2F CBNEMHB 15A

2H CBNWMHB 15A

4C CBNOC 15A

4F CBNOG 15A

4J CBNERL 15A

4M CBNWRL 15A

CONTINUED SEE SHEET E06

M-NEMOB OLNEMOB

M-NWMOB OLNWMOB

M-NEMHB OLNEMHB

M-NWMHB OLNWMHB

M-NOCR M-NOCL OLNOC

M-NOGR M-NOGL OLNOG

M-NERL OLNRL

M-NWRL OLSRL

3-1/C #1 AWG 1/C #6 GND

3-1/C #6 AWG 1/C #8 GND

T1 45 KVA 480:208/120

3-1/C #1 AWG 1/C #6 GND

LP

LIGHTING PANELBOARD 150A, 208/120V, 3-PH

NMD

SMD

POWERFLEX 755

3-1/C #10 AWG 1/C #12 GND

NEMOB

1/2 HP NORTH EAST MOTOR BRAKE

NWMOB

1/2 HP NORTH WEST MOTOR BRAKE

NEMHB

1/2 HP NORTH EAST MACH. BRAKE

NWMHB

1/2 HP NORTH WEST MACH. BRAKE

NOC BRAKE

1/2 HP NORTH WARNING GATE (ON-COMING)

NOG BRAKE

1/2 HP NORTH WARNING GATE (OFF-GOING)

NERL

7½ HP NORTH EAST REARLOCK ACTUATOR

NWRL

7½ HP NORTH WEST REARLOCK ACTUATOR

3-1/C #2 AWG 1/C #6 GND

M-NEMD

50HP 1170 RPM 460 V FLA-65A NORTH EAST MOTOR

M-NWMD

50HP 1170 RPM 460 V FLA-65A NORTH WEST MOTOR

PRELIMINARY

NOTES:

1. HORSE POWER RATING AND CIRCUIT BREAKER RATING SHOWN ARE NOMINAL.
2. SUPPLY PORTABLE GENERATOR PLUG AND RECEPTACLE CABINET. SUPPLY WEATHER PROOF 4X STAINLESS STEEL BOXES FOR ALL OUTDOOR MOUNTED EQUIPMENT.
3. MOUNT THE MANUAL TRANSFER SWITCH (MTS) ON THE WALL INSIDE THE UTILITY ROOM.
4. WARNING GATE DISCONNECTS ARE INCLUDED WITH GATES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

SINGLE LINE DIAGRAM (1 OF 2)

DRAWING E07 OF E34

PRE_432

8

8

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PLOT DATE: 2/24/2020 PLOT TIME: 11:16:32 AM BATCH PRINT SHEET 8 OF 64
DRAFT April 20, 2020

CONTINUED SEE SHEET E05A

MOTOR CONTROL CENTER (MCC)

480V, 3-PH, 4-W, 400A BUS

3MR — CBT2 40A 2-Pole — 3-1/C #6 AWG 1/C #8 GND

3KL — CBSEMD 115A — 3-1/C #1 AWG 1/C #6 GND

3KR — CBSWMD 115A — 3-1/C #1 AWG 1/C #6 GND

3B — CBSEMOB 15A — M-SEMOB — OLSEMOB — 3-1/C #10 AWG 1/C #12 GND

3D — CBSWMOB 15A — M-SWMOB — OLSWMOB — 3-1/C #10 AWG 1/C #12 GND

3F — CBSEMHB 15A — M-SEMHB — OLSEMHB — 3-1/C #10 AWG 1/C #12 GND

3H — CBSWMHB 15A — M-SWMHB — OLSWMHB — 3-1/C #10 AWG 1/C #12 GND

5C — CBSOC 15A — M-SOCR, M-SOCL — OLSOC — 3-1/C #10 AWG 1/C #12 GND

5F — CBSOG 15A — M-SOGR, M-SOGL — OLSOG — 3-1/C #10 AWG 1/C #12 GND

5J — CBSERL 15A — M-SERL — OLSERL — 3-1/C #10 AWG 1/C #12 GND

5M — CBSWRL 15A — M-SWRL — OLSWRL

FOX RIVER

3-1/C #1 AWG 1/C #6 GND → T2 15 KVA 480:208/120 → PANELBOARD 150A, 208/120V, 3-PH

NMD — POWERFLEX 755 — 3-1/C #2 AWG 1/C #6 GND → M-SEMD → 50HP 1200 RPM 460 V FLA-65A SOUTH EAST MOTOR

SMD — POWERFLEX 755 — 3-1/C #2 AWG 1/C #6 GND → M-SWMD → 50HP 1200 RPM 460 V FLA-65A SOUTH WEST MOTOR

SEMOB — 1/2 HP SOUTH EAST MOTOR BRAKE

SWMOB — 1/2 HP SOUTH WEST MOTOR BRAKE

SEMHB — 1/2 HP SOUTH EAST MACH. BRAKE

SWMHB — 1/2 HP SOUTH WEST MACH. BRAKE

SOC — BRAKE — 1/2 HP SOUTH WARNING GATE (ON-COMING)

SOG — BRAKE — 1/2 HP SOUTH WARNING GATE (OFF-GOING)

SERL — 7½ HP SOUTH EAST REARLOCK ACTUATOR

SWRL — 7½ HP SOUTH WEST REARLOCK ACTUATOR

PRELIMINARY

NOTES:

1. HORSE POWER RATING AND CIRCUIT BREAKER RATING SHOWN ARE NOMINAL.
2. WARNING GATE DISCONNECTS ARE INCLUDED WITH GATES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

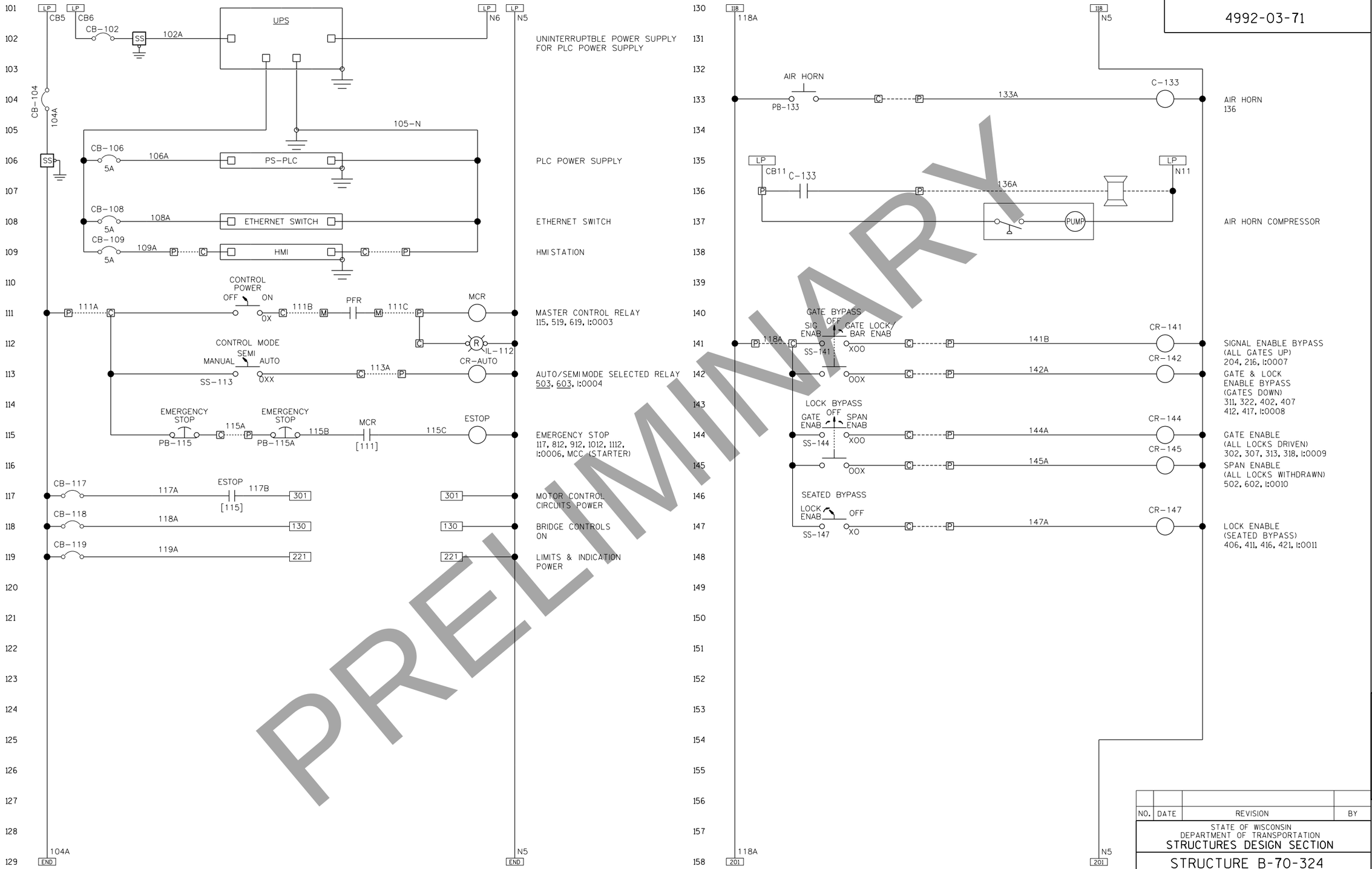
SINGLE LINE DIAGRAM (2 OF 2)

DRAWING NO. OF 534
PRE_433

8

STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONTROL POWER SCHEMATIC - 1

DRAWING PRE_434

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DRAFT April 20,

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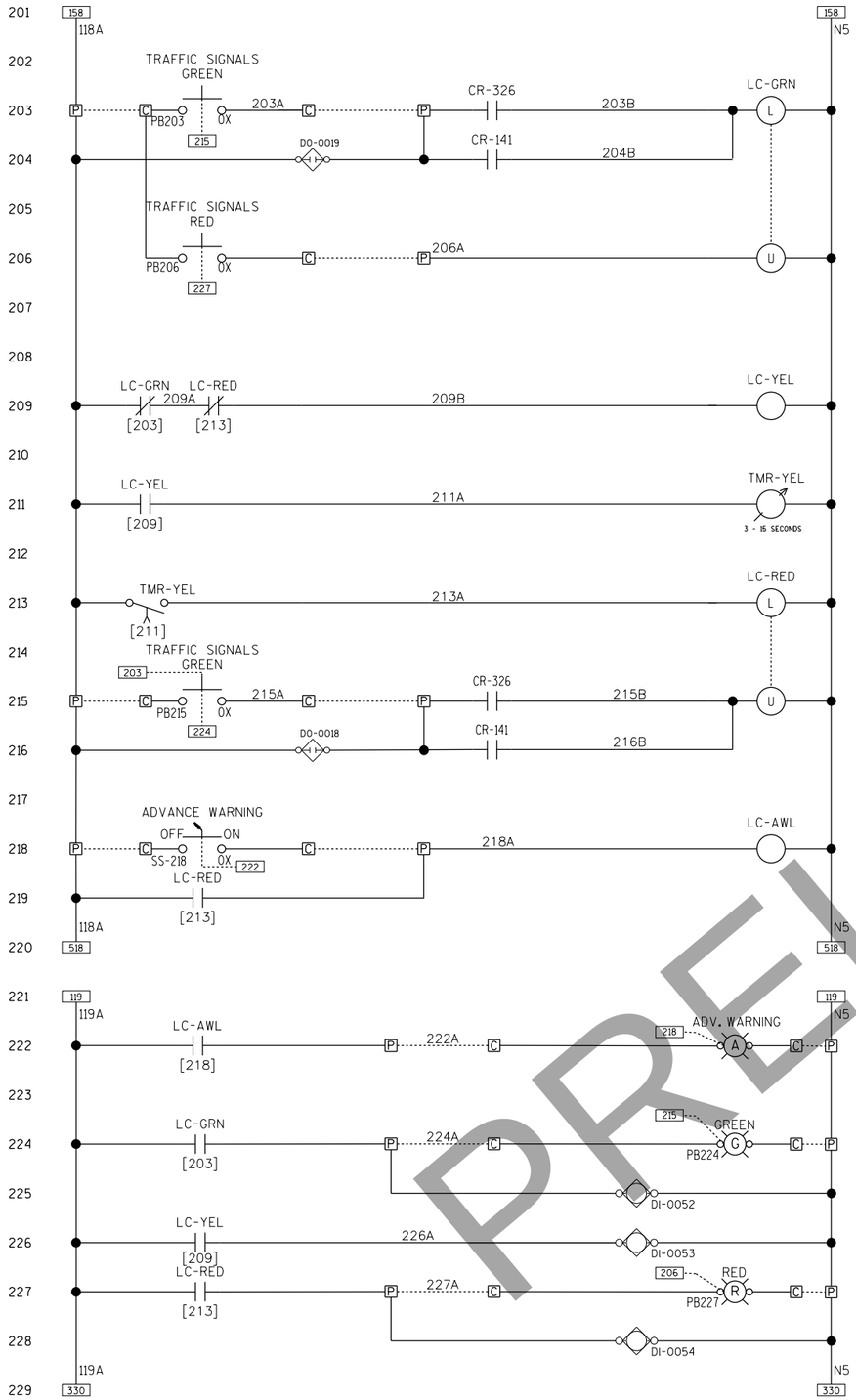
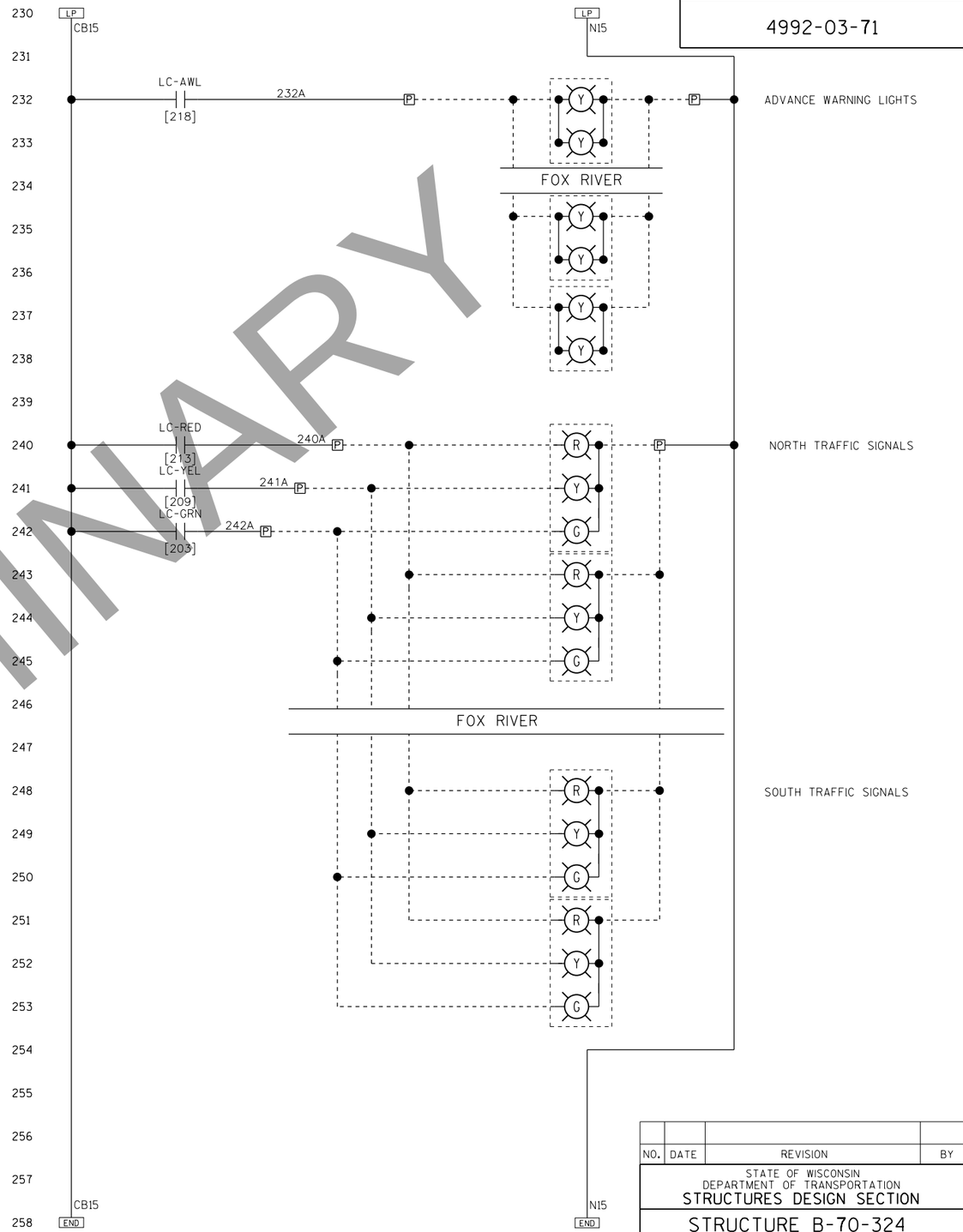
STATE PROJECT NUMBER

4992-03-71





PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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TRAFFIC SIGNALS SCHEMATIC - 2

DRAWING PRE_435

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PRELIMINARY

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STATE PROJECT NUMBER

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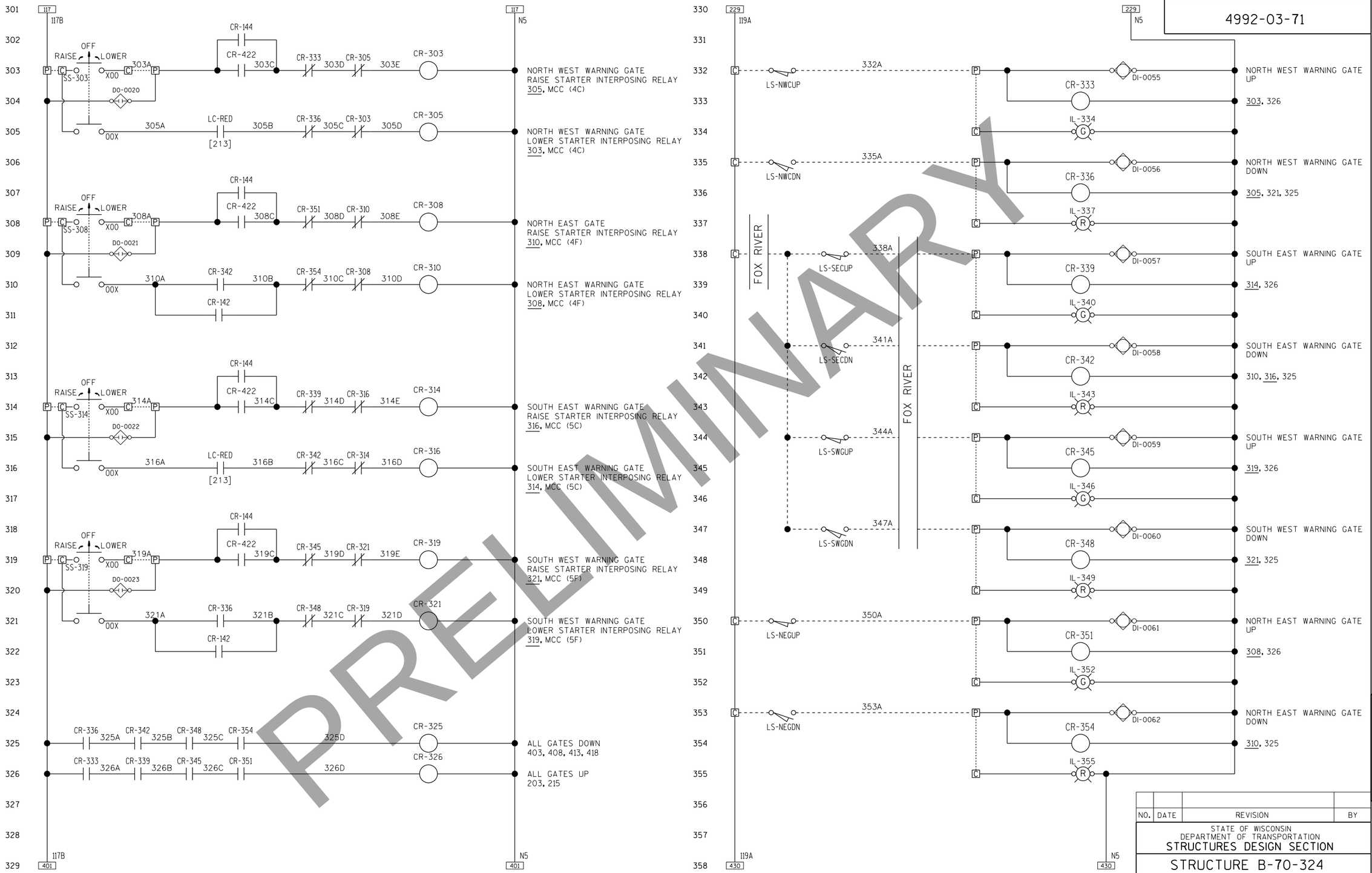

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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TRAFFIC GATES SCHEMATIC - 3

DRAWING E11 OF E64

PRE_436

8

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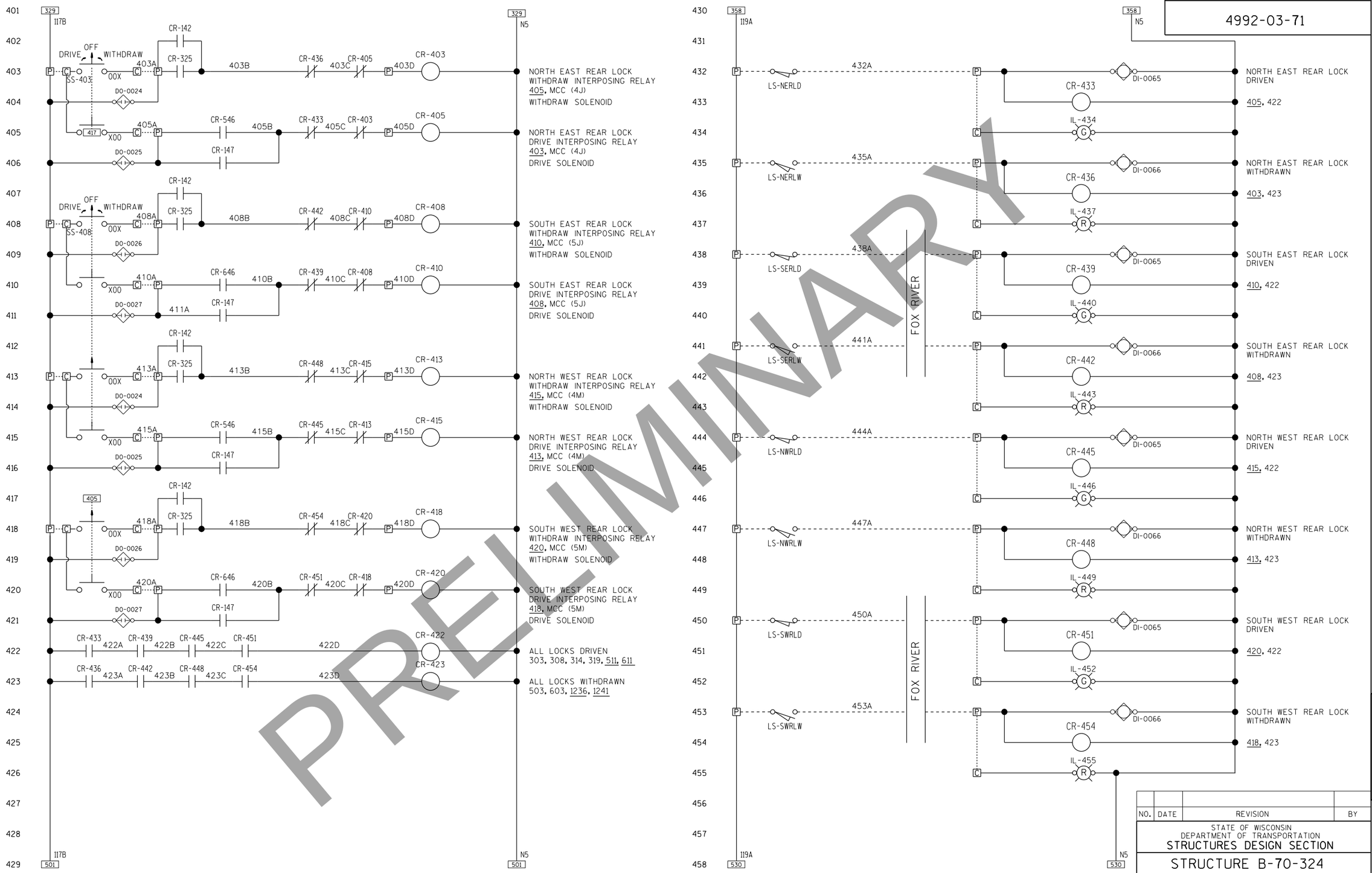
STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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REAR LOCKS & GATE SCHEMATIC - 4

DRAWING PRE_437

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BATCH PRINT SHEET 12 OF 64
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

501 429 117B — CR-145 502A — CR-423 CR-AUTO [113] CR-531 503A — MACHINERY BRAKE SET / RELEASE SS-503 0X — 503B — CR-713 502B CR-502 — CR-706 503C CR-503 — DO-0028 — 429 N5

502 NORTH WEST MACHINERY BRAKE PLC INPUT

503 NORTH EAST MACHINERY BRAKE PLC INPUT

504

505 NWD-PTORQ — 505A — CR-727 505B CR-505

506 NED-PTORQ — CR-720 506A CR-506

505 NORTH WEST MOTOR BRAKE PLC INPUT

506 NORTH EAST MOTOR BRAKE PLC INPUT

507 DO-0029

508

509 LOWER 3 2 1 / OFF / RAISE 1 2 3 — SS-509 — 0000XXX — 509A — CR-511 — 509B — CR-537 — 509C CR-509

510 DO-0030 — IL-510

509 RAISE 511, 515, 806, 906

511 XXX0000 — 511A — CR-422 — 511B — CR-509 — 511C CR-511

512 DO-0031 — IL-512

511 LOWER 509, 516, 807, 907

513 XX000XX — 513A — CR-513

512

513 SLOW 809, 909

514 DO-0032

515 X00000X — 515A — CR-509 — 515B — CR-540 — 515C CR-515

516 DO-0033 — CR-511 — 516A — CR-543

515 FAST 810, 910

516

517 117B 601 — N5 601

518 220 118A — MCR [111] — 519A — EAST / ALT / WEST — SS-519 — 0XO — 519B — DI-049 CR-520

519 ALTERNATE DRIVE POWER

520 XOO — 520A

520 NORTH EAST DRIVE SELECT 524

521 DI-050 CR-522

522 OOX — 522A

522 NORTH WEST DRIVE SELECT 526

523 DI-051 M-524

524 LC-RED [213] — 524A — CR-520

525 DO-017

526 CR-522

524 NORTH EAST DRIVE 802, 803, 804, 811

524B — M-526 — 526A

525

526 NORTH WEST DRIVE 902, 903, 904, 911

527 DO-018

528

529 118A 618 — N5 618

530 458 119A — CR-706 CR-713 CR-720 CR-727 — CR-531 — 458 N5

531 NORTH BRAKE HAND RELEASE 503

532 CR-706 CR-713 CR-720 CR-727

533 CR-706 CR-713 CR-720 CR-727

534 CR-706 CR-713 CR-720 CR-727

535 CR-706 CR-713 CR-720 CR-727

536 LS-NFO — 536A — SS — DI-0069

537 CR-537

536 FULL OPEN

537 509, 1204, 1205

538 IL-538

538 RED INDICATION ON CONSOLE

539 LS-NNO — 539A — DI-0069

540 CR-540

539 NEAR OPEN

540 515

541 IL-541

541 WHITE INDICATION ON CONSOLE

542 LS-NNC — 542A — DI-0069

543 CR-543

542 NEAR CLOSED

543 516

544 IL-544

544 AMBER INDICATION ON CONSOLE

545 LS-NFC — 545A — LS-NSEAT — 545B — DI-0069

546 CR-546

545 FULLY CLOSED/SEATED

546 405, 415, 808, 908

547 IL-547

547 GREEN INDICATION ON CONSOLE

548

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558 119A 630 — N5 630

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

NORTH SPAN DRIVE SCHEMATIC - 5

DRAWING PRE_438

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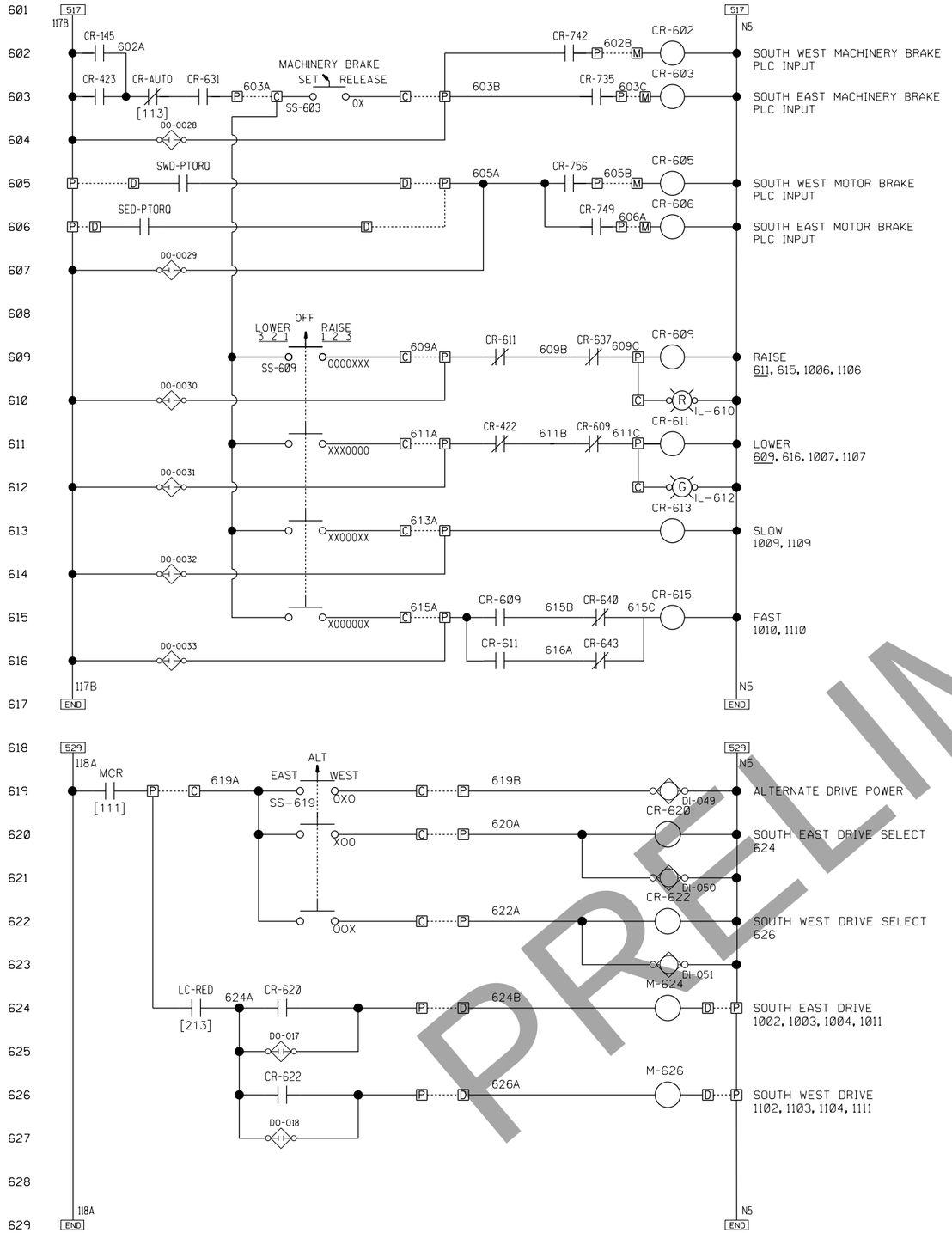
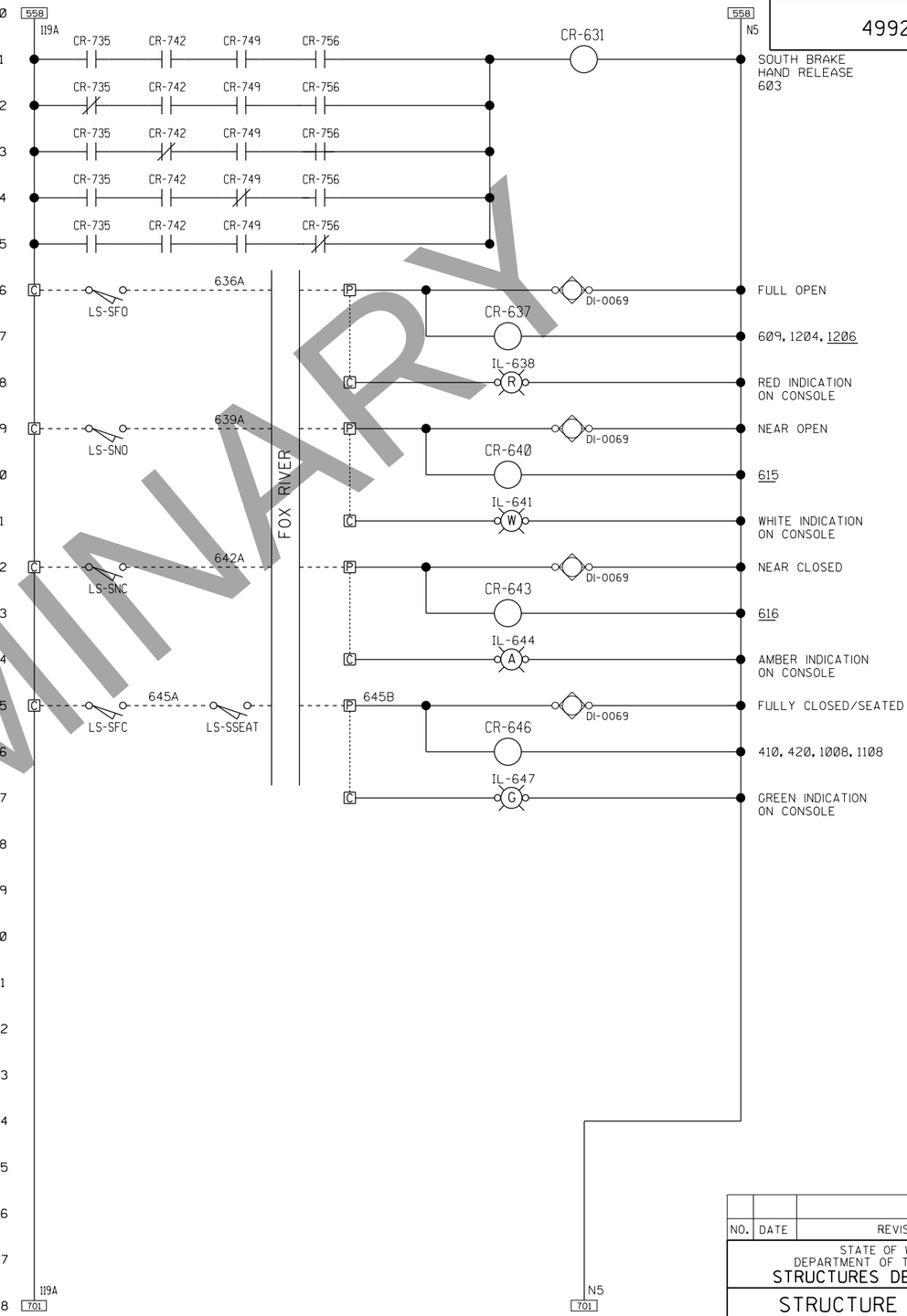
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71





NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

SOUTH SPAN DRIVE SCHEMATIC - 6

DRAWING PRE_439

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PLOT DATE: 2/24/2020 PLOT TIME: 11:15:01 AM BATCH PRINT SHEET 15 OF 64
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

701 658 119A C — LS-NEMHBSET — 701A P — DI-0073 — 658 N5 — NORTH EAST MACH BRAKE SET
702 C — IL-702 G — GREEN INDICATION ON CONSOLE
703 C — LS-NEMHBREL — 703A P — DI-0074 — NORTH EAST MACH BRAKE RELEASE
704 C — IL-704 R — RED INDICATION ON CONSOLE
705 C — LS-NEMHBHREL — 705A P — DI-0075 — NORTH EAST MACH BRAKE HAND RELEASE
706 CR-706 — MCC (2F) 503, 531, 532, 533, 534, 535
707 C — IL-707 Y — YELLOW INDICATION ON CONSOLE
708 C — LS-NWMHBSET — 708A P — DI-0076 — NORTH WEST MACH BRAKE SET
709 C — IL-709 G — GREEN INDICATION ON CONSOLE
710 C — LS-NMHBREL — 710A P — DI-0077 — NORTH WEST MACH BRAKE RELEASE
711 C — IL-711 R — RED INDICATION ON CONSOLE
712 C — LS-NMHBHREL — 712A P — DI-0078 — NORTH WEST MACH BRAKE HAND RELEASE
713 CR-713 — MCC (2H) 502, 531, 532, 533, 534, 535
714 C — IL-714 Y — YELLOW INDICATION ON CONSOLE
715 C — LS-NEMBSET — 715A P — DI-0079 — NORTH EAST MOTOR BRAKE SET
716 C — IL-716 G — GREEN INDICATION ON CONSOLE
717 C — LS-NEMBREL — 717A P — DI-0080 — NORTH EAST MOTOR BRAKE RELEASE
718 C — IL-718 R — RED INDICATION ON CONSOLE
719 C — LS-NEMBHREL — 719A P — DI-0081 — NORTH EAST MOTOR BRAKE HAND RELEASE
720 CR-720 — MCC (2B) 506, 531, 532, 533, 534, 535
721 C — IL-721 Y — YELLOW INDICATION ON CONSOLE
722 C — LS-NWMBSET — 722A P — DI-0082 — NORTH WEST MOTOR BRAKE SET
723 C — IL-723 G — GREEN INDICATION ON CONSOLE
724 C — LS-NWMBREL — 724A P — DI-0083 — NORTH WEST MOTOR BRAKE RELEASE
725 C — IL-725 R — RED INDICATION ON CONSOLE
726 C — LS-NWMBHREL — 726A P — DI-0084 — NORTH WEST MOTOR BRAKE HAND RELEASE
727 CR-727 — MCC (2D) 505, 531, 532, 533, 534, 535
728 C — IL-728 Y — YELLOW INDICATION ON CONSOLE
729 119A 730 — 730 N5

730 729 119A C — LS-SEMHBSET — 730A P — DI-0073 — 729 N5 — SOUTH EAST MACH BRAKE SET
731 C — IL-731 G — GREEN INDICATION ON CONSOLE
732 C — LS-SEMBREL — 732A P — DI-0074 — SOUTH EAST MACH BRAKE RELEASE
733 C — IL-733 R — RED INDICATION ON CONSOLE
734 C — LS-SEMHBHREL — 734A P — DI-0075 — SOUTH EAST MACH BRAKE HAND RELEASE
735 CR-735 — MCC (3F) 603, 631, 632, 633, 634, 635
736 C — IL-736 Y — YELLOW INDICATION ON CONSOLE
737 C — LS-SWMHBSET — 737A P — DI-0076 — SOUTH WEST MACH BRAKE SET
738 C — IL-738 G — GREEN INDICATION ON CONSOLE
739 C — LS-SWMHBREL — 739A P — DI-0077 — SOUTH WEST MACH BRAKE RELEASE
740 C — IL-740 R — RED INDICATION ON CONSOLE
741 C — LS-SWMHBHREL — 741A P — DI-0078 — SOUTH WEST MACH BRAKE HAND RELEASE
742 CR-742 — MCC (3H) 602, 631, 632, 633, 634, 635
743 C — IL-743 Y — YELLOW INDICATION ON CONSOLE
744 C — LS-SEMBSET — 744A P — DI-0079 — SOUTH EAST MOTOR BRAKE SET
745 C — IL-745 G — GREEN INDICATION ON CONSOLE
746 C — LS-SEMBREL — 746A P — DI-0080 — SOUTH EAST MOTOR BRAKE RELEASE
747 C — IL-747 R — RED INDICATION ON CONSOLE
748 C — LS-SEMBHREL — 748A P — DI-0081 — SOUTH EAST MOTOR BRAKE HAND RELEASE
749 CR-749 — MCC (3B) 606, 631, 632, 633, 634, 635
750 C — IL-750 Y — YELLOW INDICATION ON CONSOLE
751 C — LS-SWMBSET — 751A P — DI-0082 — SOUTH WEST MOTOR BRAKE SET
752 C — IL-752 G — GREEN INDICATION ON CONSOLE
753 C — LS-SWMBREL — 753A P — DI-0083 — SOUTH WEST MOTOR BRAKE RELEASE
754 C — IL-754 R — RED INDICATION ON CONSOLE
755 C — LS-SWMBHREL — 755A P — DI-0084 — SOUTH WEST MOTOR BRAKE HAND RELEASE
756 CR-756 — MCC (3D) 605, 631, 632, 633, 634, 635
757 C — IL-757 Y — YELLOW INDICATION ON CONSOLE
758 119A END — END N5

FOX RIVER

FOX RIVER

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

SPAN DRIVE SCHEMATIC - 7

DRAWING
PRE_440

8

8

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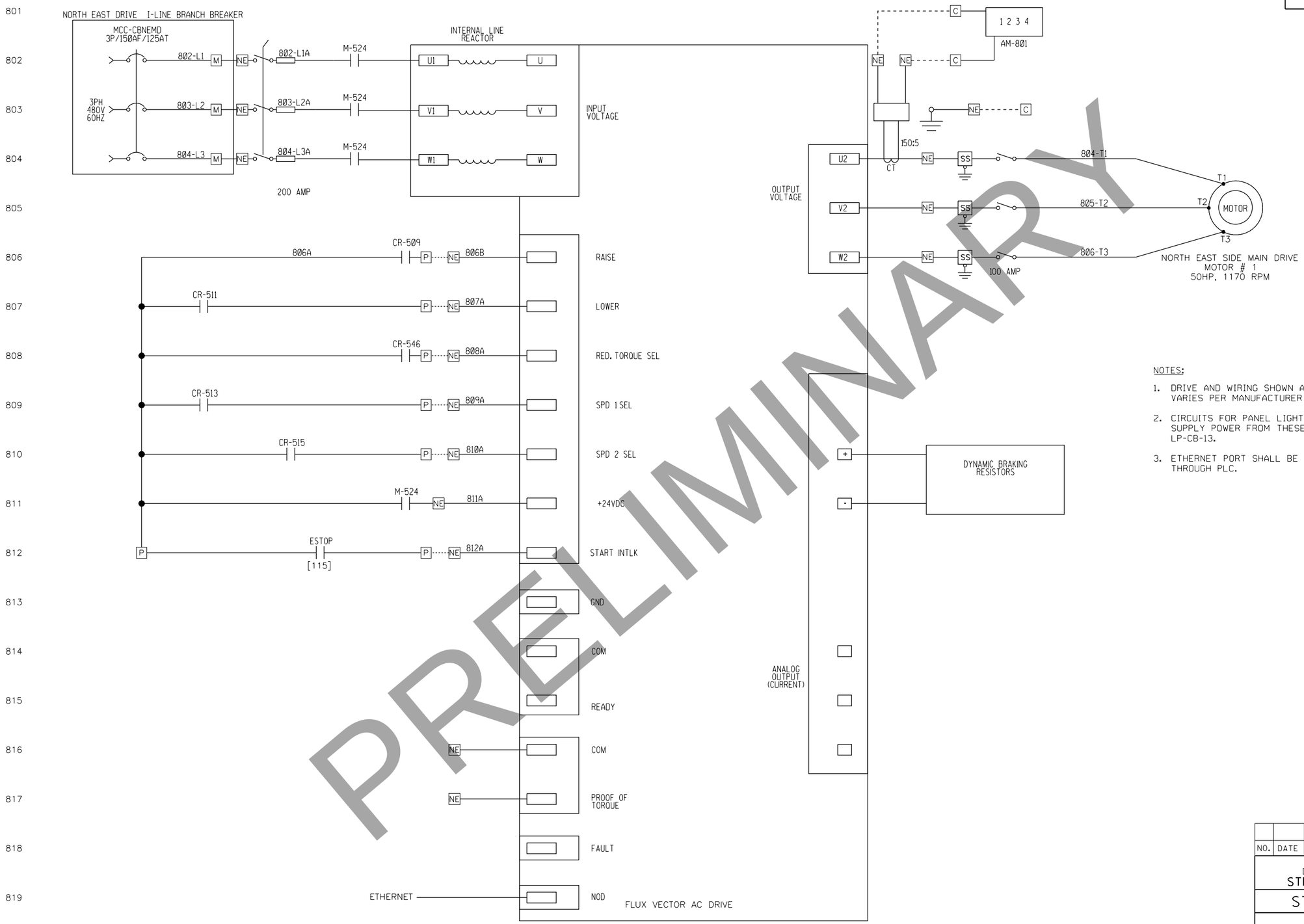
PLOT DATE: 2/24/2020 PLOT TIME: 11:15:12 AM
BATCH PRINT SHEET 16 OF 64
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

KEY DRIVE PARAMETERS

DESCRIPTION	SETTING
SPEED 1 (DEFAULT)	10%
SPEED 2 (SLOW)	25%
SPEED 3 (FAST)	100%
REDUCED TORQUE	50%
ACCELERATION	8 SEC
DECELERATION	8 SEC



PRELIMINARY

NOTES:

1. DRIVE AND WIRING SHOWN AS REPRESENTATIVE. ACTUAL WIRING VARIES PER MANUFACTURER AND DRIVE.
2. CIRCUITS FOR PANEL LIGHT AND RECEPTACLE ARE NOT SHOWN. SUPPLY POWER FROM THESE CIRCUITS FROM A SEPARATE SOURCE; LP-CB-13.
3. ETHERNET PORT SHALL BE USED TO MONITOR AND SET UP DRIVE THROUGH PLC.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

NORTH EAST SPAN MOTOR & DRIVE SCHEMATIC - 8

DRAWING E16 OF E64

PRE_441

8

8

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DRAFT April 20, 2020
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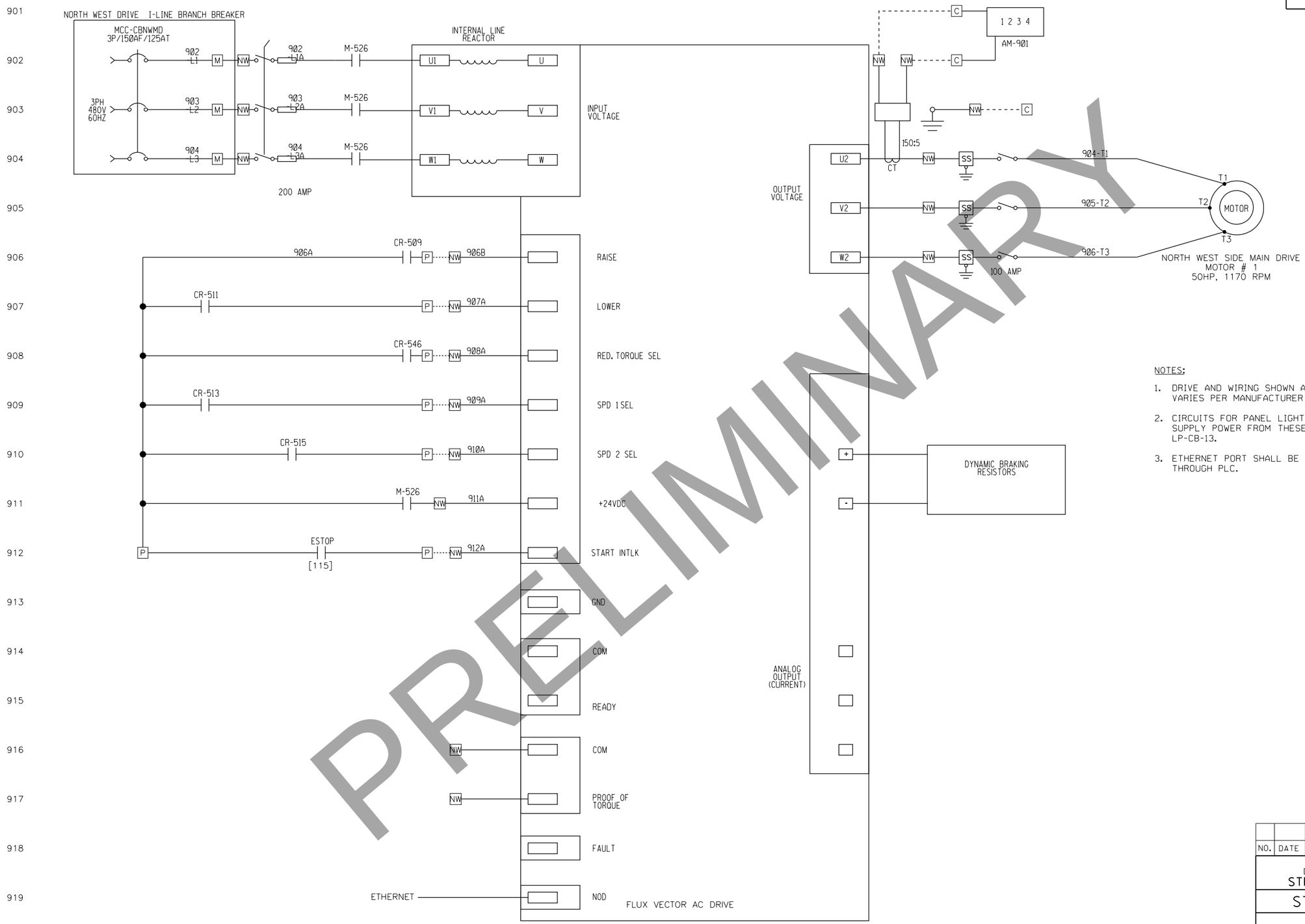
BATCH PRINT SHEET 17 OF 64

STATE PROJECT NUMBER
4992-03-71

KEY DRIVE PARAMETERS

DESCRIPTION	SETTING
SPEED 1 (DEFAULT)	10%
SPEED 2 (SLOW)	25%
SPEED 3 (FAST)	100%
REDUCED TORQUE	50%
ACCELERATION	8 SEC
DECELERATION	8 SEC



NOTES:

1. DRIVE AND WIRING SHOWN AS REPRESENTATIVE. ACTUAL WIRING VARIES PER MANUFACTURER AND DRIVE.
2. CIRCUITS FOR PANEL LIGHT AND RECEPTACLE ARE NOT SHOWN. SUPPLY POWER FROM THESE CIRCUITS FROM A SEPARATE SOURCE; LP-CB-13.
3. ETHERNET PORT SHALL BE USED TO MONITOR AND SET UP DRIVE THROUGH PLC.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

NORTH WEST SPAN MOTOR & DRIVE SCHEMATIC - 9

DRAWING E17 OF E54

PRE_442

8

8

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PLOT DATE: 2/24/2020 PLOT TIME: 11:15:32 AM BATCH PRINT SHEET 18 OF 64

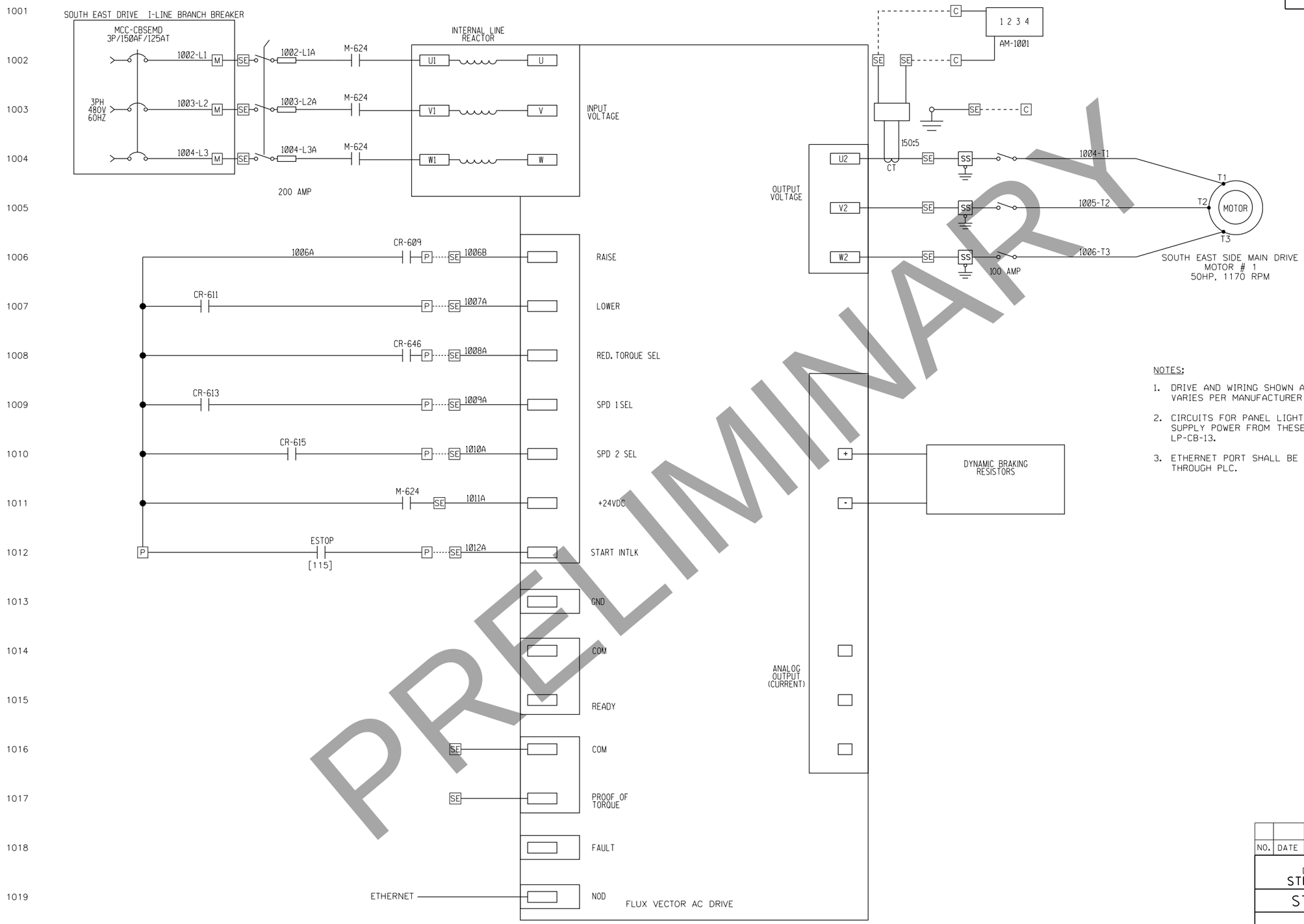
DRAFT April 20, 2020

PRELIMINARY

STATE PROJECT NUMBER
4992-03-71

KEY DRIVE PARAMETERS

DESCRIPTION	SETTING
SPEED 1 (DEFAULT)	10%
SPEED 2 (SLOW)	25%
SPEED 3 (FAST)	100%
REDUCED TORQUE	50%
ACCELERATION	8 SEC
DECELERATION	8 SEC



NOTES:

1. DRIVE AND WIRING SHOWN AS REPRESENTATIVE. ACTUAL WIRING VARIES PER MANUFACTURER AND DRIVE.
2. CIRCUITS FOR PANEL LIGHT AND RECEPTACLE ARE NOT SHOWN. SUPPLY POWER FROM THESE CIRCUITS FROM A SEPARATE SOURCE; LP-CB-13.
3. ETHERNET PORT SHALL BE USED TO MONITOR AND SET UP DRIVE THROUGH PLC.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

SOUTH EAST SPAN MOTOR & DRIVE SCHEMATIC - 10

DRAWING
PRE_443

8

8

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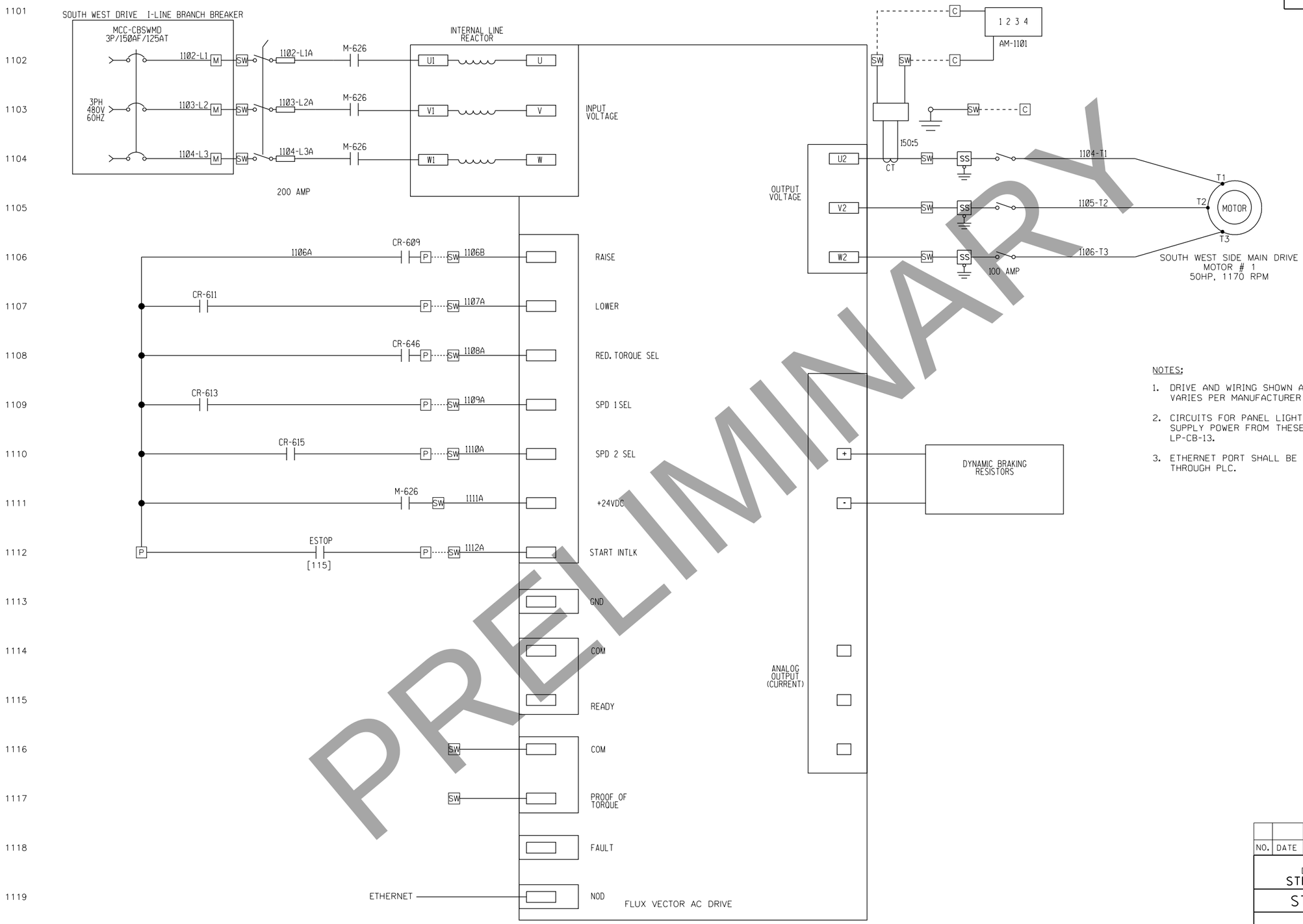
PLOT DATE: 2/24/2020 PLOT TIME: 11:15:42 AM BATCH PRINT SHEET 19 OF 64
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

KEY DRIVE PARAMETERS

DESCRIPTION	SETTING
SPEED 1 (DEFAULT)	10%
SPEED 2 (SLOW)	25%
SPEED 3 (FAST)	100%
REDUCED TORQUE	50%
ACCELERATION	8 SEC
DECELERATION	8 SEC



PRELIMINARY

NOTES:

1. DRIVE AND WIRING SHOWN AS REPRESENTATIVE. ACTUAL WIRING VARIES PER MANUFACTURER AND DRIVE.
2. CIRCUITS FOR PANEL LIGHT AND RECEPTACLE ARE NOT SHOWN. SUPPLY POWER FROM THESE CIRCUITS FROM A SEPARATE SOURCE; LP-CB-13.
3. ETHERNET PORT SHALL BE USED TO MONITOR AND SET UP DRIVE THROUGH PLC.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

SOUTH WEST SPAN MOTOR & DRIVE SCHEMATIC - 11

DRAWING PRE_444

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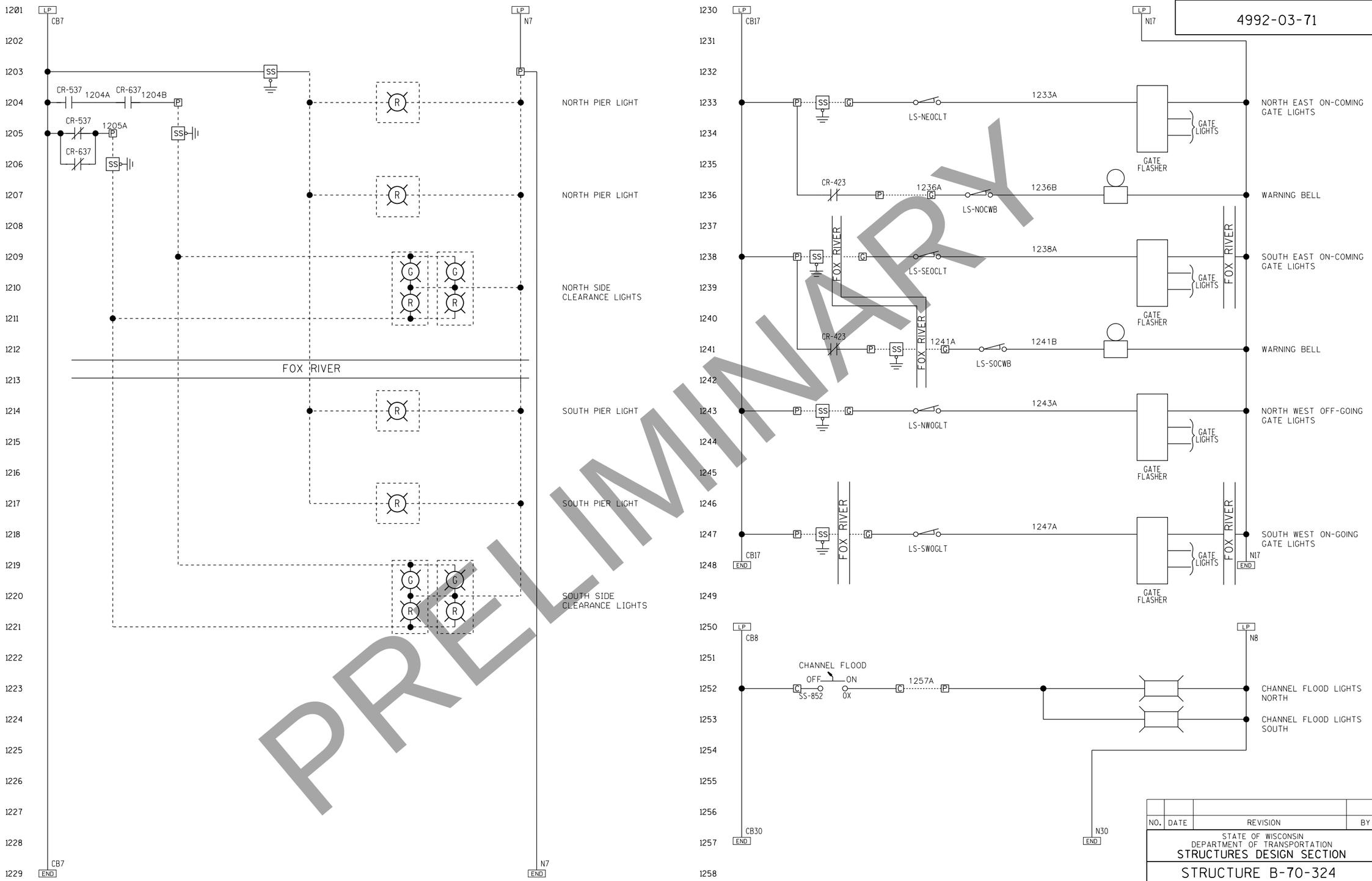
DRAFT April 20,
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

NAVIGATIONAL LIGHTS SCHEMATIC - 12

DRAWING E20 OF E54

PRE_445

8

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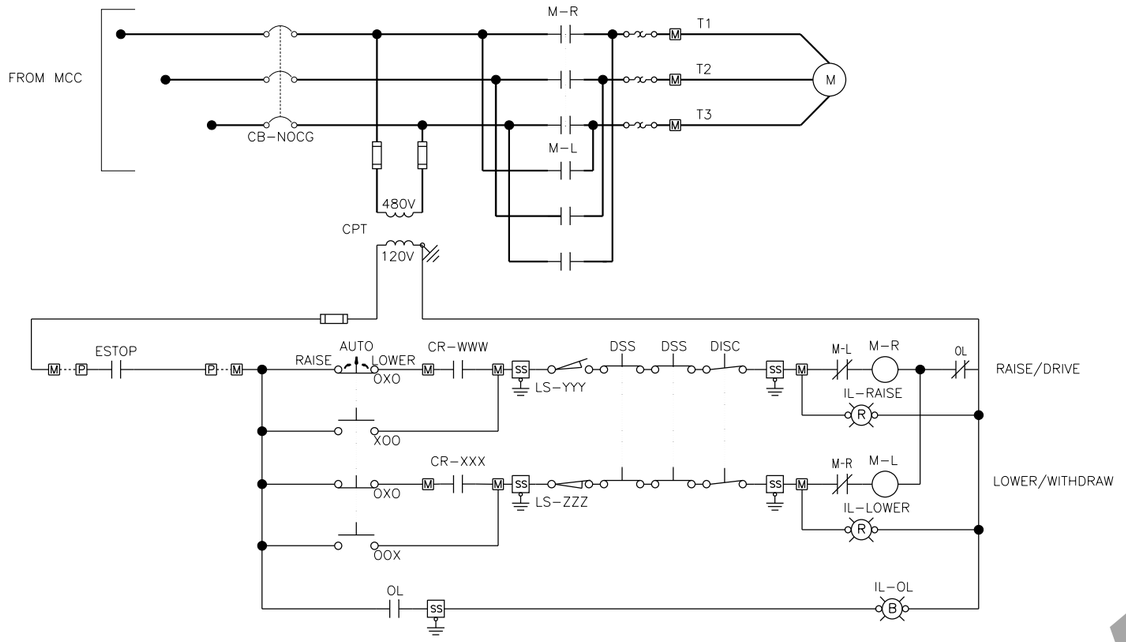
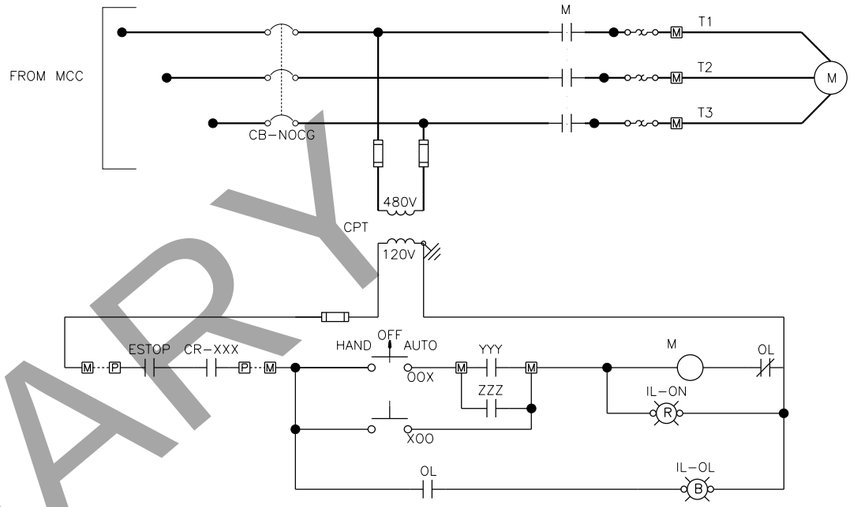
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



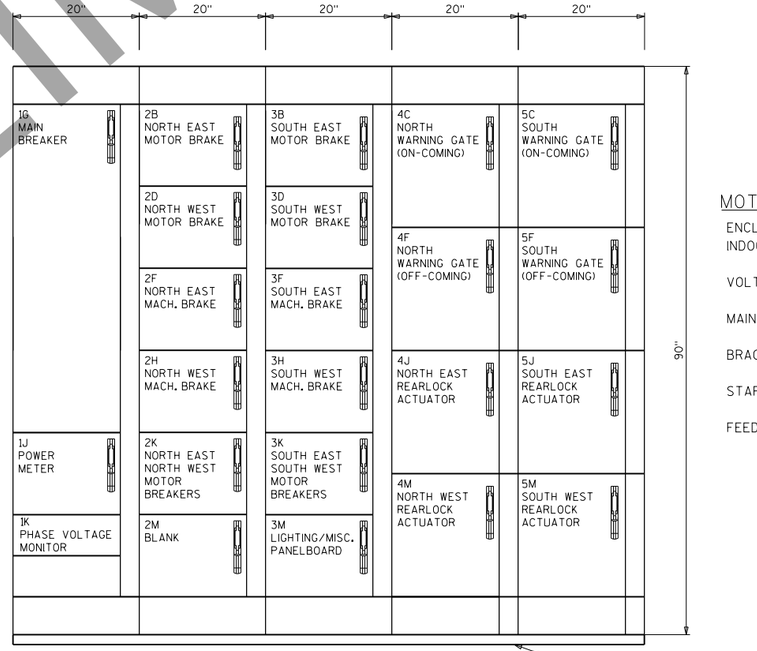
REVERSING STARTER TYPICAL

	WWW	XXX	YYY	ZZZ
NW GATE:	CR-303	CR-305	LS-NWUP(1)	LS-NWDN(2)
SE GATE:	CR-314	CR-316	LS-SEUP(1)	LS-SEDN(2)
NE GATE:	CR-308	CR-310	LS-NEUP(1)	LS-NWDN(2)
SW GATE:	CR-319	CR-321	LS-SWUP(1)	LS-SWDN(2)
NE REARLOCK:	CR-405	CR-403	LS-NERLD(2)	LS-NERLW(2)
SE REARLOCK:	CR-410	CR-408	LS-SERLD(2)	LS-SERLW(2)
NW REARLOCK:	CR-415	CR-413	LS-NWRLD(2)	LS-NWRLW(2)
SW REARLOCK:	CR-420	CR-418	LS-SWRLD(2)	LS-SWRLW(2)



NON-REVERSING STARTER TYPICAL

	XXX	YYY	ZZZ
NW MOTOR BRAKE:	CR-727	CR-505	N.A.
NE MOTOR BRAKE:	CR-720	CR-506	N.A.
NW MACHINERY BRAKE:	CR-713	CR-502	N.A.
NE MACHINERY BRAKE:	CR-706	CR-503	N.A.
SW MOTOR BRAKE:	CR-742	CR-605	N.A.
SE MOTOR BRAKE:	CR-735	CR-606	N.A.
SW MACHINERY BRAKE:	CR-756	CR-602	N.A.
SE MACHINERY BRAKE:	CR-749	CR-603	N.A.



MOTOR CONTROL CENTER (MCC)
FRONT ELEVATION

MOTOR CONTROL CENTER NOTES:

ENCLOSURE TYPE: NEMA TYPE 12 WITH BOTTOM PLATES, FULLY GASKETED, INDOOR INSTALLATION, 80" W X 90" H X 15" D

VOLTS: 480V, 3 PHASE, 4 WIRE, WITH SOLIDLY GROUNDED NEUTRAL

MAIN BUS RATING: 400 AMP (RMS SYMMETRICAL, COPPER)

BRACING: 65kA

STARTERS: NEMA RATED, H-O-A SWITCH, O/L LIGHT, ON LIGHT, CONTROL POWER TRANSFORMER, CIRCUIT BREAKER
FEEDERS: THERMAL MAG CIRCUIT BREAKERS

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

MCC CABINET & MCC BUCKETS

DRAWING E21 OF E34
PRE_446

8

8

STATE PROJECT NUMBER

4992-03-71

PANELBOARD: LP-1

VOLTAGE: 208
PHASE: 3
WIRE: 4
RATING: 200
MAIN BREAKER: 100

CKT	CB SIZE	POLES	DESCRIPTION	WATTS A	WATTS B	WATTS C	WATTS A	WATTS B	WATTS C	DESCRIPTION	POLES	CB SIZE	CKT
1	30	2	A/C (OUTDOOR UNIT)	2450			800			P.A SYSTEM	1	15	2
3					2450			200		CCTV CAMERAS	1	15	4
5	20	1	CONTROL POWER			500			600	SERVER CABINET	1	15	6
7	15	1	NAVIGATIONAL LIGHTS	120			250			CHANNEL FLOODLIGHTS	1	15	8
9	15	1	SERVICE ROOM LIGHTS		200			160		ENTRY ROOM LIGHTS	1	15	10
11	20	1	AIR HORN			1250			200	OPERATOR ROOM LIGHTS	1	15	12
13	15	1	CONTROL CABINET LIGHTS/RECEPTACLES	960			800			N. SUMP PUMP 1 (GCFI 1)	1	15	14
15	15	1	TRAFFIC SIGNALS/ADV WARNING		100			500		UPS (PLC CABINET)	1	30	16
17	15	1	TRAFFIC GATE LIGHTS & GONGS			150			500	HEAT TRACE FOR SUMP PUMP	1	15	18
19	15	1	NORTH GATE RECEPTACLES	300			500			FIRE ALARM CONTROL PANEL	1	15	20
21	15	1	NORTH FURNACE & BLOWER		800			300		NORTH MACHINERY ROOM RECEPTACLES	1	15	22
23	15	1	NORTH TRACK LEVEL LIGHTS			240			750	ENTRY ROOM RECEPTACLES	1	15	24
25	15	1	NORTH TRACK LEVEL RECEPTACLES	300			900			OPERATOR ROOM RECEPTACLES	1	15	26
27	15	1	NORTH MACHINERY LEVEL LIGHTS		120			800		N. SUMP PUMP 2 (GCFI 2)	1	15	28
29	15	1	NORTH MACHINERY LEVEL RECEPTACLES			300				SPARE	1	15	30
31	15	1	NORTH PIT LEVEL LIGHTS	120						SPARE	1	15	32
33	15	1	NORTH PIT LEVEL RECEPTACLES		300					SPARE	1	15	34
35	15	1	SPARE							SPARE	1	15	36
37	15	1	SPARE							SPARE	1	15	38
39	15	1	SPARE							SPARE	1	15	40
41	15	1	SPARE							SPARE	1	15	42
				4250	3970	2440 WATTS	3250	1960	2050 WATTS				

*/TVSS REQUIRED

PANELBOARD: LP-2

VOLTAGE: 240
PHASE: 1
WIRE: 3
RATING: 100
MAIN BREAKER: 60

CKT	CB SIZE	POLES	DESCRIPTION	WATTS A	WATTS B	WATTS A	WATTS B	DESCRIPTION	POLES	CB SIZE	CKT
1	15	1	GATE RECEPTACLES	300		240		TRACK LEVEL LIGHTS	1	15	1
3	20	1	S. SUMP PUMP 1 GFI		800		300	TRACK LEVEL RECEPTACLES	1	15	3
5	15	1	S. PIT LEVEL LIGHTS	120		120		MACHINERY LEVEL LIGHTS	1	15	5
7	15	1	PIT LEVEL RECEPTACLES		300		300	MACHINERY LEVEL RECEPTACLES	1	15	7
9	15	1	S. MACHINERY ROOM LIGHTS	90		800		S. SUMP PUMP 2 GFI	1	20	9
11	15	1	S. MARCHINERY ROOM RECEPT		300		500	HEAT TRACE	1	20	11
13	15	1									13
15											15
17											17
19											19
21											21
23											23
25											25
27											27
29											29
				510	1400 WATTS	1160	1100 WATTS				

*/TVSS REQUIRED

ADDITIONAL I/O NOT SHOWN IN SCHEMATICS

DIGITAL INPUTS - 120 VAC		DIGITAL OUTPUTS -120 V OR CONTACT	
I:0001	CAMERA POSITION 1 SEL	O:0001	CAMERA POS1(ALM 1)
I:0002	CAMERA POSITION 2 SEL	O:0002	CAMERA POS2 (ALM 2)
I:0003	MCR	O:0003	CAMERA POS3 (ALM 3)
I:0004	AUTO MODE	O:0004	AUTO/SEMI RAISE I.L.
I:0005	SEMI-AUTO MODE	O:0005	AUTO/SEMI LOWER I.L.
I:0006	ESTOP	O:0006	
I:0007	SIGNAL ENABLE BYPASS	O:0007	
I:0008	LOCK & BARRIER ENABLE BYPASS	O:0008	
I:0009	BARRIER & GATE ENABLE	O:0009	
I:0010	SPAN ENABLE	O:0010	
I:0011	LOCK ENABLE (SEATED BYPASS)	O:0011	
I:0012	GATE ENABLE	O:0012	
I:0013	LOCK ENABLE (BARRIER GATE)	O:0013	
I:0014	NORTH MOTOR BRAKE ON	O:0014	
I:0015	SOUTH MOTOR BRAKE ON	O:0015	
I:0016	NORTH MACHINERY BRAKE ON	O:0016	
		ANALOG INPUTS - 4-20 MA	
I:0017	SOUTH MACHINERY BRAKE ON	AI:0001	SPAN POSITION - INCLINOMETER
I:0018	NOC GATE RAISING	AI:0002	SPARE
I:0019	NOC GATE LOWERING	AI:0003	SPARE
I:0020	NOG GATE RAISING	AI:0004	SPARE
I:0021	NOG GATE LOWERING	AI:0005	
I:0022	FOC GATE RAISING	AI:0006	
I:0023	FOC GATE LOWERING		
I:0024	FOG GATE RAISING		
I:0025	FOG GATE LOWERING		
I:0026	BARRIER GATE RAISING		
I:0027	BARRIER GATE LOWERING		
I:0028	NORTH REAR LOCK DRIVING		
I:0029	NORTH REAR LOCK PULLING		
I:0030	SOUTH REAR LOCK DRIVING		
I:0031	SOUTH REAR LOCK PULLING		
I:0032	SPARE		
I:0033	RAISE P.B.		
I:0034	LOWER P.B.		
I:0035	STOP P.B.		
I:0036	N. PIT HIGH LEVEL		
I:0037	N. SUMP PUMP 1 POWER FAILURE		
I:0038	N. SUMP PUMP 2 POWER FAILURE		
I:0039	S. PIT HIGH LEVEL		
I:0040	S. SUMP PUMP 1 POWER FAILURE		
I:0041	S. SUMP PUMP 2 POWER FAILURE		
I:0042	SPARE		
I:0043	SPARE		
I:0044			
I:0045			
I:0046			
I:0047			
I:0048			

NOTES:

1. THE DIGITAL AND ANALOG I/O LISTED IN TABLES ABOVE ARE NOT INCLUDED IN SCHEMATICS SHOWN IN THE PLANS. INCLUDE THESE ADDITIONAL I/O IN THE PLC CONFIGURATION AND DRAWINGS FOR THE BRIDGE'S CONTROL SYSTEM.
2. WIRE THE BRIDGE POSITION INCLINOMETER IN SERIES WITH THE METER ON THE CONSOLE AND THE 4-20 MA ANALOG INPUT.
3. THE ADDRESSES SHOWN IN THE TABLES AND DRAWINGS ARE FOR REFERENCE ONLY. ARRANGE THE ORDER OF THE PLC I/O AS NEEDED TO MINIMIZE EXTRA I/O CARDS.
4. FURNISH A MINIMUM OF 20% I/O.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

ELECTRICAL SCHEDULE & PLC I/O

DRAWING PRE_447

DRAFT April 20, 2020
BATCH PRINT SHEET CSD OF NSD
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PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

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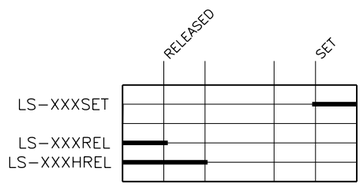
PLOT DATE: 2/24/2020 PLOT TIME: 11:17:41 AM
BATCH PRINT SHEET 23 OF 64
DRAFT April 20,

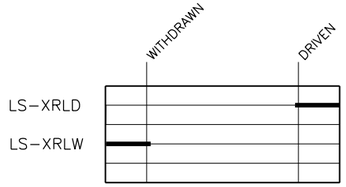
STATE PROJECT NUMBER

4992-03-71



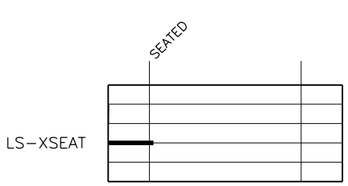
BRAKES

LS-NEMO LS-SEMO
LS-NEMH LS-SEMH
LS-NWMO LS-SWMO
LS-NWMH LS-SWMH



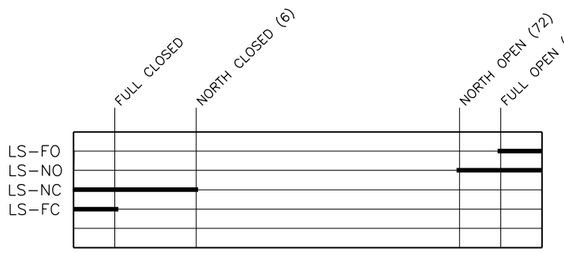
REAR LOCK

LS-NERLW LS-NWRLD
LS-SERLW LS-SRLD



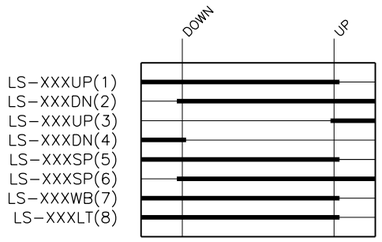
SEATED PLUNGER LIMITS

LS-NSEAT LS-NWRLD
LS-SSEAT LS-SRLD



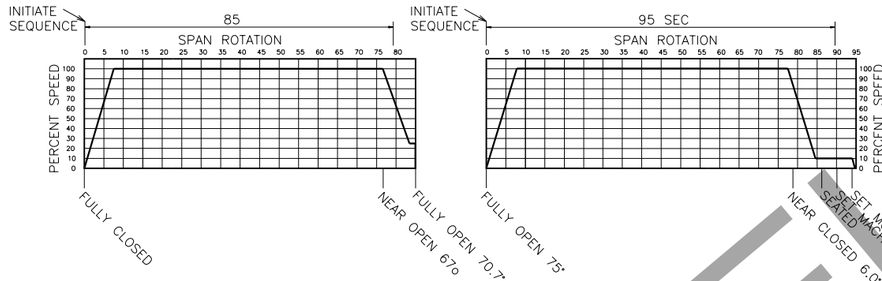
SPAN POSITION LIMIT

LS-NFC LS-SFC
LS-NNC LS-SNC
LS-NNO LS-SNO
LS-NFO LS-SFO

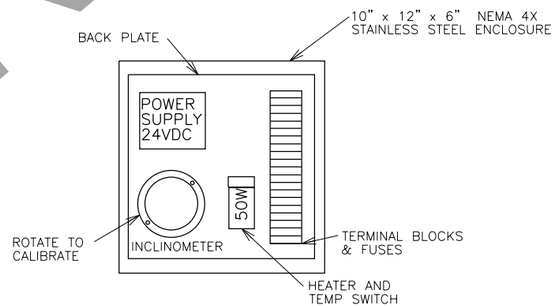


TRAFFIC GATES

LS-NE LS-SE
LS-NW LS-SW



OPENING TIMING SEQUENCE LOWERING TIMING SEQUENCE



INCLINOMETER CABINET

NOTES:

1. BRAKE AND TRAFFIC GATE LIMITS ARE FURNISHED AS AN INTEGRAL PART OF THE EQUIPMENT.
2. INSTALL INCLINOMETER CABINET IN MACHINERY ROOM ATTACHED TO EAST BASCULE GIRDERS. FABRICATE BRACKETS TO ATTACH TO STIFFENERS ON GIRDER.
3. WIRE THE INCLINOMETER IN SERIES WITH METER ON CONSOLE AND PLC ANALOG INPUT.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

INCLINOMETER CABINET, LIMITS, & TIMING SCHEDULES

DRAWING PRE_448

8

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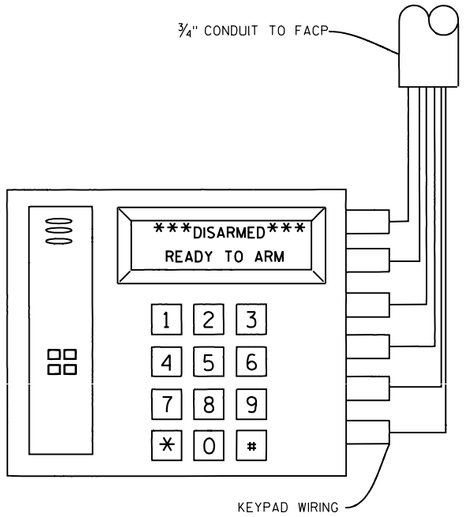
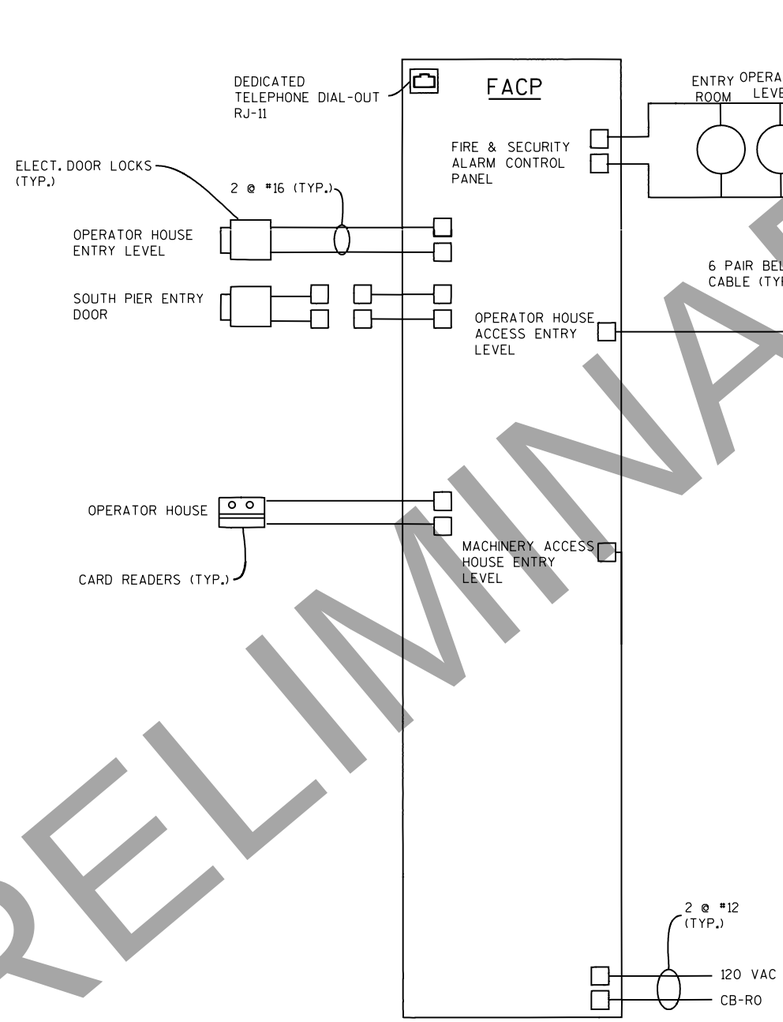
PLOT DATE: 2/24/2020 PLOT TIME: 11:17:51 AM BATCH PRINT SHEET 24 OF 64
DRAFT April 20,

STATE PROJECT NUMBER

4992-03-71



SECURITY KEYPAD
N.T.S



FACP LAYOUT

PRELIMINARY

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

FIRE ALARM AND SECURITY DETAIL

DRAWING E24 OF E64

PRE_449

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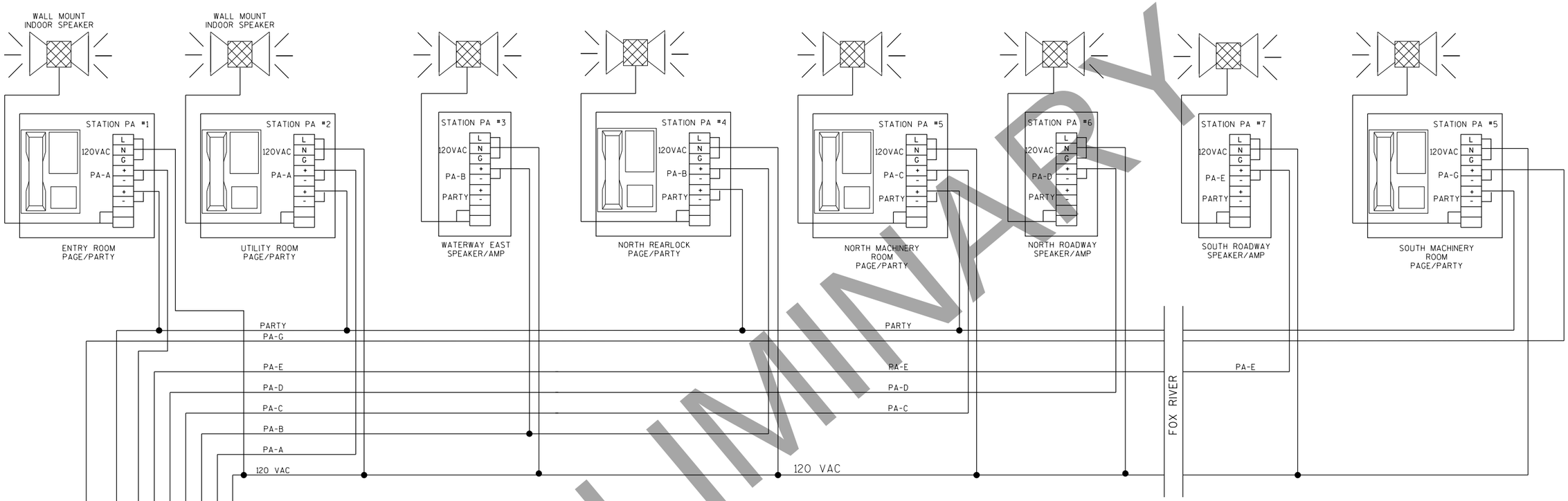
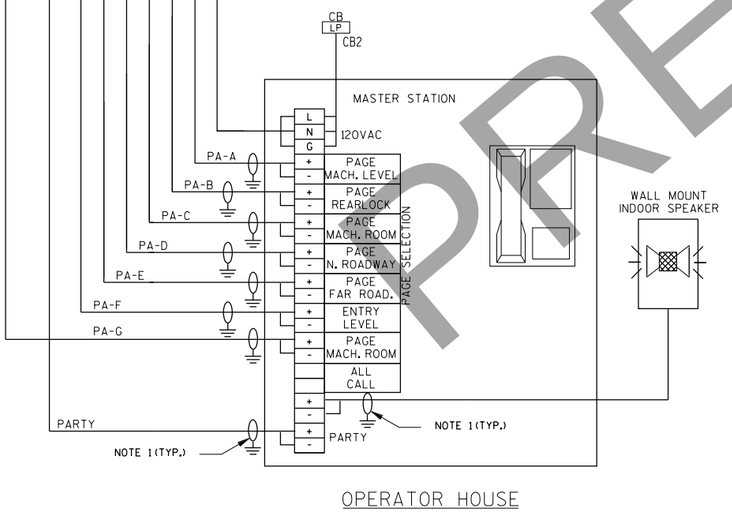
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71





OPERATOR HOUSE

PRELIMINARY

NOTES:

1. ALL INTERCONNECTING WIRING, EXCEPT 120VAC, SHALL BE #14 AWG TWISTED SHEILDED PAIR (MIN.). USE SHEILDED PAIR IN SUB CABLE AS NEEDED. CABLES SHALL BE PROPERLY GROUNDED TO MINIMIZE NOISE.
2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING ALL COMPONENTS AND RATINGS FOR APPROVAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

PA SYSTEM WIRING DIAGRAM

DRAWING E25 OF E54
PRE_450

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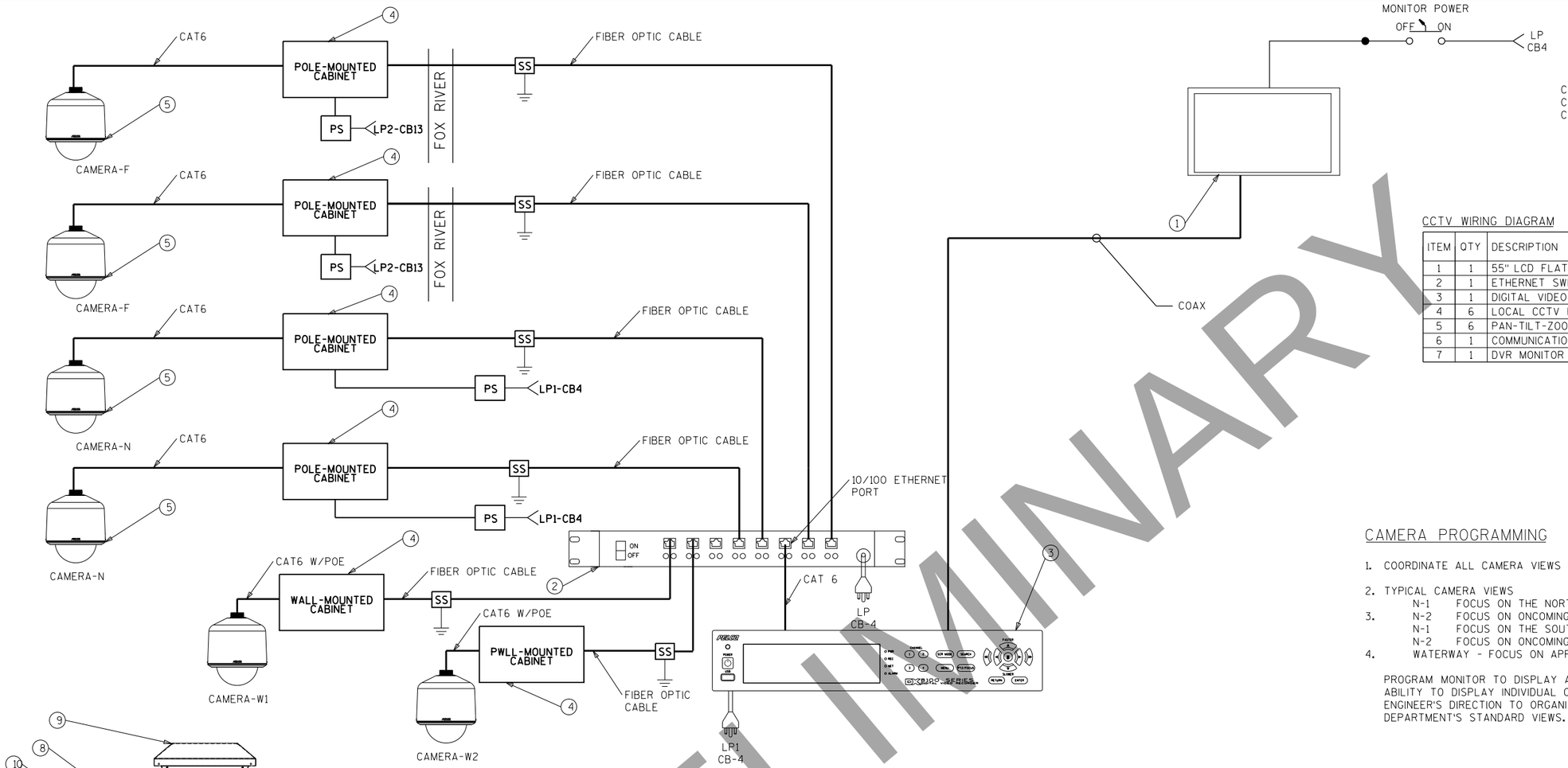
PLOT DATE: 2/24/2020 PLOT TIME: 11:18:11 AM BATCH PRINT SHEET 26 OF 64
DRAFT April 20, 2020

CAMERA-N NORTH(NEAR) SIDE ROADWAY CAMERAS
CAMERA-F SOUTH(FAR) SIDE ROADWAY CAMERAS
CAMERA-W WATERWAY CAMERAS



CCTV WIRING DIAGRAM

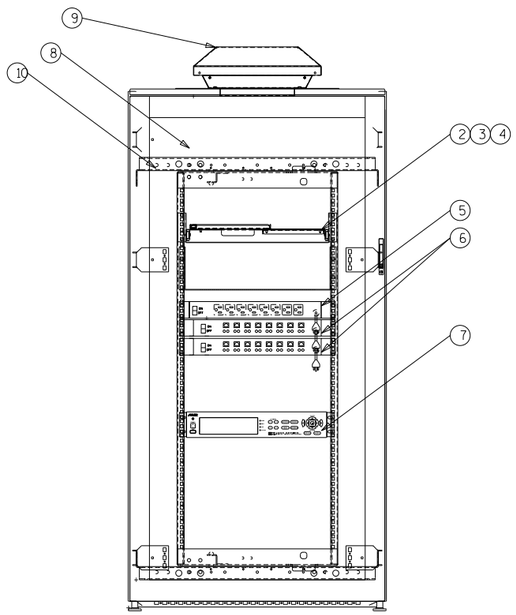
ITEM	QTY	DESCRIPTION
1	1	55" LCD FLAT SCREEN VIDEO MONITORS
2	1	ETHERNET SWITCH
3	1	DIGITAL VIDEO RECORDER/SERVER SYSTEM
4	6	LOCAL CCTV POE INJECTOR CABINET
5	6	PAN-TILT-ZOOM I.P. CAMERAS
6	1	COMMUNICATIONS/SERVER CABINET
7	1	DVR MONITOR

CAMERA PROGRAMMING

1. COORDINATE ALL CAMERA VIEWS WITH ENGINEER FOR APPROVAL

2. TYPICAL CAMERA VIEWS
3. N-1 FOCUS ON THE NORTH SIDE TRAFFIC GATES AND REAR BREAK
   N-2 FOCUS ON ONCOMING TRAFFIC
   N-1 FOCUS ON THE SOUTH SIDE TRAFFIC GATES AND REAR BREAK
   N-2 FOCUS ON ONCOMING TRAFFIC
4. WATERWAY - FOCUS ON APPROACHING BOATS.

PROGRAM MONITOR TO DISPLAY ALL 6 CAMERAS AT ONE TIME WITH THE ABILITY TO DISPLAY INDIVIDUAL CAMERAS FULL SCREEN. ADJUST DISPLAY PER ENGINEER'S DIRECTION TO ORGANIZE AND STRETCH INDIVIDUAL VIEWS PER DEPARTMENT'S STANDARD VIEWS.



SERVER CABINET

CCTV WIRING DIAGRAM

NOTES

1. FURNISH AND INSTALL A SERVER TYPE CABINET WITH A 19" SWING OUT RACK. FRONT DOOR SHALL BE GLASS FRONT. SIDES AND BACK SHALL BE LOUVERED AS REQUIRED FOR PROPER VENTILATION. SIDES AND DOORS NOT SHOWN IN DRAWING FOR CLARITY.
2. CABINET DOOR SHALL BE LOCKABLE.
3. INSTALL VENTILATION AND/OR FANS AS NECESSARY TO DISSIPATE HEAT GENERATED BY THE EQUIPMENT. FANS SHALL BE TEMPERATURED SWITCH CONTROLLED.
4. PROVIDE GROUND LUGS, SIZED TO ACCOMODATE APPROVED GROUND WIRE. PROVIDE BONDING JUMPERS ON ALL CABINET DOORS.
5. QUANTITES SHOWN ARE ONLY APPROXIMATE.
6. FURNISH AND INSTALL A FLOURESCENT CABINET LIGHT WITH A BUILT IN ON/OFF SWITCH AND A SEPERATELY MOUNTED DOOR SWITCH.

SERVER CABINET

ITEM	QTY.	DESCRIPTION
2	1	19" RACKMOUNT KEYBOARD/MOUSE PULLOUT SHELF
3	1	COMPUTER KEYBOARD
4	1	COMPUTER MOUSE
5	1	RACK MOUNTABLE POWER STRIP WITH SURGE PROTECTION
6	2	ETHERNET SWITCH - RACK MOUNTABLE
7	1	CAMERA DIGITAL VIDEO RECORDER
8	1	VENTED SHELF FOR MONITOR.
9	1	CABINET VENTILATION FAN WITH TEMPERATURE SWITCH
10	1	19" SWING OUT RACK

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CCTV CAMERA WIRING DIAGRAM & DETAILS

DRAWING E26 OF E34
PRE_451

PRELIMINARY

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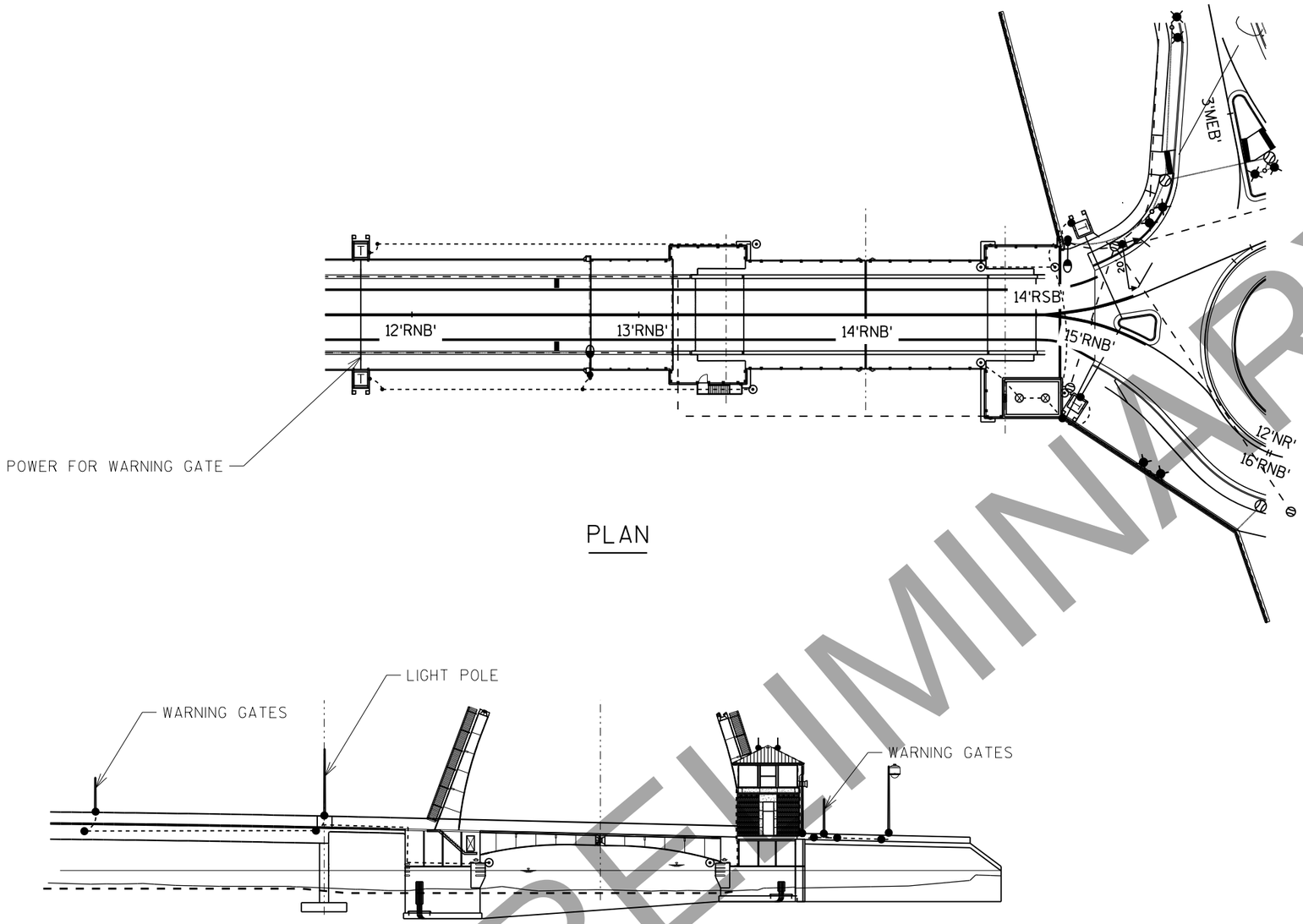
PLOT DATE: 2/24/2020 PLOT TIME: 11:18:23 AM BATCH PRINT SHEET 27 OF 64
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



PLAN

ELEVATION

PRELIMINARY

NOTES

1. SUBMIT SHOP DRAWINGS BY CERTIFIED LIGHTNING PROTECTION PROFESSIONAL SHOWING DETAILS AND MATERIALS.
2. BOND MAIN CONDUCTOR TO ALL TRAFFIC GATES AND SIGNALS. BOND TO HANDRAIL AND GUARDRAIL AT 20'-0" SPACING MAX. USE 26.2 KCMIL COPPER CONDUCTOR. COORDINATE WITH HANDRAIL AND GUARDRAIL INSTALLATION.
3. USE APPROPRIATE MATERIALS TO PROVIDE CONNECTIONS TO NONFERROUS MATERIALS. (I.E. BRONZE TO ALUMINUM).
4. ALL CONNECTIONS ARE TO USE EXOTHERMIC WELDING PROCESS. ANY DEVIATION FROM THSI REQUIREMENT SHALL BE APPROVED BY THE ENGINEER.
5. GROUND RODS SHALL MEET LATEST NEC REQUIREMENTS FOR GROUNDING, PROVIDE 1" S.S AT 10' RODS.
6. GROUNDING CONDUCTOR SHALL BE EMBEDDED. PROVIDE EXPANSION FITTING AND LOOP AT EXPANSION JOINTS (SEE EXPANSION DETAIL). FITTING CONSISTS OF 1/2" PVC INSIDE OF 3/4" PVC. DO NOT BOND TO REINFORCING STEEL.

LEGEND

MAIN CONDUCTOR -------

FLEXIBLE BONDING CONDUCTOR

EXOTHERMIC WELD

GROUND ROD

AIR TERMINAL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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GROUNDING AND LIGHTNING PROTECTION DETAILS

DRAWING PRE_452

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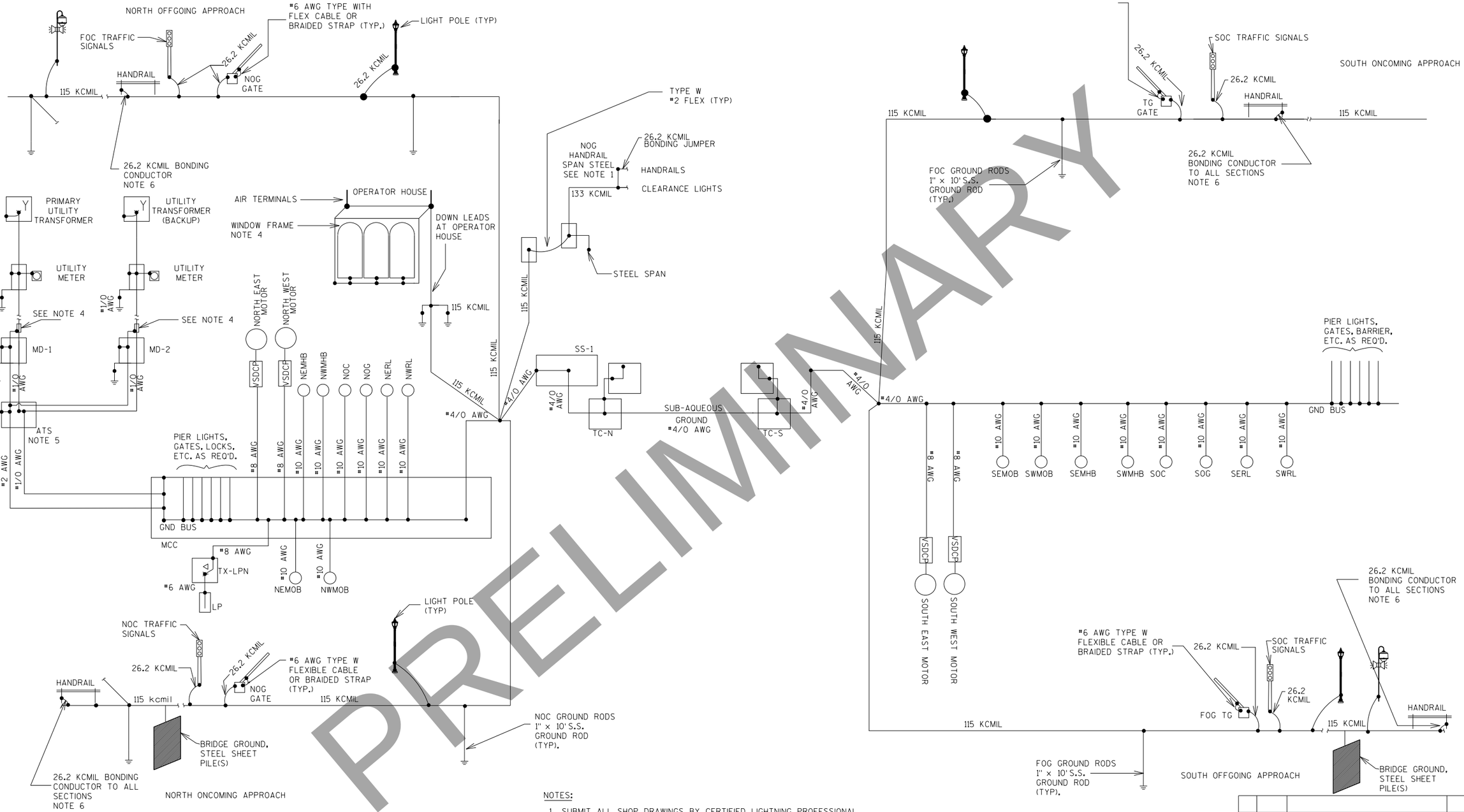
BATCH PRINT SHEET 28 OF 64

DRAFT April 20,

STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

NOTES:

1. SUBMIT ALL SHOP DRAWINGS BY CERTIFIED LIGHTNING PROFESSIONAL SHOWING DETAILS AND MATERIALS
2. USE EXOTHERMIC WELDING PROCESS FOR ALL CONNECTIONS. ANY DEVIATION FROM THIS REQUIREMENT SHALL BE FIRST APPROVED BY THE ENGINEER.
3. MAINTAIN GROUND CONDUCTOR CONTINUITY THROUGH PULL BOXES AND EXPANSION FITTINGS. ESTABLISH SEPARATE EQUIPMENT GROUNDING CONDUCTOR. #2 AWG (GREEN) ORIGINATING AT MCC FOR BONDING ALL PULL BOXES AND ACROSS EXPANSION FITTINGS FOR SERVICE ENTRANCE FEEDER CONDUIT.
4. CONTROL HOUSE PROTECTED BY A MINIMUM OF TWO AIR TERMINALS. BOND ALL METAL WINDOW FRAMES.
5. PROVIDE 3-POLE ATS TO SWITCH THE THREE PHASE CONDUCTORS AND THE NEUTRAL CONDUCTOR. THE GROUNDS FROM EACH UTILITY SERVICE ARE TO BE TIED TOGETHER PER THE UTILITY AND NEC REQUIREMENTS.
6. HANDRAILS ARE SEPARATED BY CONCRETE POST. BOND EACH SECTION SEPARATELY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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GROUNDING RISER

DRAWING PRE_453

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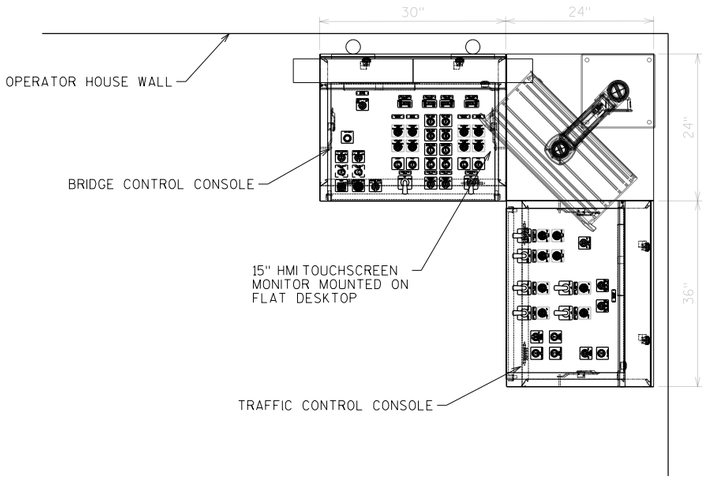
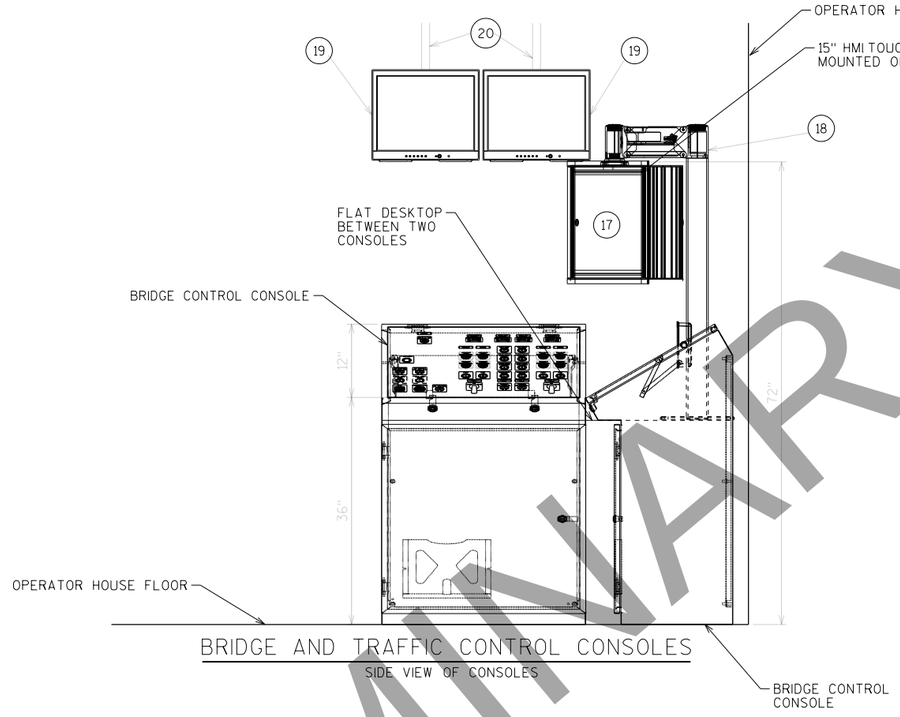
DRAFT April 2020

STATE PROJECT NUMBER
4992-03-71



BRIDGE AND TRAFFIC CONTROL CONSOLES

PLAN VIEW



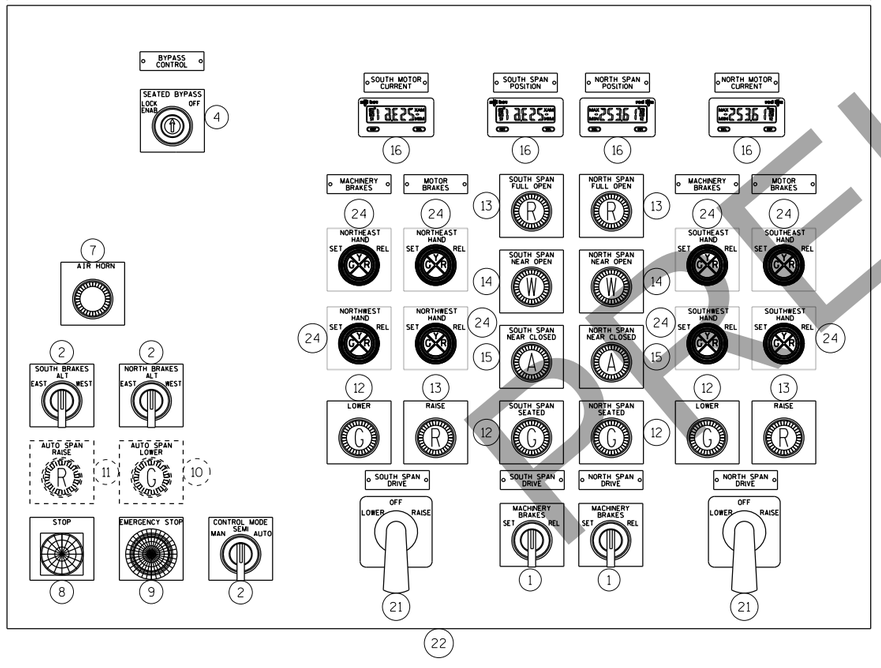
BRIDGE AND TRAFFIC CONTROL CONSOLES

SIDE VIEW OF CONSOLES

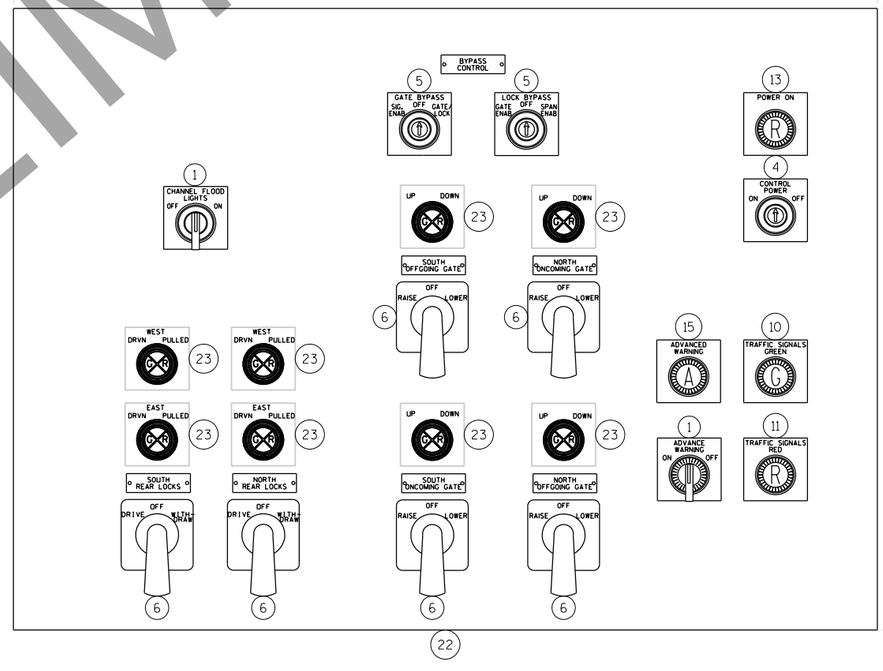
ITEM	QTY.	DESCRIPTION
1	4	30.5 MM SEL. SWITCH, 2 POSITION MAINTAINED, LEVER ARM
2	3	30.5 MM SEL. SWITCH, 3 POSITION MAINTAINED, LEVER ARM
3	0	30.5 MM SEL. SWITCH, 4 POSITION MAINTAINED, LEVER ARM
4	2	30.5 MM SEL. SW., 2 POS., KEYED REMOVAL IN OFF
5	2	30.5 MM SEL. SW., 3 POS., KEYED REMOVAL CENTER
6	6	3 POS SPRING RET. CENTER PISTOL GRIP
7	1	30.5 MM MOMENTARY EXTENDED HEAD P.B. - BLACK
8	1	30.5 MM MOMENTARY SMALL MUSHROOM HEAD P.B. - YELLOW
9	1	30.5 MM 2 POS. MAINTAINED LARGE MUSHROOM HEAD P.B. - RED
10	2	30.5 MM MOMENTARY ILLUMINATED P.B. - GREEN LED
11	2	30.5 MM MOMENTARY ILLUMINATED P.B. - RED LED
12	4	30.5 MM INDICATOR LIGHT PUSH-TO-TEST - GREEN LED
13	5	30.5 MM INDICATOR LIGHT PUSH-TO-TEST - RED LED
14	2	30.5 MM INDICATOR LIGHT PUSH-TO-TEST - WHITE LED
15	3	30.5 MM INDICATOR LIGHT PUSH-TO-TEST - AMBER LED
16	4	PROCESS METER 4 1/2 DIGIT LCD RED, 4-20 MA INPUT
17	1	15" COLOR TOUCHSCREEN GRAPHIC TERMINAL HMI ENCLOSURE W/HANDLES
18	1	HMI - INDUSTRIAL MOUNTING ARM W/MULTIPLE AXIS ADJUSTABLILTY.
19	2	19" CCTV LCD COLOR MONITORS
20	2	CEIL. MOUNT ADJ. HT MOUNTING BRACKETS, W/TILT UP/DOWN SIDE/SIDE
21	2	PISTOL GRIP 4-0-4 SPRING RET CENTER
22	2	CONTROL CONSOLE
23	8	30.5 MM INDICATOR CLUSTER LIGHT - GREEN LED, RED LED
24	8	30.5 MM INDICATOR CLUSTER LIGHT - GREEN LED, RED LED, YELLOW LED

NOTES:

1. PROVIDE BLACK LETTERING WITH WHITE BACKGROUND FOR NAME PLATES. SECURE NON P.B./SS WITH SCREWS.
2. MANUFACTURE CONSOLE TOP OUT OF 10 GAUGE STAINLESS STEEL WITH A BRUSHED FINISH.



BRIDGE CONTROL CONSOLE



TRAFFIC CONTROL CONSOLE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

OPERATOR CONSOLE

DRAWING E29 OF E64

PRE_454

PRELIMINARY

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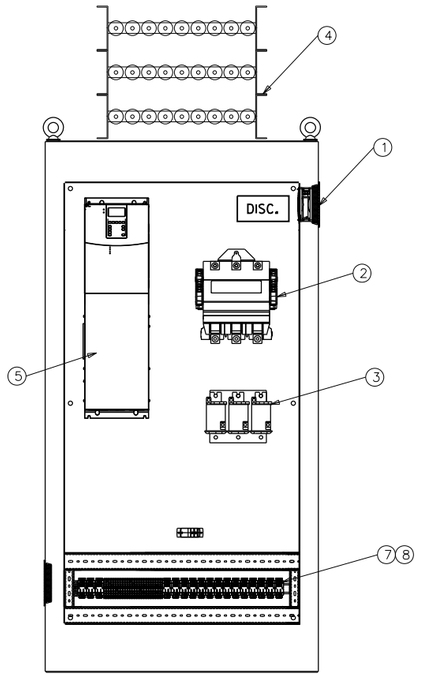
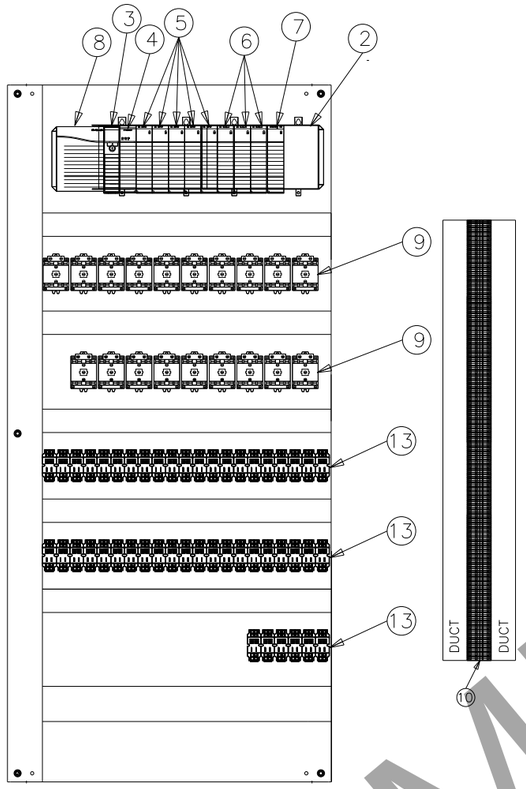
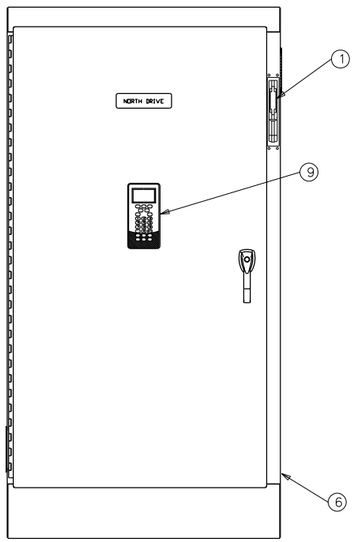
DRAFT April 20,

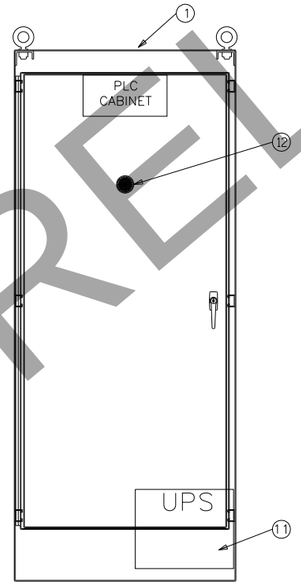




DRIVE CABINET (TYP.)
N.T.S.



PLC CABINET
N.T.S.



NOTES;

1. EACH DRIVE CABINET AND ITS COMPONENTS SHALL BE SIZED TO MEET THE MOTOR TORQUE REQUIREMENTS.
2. CABINET DIMENSIONS ARE APPROXIMATE. SIZE CABINETS FOR COMPONENTS INSTALLED. VERIFY CABINET SIZES WILL FIT IN ROOM.
3. QUANTITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY QUANTITIES FOR A FULLY FUNCTIONING CONTROL SYSTEM.
4. ADD SIDE PANELS AS NEEDED FOR TERMINALS AND CONTROL RELAYS.

DRIVES

ITEM	QTY	DESCRIPTION
1	4	FLANGE MOUNTED DISCONNECT
2	4	DRIVE CONTACTOR NEMA SIZE 4 CONTACTOR
3	4	LINE REACTOR
4	4	DYNAMIC BRAKING RESISTORS
5	4	AC DRIVE
6	4	NEMA 12 CABINET WITH FLANGE MOUNTED DISC
7	LOT	TERMINAL BLOCK
8	LOT	INTERPOSING RELAYS
9	4	DRIVE INTERFACE
10	4	(NOT SHOWN) 40 HP 1200 RPM MOTORS 460 VOLT

PLC

ITEM	QTY	DESCRIPTION
1	1	NEMA 12 FREE STANDING
2	1	RACK
3	1	PROCESSOR
4	1	ETHERNET PORT
5	5	INPUT, 16 POINT, 120 VAC
6	3	OUTPUT, 16 POINT, 120 VAC
7	1	ANALOG INPUT, 4-20 mA
8	1	RACK POWER SUPPLY
9	19	INDUSTRIAL CONTROL RELAYS, 120 VAC, REV. CONTACTS
10	LOT	TERMINAL BLOCKS - SPRING CLAMP
11	1	UPS - 500VA WITH 15 MINUTE ROUTINE AT 50% POWER
12	1	EMERGENCY STOP 2-POSITION MAINTAINED-RED JUMBO MUSHROOM
13	48	ICE CUBE RELAY, 120V W/INDICATION

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

PLC & DRIVE CABINETS

DRAWING E30 OF E54

PRE_455

8

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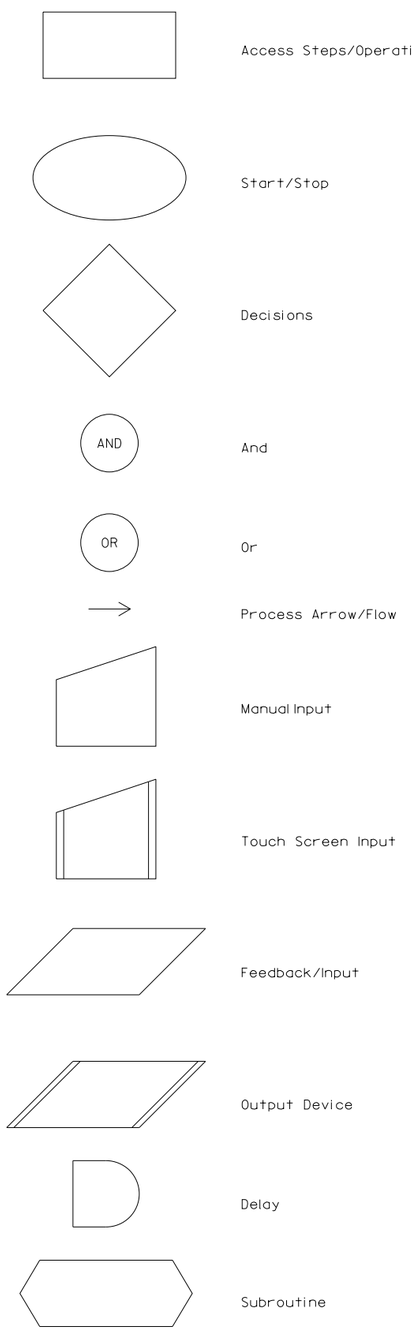
PLOT DATE: 2/24/2020 PLOT TIME: 11:26:09 AM BATCH PRINT SHEET 31 OF 64

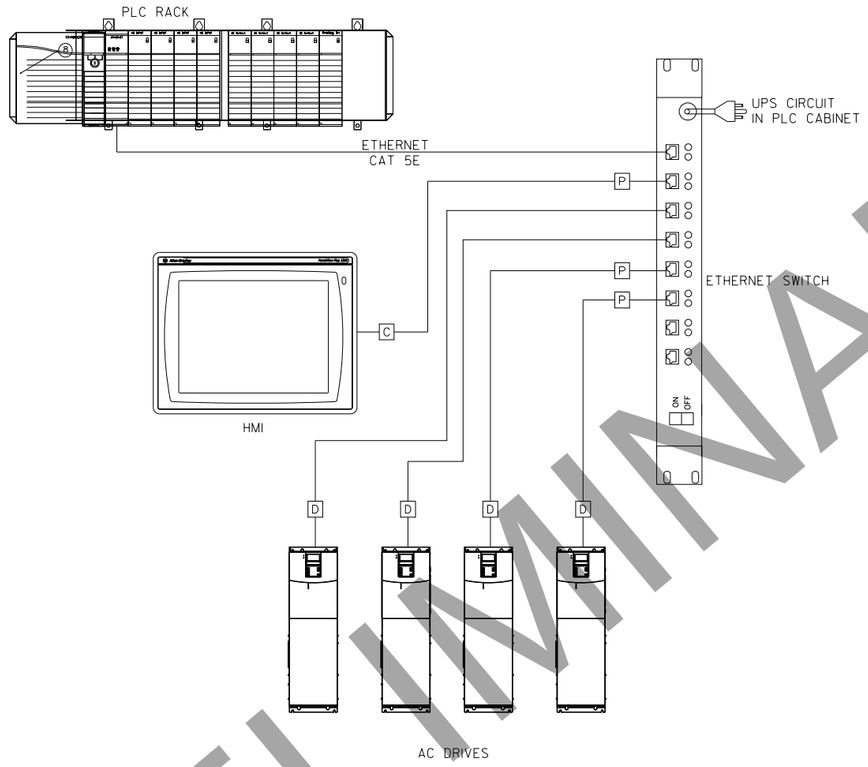
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71

FUNCTION BLOCK LEGEND



COMMUNICATION DIAGRAM



PROGRAMMING NOTES

PLC:

1. WRITE THE PLC PROGRAM USING LADDER LOGIC. FULLY ANNOTATE ALL RUNGS AND ADDRESSES.
2. PROGRAM THE BRIDGE SEQUENCE FOR AUTOMATIC OPERATION AND SEMI-AUTOMATIC OPERATION. SEMI-AUTOMATIC OPERATION REQUIRES THE LOCKS TO BE OPERATED BY THE PISTOL GRIP SWITCH. AUTOMATIC OPERATION AUTOMATICALLY WITHDRAWS OR DRIVES THE REAR LOCKS AS PART OF THE LEAF OPERATION.
3. THE SEQUENCE CAN BE STOPPED AT ANY TIME BY THE STOP OR EMERGENCY STOP PUSHBUTTON. IF STOPPED, THE SEQUENCE SHALL ADVANCE IN EITHER DIRECTION FROM WHERE IT WAS STOPPED, AS LONG AS THE INTERLOCKS ALLOW IT. SEQUENCE WILL NOT RESTART AUTOMATICALLY.
4. IF POWER IS LOST DURING AN OPERATION, THE LEAF WILL STOP UNTIL SUCH TIME AS THE POWER IS RESTORED AND THE OPERATOR RE-INITIATES THE OPERATION.
5. PROGRAM AN EXCESS TIME TIMER TO SHUTDOWN THE SEQUENCE IF THE TIME EXCEEDS NORMAL OPERATIONS. SET THE SETTINGS IN THE FIELD. USE SEPARATE TIMERS FOR THE OPEN AND CLOSE SEQUENCE.
6. USE BYPASSES IN THE EVENT OF A LIMIT SWITCH FAILURE. BYPASSES ARE ONLY ALLOWED IN SEMI-AUTO AND MANUAL MODES ONLY.
7. KEY DRIVE SETUP PARAMETERS ARE TO BE WRITTEN TO EACH DRIVE FROM THE PLC OVER THE ETHERNET NETWORK.

HMI:

1. THE HMI SCREENS SHOWN ARE REPRESENTATIVE OF THE INFORMATION DISPLAYED ON THE SCREENS.
2. DISPLAY SCREEN SPAN POSITION TO THE TENTH OF DECIMAL POINT, DISPLAY ALL OTHER VALUES TO THE NEAREST WHOLE NUMBER.
3. THE DEVICE STATUS CHANGES COLORS TO INDICATE OPERATION AND THE STATUS OF LIMIT SWITCHES. USE GREEN FOR LIMIT STATUS WHEN THE BRIDGE IS DOWN AND LOCKED TO ALLOW ROADWAY TRAFFIC. USE RED FOR INDICATION WHEN LIMITS ARE IN A STATE FOR THE BRIDGE OPEN TO WATERWAY TRAFFIC. USE YELLOW FOR WARNING OR IN TRAVEL DISPLAYS.
4. USE MOMENTARY CONTACT TYPE FOR ALL PUSHBUTTONS, LATCHING TYPE PUSHBUTTONS ARE NOT ALLOWED.
5. DISPLAY INDICATIONS TO INDICATE ANY HAND CRANK OR STARTER NOT IN AUTO STATUS.
6. USE PASSWORD PROTECTION FOR THE BRIDGE SETPOINT SCREEN AND INCLUDE ALL PARAMETERS THAT CAN BE ADJUSTED FOR EACH DRIVE'S CONTROL SETPOINTS.

ALARMS:

1. MONITOR EACH MOTOR STARTER TO ALARM IF STARTER DOES NOT TURN ON WHEN TOLD TO DO SO.
2. MONITOR EACH DRIVE THROUGH ETHERNET CONNECTION AND PROVIDE DRIVE FAULT ALARMS.
3. DISPLAY EXCESS TIME ALARMS WHEN MOVEMENTS EXCEED NORMAL OPERATING TIMES.
4. FOR THE SPAN POSITION ALARMS, COMPARE THE SPAN POSITION IN DEGREES TO THE POSITION OF EACH LIMIT SWITCH. STOP THE BRIDGE OPERATION IF THE SPAN POSITION IS OUT OF RANGE.
5. MONITOR SUMP PUMPS LEVEL + SUMP PUMP POWER CIRCUITS.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

SEQUENCE LEGEND & PROGRAMMING NOTES

DRAWING E31 OF E34

PRE_456

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STATE PROJECT NUMBER

4992-03-71

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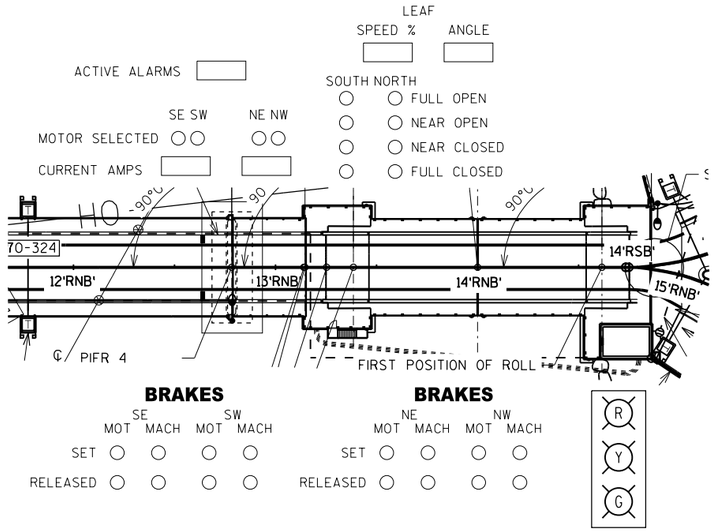
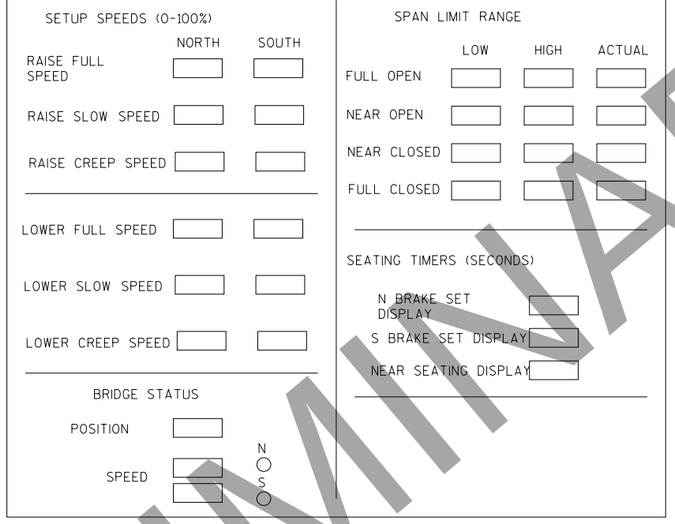
PLOT DATE: 2/24/2020 PLOT TIME: 11:26:19 AM BATCH PRINT SHEET 32 OF 64
DRAFT April 20,

BRIDGE STATUS



SPEED SETUP



ALARM SCREEN

DESCRIPTION	ALARM NAME	TIME ON	DATE ON	TIME OFF	DATE OFF	TIME ACK	DATE ACK

BRIDGE STATUS

A. SPEED % - DISPLAYS THE RATE OF SPEED AT WHICH THE SPAN IS EITHER RAISING OR LOWERING.
B. ANGLE - DISPLAYS THE ANGLE (IN DEGREES) IN WHICH THE SPAN IS POSITIONED.
C. ACTIVE ALARM - DISPLAYS THE NAME OF THE ALARM THAT HAS BEEN ACTIVATED.
D. MOTOR SELECTED - LIGHT INDICATING WHICH MOTOR THAT IS CURRENTLY IN USE.
E. CURRENT AMPS - DISPLAYS AMPERAGE OF MOTOR THAT IS SELECTED.
F. FULL OPEN - LIGHT INDICATING THAT SPAN IS WITHIN THE FULL OPEN LIMIT RANGE.
G. NEAR OPEN - LIGHT INDICATING THAT SPAN IS WITHIN THE NEAR OPEN LIMIT RANGE.
H. NEAR CLOSED - LIGHT INDICATING THAT SPAN IS WITHIN THE NEAR CLOSED LIMIT RANGE.
I. FULL CLOSED - LIGHT INDICATING THAT SPAN IS WITHIN THE FULL CLOSED LIMIT RANGE.
J. SET - LIGHT INDICATING WHICH MOTOR BRAKE IS IN THE "SET" CONDITION.
K. RELEASED - LIGHT INDICATING WHICH MOTOR BRAKE IS IN THE "RELEASED" CONDITION.
L. VISUAL INDICATION OF ALL GATES UP/DOWN AND TRAFFIC SIGNAL INDICATION.

SPEED SETUP

A SCREEN THAT ALLOWS THE OPERATOR TO MODIFY OPERATION PARAMETERS. CONFIGURE THE SCREEN TO BE PASSWORD PROTECTED SO THAT UNAUTHORIZED PERSONNEL CANNOT MODIFY PARAMETERS.

A. SPEED MODIFICATIONS ON SCREEN ARE TO BE CONVERTED IN PLC AND DOWNLOADED TO EACH DRIVE.
B. BRIDGE STATUS SECTION IS USED FOR MONITORING PARAMETERS DURING OPERATION.

ALARM SCREENS

STORE ALL OPERATIONAL ALARMS AND DISPLAY THEM IN CHRONOLOGICAL ORDER ON THIS SCREEN. DATE AND TIME STAMP ALARMS AND HAVE A TEXT MESSAGE WITH A CLEAR DESCRIPTION AND NAME OF THE ALARMED CONDITION INCLUDED. ALLOW THE OPERATOR THE CAPABILITY TO MOVE UP AND DOWN THE LIST TO VIEW SPECIFIC ALARMS. USE PASSWORD PROTECTION TO CLEAR.

A. DESCRIPTION - FIELD BRIEFLY DESCRIBING THE TRIPPED ALARM.
B. ALARM NAME - DESIGNATED NAME FOR THE TRIPPED ALARM.
C. TIME ON - FIELD DISPLAYING THE TIME (XX:YY AM) WHICH THE ALARM WAS TRIPPED.
D. DATE ON - FIELD DISPLAYING THE DATE (MM/DD/YR) WHICH THE ALARM WAS TRIPPED.
E. TIME OFF - FIELD DISPLAYING THE TIME (XX:YY AM) WHICH THE TRIPPED ALARM WAS CORRECTED.
F. DATE OFF - FIELD DISPLAYING THE DATE (MM/DD/YR) WHICH THE TRIPPED ALARM WAS CORRECTED.
G. TIME ACK - FIELD DISPLAYING THE TIME (XX:YY AM) WHICH THE ALARM WAS ACKNOWLEDGED BY THE OPERATOR.
H. DATE ACK - FIELD DISPLAYING THE DATE (MM/DD/YR) WHICH THE ALARM WAS ACKNOWLEDGED BY THE OPERATOR.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

HMI SCREENS

DRAWING E32 OF E34
PRE_457

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PLOT DATE: 2/26/2020 PLOT TIME: 1:48:23 PM BATCH PRINT SHEET 33 OF 64

DRAFT April 20,

STATE PROJECT NUMBER

4992-03-71

NORMAL TEXT
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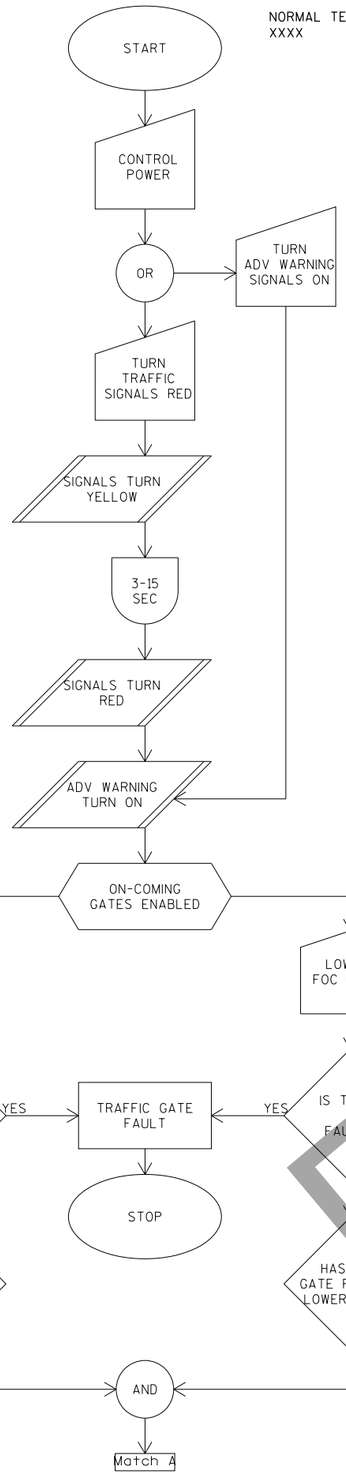

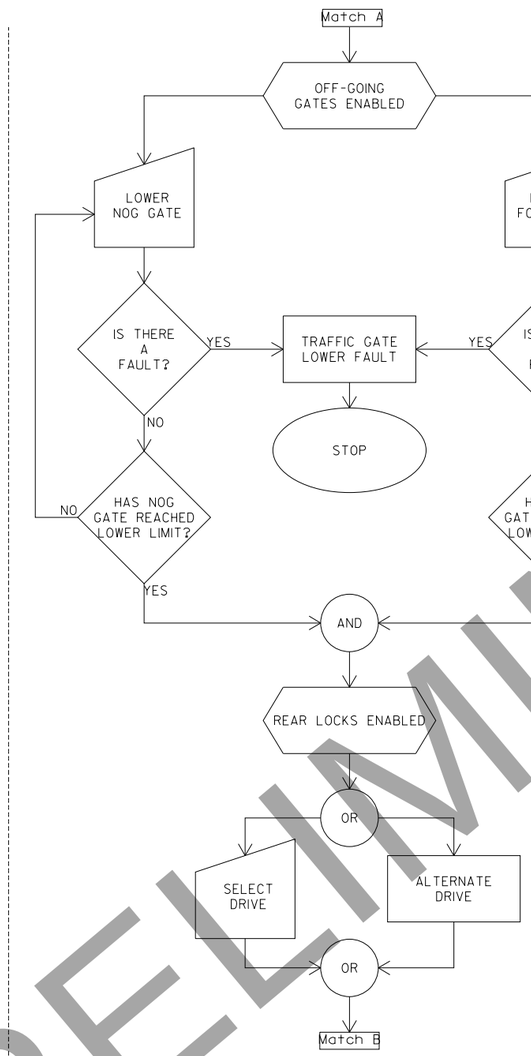

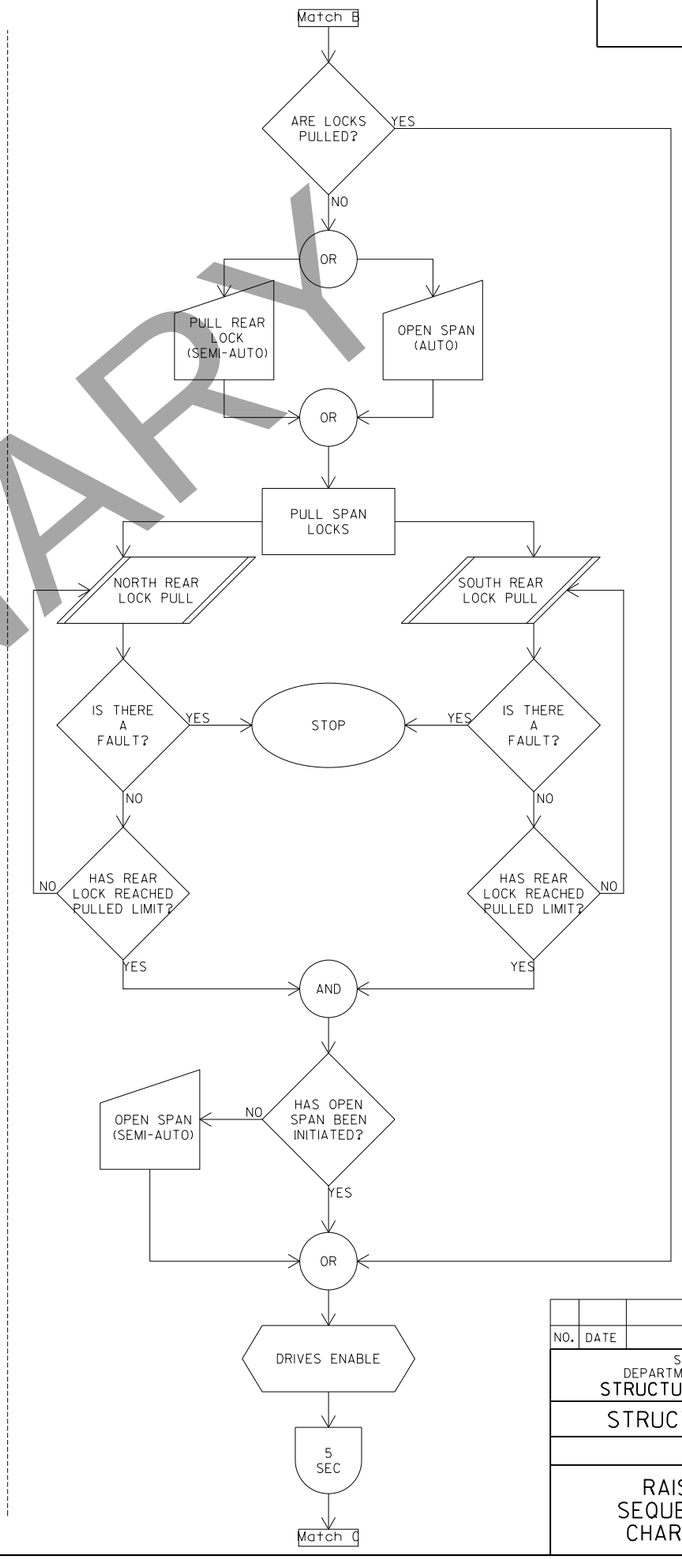

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

RAISE SEQUENCE CHART 1

DRAWING E33 OF E34

PRE_458

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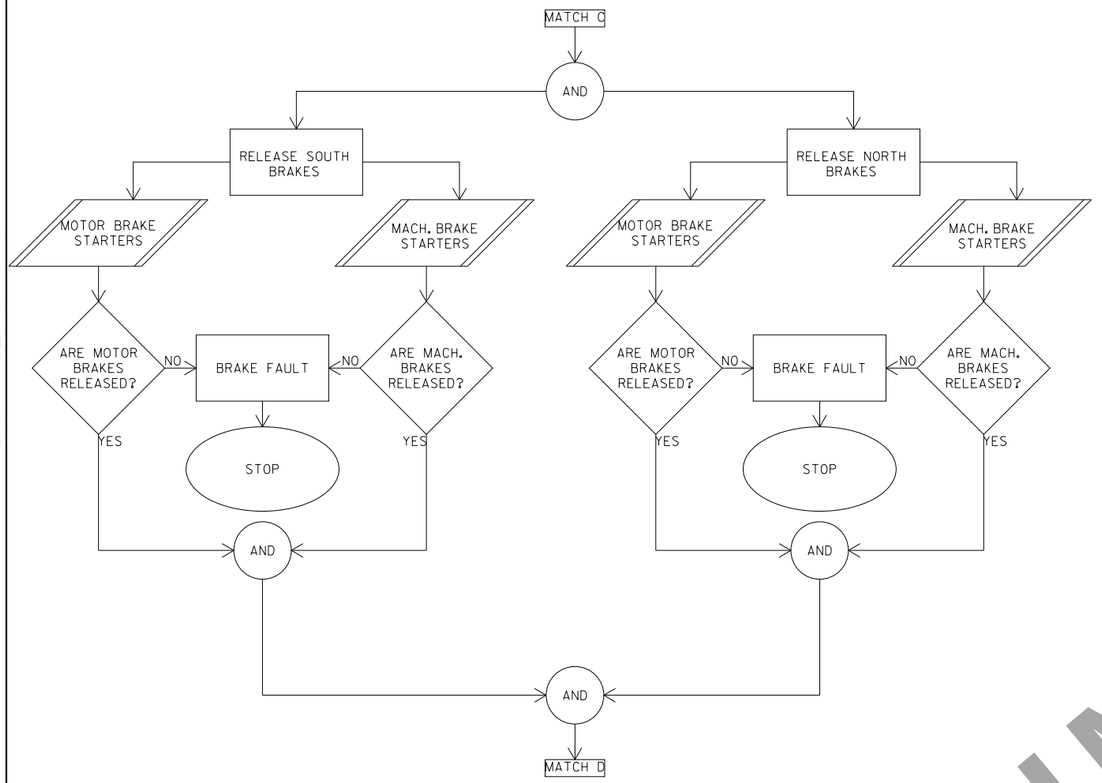
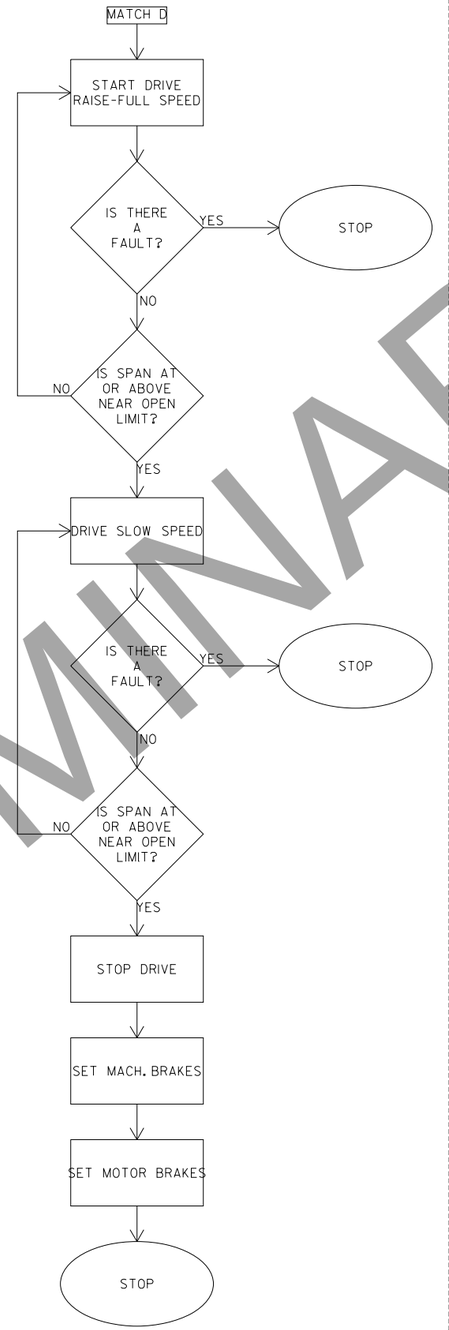
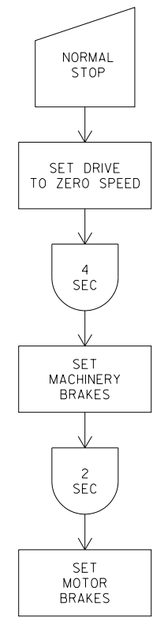
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71







NORMAL SPAN STOP SEQUENCE

PRELIMINARY

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

RAISE SEQUENCE CHART 2

DRAWING
PRE_459

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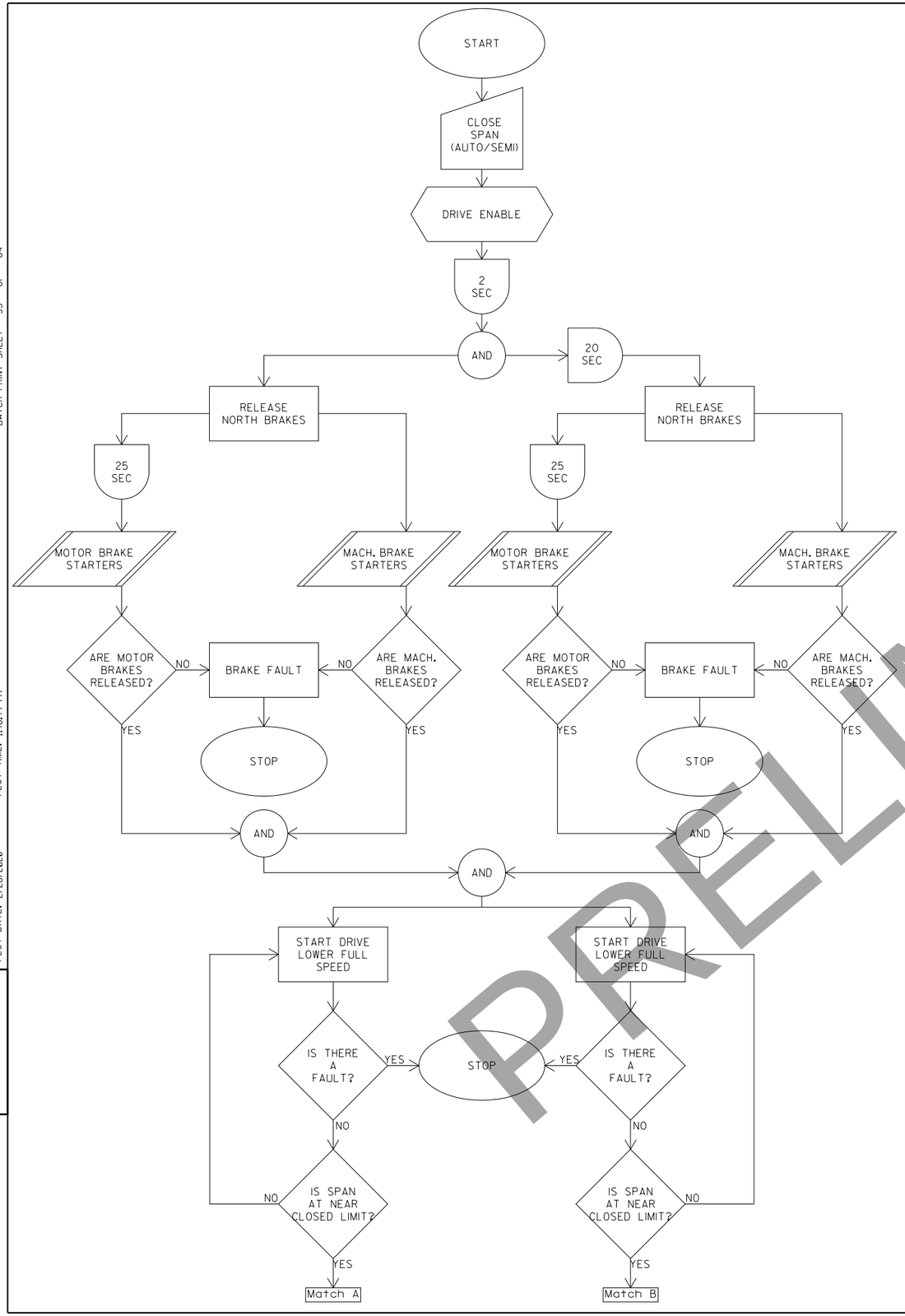
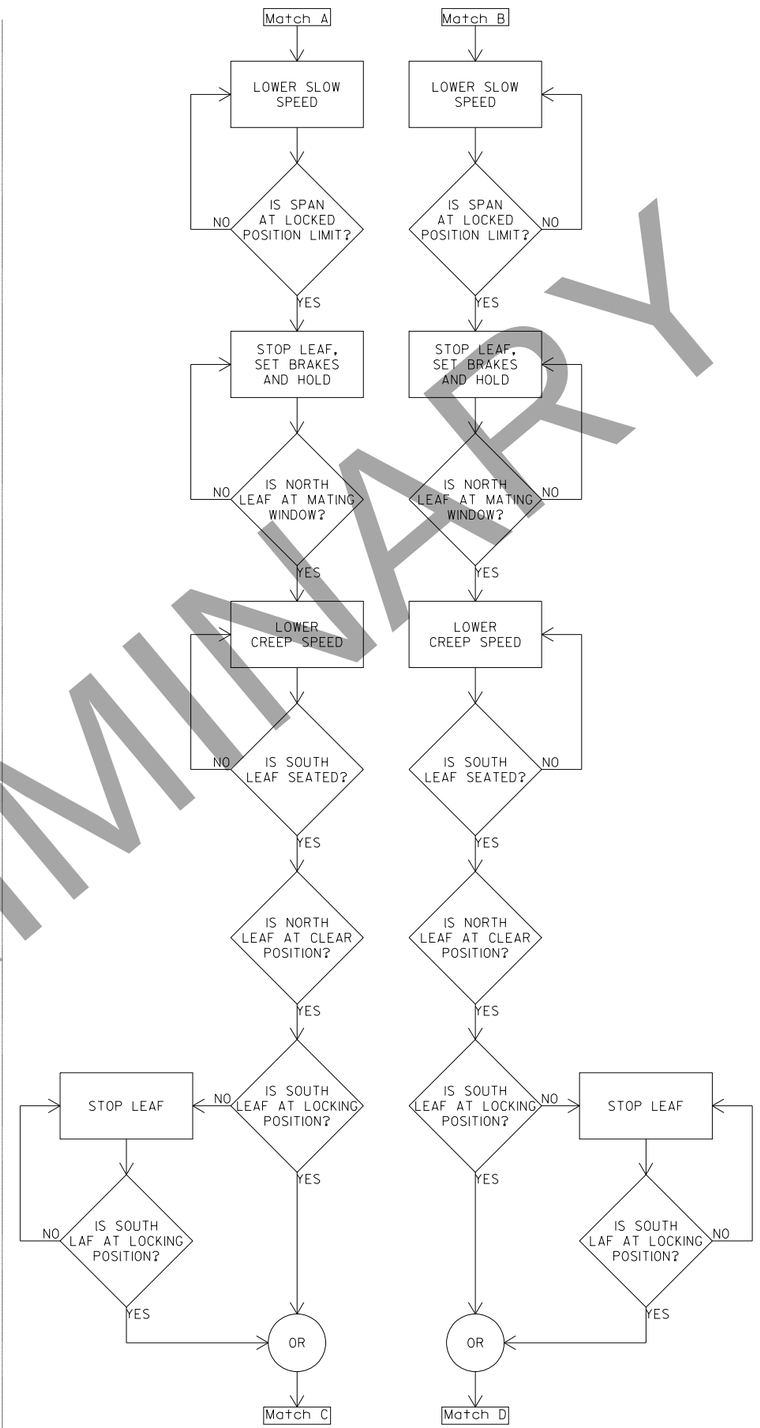
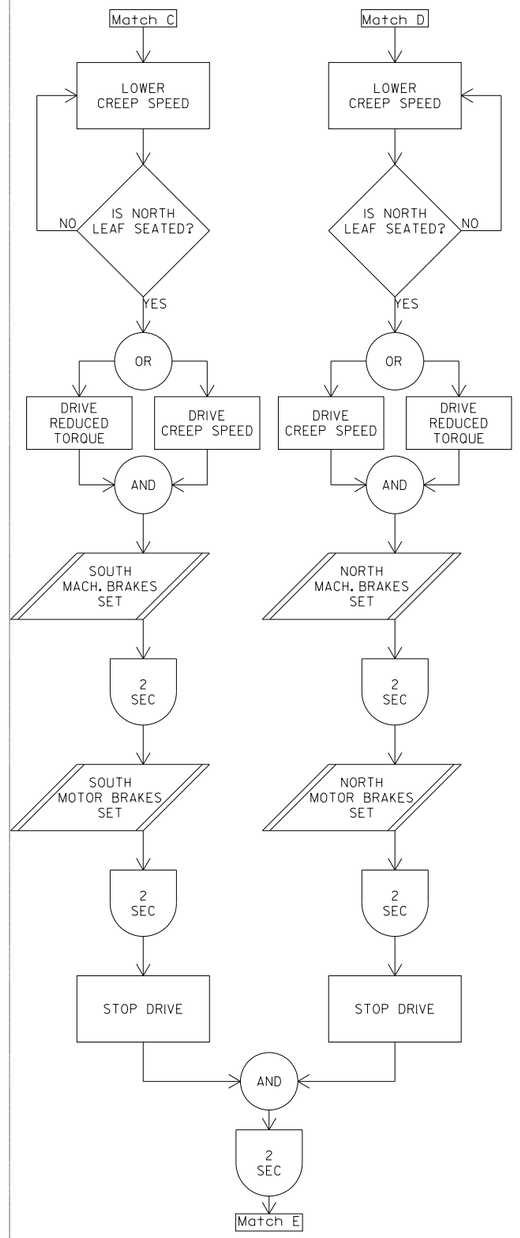
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71







PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY	HVP	PLANS CK'D.	DAD

LOWER SEQUENCE CHART

DRAWING E35 OF E34
PRE_460

8

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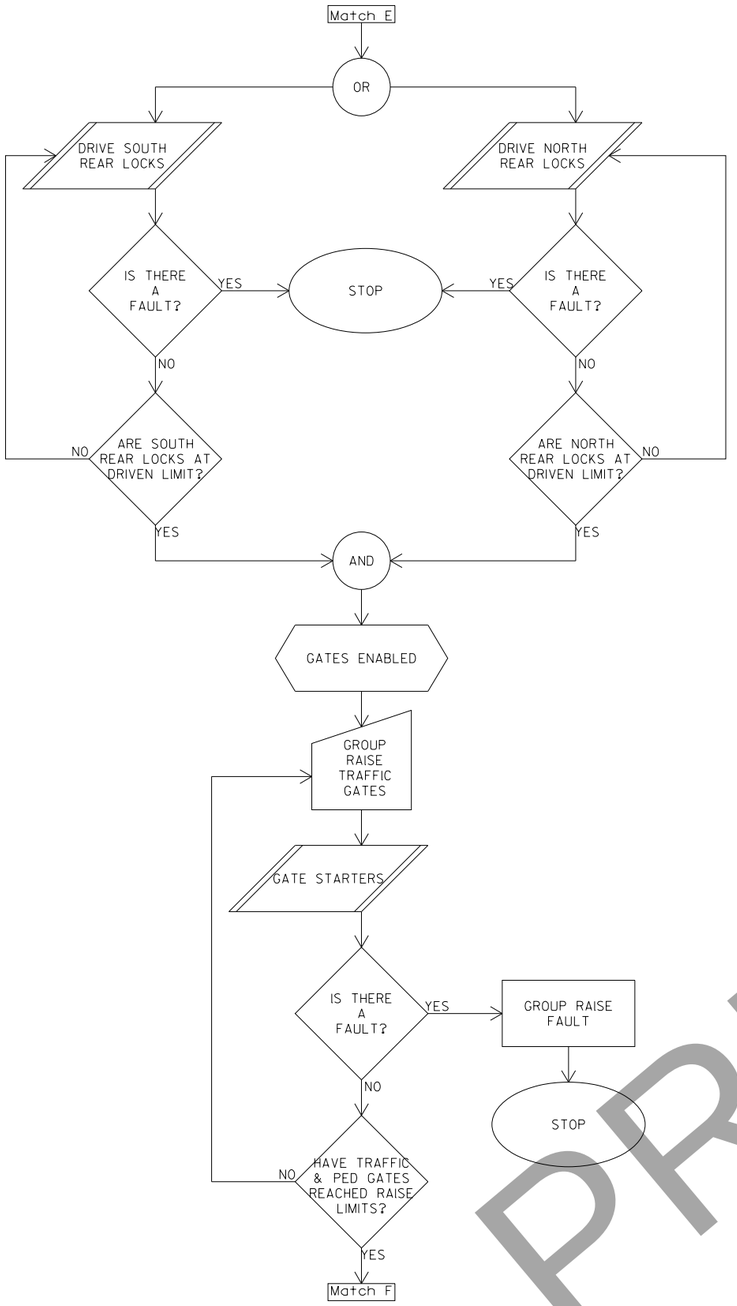

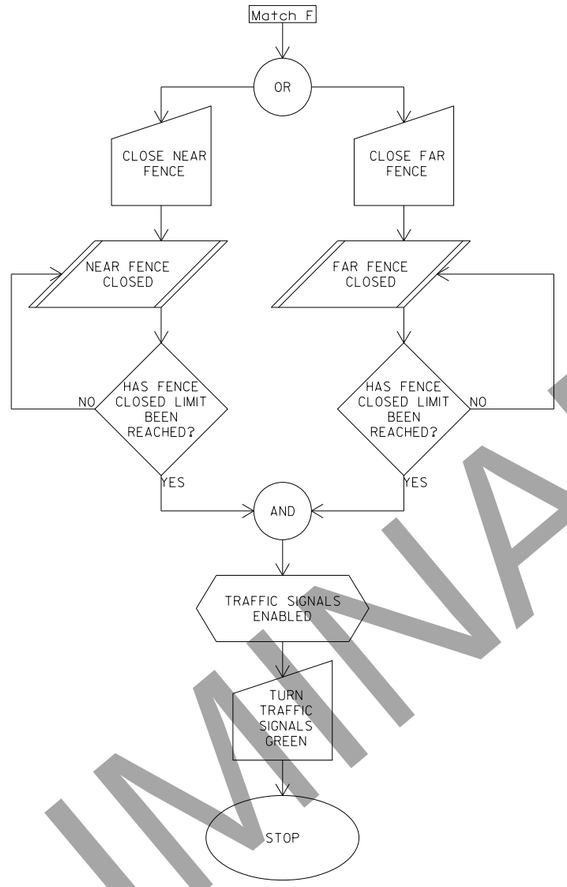

PRELIMINARY

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

LOWER SEQUENCE CHART

DRAWING E36 OF E64

PRE_461

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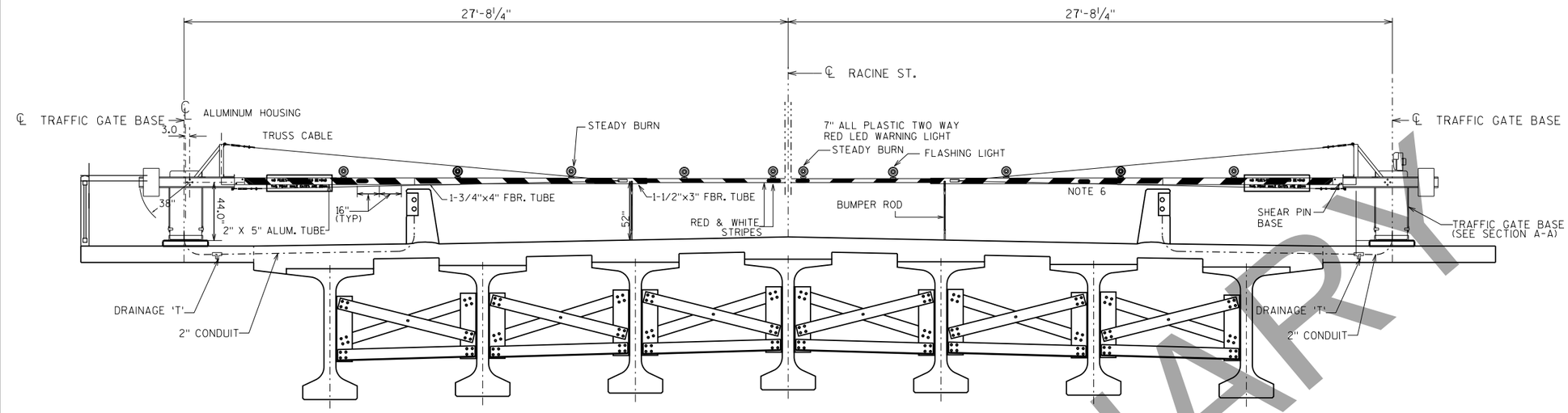
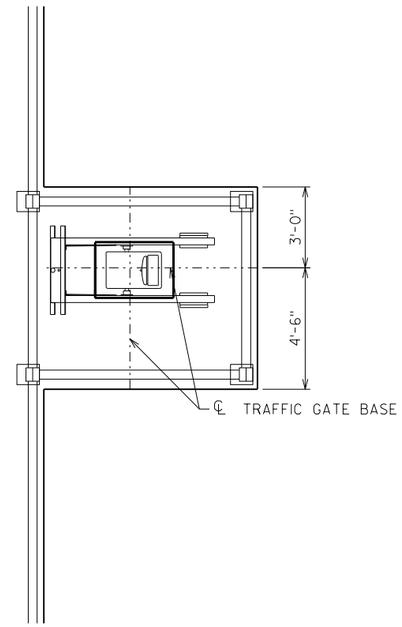
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71

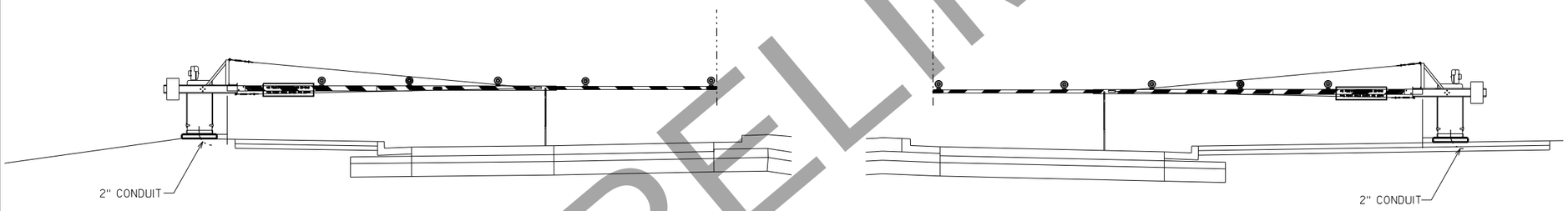


TRAFFIC GATES - SOUTH OF BASCULE SPAN (FACING NORTH)

N.T.S



A-A
SOUTH TRAFFIC GATE BASE
N.T.S



TRAFFIC GATES - NORTH OF BASCULE SPAN (FACING NORTH)

N.T.S

NOTES

1. SEE STRUCTURAL PLANS FOR GATE DETAILS.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

TRAFFIC GATE

DRAWING
PRE_462

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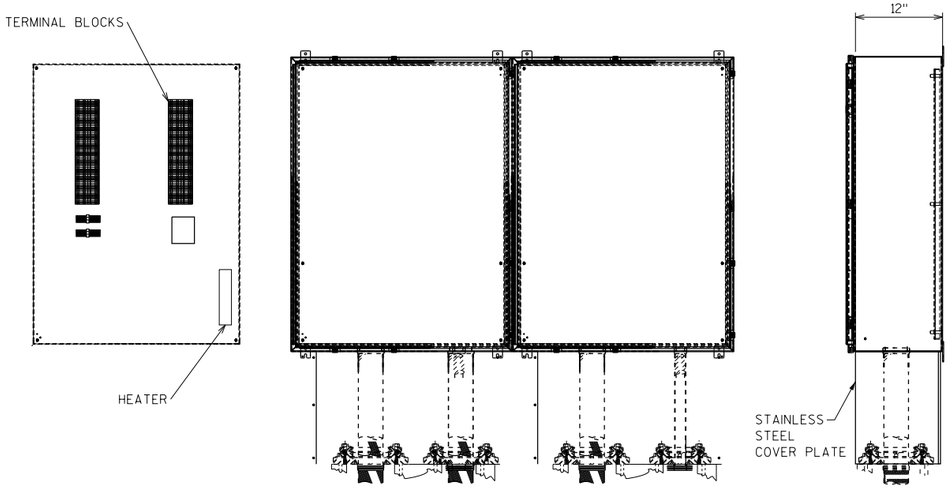
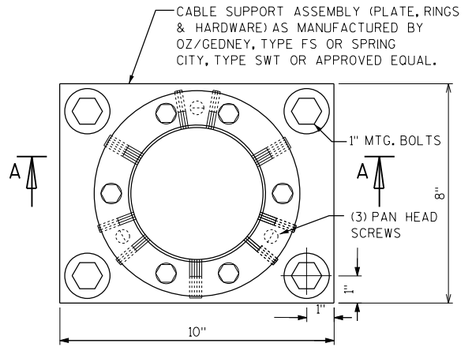
8

STATE PROJECT NUMBER
4992-03-71

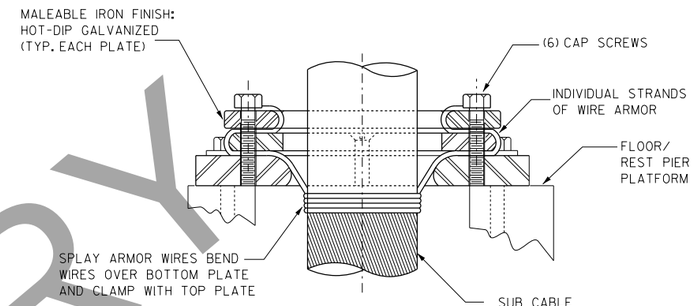


SUBCABLE TERMINATION CABINETS

(TYPICAL)
N.T.S.



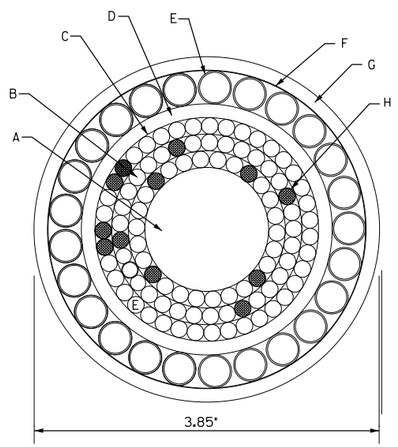
TOP VIEW



SECTION A-A

SUBMARINE CABLE SUPPORT RING DETAIL

(N.T.S.)



S1 - INSTRUMENTATION CABLE

(N.T.S.) CABLE SHOWN IS NOT ACTUAL CROSS SECTION

A - 1-1/2" CORRUGATED PLASTIC DUCT

B - 20- #14 AWG TWISTED SHEILDED PAIRS, 7/w COPPER, SEPARATOR, .030" WALL XLPE INSULATION, PAIRED, ALUMINUM/POLYESTER TAPE, #16 AWG 7/w TC DRAIN WIRE, POLYESTER TAPE - 600 VOLT

C - 0.002" CORRUGATED POLYESTER BINDER TAPE

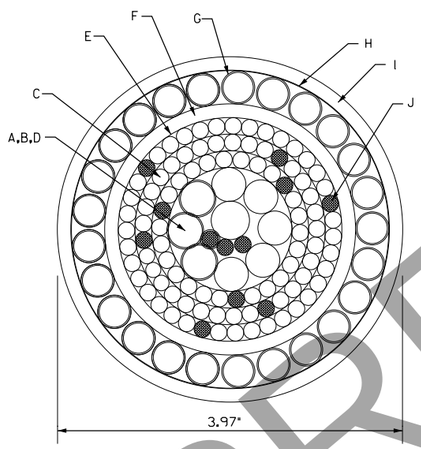
D - 0.140" WALL HDPE INNER JACKET

E - #4 BWG (.238) GALVANIZED STEEL WIRES COVERED WITH HDPE

F - 0.002" CORRUGATED POLYESTER SEPARATOR TAPE

G - 0.140" WALL HDPE OUTER JACKET

H - NON-HYDROSCOPIC FILLERS, AS NECESSARY



S2 - VFD/POWER CABLE

(N.T.S.) CABLE SHOWN IS NOT ACTUAL CROSS SECTION

A - 4/C #4 AWG 7/w COPPER, 2000V,

B - 2/C #1 AWG 7/w COPPER, 2000V

C - 36/C #10 AWG 7/W COPPER, SEPARATOR, 0.030" WALL XLPE INSULATION - 600 VOLTS

D - 2 - 3/C SHEILDED #2 AWG VFD CABLE

E - POLYESTER BINDER TAPE

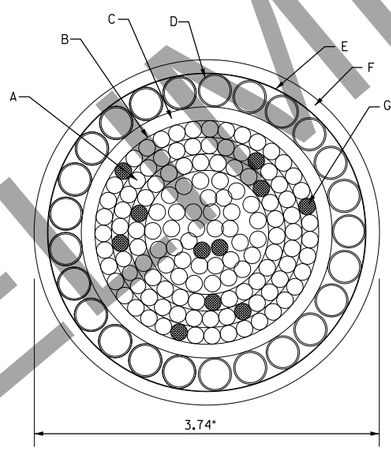
F - 0.140" WALL HDPE INNER JACKET

G - #4 BWG (.238) GALVANIZED STEEL WIRES COVERED WITH HDPE

H - 0.002" CORRUGATED POLYESTER TAPE

I - 0.140" WALL HDPE OUTER JACKET

J - NON-HYDROSCOPIC FILLERS, AS NECESSARY



S3 - CONTROL CABLE QTY 2

(N.T.S.) CABLE SHOWN IS NOT ACTUAL CROSS SECTION

A - 90/C #10 AWG 7/W COPPER, SEPARATOR, 0.030" WALL XLPE INSULATION - 600 VOLTS

B - POLYESTER BINDER TAPE

C - 0.140" WALL HDPE INNER JACKET

D - #4 BWG (.238) GALVANIZED STEEL WIRES COVERED WITH HDPE

E - 0.002" CORRUGATED POLYESTER TAPE

F - 0.140" WALL HDPE OUTER JACKET

G - NON-HYDROSCOPIC FILLERS, AS NECESSARY

NOTES:

1. PRIOR TO BEGINNING WORK, FLOATING TURBIDITY BARRIER MUST BE IN PLACE. FLOATING TURBIDITY BARRIER (MIN. 10' DEPTH) WITH STRESS PLATES, 12" DIAMETER FLOAT AND ANCHOR POINTS EVERY 25' ARE REQUIRED. CONCRETE ANCHORS, 120 POUNDS, ARE TO BE USED EVERY 50' INITIALLY. AT THE PROJECT ENGINEER'S DISCRETION CONCRETE ANCHORS CAN BE DEPLOYED EVERY 25'.
2. PRIOR TO BEGINNING CONSTRUCTION, CHANNEL OBSTRUCTIONS MUST BE COORDINATED WITH THE APPLICABLE WATERWAY AGENCIES.
3. PROVIDE ALL GRADE 316 STAINLESS STEEL HARDWARE, SEE GENERAL NOTES.
4. ANCHOR BOLTS: FOR CONCRETE EPOXY TYPE, KELEKEN-GOLD "KELIBOND" RESIN BONDING SYSTEM OR APPROVED EQUAL.
5. EMBEDEDMENT DEPTH FOR ANCHOR BOLTS: AS RECOMMENDED BY BOLT MANUFACTURER.
6. FOR ROUTING DETAILS AND TRENCHING OF SUBCABLES SEE SUBCABLE PERMIT DRAWINGS AND STRUCTURAL GP&E PLAN AND DETAIL DRAWINGS.
7. INSTALL SUBMARINE CABLES IN SUCH A MANNER THAT SEDIMENT DISTURBANCE IS MINIMIZED. INCLUDE THE PROPOSED PROCEDURE FOR ACCOMPLISHING THIS IN THE EROSION CONTROL IMPLEMENTATION PLAN. SEE SPECIAL PROVISIONS FOR ADDITIONAL DETAILS.
8. CABLE DIMENSIONS SHOWN AS NOMINAL. SUBMIT SHOP DRAWINGS FOR APPROVAL.
9. FURNISH AND INSTALL STAINLESS STEEL COVER PLATE TO PROTECT CABLES BETWEEN SUPPORT RINGS AND BOTTOM OF CABINET.
10. ALLOW ROOM IN TERMINATION CABINET FOR FUTURE FIBER OPTIC TERMINATIONS.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

SUBMARINE CABLE DETAILS

DRAWING E38 OF E34
PRE_463

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DRAFT April 20,

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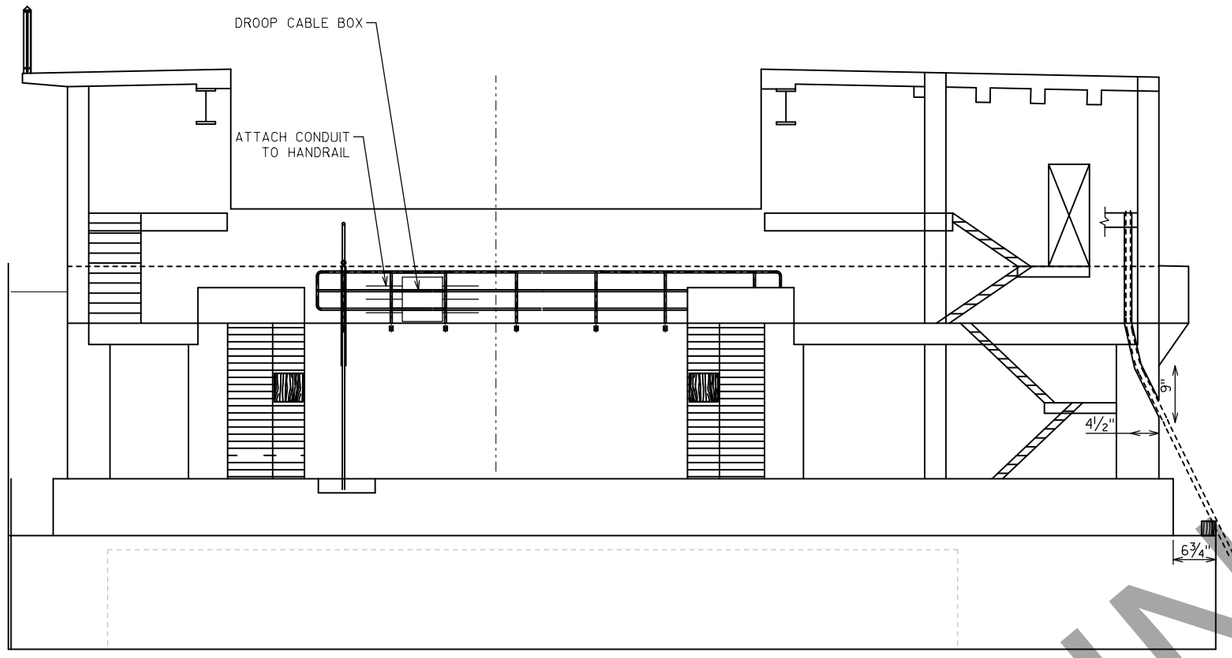
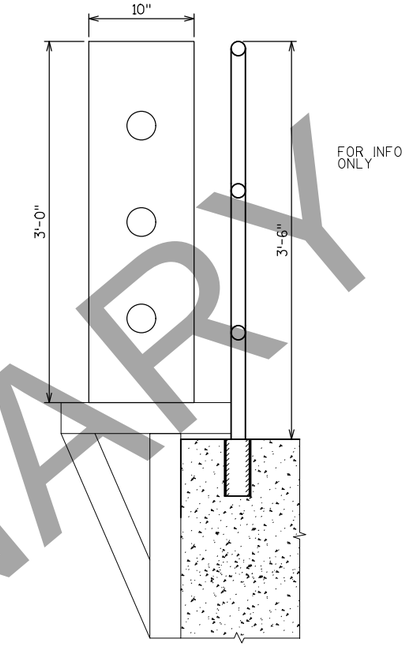
STATE PROJECT NUMBER
4992-03-71



NORTH BASCULE ABUTMENT

LOOKING NORTH (NTS)



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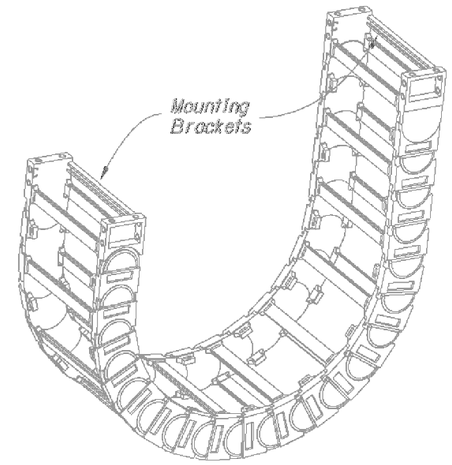
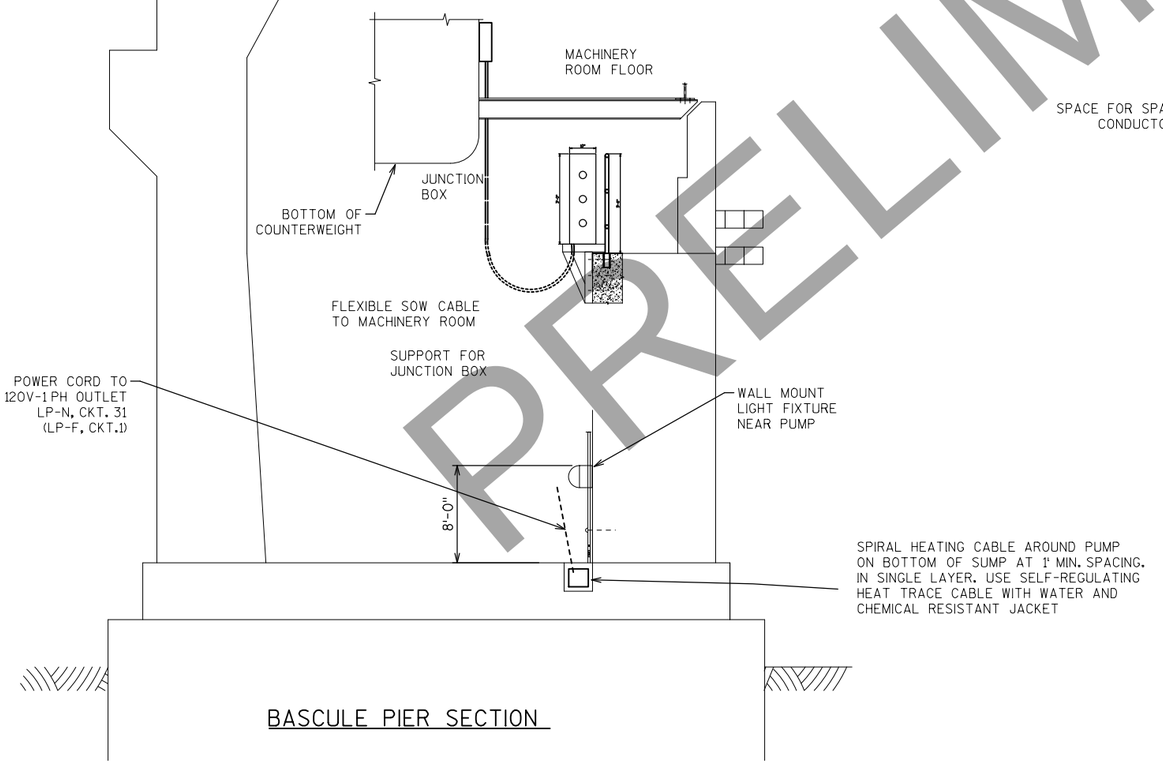
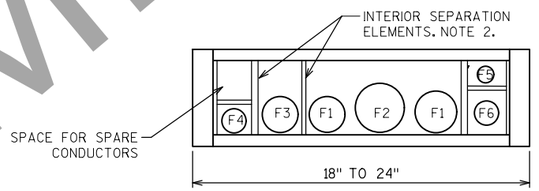




BASCULE PIER SECTION



FLEXIBLE CABLE TRAY SYSTEM ARRANGEMENT

FLEXIBLE CABLE TYPES

F1	3-#1 AWG W/GND SHIELDED VFD	SPAN MOTORS
F2	15-#10 AWG & 1-#10 GND	BRAKE MOTORS W/SPARES
F3	40-#12 AWG & 1-#12 GND	CONTROLS (120 VAC)
F4	6-#16 AWG TW-SH-PR	PA/IC, INCLIN., SP
F5	6-#12 AWG & 2-#12 GND	NAV LIGHTS
F6	20-#12 & 1-#12 GND	LGTS., RECPT., DEC. LGTS, MISC.

FLEXIBLE CABLE TRAY NOTES

1. CABLES AND HOSE HANGING: HANG ALL CABLES SO THAT THEY BEAR THEIR OWN WEIGHT. SECURE CABLES CAREFULLY TO BOTH END POINTS OF THE FLEXIBLE CABLE TRAY SYSTEM.
2. CABLES AND HOSE ARRANGEMENT: THE FLEXIBLE CABLE TRAY SYSTEM FULFILLS THE FUNCTION OF ORDERLY CABLE BUNDLING ONLY AND SHOULD NOT ABSORB ANY FURTHER TENSILE FORCE. INTERIOR SEPARATION ELEMENTS WILL BE USED FOR DISTINCT DIVISION OF ALL CABLES. CABLE ARRANGEMENTS ARE SUGGESTED AND DEPEND ON CABLE PROPERTIES. SUBMIT CABLE TRAY AND CABLE DATA AND ARRANGEMENT INCLUDING ATTACHMENT BRACKETS AND ESTIMATED CABLE TRAY LENGTH TO THE ENGINEER FOR APPROVAL. PROVIDE SADDLE CLAMPS MOUNTED AT MOUNTING BRACKETS TO PROPERLY PARTITION CABLES AS THEY ENTER THE SYSTEM. PROVIDE S.S. BASKET WEAVE CABLE GRIPS AT EACH END OF CABLES.
3. CABLES TRAY SYSTEM: FABRICATE CABLE TRAY SYSTEM OF NON-CONDUCTIVE FIBER REINFORCED NYLON OF THE VENTILATED (OPEN) TYPE CONSTRUCTION. SYSTEM SHALL BE GORTRAC TYPE TL350 OR APPROVED EQUAL.
4. SUPPORT DROOP CABLE BOX AND TRAY TO BRACKETS SECURED TO RAIL AND CONCRETE PIER.
5. FURNISH EXTRA FLEXIBLE CABLES DESIGNED FOR FESTOON AND CRANE APPLICATIONS THAT REQUIRE FREQUENT FLEXING AND MECHANICAL STRESS. RATED FOR CONTINUOUS OPERATION AT 90°C TO -40°C U.L. FESTOONING.
6. HANDRAILING SHOWN IS FOR ILLUSTRATION PURPOSES. SEE STRUCTURAL PLANS FOR HANDRAILING DETAILS AND LOCATIONS

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

DROOP CABLE DETAILS

DRAWING E30 OF E34
PRE_464

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DRAFT April 20, 2020
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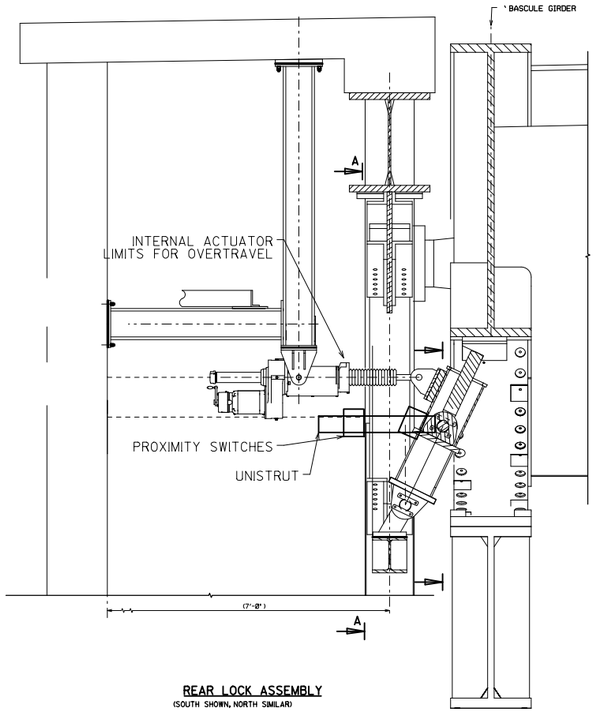
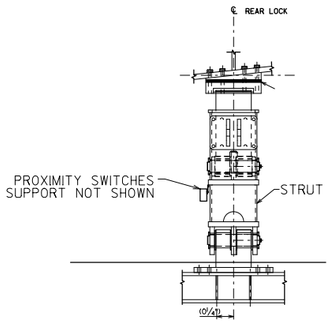
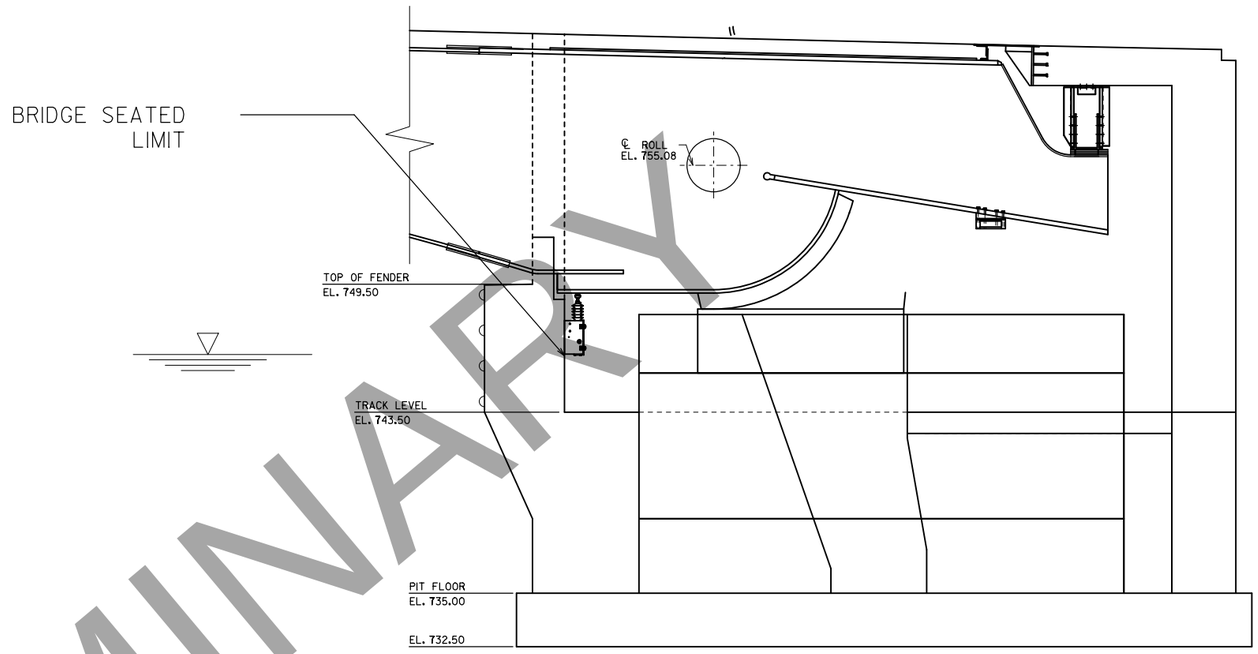


REAR LOCK ASSEMBLY
(SOUTH SHOWN, NORTH SIMILAR)

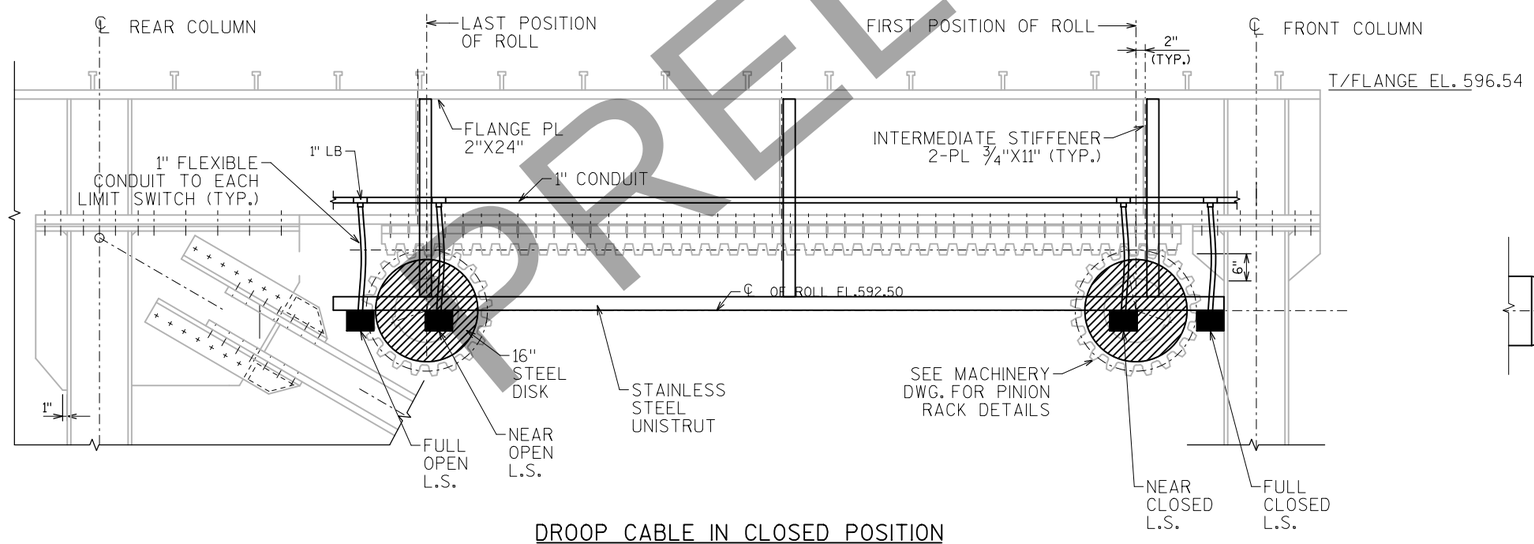


VIEW A-A
(N.T.S.)

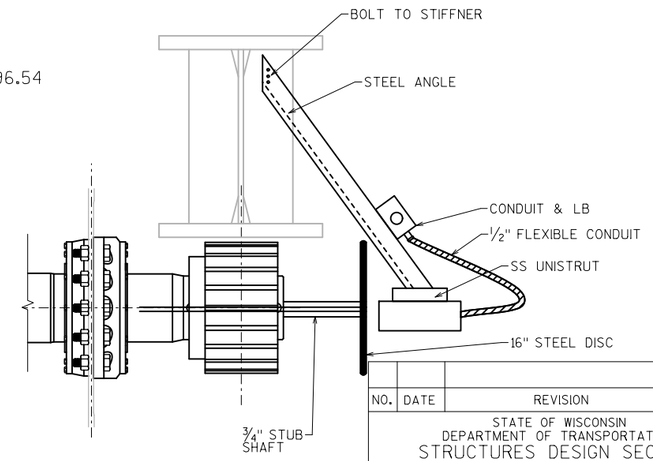


SPAN SEATED LIMIT SWITCH
(N.T.S.) (TYPICAL)

REAR LOCK ASSEMBLY ELEVATION
(N.T.S.) (TYPICAL)



DROOP CABLE IN CLOSED POSITION
(N.T.S.) (TYPICAL)



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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LIMIT SWITCH DETAILS

DRAWING PRE_465

PRELIMINARY

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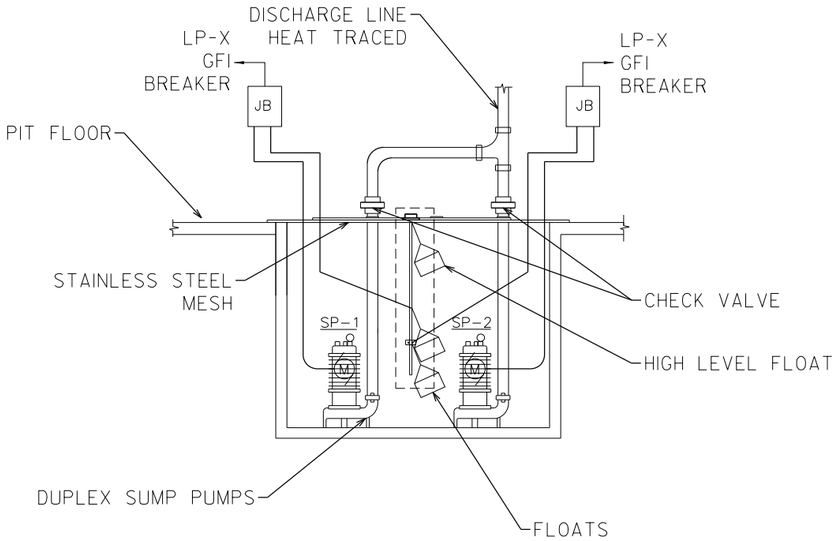
PRELIMINARY

STATE PROJECT NUMBER

4992-03-71



SUMP PUMPS

(NTS)

SUMP PUMP NOTES:

1. PROVIDE DUAL SUMP PUMPS CAPABLE OF PUMPING 45 GALLONS PER MINUTE WITH A HEAD OF 32 FEET. PUMP SHALL BE SEWAGE DUTY RATED WITH THE ABILITY TO PASS 2 INCH SPHERICAL SOLIDS. PUMP AND MOTOR HOUSING, SWITCH CASE, AND BASE TO BE OF CAST IRON CONSTRUCTION WITH A NON-CLOGGING, VORTEX TYPE BRONZE CLASS 85-5-5-5 IMPELLER AND ALL STAINLESS STEEL HARDWARE. PUMPS SHALL BE UL APPROVED.

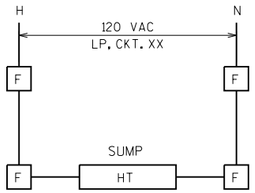
2. PUMP MOTOR SHAFT OUTPUT MUST BE 375 WATTS MINIMUM, SINGLE PHASE, 120 VAC, 60 HERTZ WITH MOTOR CONTROL VIA FLOAT SWITCH AND CONTACTORS INTEGRAL TO EACH PUMP UNIT.

3. PROVIDE A SEPERATE HIGH LEVEL ALARM FLOAT THAT WILL BE WIRED TO A PLC INPUT TO PROVIDE AN ALARM INPUT. CONNECT EACH SUMP PUMP BREAKER POWER FEED AS AN INPUT TO MONITOR POWER TO PUMPS.

4. POWER FOR SUMP PUMPS SUPPLIED FROM SEPERATE DEDICATED CIRCUITS LOCATED WITHIN TEN FEET OF THE PUMP MOTOR. PROVIDE NEMA 4X JUNCTION BOX WITH LOCAL BYPASS SWITCH. GROUND FAULT PROTECTION PROVIDED BY DEDICATED GFI CIRCUIT BREAKER LOCATED IN THE ELECTRICAL PANELBOARD. MOUNT JUNCTION BOXES 3 FOOT (MIN.) ABOVE THE HIGHEST GRADE OF THE COUNTERWEIGHT PIT FLOOR. PROVIDE 316 GRADE STAINLESS STEEL HARDWARE FOR ALL ANCHORS, AND FASTENERS. SUBMIT SHOP DRAWINGS THAT INCLUDE DIMENSIONED LAYOUT DRAWINGS AND DATA SHEETS FOR SUMP, MESH SCREEN, CONDUITS, AND ALL RELATED COMPONENTS.

5. SUMP PUMP, CONDUITS, GFI CIRCUIT BREAKER, WIRING, SUPPORTS, MESH SCREEN, MOUNTING HARDWARE, AND INCIDENTAL ITEMS TO BE PAID FOR UNDER THE AUXILARY ELECTRICAL EQUIPMENT BID ITEM.

6. SUMP DISCHARGE PLUMBING AND CONDUIT NOT SHOWN FOR CLARITY.



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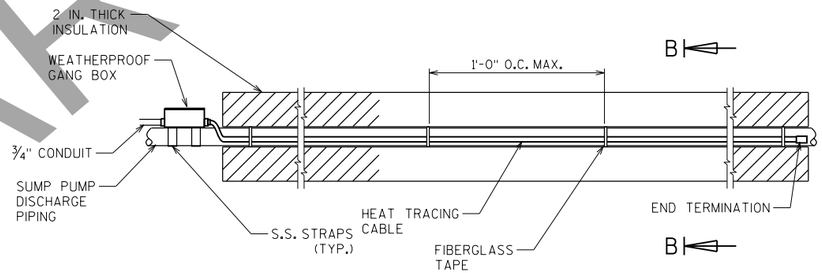
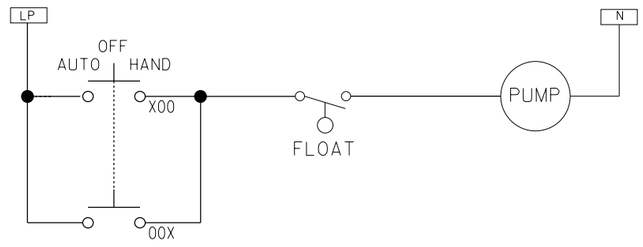


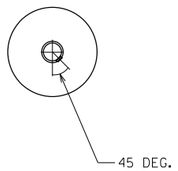
HEAT TRACING DETAIL

(NTS)



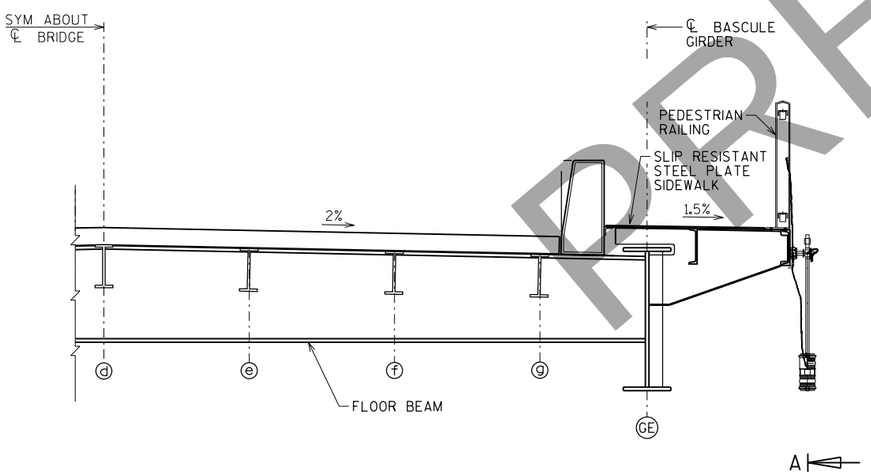
SUMP PUMP CIRCUIT

(NTS)



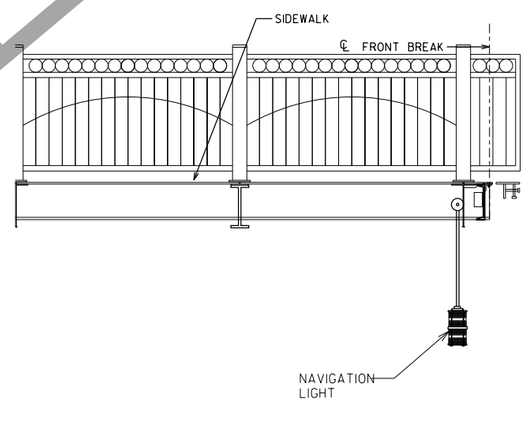
B-B

(NTS)



CENTER CHANNEL NAV. LIGHT

(NTS)



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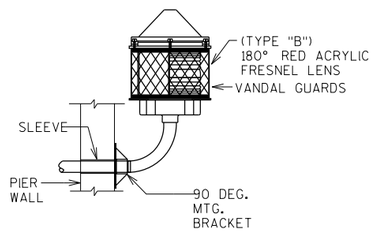
(NTS)



PIER LIGHT TYPICAL

(NTS)

HEAT TRACING NOTES:

1. PROVIDE SELF-REGULATING HEAT TRACING CABLE FOR FREEZE PROTECTION OF SUMP PUMP PIPING.
2. SIZE CABLE FOR MIN. AMBIENT TEMP. OF -40 DEG. F BASED ON PIPE SIZE , TYPE AND INSULATION THICKNESS PER MANUFACTURER'S RECOMMENDATIONS.
3. SECURE CABLE WITH FIBERGLASS TAPE AT SPACING PER MANUFACTURER'S RECOMMENDATIONS.
4. SUBMIT CABLE SELECTION AND MOUNTING DETAILS FOR APPROVAL.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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SUMP PIT DETAILS

DRAWING E41 OF E64

PRE_466

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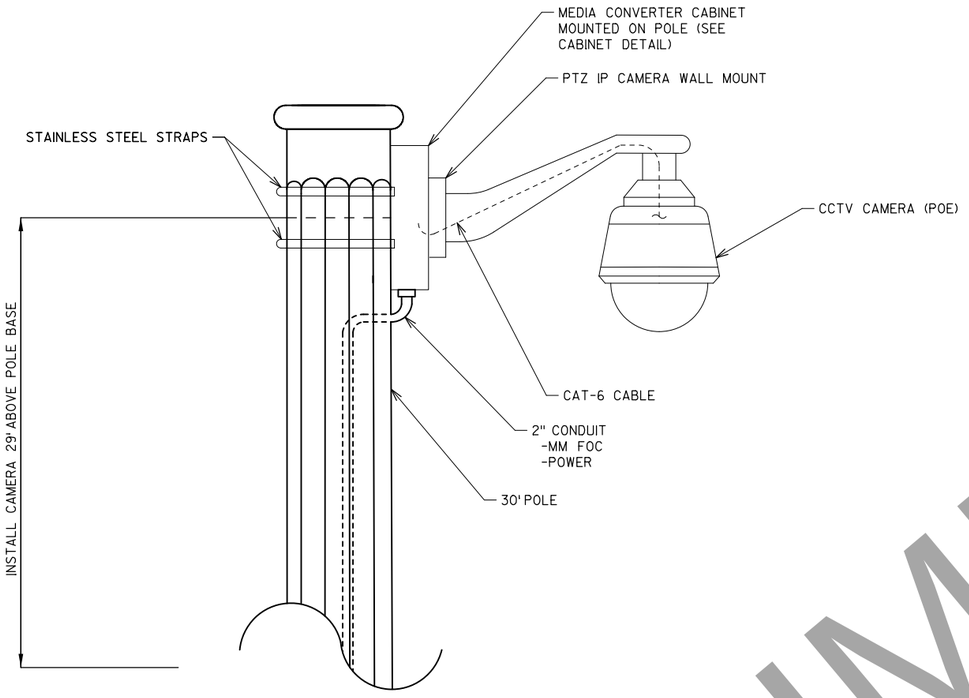
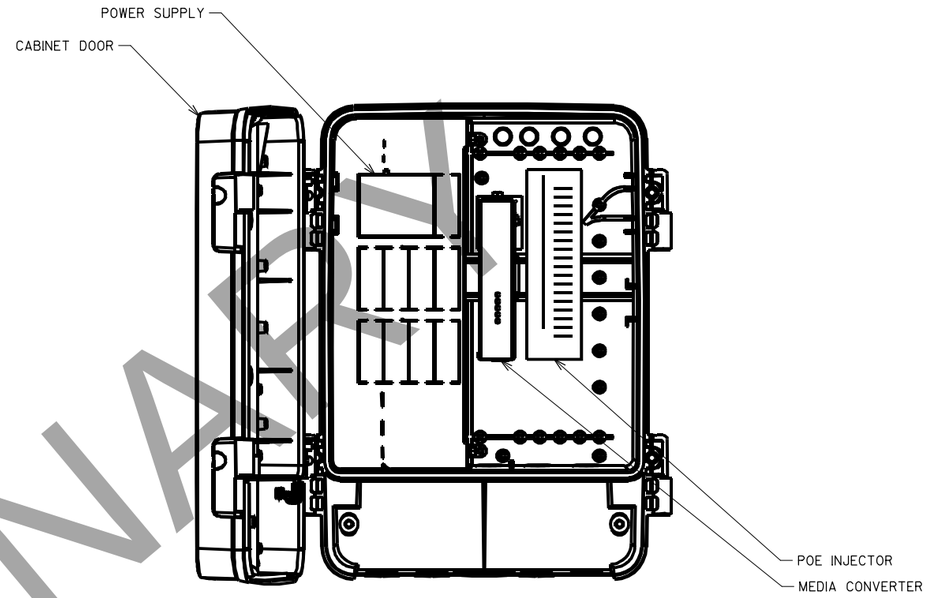
STATE PROJECT NUMBER
4992-03-71



CCTV CAMERA AT POLE LOCATIONS (TYP.)
NOT TO SCALE



CABINET DETAIL
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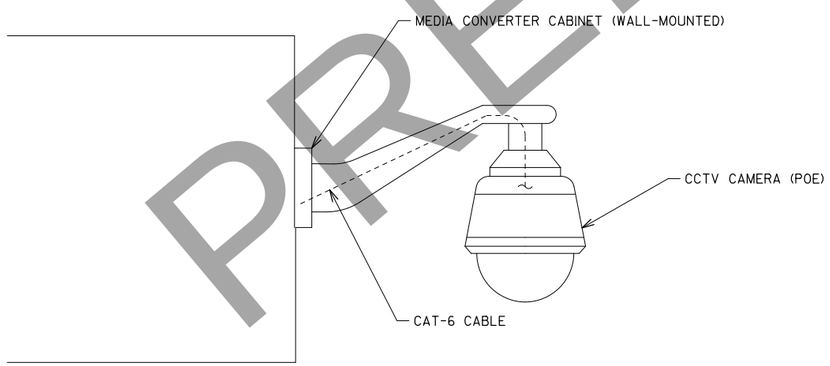

CCTV CAMERA AT WATER WAY LOCATIONS

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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CCTV CAMERA CONFIGURATION

DRAWING
PRE_467

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DRAFT April 20, 2020
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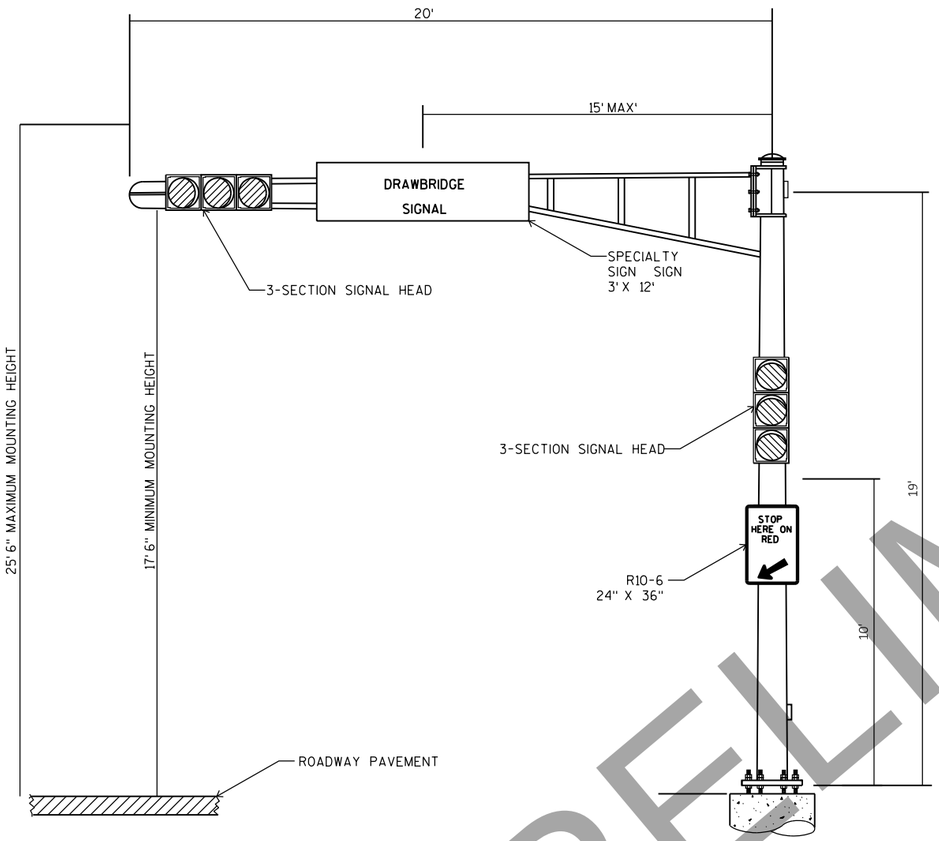
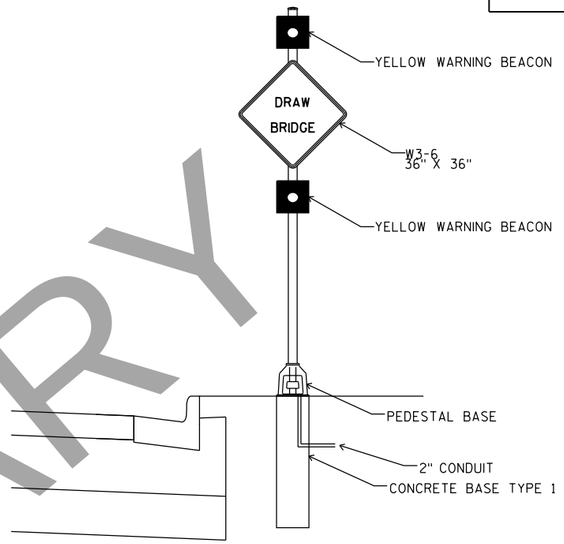
STATE PROJECT NUMBER

4992-03-71



BRIDGE TRAFFIC SIGNAL



BRIDGE TRAFFIC SIGNAL
YELLOW WARNING BEACON

BRIDGE TRAFFIC SIGNAL
YELLOW WARNING BEACON

PRELIMINARY

NOTES:

1. SEE WISDOW SDD 09E01-15A

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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TRAFFIC SIGNALS

DRAWING E43 OF E64

PRE_468

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PLOT DATE: 2/24/2020 PLOT TIME: 12:45:26 PM
BATCH PRINT SHEET 44 OF 64

DRAFT April 20,

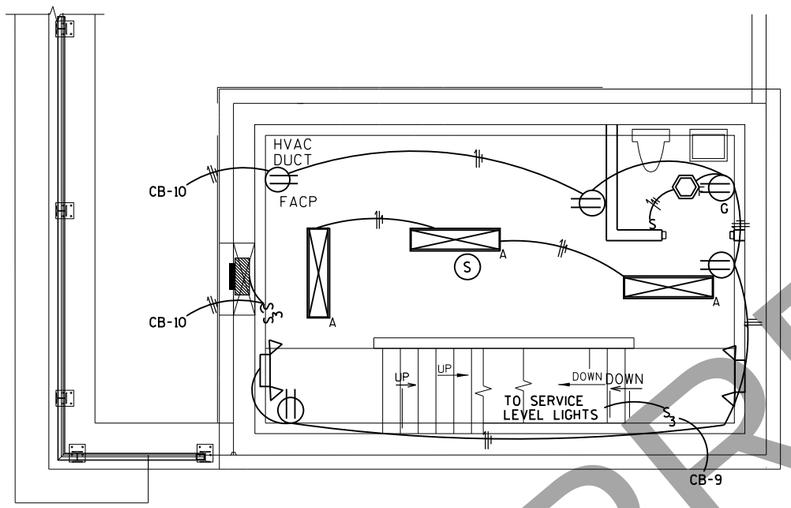
STATE PROJECT NUMBER
4992-03-71

NOTES:

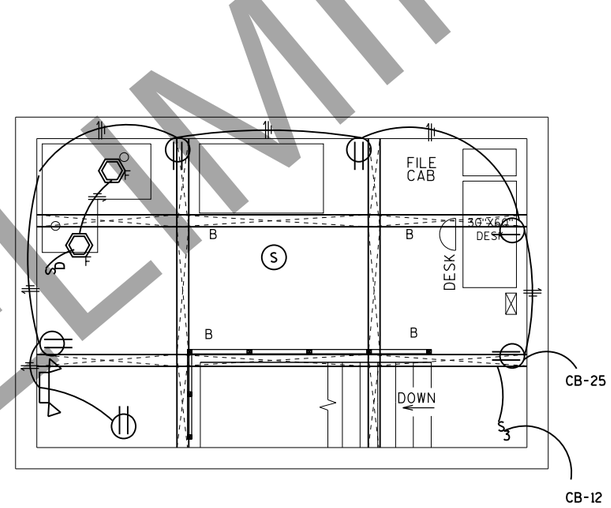
1. FURNISH AND INSTALL DIMMABLE BALLAST CAN LIGHTS ABOVE OPERATOR CONSOLE. INSTALL SWITCH FOR THESE LIGHTS ON WALL NEAR CONSOLE, AS SHOWN.
2. MOUNT RECPTACLES BELOW WINDOW SILL AND A MIN. OF 1'-0" AFF., WHERE APPLICABLE.
3. HARDWIRE SMOKE DETECTORS AND PROVIDE AND INSTALL BACKUP BATTERIES IN ALL DETECTORS.
4. SEE PANELBOARD SCHEDULE ON SHEET E-06 FOR CIRCUIT INFORMATION.
5. ADJUST LOCATIONS OF RECEPTACLES IN THE FIELD IN OREDER TO PROVIDE UNOBSTRUCTED ACCESS TO ALL RECEPTACLES.
6. PROVIDE ADEQUATE SPACE FOR SERVICING ALL EQUIPMENT.
7. FURNISH AND INSTALL A COMPLETE BUILDING SECURITY SYSTEM WITH A KEYPAD AT THE ENTRANCE TO THE BUILDING. INCLUDE A CONTROL PANEL, ALL SENSORS, MOTION DETECTORS, SIRENS, AND ASSOCIATED WIRING, CONDUITS, PROGRAMMING, TRAINING, AND MISCELLANEOUS HARDWARE TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL SECURITY SYSTEM.
8. FURNISH A 250W METAL HALIDE OUTDOOR LIGHT FIXTURE AND INSTALL IT ABOVE ENTRY DOOR AS SHOWN. MOUNT FIXTURE APPROXIMATELY 10' ABOVE FINISHED FLOOR CENTERED ABOVE DOOR. PROVIDE LIGHT FIXTURE WITH INTEGRATED PHOTOCELL CONTROL. FURNISH A SEPARATE LIGHT SWITCH FOR THIS LIGHT FIXTURE AND INSTALL IT ON THE INSIDE WALL OF THE ROOM BY THE ENTRY DOOR.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	LAMPS	MOUNTING
A	INDUSTRIAL ENCLOSED, LED, VANDAL & IMPACT RESISTANT, GASKETED, DIFUSE ACRYLIC LENS, U.L. LISTED FOR WET ENVIRONMENT STAINLESS STEEL LATCHES, 120V, 4FT.	LED	SURFACE MOUNT CEILING/WALL
B	6" RECESSED LINEAR INTEGRATED CEILING LIGHTING SYSTEM. 120 VOLT, 3000k COLOR TEMP. DIMMING LED WITH A MODULAR LAYOUT. SEE ARCHITECTURAL PLANS FOR LAYOUT. U.L. LISTED DESIGN BASED OFF OF PINNACLE ARCHITECTURAL LIGHTING EDGE ET6	LED	RECESSED CEILING
C	OUTDOOR FLOODLIGHT, QUARTZ, CAST ALUMINUM HOUSING, POLYCARBONATE VANDAL SHIELD, WATERTIGHT, GASKETED, STAINLESS STEEL HARDWARE, 120V.	LED	WALL MOUNT WITH ADJUSTABLE TILT/SWIVEL
D	OUTDOOR, FLOOD LIGHT, QUARTZ, CAST ALUMINUM HOUSING, GASKETED, BOROSCOPIC LENS, MARINE DUTY, 120V. (SIMILAR TO GE)	LED	WALL BRACKET WITH ADJUSTABLE TILT/SWIVEL
E	EMERGENCY LIGHT WITH BATTERY PACK (90 MIN.), SELF-CONTAINED, FULLY AUTOMATIC, 120V.	LED	WALL MOUNT (BELOW CEILING)
F	CAN LIGHTS, 6" DIA., COMMERCIAL QUALITY, WITH ADJUSTABLE LAMP HEIGHT	LED DIMMABLE	RECESSED CEILING MOUNT (ABOVE CONSOLE)
G	OUTDOOR, HEAVY DUTY, COMMERCIAL QUALITY, WALL MOUNTED LIGHT FIXTURE WITH INTERNAL PHOTOCELL CONTROL, 120V,	LED	WALL MOUNTED ABOVE ENTRANCE DOOR



ENTRY LEVEL
N.T.S



OPERATOR LEVEL
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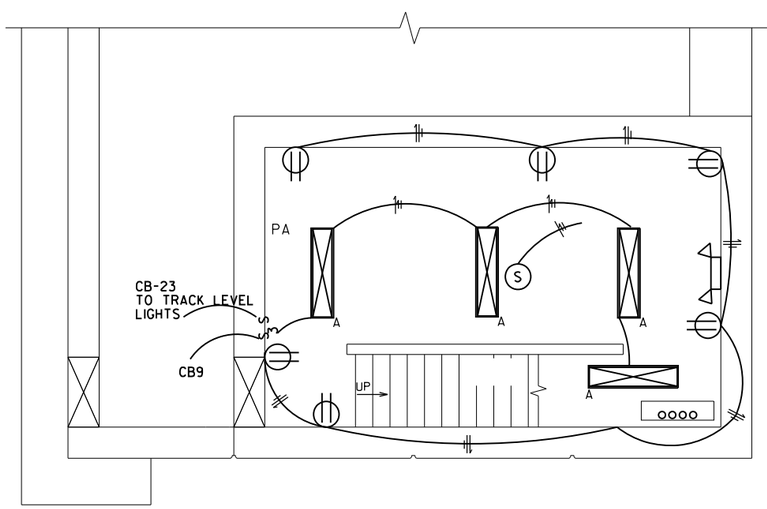

SERVICE LEVEL
N.T.S

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

ENTRY, SERVICE, AND OPERATOR LEVEL LIGHTING AND RECEPTACLE PLAN

DRAWING E44 OF E64

PRE_469

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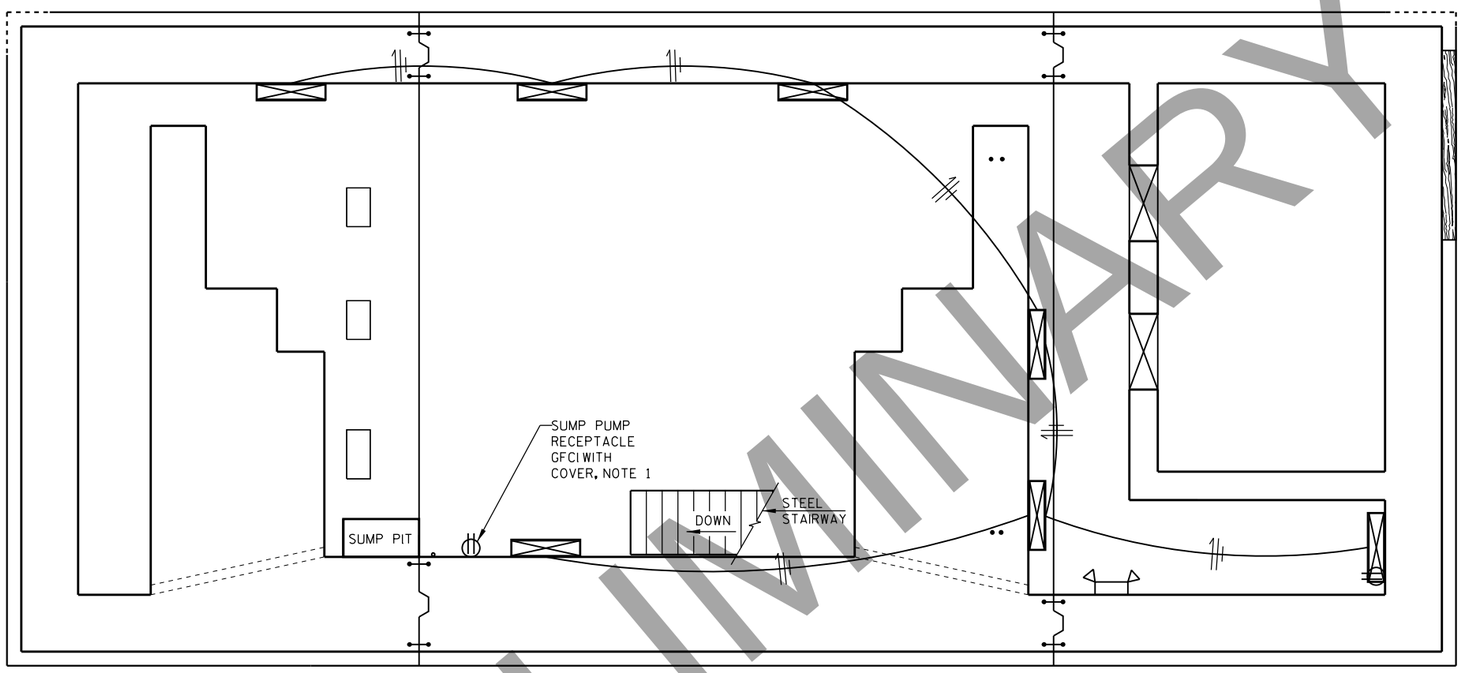
DRAFT April 20, 2020

STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

NOTES

1. SUMP PUMP, 2" OUTLET, INCLUDE CHECK VALVE. FLAP STYLE CHECK VALVE (TO PASS SOLIDS). LOCATE SUMP PUMP CLOSE TO STAIRS FOR EASE OF MAINTENANCE/REPLACEMENT. PROVIDE A SECONDARY SUMP PUMP AT HIGHER ELEVATION IN CASE PRIMARY PUMP FAILS.
2. SEE SUMP PUMP DETAILS (SHEET E-40)

PLAN OF NORTH BASCULE ABUTMENT AT PIT LEVEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NORTH BASCULE ABUTMENT PLAN AT PIT LEVEL

DRAWING E45 OF E34
PRE_470

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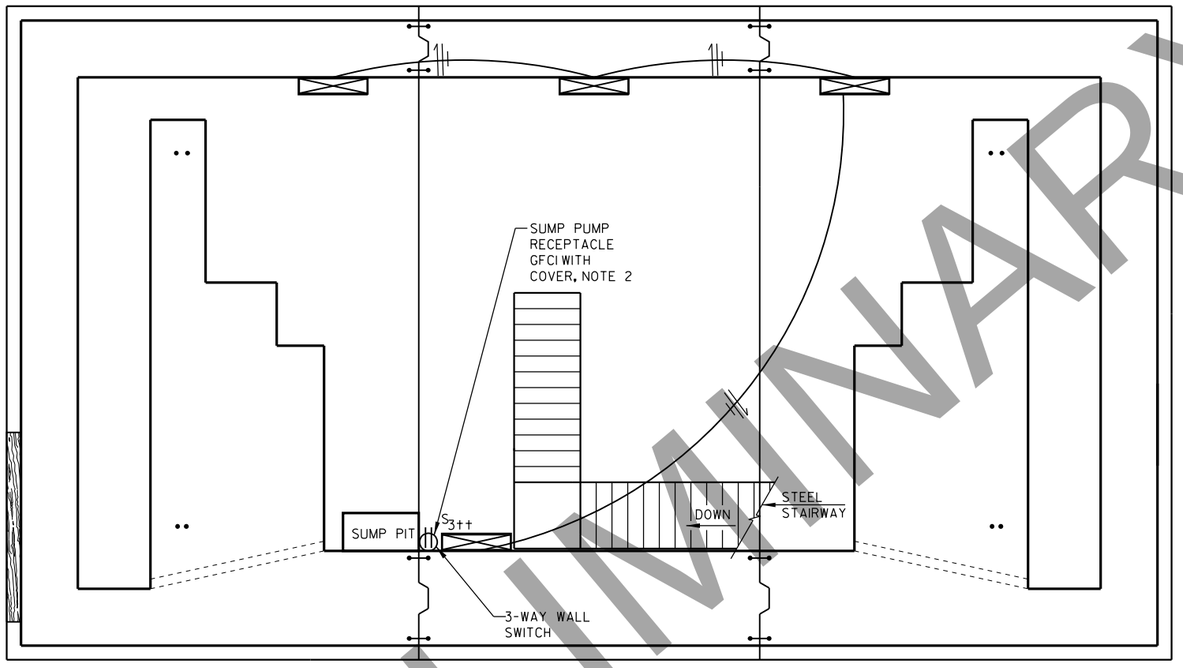
STATE PROJECT NUMBER
4992-03-71



NOTES

1. SUMP PUMP, 2" OUTLET, INCLUDE CHECK VALVE. FLAP STYLE CHECK VALVE (TO PASS SOLIDS). LOCATE SUMP PUMP CLOSE TO STAIRS FOR EASE OF MAINTENANCE/REPLACEMENT. PROVIDE A SECONDARY SUMP PUMP AT HIGHER ELEVATION IN CASE PRIMARY PUMP FAILS.
2. SEE SUMP PUMP DETAILS (SHEET E-40)

PLAN OF SOUTH BASCULE PIER AT PIT LEVEL

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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SOUTH BASCULE PIER PLAN AT PIT LEVEL

DRAWING E46 OF E64
PRE_471

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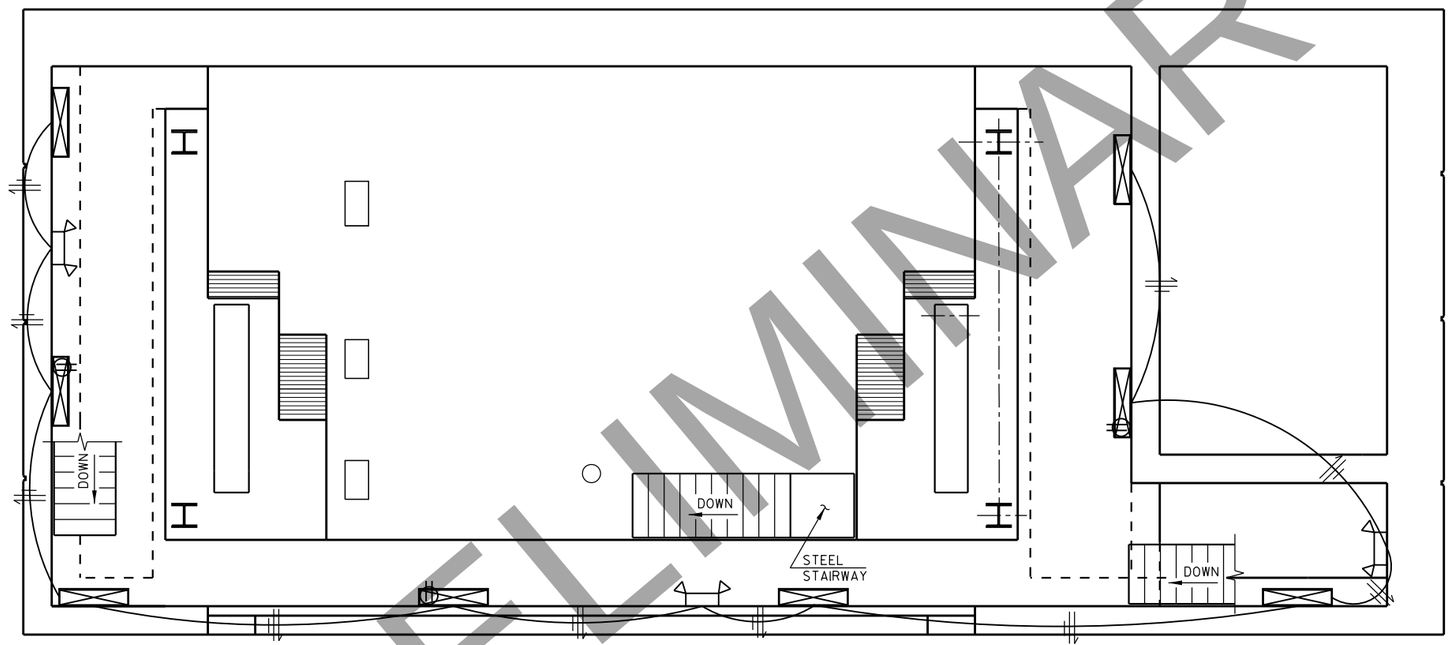
DRAFT
April 2020

STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

PLAN OF NORTH BASCULE ABUTMENT AT TRACK LEVEL

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NORTH BASCULE ABUTMENT PLAN AT TRACK LEVEL

DRAWING E64

PRE_472

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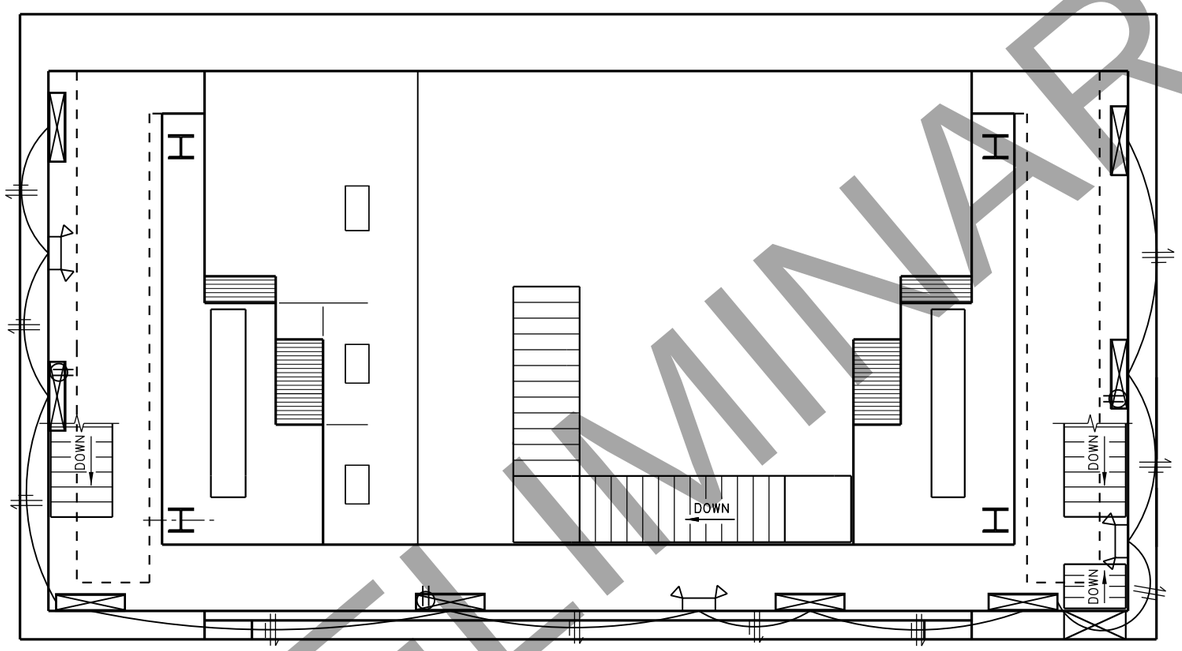
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

PLAN OF SOUTH BASCULE PIER AT TRACK LEVEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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SOUTH BASCULE PIER PLAN AT TRACK LEVEL

DRAWING E48 OF E64

PRE_473

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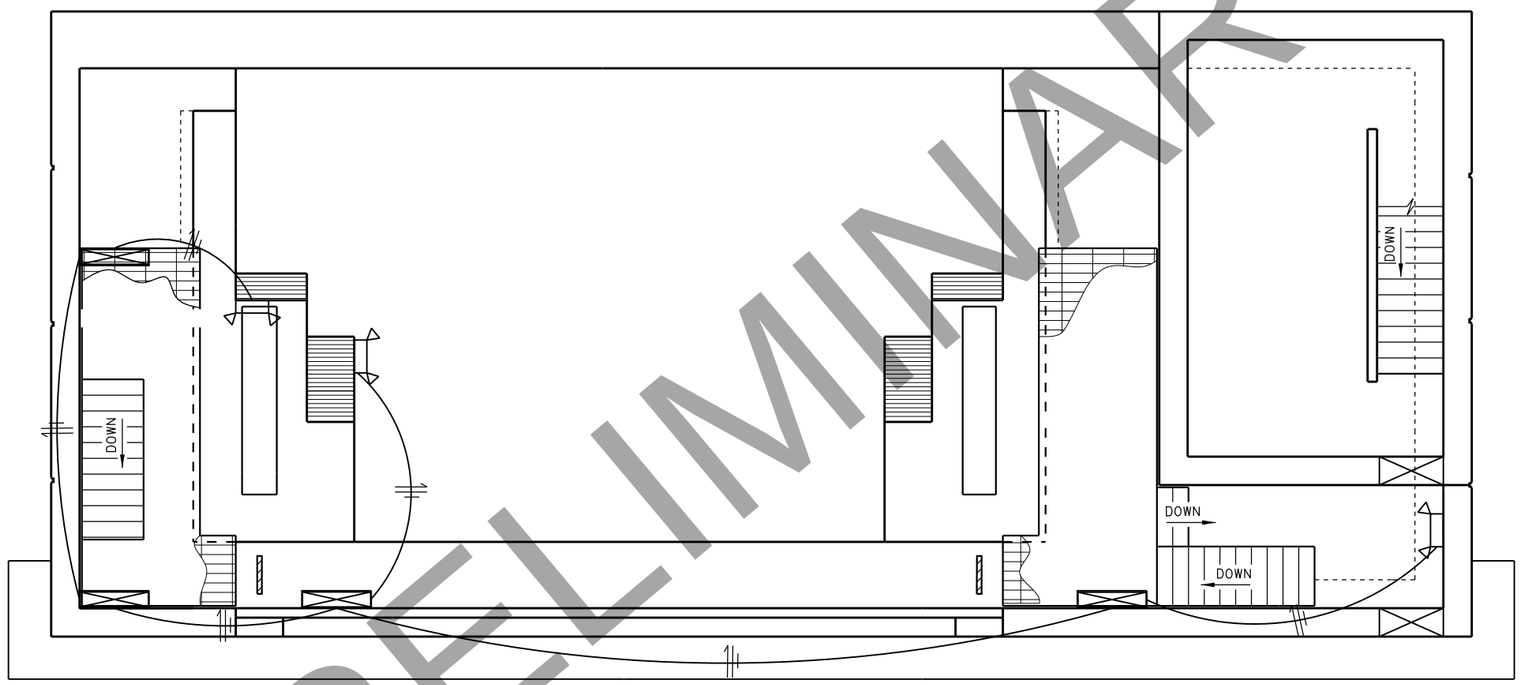
STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

PLAN OF NORTH BASCULE ABUTMENT AT MACHINERY LEVEL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NORTH BASCULE ABUTMENT PLAN AT MACHINERY LEVEL

DRAWING PRE_474

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DRAFT April 20,

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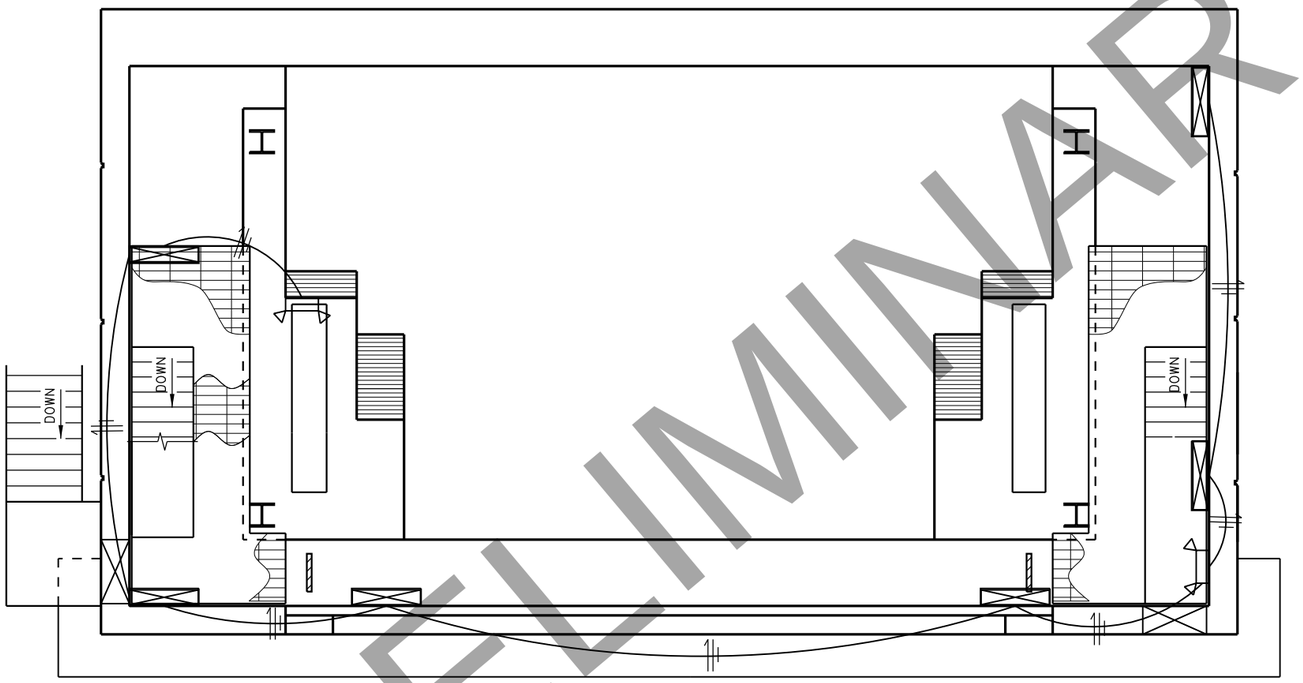
DRAFT April 20,

STATE PROJECT NUMBER
4992-03-71



PRELIMINARY

PLAN OF SOUTH BASCULE PIER AT MACHINERY LEVEL

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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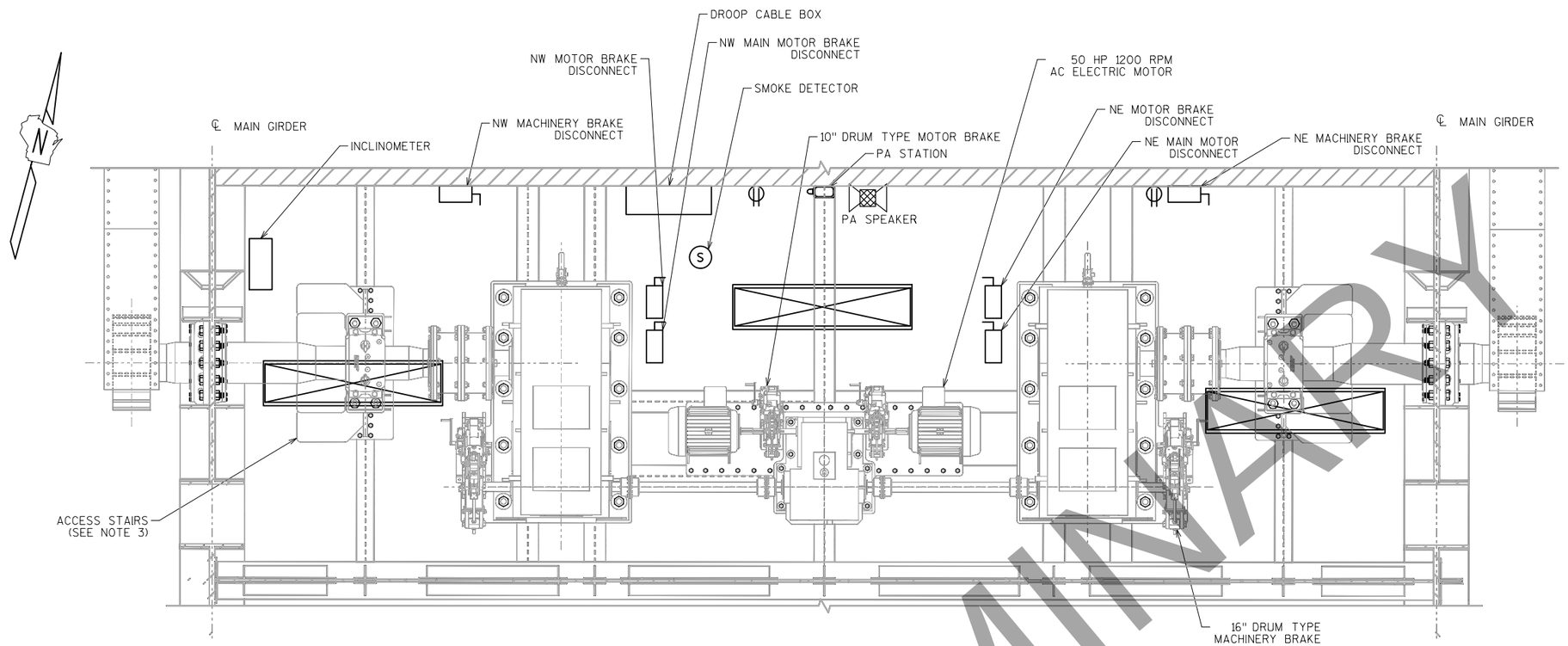
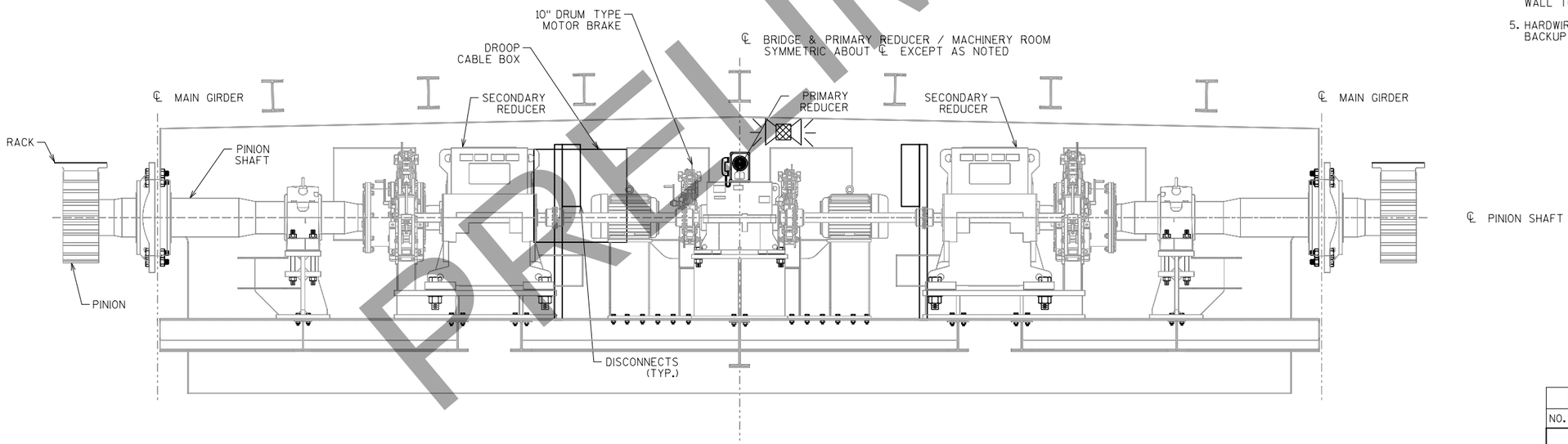
SOUTH BASCULE PIER PLAN AT MACHINERY LEVEL

DRAWING E50 OF E64
PRE_475

STATE PROJECT NUMBER
4992-03-71



PLAN



ELEVATION

LOOKING NORTH

NOTES:

1. INSTALL CONDUIT OVERHEAD BETWEEN STRINGERS OR ATTACHED TO WALLS OF COUNTERWEIGHT.
2. ROUTE TO AVOID TRIPPING HAZARDS AND LOW CLEARANCES. CONDUIT ROUTING SHOWN IS FOR INFORMATION ONLY. DETERMINE BEST ROUTE FOR CONDUITS TO ALL EQUIPMENT IN THE FIELD.
3. FABRICATE AND INSTALL STAINLESS STEEL BRACKETS TO SUPPORT DISCONNECT SWITCHES AND OTHER EQUIPMENT.
4. COUNTERWEIGHT CABINET AND DEVICE LOCATIONS ARE APPROXIMATE, LOCATE BOXES ON COUNTERWEIGHT WALL TO AVOID COUNTERWEIGHT BLOCK POCKETS.
5. HARDWIRE SMOKE DETECTORS AND PROVIDE AND INSTALL BACKUP BATTERIES IN ALL DETECTORS.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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NORTH MACHINERY PLAN AND ELEVATION

DRAWING PRE_476

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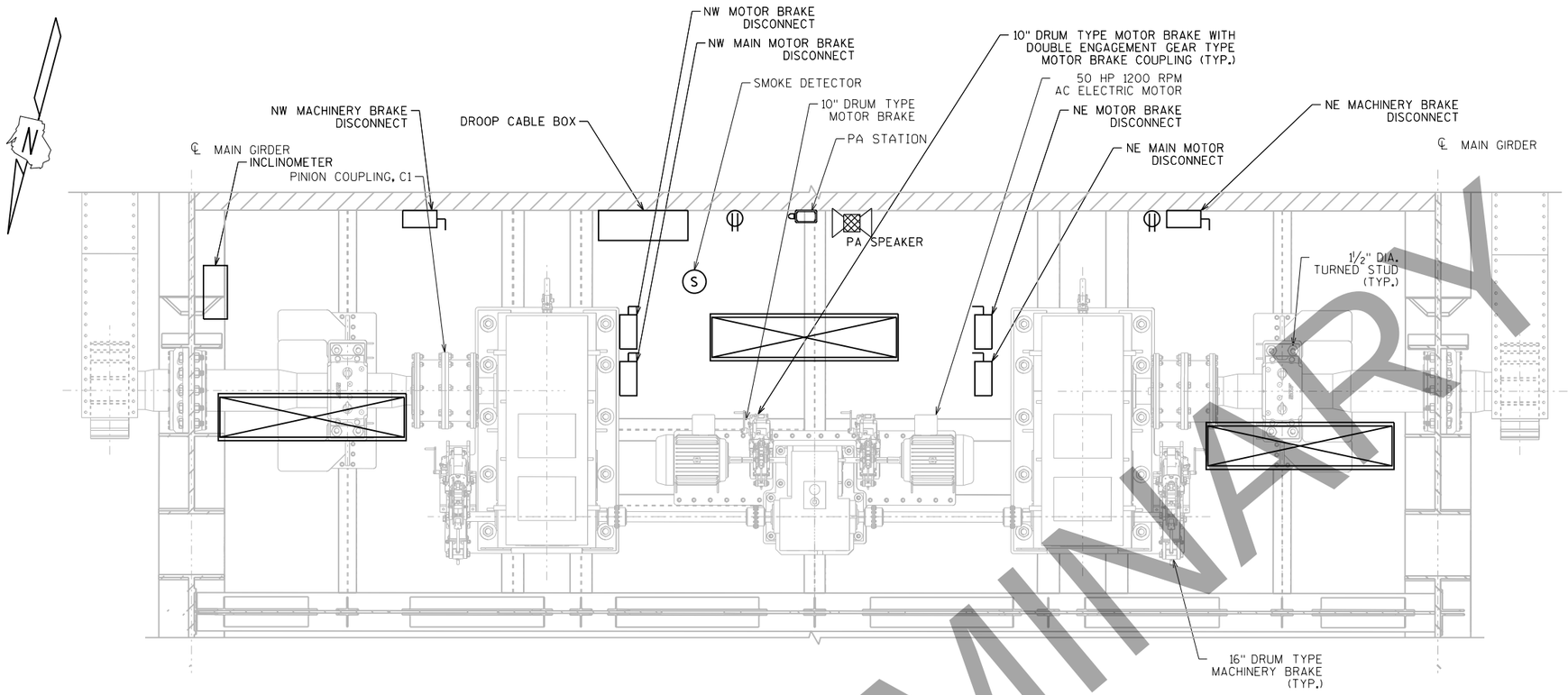
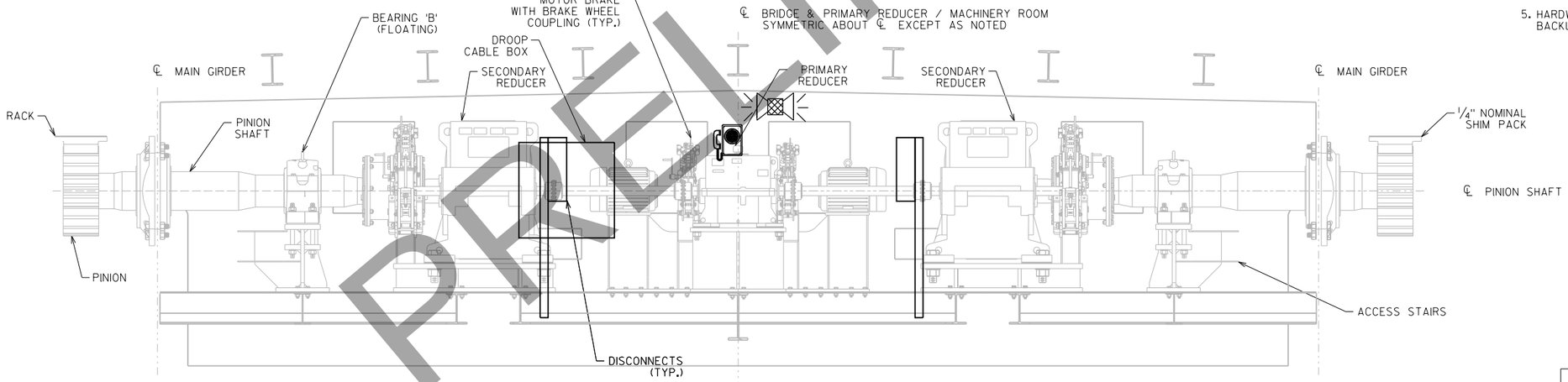
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71



PLAN



ELEVATION
LOOKING SOUTH

NOTES:

1. INSTALL CONDUIT OVERHEAD BETWEEN STRINGERS OR ATTACHED TO WALLS OF COUNTERWEIGHT.
2. ROUTE TO AVOID TRIPPING HAZARDS AND LOW CLEARANCES. CONDUIT ROUTING SHOWN IS FOR INFORMATION ONLY. DETERMINE BEST ROUTE FOR CONDUITS TO ALL EQUIPMENT IN THE FIELD.
3. FABRICATE AND INSTALL STAINLESS STEEL BRACKETS TO SUPPORT DISCONNECT SWITCHES AND OTHER EQUIPMENT.
4. COUNTERWEIGHT CABINET AND DEVICE LOCATIONS ARE APPROXIMATE, LOCATE BOXES ON COUNTERWEIGHT WALL TO AVOID COUNTERWEIGHT BLOCK POCKETS.
5. HARDWIRE SMOKE DETECTORS AND PROVIDE AND INSTALL BACKUP BATTERIES IN ALL DETECTORS.

PRELIMINARY

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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SOUTH MACHINERY PLAN AND ELEVATION

DRAWING ES2 OF ES4
PRE_477

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PLOT DATE: 2/24/2020 PLOT TIME: 11:25:26 AM
BATCH PRINT SHEET 53 OF 64

DRAFT April 20, 2020

PRELIMINARY

STATE PROJECT NUMBER

4992-03-71

CCTV CAMERA POLE

TRAFFIC SIGNAL ADV WARNING

NORTHWEST TRAFFIC GATE

NW REAR LOCK PBX

NORTH REARLOCK INTERCOM

NORTH MACHINERY ROOM

UTILITY ROOM INTERCOM

INCLINOMETER

DROOP CABLE

NORTH MACHINERY DROOP JB

NORTH LEAF DROOP JB

NE REAR LOCK PBX

SPAN POSITION LIMIT SWITCHES

NE ROADWAY SPEAKER

NORTHEAST TRAFFIC GATE

PIT SUMP PUMP

SEATED PLUNGER

UTILITY FIBER HANDHOLE

3 PHASE 4 WIRE 480 VAC

METER/CT CABINET

OPERATOR ROOM

CCTV

HMI

FOX RIVER MASTER STATION

FOX CONTROL

RIVER CONSOLE

TAYCO RIVER MASTER STATION

TAYCO CONTROL

ENTRY ROOM

WIREWAY

NORTH WEST MOTOR DRIVE

NORTH EAST MOTOR DRIVE

SOUTH WEST MOTOR DRIVE

SOUTH EAST MOTOR DRIVE

PLC CABINET

CCTV/ SERVER

ENTRY ROOM INTERCOM

UTILITY ROOM

AUTOMATIC TRANSFER SWITCH

TVSS POWER

LIGHTING XFMR

LIGHTING PANEL

MCC

UTILITY ROOM INTERCOM

NORTH SUB-CABLE CABINET JB

PIER LIGHT 1

PIER LIGHT 2

JBX

ON SPAN

CLEARANCE LIGHTS WEST

CONTINUED SEE SHEET E54

SUBMARINE CABLE

FOX RIVER

NOTES

1. THE SCHEMATIC CONDUIT DIAGRAM DOES NOT PURPORT TO SHOW ALL CONDUITS AND PULL/TERMINAL BOXES THAT MAY BE REQUIRED. MULTIPLE CONDUITS MAY BE REQUIRED BETWEEN DEVICES. FURNISH AND INSTALL ANY ADDITIONAL BOXES REQUIRED TO CONFORM WITH THE SPECIFIED NEC REQUIREMENTS GOVERNING THE ALLOWABLE NUMBER OF CONDUIT BENDS BETWEEN BOXES AND CABINETS.
2. SECTIONS OF FLEXIBLE CONDUIT REQUIRED FOR CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION ARE NOT INDICATED. FLEXIBLE CONDUIT SHALL NOT TO EXCEED 24" IN LENGTH, FOR THE MOTORS, TRANSDUCERS AND LIMIT SWITCHES.
3. CONDUIT BLOCK DIAGRAM SHOWS ONLY MOVABLE BRIDGE POWER AND CONTROL EQUIPMENT AND CONDUITS. CONDUITS FOR LIGHTING RECEPTACLES AND HEATERS ARE NOT SHOWN.
4. ALL EXTERIOR, EXPOSED CONDUITS SHALL BE PVC COATED RIGID GALVANIZED STEEL CONDUIT. ALL INTERIOR CONDUITS SHALL BE RIGID GALVANIZED STEEL CONDUIT.
5. TAYCO STREET REMOTE CONTROLS CONDUIT/CABLE NOT INCLUDED IN SCHEDULES.
6. INSTALL A 12 STRAND SINGLE MODE FIBER IN SUBMARINE CABLE DUCT FOR CCTV.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

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CONDUIT BLOCK DIAGRAM

DRAWING E53 OF E54

PRE_478

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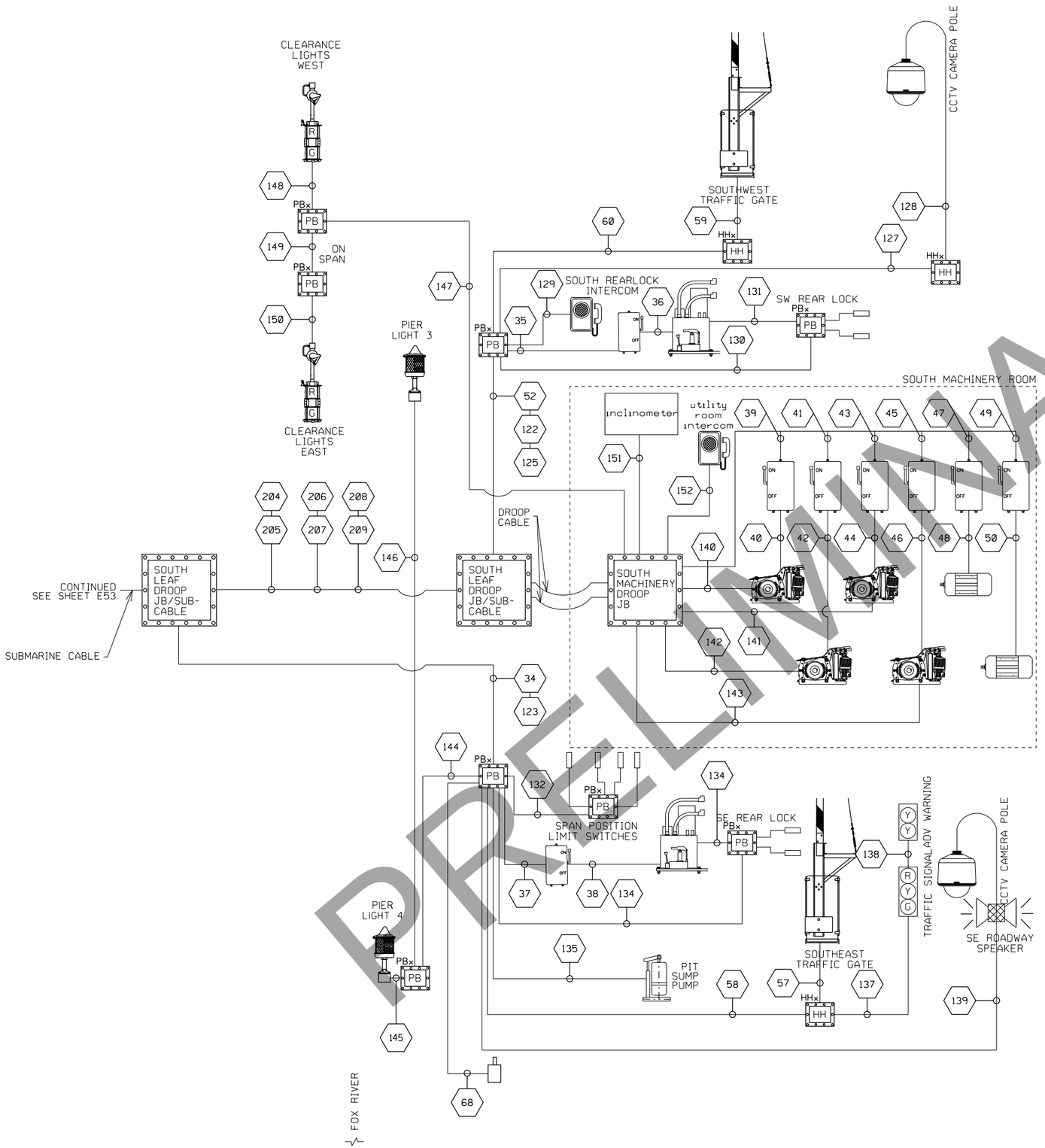
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71



PRELIMINARY

NOTES

1. THE SCHEMATIC CONDUIT DIAGRAM DOES NOT PURPORT TO SHOW ALL CONDUITS AND PULL/TERMINAL BOXES THAT MAY BE REQUIRED. MULTIPLE CONDUITS MAY BE REQUIRED BETWEEN DEVICES. FURNISH AND INSTALL ANY ADDITIONAL BOXES REQUIRED TO CONFORM WITH THE SPECIFIED NEC REQUIREMENTS GOVERNING THE ALLOWABLE NUMBER OF CONDUIT BENDS BETWEEN BOXES AND CABINETS.
2. SECTIONS OF FLEXIBLE CONDUIT REQUIRED FOR CONNECTIONS TO EQUIPMENT SUBJECT TO VIBRATION ARE NOT INDICATED. FLEXIBLE CONDUIT SHALL NOT TO EXCEED 24" IN LENGTH, FOR THE MOTORS, TRANSDUCERS AND LIMIT SWITCHES.
3. CONDUIT BLOCK DIAGRAM SHOWS ONLY MOVABLE BRIDGE POWER AND CONTROL EQUIPMENT AND CONDUITS. CONDUITS FOR LIGHTING RECEPTACLES AND HEATERS ARE NOT SHOWN.
4. ALL EXTERIOR, EXPOSED CONDUITS SHALL BE PVC COATED RIGID GALVANIZED STEEL CONDUIT. ALL INTERIOR CONDUITS SHALL BE RIGID GALVANIZED STEEL CONDUIT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT BLOCK DIAGRAM

DRAWING E54 OF E54

PRE_479

8

8

STATE PROJECT NUMBER

4992-03-71

CKT. NO	CONDUCTORS				CONDUIT		ROUTING		WIRE NUMBERS																
	NO.	AWG	INSUL	VOLT	SIZE	TYPE	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	4	600 MCM	USE-2	480	4	PVC	UTILITY XFMR	UTILITY METER	L1	L2	L3	N																
2	4	600 MCM	USE-2	480	4	PVC	UTILITY XFMR	UTILITY METER	L1	L2	L3	N																
3	5	600M / 1/0	USE-2	480	4	RMC	UTILITY METER	ATS	L1 / GND	L2	L3	N																
4	5	600M / 1/0	USE-2	480	4	RMC	UTILITY METER	ATS	L1 / GND	L2	L3	N																
5	5	600M / 1/0	USE-2	480	4	RMC	ATS	MCC	L1 / GND	L2	L3	N																
6	5	8 / 10	THWN	480	3/4	RMC	MCC	TVSS	L1 / GND	L2	L3	N																
7	3 / 1	6 / 8	THWN	480	1	RMC	MCC	LIGHTING XFMR	L1 / GND	L2	L3																	
8	4 / 1	1 / 6	THWN	208/120	1.5	RMC	LIGHTING XFMR	LP-1	L1 / GND	L2	L3																	
9	AS REQ	VARIES	THWN	208/120	TBD	RMC	LP-1	WIREWAY	LP-1H, N AND GROUND FOR ALL CIRCUITS																			
10	AS REQ	VARIES	THWN	480	TBD	RMC	MCC	WIREWAY	MOTOR AND FEEDER CIRCUITS																			
11	4 / 1	1, 6 / 2	THWN	480	3	RMC	MCC	NW DRIVE	L1 / T1, T2, T3, SHIELDED DRIVE	L2	L3	GND																
12	4 / 1	1, 6 / 2	THWN	480	3	RMC	MCC	NE DRIVE	L1 / T1, T2, T3, SHIELDED DRIVE	L2	L3	GND																
13	4 / 1	1, 6 / 2	THWN	480	3	RMC	MCC	SW DRIVE	L1 / T1, T2, T3, SHIELDED DRIVE	L2	L3	GND																
14	4 / 1	1, 6 / 2	THWN	480	3	RMC	MCC	SE DRIVE	L1 / T1, T2, T3, SHIELDED DRIVE	L2	L3	GND																
15	4	10	THWN	480	3/4	PRGS	N DROOP BOX	NE MACH BRK DISC	T1	T2	T3	GND																
16	4	10	THWN	480	3/4	PRGS	NE MACH BRK DISC	NE MACH BRK	T1	T2	T3	GND																
17	4	10	THWN	480	3/4	PRGS	N DROOP BOX	NW MACH BRK DISC	T1	T2	T3	GND																
18	4	10	THWN	480	3/4	PRGS	NW MACH BRK DISC	NW MACH BRK	T1	T2	T3	GND																
19	4	10	THWN	480	3/4	PRGS	N DROOP BOX	NE MOTOR BRK DISC	T1	T2	T3	GND																

PRELIMINARY

DRAFT April 20, 2020

PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

BATCH PRINT SHEET CSD OF NSD

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT SCHEDULE (1 OF 10)

DRAWING SEE OF E34
PRE_480

STATE PROJECT NUMBER

4992-03-71

CKT. NO	CONDUCTORS				CONDUIT		ROUTING		WIRE NUMBERS																
	NO.	AWG	INSUL	VOLT	SIZE	TYPE	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
20	4	10	THWN	480	3/4	PRGS	NE MOTOR BRK DISC	NE MOTOR BRK	T1	T2	T3	GND																
21	4	10	THWN	480	3/4	PRGS	N DROOP BOX	NW MOTOR BRK DISC	T1	T2	T3	GND																
22	4	10	THWN	480	3/4	PRGS	NW MOTOR BRK DISC	NW MOTOR BRK	T1	T2	T3	GND																
23	4	2 6	THWN	480	2	PRGS	N DROOP BOX	NW MAIN MOTOR DISC	T1,T2, T3, SHIELDED DRIVE CABLE																			
24	4	2 6	THWN	480	2	PRGS	NW MAIN MOTOR DISC	NW MAIN MOTOR	T1,T2, T3, SHIELDED DRIVE CABLE																			
25	4	2 6	THWN	480	2	PRGS	N DROOP BOX	NE MAIN MOTOR DISC	T1,T2, T3, SHIELDED DRIVE CABLE																			
26	4	2 6	THWN	480	2	PRGS	NE MAIN MOTOR DISC	NE MAIN MOTOR	T1,T2, T3, SHIELDED DRIVE CABLE																			
27	4	10	THWN	480	3/4	PRGS	PBOX NE	NE REAR LOCK DISC	T1	T2	T3	GND																
28	4	10	THWN	480	3/4	PRGS	NE REAR LOCK DISC	NE REAR LOCK MOTOR	T1	T2	T3	GND																
29	4	10	THWN	480	3/4	PRGS	PBOX NW	NW REAR LOCK DISC	T1	T2	T3	GND																
30	4	10	THWN	480	3/4	PRGS	NW REAR LOCK DISC	NW REAR LOCK MOTOR	T1	T2	T3	GND																
31	7	10	THWN	480	1	PRGS	N DROOP BOX FIXED	PBOX NW	T1,T2,T3 NW REAR LOCK					GND														
									T1,T2,T3 NW TRAFFIC GATE																		
32	24	10	THWN	480	4	PRGS	WIREWAY	PBOX NE							TI,T2,T3 NW GATE		TI,T2,T3 NW LOCK		TI,T2,T3 NE MHBK		TI,T2,T3 NW MHBK							
	6	1							T1,T2,T3 NE MOBK		T1,T2,T3 NW MOBK				TI,T2, T3, SHIELDED DRIVE				TI,T2, T3, SHIELDED DRIVE			GND						
33	30	10	THWN	480	4	PRGS	WIREWAY	PBOX NE	T1,T2,T3 NE GATE		T1,T2,T3 NE LOCK				TI,T2,T3 NW GATE		TI,T2,T3 NW LOCK		TI,T2,T3 NE MHBK		TI,T2,T3 NW MHBK							
	6	2							T1,T2,T3 NE MOBK		T1,T2,T3 NW MOBK				TI,T2, T3, SHIELDED DRIVE				TI,T2, T3, SHIELDED DRIVE			GND						
34	7	10	THWN	480	1	PRGS	S DROOP BOX FIXED	PBOX SW	TI, T2, T3 SW REAR LOCK					GND														
									TI, T2, T3 SW TRAFFIC GATE																		
35	4	10	THWN	480	3/4	PRGS	PBOX SW	SW REAR LOCK DISC	T1	T2	T3	GND																
36	4	10	THWN	480	3/4	PRGS	SW REAR LOCK DISC	SW REAR LOCK MOTOR	T1	T2	T3	GND																

PRELIMINARY

DRAFT April 20, 2020

BATCH PRINT SHEET CSD OF NSD

PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

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8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT SCHEDULE (2 OF 10)

DRAWING PRE_481

STATE PROJECT NUMBER

4992-03-71

CKT. NO	CONDUCTORS				CONDUIT		ROUTING		WIRE NUMBERS																
	NO.	AWG	INSUL	VOLT	SIZE	TYPE	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
37	4	10	THWN	480	3/4	PRGS	PBOX SE	SE REAR LOCK DISC	T1	T2	T3	GND																
38	4	10	THWN	480	3/4	PRGS	SE REAR LOCK DISC	SE REAR LOCK MOTOR	T1	T2	T3	GND																
39	4	10	THWN	480	3/4	PRGS	S DROOP BOX	SE MACH BRK DISC	T1	T2	T3	GND																
40	4	10	THWN	480	3/4	PRGS	SE MACH BRK DISC	SE MACH BRK	T1	T2	T3	GND																
41	4	10	THWN	480	3/4	PRGS	S DROOP BOX	SW MACH BRK DISC	T1	T2	T3	GND																
42	4	10	THWN	480	3/4	PRGS	SW MACH BRK DISC	SW MACH BRK	T1	T2	T3	GND																
43	4	10	THWN	480	3/4	PRGS	S DROOP BOX	SE MOTOR BRK DISC	T1	T2	T3	GND																
44	4	10	THWN	480	3/4	PRGS	SE MOTOR BRK DISC	SE MOTOR BRK	T1	T2	T3	GND																
45	4	10	THWN	480	3/4	PRGS	S DROOP BOX	SW MOTOR BRK DISC	T1	T2	T3	GND																
46	4	10	THWN	480	3/4	PRGS	SW MOTOR BRK DISC	SW MOTOR BRK	T1	T2	T3	GND																
47	4	2 6	THWN	480	2	PRGS	S DROOP BOX	SW MAIN MOTOR DISC	T1,T2, T3, SHIELDED DRIVE CABLE																			
48	4	2 6	THWN	480	2	PRGS	SW MAIN MOTOR DISC	SW MAIN MOTOR	T1,T2, T3, SHIELDED DRIVE CABLE																			
49	4	2 6	THWN	480	2	PRGS	S DROOP BOX	SE MAIN MOTOR DISC	T1,T2, T3, SHIELDED DRIVE CABLE																			
50	4	1 6	THWN	480	2	PRGS	SE MAIN MOTOR DISC	SE MAIN MOTOR	T1,T2, T3, SHIELDED DRIVE CABLE																			
51	24 6	10 2	THWN	480	3	PRGS	SUB CABLE	PBOX SE	T1,T2,T3 SE GATE	T1,T2,T3 SE LOCK	T1,T2,T3 SW GATE	T1,T2,T3 SW LOCK	T1,T2,T3 SE MHBK	T1,T2,T3 SW MHBK	T1,T2,T3 SE MOBK	T1,T2,T3 SW MOBK	T1,T2, T3, SHIELDED DRIVE			T1,T2, T3, SHIELDED DRIVE			GND					
52	7	10	THWN	480	1	PRGS	S DROOP BOX FIXED	PBOX SW	T1,T2,T3 SW GATE	T1,T2,T3 SW LOCK	GND																	
53	20	10	THWN	480	1.5	PRGS /VPVC	HH NE	PBOX NE	T1	T2	T3	GND	232A			NI5	GND	I233A	350A	353A	CBI7	NI7	I19A	H	N	I236A		
									RAISE/LOWER																			
54	17	10	THWN	480	2	PVC	NE TRAFFIC GATE	HH NE	T1	T2	T3	GND	I233A	350A	353A	CBI7	NI7	I19A	H	N	I236A							
									RAISE/LOWER																			
55	15	10	THWN	480	1.5	PVC	NW TRAFFIC GATE	HH NW	T1	T2	T3	GND	NI7	I243A	332A	335A	H	N	I19A									
									RAISE/LOWER																			

PRELIMINARY

DRAFT April 20, 2020

PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

BATCH PRINT SHEET CSD OF NSD

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT SCHEDULE (3 OF 10)

DRAWING SHT 53 OF 54

PRE_482

STATE PROJECT NUMBER

4992-03-71

CKT. NO	CONDUCTORS				CONDUIT		ROUTING		WIRE NUMBERS																
	NO.	AWG	INSUL	VOLT	SIZE	TYPE	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
56	20	10	THWN	480	2	PRGS /VPVC	HH NW	PBOX NW	T1	T2	T3	GND	240A	241A	242A	N15	N17	1243A	332A	335A	H	N	232A	119A				
									RAISE/LOWER																			
57	14	10	THWN	480	1.5	PVC	SE TRAFFIC GATE	HH SE	T1	T2	T3	GND	119A	338A	341A	CBI7	1238A	1241A										
									RAISE/LOWER																			
58	19	10	THWN	480	2	PRGS /VPVC	HH SE	PBOX SE	T1	T2	T3	GND	119A	338A	341A	CBI7	1238A	1241A	240A	241A	242A	N15	232A					
									RAISE/LOWER																			
59	14	10	THWN	480	1.5	PVC	SW TRAFFIC GATE	HH SW	T1	T2	T3	GND	119A	344A	347A	CBI7	N17	1247A										
									RAISE/LOWER																			
60	14	10	THWN	480	2	PRGS /VPVC	HH SW	PBOX SW	T1	T2	T3	GND	119A	344A	347A	CBI7	N17	1247A										
									RAISE/LOWER																			
61																												
62																												
63																												
64																												
65																												
66																												
67																												
68	3	12	THWN	120	3/4	PRGS	PBOX SE	PLUNGER LIMIT	645A	645B	GND																	
69	8	CAT 6			2	RGS			CAT 6 CABLES																			
									H	N	GND																	
70	12 STRD SM FIBER				1	RGS/ PVC	UTILITY HAND HOLE	SERVER CABIENT	12 STRAND SM FIBER																			
71	TSP	16	THWN		2	RGS	SERVER/DRIVES	CONSOLE	2 - TSP PAGE, PARTY					6 TSP FOR ANALOG														
									3-CAT 6																			
72	3	12	THWN	120	3/4	PRGS	PBOX NE	PLUNGER LIMIT	545A	545B	GND																	
73	TSP	16	THWN	120	3/4	PRGS	PBOX NE	N DROOP BOX	2 - TSP PAGE, PARTY					1SM FIBER PAIR				1TSP										
74	TSP	16	THWN	120	3/4	PRGS	PBOX NE	VARIOUS EQUIP/ELECT	5 - TSP PAGE, PARTY					2 SM FIBER PAIR				1TSP										

PRELIMINARY

DRAFT April 20, 2020
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$....designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$
BATCH PRINT SHEET CSD OF NSD

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT SCHEDULE (4 OF 10)

DRAWING PRE_483

8

8

STATE PROJECT NUMBER
4992-03-71

CKT. NO	CONDUCTORS				CONDUIT		ROUTING		WIRE NUMBERS																
	NO.	AWG	INSUL	VOLT	SIZE	TYPE	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
75	120	12	THWN	120	3	RMC	PLC CABINET	CONSOLE	109A	105-N	111A	111C	N5	113A	115A	118A	133A	141B	142A	144A	145A	147A	203A	206A	215A	218A	222A	224A
									227A	117B	303A	308A	314A	319A	332A	335A	338A	341A	344A	347A	350A	353A	403A	405A	408A	410A	413A	415A
									418A	420A	432A	435A	438A	441A	444A	447A	450A	453A	503A	503B	509A	511A	513A	515A	519B	520A	522A	536A
									539A	542A	545A	603A	603B	609A	611A	613A	615A	619B	620A	622A	636A	639A	642A	645A	701A	703A	705A	708A
									710A	712A	715A	717A	719A	722A	724A	726A	730A	732A	734A	737A	739A	741A	744A	746A	748A	751A	753A	755A
									1252A	111B																		
76	11	12	THWN	120	3/4	PRGS	PLC CABINET	NW DRIVE	N5	526A	906B	907A	908A	909A	910A	911A	912A	117B	505A									
77	11	12	THWN	120	3/4	PRGS	PLC CABINET	NE DRIVE	N5	524B	806B	807A	808A	809A	810A	811A	812A	117B	505A									
78	11	10	THWN	120	3/4	PRGS	PLC CABINET	SW DRIVE	N5	626A	1106B	1107A	1108A	1109A	1110A	1111A	1112A	117B	605A									
79	11	10	THWN	120	3/4	PRGS	PLC CABINET	SE DRIVE	N5	624B	1006B	1007A	1008A	1009A	1010A	1011A	1012A	117B	605A									
80	80	12	THWN	120	3	RMC	PLC CABINET	MCC	MOTOR STARTER INTERPOSING RELAY CONTACTS SEE MCC BUCKET DETAILS																			
81	10	10	THWN	120	3	PRGS	MCC	PBOX NE	119A	119A	119A	232A	N15	N15	240A	241A	242A	GND										
	50	12							432A	435A	44A	447A	DRIVE/PULL				RAISE/LOWER				332A	335A	350A	353A	536A	539A	542A	545A
									546B	701A	703A	705A	708A	710A	712A	715A	717A	719A	722A	724A	726A	CB7	N7	1204B	1205A			
									CB17	N17	1233A	1236A																
82	40	12	THWN	120 & 120/	2	PRGS	PBOX NE	N DROOP BOX	444A	447A	119A	GND	240A	241A	242A	N15	N17	1243A	332A	335A	H	N	232A	119A	701A	703A	705A	708A
									DRIVE/PULL				RAISE/LOWER				710A	712A	715A	717A	719A	722A	724A	726A	1204B	1205A	N7	
83	24	12	THWN	120	2	PRGS	N DROOP BOX	PBOX NW	444A	447A	119A	GND	240A	241A	242A	N15	N17	1243A	332A	335A	H	N	232A	119A				
									DRIVE/PULL				RAISE/LOWER															
84			THWN	120	1	PRGS	PBOX NE	HH NE																				
85	2	10	THWN	120	3/4	PRGS	HH NE	ADVANCE WARNING	232A	N15	GND																	
	1	12																										
86	2 PAIR	16	THWN	120	3/4	PRGS	PBOX NW	N DROOP BOX	2 - TSP PAGE, PARTY					ISM FIBER PAIR														
87	7	12	THWN	120	3/4	PRGS	PBOX NE	NORTH SUMP PUMP	CB-14	N-14	GND	119A	HILVL FLOAT															
									CB-28	N-28																		
88	8	12	THWN	120	3/4	PRGS	NE REAR LOCK LIMITS	PBOX NE	432A	435A	119A	GND																
									DRIVE/PULL																			
89	4	12	THWN	120	3/4	PRGS	PBOX NE	NE REAR LOCK MOTOR	DRIVE/PULL																			
90	6	12	THWN	120	3/4	PRGS	HH NE	PBOX NE	119A	536A	539A	542A	545A	GND														

PRELIMINARY

PRINTER DRIVER: c:\vowork\prq\aecom.ds16.na\pat1255\vdms99238\VAE PDF 11 x 17.plt
PEN TABLE: pw:\AECOM-NA-PW.Bentley.com:AECOM-DS16.NA\Documents\60542581-Racine Street Bridge\900-CAD GIS\930.Electrical\Pen Tables\VAE_WisDOT_structure.tbl
FILE NAME: pw:\AECOM-NA-PW.Bentley.com:AECOM_Berlin.NA\Documents\60542581-Racine St Bridge\900-CAD GIS\930.Electrical\Racine St Sheet Files\E59_Conduit Schedule.dgn
PLOT DATE: 2/24/2020 PLOT TIME: 11:27:08 AM BATCH PRINT SHEET 59 OF 64
DRAFT April 20, 2020

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT SCHEDULE (5 OF 10)

DRAWING E59 OF E64

PRE_484

STATE PROJECT NUMBER

4992-03-71

CKT. NO	CONDUCTORS				CONDUIT		ROUTING		WIRE NUMBERS																
	NO.	AWG	INSUL	VOLT	SIZE	TYPE	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
91	8	12	THWN	120	3/4	PRGS	PBOX NW REAR LOCK	PBOX NW	444A	447A	119A	GND																
									DRIVE/PULL																			
92	4	12	THWN	120	3/4	PRGS	PBOX NW	NW REAR LOCK MOTOR	DRIVE/PULL																			
93	2 PAIR	16	THWN	120	3/4	PRGS	PBOX NW	NORTH REARLOCK	2 - TSP PAGE, PARTY																			
94	AS REQ		THWN	120	2	PRGS	HH NW	NE ROADWAY CAMERA	CB-4	N-4	SM FIBER		GND	1 - TSP														
95	5	10	THWN	120	3/4	PRGS	HH NW	TRAFFIC SIGNAL NW	240A	241A	242A	N15	GND	232A														
	1	12																										
96	AS REQ		THWN	120	3/4	PRGS	ADV WARNING	NW TRAFFIC GATE	232A	N15	GND																	
97	AS REQ		THWN	120	2	PVC/ PRGS	LP-1 & SERVER	HH NW	CB-4	N-4	SM FIBER		GND															
98	AS REQ		THWN	120	1.5	PVC	HH NW	NW ROADWAY CAMERA	CB-4	N-4	SM FIBER		GND															
99	AS REQ		THWN	120	1.5	PVC	HH NW	NE ROADWAY CAMERA	CB-4	N-4	SM FIBER		GND		1 - TSP													
100	5	12	THWN	120	3/4	PRGS	N DROOP BOX	NE MACH BRK	701A	703A	705A	119A	GND															
101	5	12	THWN	120	3/4	PRGS	N DROOP BOX	NW MACH BRK	708A	710A	712A	119A	GND															
102	5	12	THWN	120	3/4	PRGS	N DROOP BOX	NE MOTOR BRK	715A	717A	719A	119A	GND															
103	5	12	THWN	120	3/4	PRGS	N DROOP BOX	NW MOTOR BRK	722A	724A	726A	119A	GND															
104	AS REQ		THWN	120/2 4	1	PRGS	N DROOP BOX	INCLINOMETER	H	N																		
									1TSP																			
105	2 PAIR	16	THWN	120	3/4	PRGS	N DROOP BOX	NORTH MACHINERY	2 - TSP PAGE, PARTY																			
106	4	12	THWN	120	3/4	PRGS	N DROOP BOX	PBOX CLEARANCE	1204B	1205A	N-7	GND																
107	4	12	THWN	120	3/4	PRGS	PBOX CLEARANCE	CLEARANCE LIGHTS NE	1204B	1205A	N-7	GND																
108	4	12	THWN	120	3/4	PRGS	PBOX CLEARANCE	PBOX CLEARANCE	1204B	1205A	N-7	GND																
109	4	12	THWN	120	3/4	PRGS	PBOX CLEARANCE	CLEARANCE LIGHTS NW	1204B	1205A	N-7	GND																

PRELIMINARY

DRAFT April 20, 2020

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PLOT DATE: 2/24/2020 PLOT TIME: 11:27:18 AM
BATCH PRINT SHEET 60 OF 64

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT SCHEDULE (6 OF 10)

DRAWING E60 OF E64

PRE_485

8

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PLOT DATE: 2/24/2020 PLOT TIME: 11:27:28 AM BATCH PRINT SHEET 61 OF 64
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

CKT. NO	CONDUCTORS NO.	AWG	INSUL	VOLT	CONDUIT SIZE	TYPE	ROUTING FROM	TO	WIRE NUMBERS 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
110	2	10	THWN	120	3/4	PRGS	WIREWAY	PIER LIGHTS PBOX	CB7	GND	N7																	
111	2	10	THWN	120	3/4	PRGS	PIER LIGHTS PBOX	PIER LIGHT 1	CB7	GND	N7																	
112	2	10	THWN	120	3/4	PRGS	PIER LIGHTS PBOX	PIER LIGHT 2	CB7	GND	N7																	
113	2 PAIR	16	THWN		3/4	PRGS	WIREWAY	UTILITY ROOM INTERCOM	2 - TSP PAGE, PARTY																			
114	6 PAIR	16	THWN	120	3/4	PRGS	FOX RIVER CONTROL	FOX RIVER INTERCOM	6 - TSP PAGE, PARTY																			
									CB-2	N-2																		
115	6	12	THWN	120	3/4	PRGS	TAYCO RIVER CONTROL	TAYCO RIVER INTERCOM	CB-2	N-2																		
									6 - TSP PAGE, PARTY																			
116	2 PAIR	16	THWN		3/4	PRGS	WIREWAY	ENTRY ROOM INTERCOM	2 - TSP PAGE, PARTY																			
117																												
118																												
119																												
126			THWN	120	3/4	PRGS																						

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP PLANS CK'D. DAD

CONDUIT SCHEDULE (7 OF 10)

DRAWING E61 OF E64

PRELIMINARY

STATE PROJECT NUMBER

4992-03-71

CKT. NO	CONDUCTORS NO.	AWG	INSUL	VOLT	CONDUIT SIZE	TYPE	ROUTING FROM	TO	WIRE NUMBERS 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
127	AS REQ		THWN	120	2	PRGS	PBOX SW	HH SW	CB-13	N-13	SM FIBER		GND															
128	AS REQ		THWN	120	1.5	PRGS	HH SW	SW ROADWAY CAMERA	CB-13	N-13	SM FIBER		GND															
129	2 PAIR	16	THWN		3/4	PRGS	PBOX SW	SOUTH REARLOCK	2 - TSP PAGE, PARTY																			
130	7	10	THWN	120	3/4	PRGS	PBOX SW	HH SW	450A	453A	119A	GND																
	1	12							DRIVE/PULL																			
131	4	10	THWN	120	3/4	PRGS	HH SW	SW REAR LOCK MOTOR		GND																		
	1	12							DRIVE/PULL																			
132	6	10	THWN	120	3/4	PRGS	PBOX SE	SE SPAN LIMITS	119A	636A	639A	642A	645A	GND														
133	4	12	THWN	120	3/4	PRGS	PBOX SE	HH SE				GND																
	1	12							DRIVE/PULL																			
134	8	12	THWN	120	3/4	PRGS	PB SE	SE REAR LOCK LIMITS	119A	438A	441A	GND																
									DRIVE/PULL																			
135	8	12	THWN	120	1	PRGS	PBOX SE	SOUTH SUMP PUMP	CB-3	N-3	GND	119A	HI LVL FLOAT															
									CB-9	N-9																		
136			THWN	120	1	PRGS																						
137	5	10	THWN	120	2	PVC	HH SE	TRAFFIC SIGNAL SE	240A	241A	242A	N15	GND	232A														
	1	12																										
138	3	10	THWN	120	2	PVC	ADV WARNING	SE TRAFFIC GATE	232A	N17	GND																	
139	AS REQ		THWN	120	2	PRGS /PVC	PBOX SE	SE ROADWAY CAMERA	CB-13	N-13	SM FIBER		GND	1 - TSP														
140	5	12	THWN	120	3/4	PRGS	S DROOP BOX	SE MACH BRK	730A	732A	734A	119A	GND															
141	5	12	THWN	120	3/4	PRGS	S DROOP BOX	SW MACH BRK	737A	739A	741A	119A	GND															
142	5	12	THWN	120	3/4	PRGS	S DROOP BOX	SE MOTOR BRK	744A	746A	748A	119A	GND															
143	5	12	THWN	120	3/4	PRGS	S DROOP BOX	SW MOTOR BRK	751A	753A	755A	119A	GND															
144	4	10	THWN	120	3/4	PRGS	PBOX SE	PBOX SE	CB7	N-7	GND																	
145	4	10	THWN	120	3/4	PRGS	PBOX SE	PIER LIGHT 3	CB7	N-7	GND																	

PRELIMINARY

DRAFT April 20,

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PLOT DATE: 2/24/2020 PLOT TIME: 11:27:38 AM BATCH PRINT SHEET 62 OF 64

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT SCHEDULE (8 OF 10)

DRAWING PRE_487

8

8

STATE PROJECT NUMBER

4992-03-71

CKT. NO	CONDUCTORS				CONDUIT		ROUTING		WIRE NUMBERS																
	NO.	AWG	INSUL	VOLT	SIZE	TYPE	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
146	4	10	THWN	120	3/4	PRGS	PBOX SE	PIER LIGHT 4	CB7	N-7	GND																	
147	4	10	THWN	120	3/4	PRGS	S DROOP BOX	PBOX SW	I204B	I205A	N-7	GND																
148	4	10	THWN	120	3/4	PRGS	PBOX SW	CLEARANCE LIGHTS SW	I204B	I205A	N-7	GND																
149	4	10	THWN	120	3/4	PRGS	PBOX SW	PBOX SW	I204B	I205A	N-7	GND																
150	4	10	THWN	120	3/4	PRGS	PBOX SW	CLEARANCE LIGHTS SE	I204B	I205A	N-7	GND																
151	6	12	THWN	120/24	1	PRGS	S DROOP BOX	INCLINOMETER	H	N																		
									2 TSP SHIELD																			
152	2 PAIR	16	THWN		3/4	PRGS	S DROOP BOX	SOUTH MACHINERY	2 - TSP PAGE, PARTY																			
153																												
154																												
155																												
156																												
157																												
158																												
159																												
160																												
198	3	6	THWN	480	1	RGS	MCC	SUBMARINE CABLE BOX	L1	L2	L3	GND																
	1	8																										
199	VARIOUS		COMM		2	RGS	SERVER/PA/PLC	SUBMARINE CABLE BOX	1 - TSP			12 STRAND SM FIBER																
									6 - TSP																			

PRELIMINARY

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PLOT DATE: 2/24/2020 PLOT TIME: 11:27:48 AM
BATCH PRINT SHEET 63 OF 64
DRAFT April 20, 2020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT SCHEDULE (9 OF 10)

DRAWING PRE_488

8

8

STATE PROJECT NUMBER

4992-03-71

CKT. NO	CONDUCTORS				CONDUIT		ROUTING		WIRE NUMBERS																
	NO.	AWG	INSUL	VOLT	SIZE	TYPE	FROM	TO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
200	2	2	DRV CABLE	480	4	RGS	DRIVES	SUBMARINE CABLE BOX	T1,T2, T3, SHIELDED DRIVE																			
									T1,T2, T3, SHIELDED DRIVE																			
201	25	10	THWN	480	2	RGS	MCC	SUBMARINE CABLE BOX	T1,T2,T3 NE MHBK			T1,T2,T3 NW MHBK			T1,T2,T3 SW GATE			T1,T2,T3 N=SE			T1,T2,T3 SW LOCK			T1,T2,T3 N=SE				
									T1,T2,T3 NE MOBK			T1,T2,T3 NW MOBK			GND													
202	60	12	THWN	120	3	RGS	PLC/ CONTROLS	SUBMARINE CABLE BOX	730A	732A	734A	737A	739A	741A	744A	746A	748A	751A	753A	755A	119A	GND	CB-2	N-2	H	N		
									119A	GND	636A	639A	642A	645A	119A	438A	441A	CB-3	N-3	CB-9	N-9	338A	341A	CBI7	1238A	1241A	240A	241A
								SUBMARINE CABLE BOX	CB-4	N-4	RAISE/LOWER				DRIVE/PULL					HI LVL FLOAT		242A	NI5	232A				
204	2	2	DRV CABLE	480		PRGS	S. FIXED DROOP CABLE BOX	SUBMARINE CABLE BOX	T1,T2, T3, SHIELDED DRIVE																			
									T1,T2, T3, SHIELDED DRIVE																			
205	12	10	THWN	480		PRGS	S. FIXED DROOP CABLE BOX	SUBMARINE CABLE BOX	T1,T2,T3 SE MHBK			T1,T2,T3 SW MHBK																
	1	10							T1,T2,T3 SE MOBK			T1,T2,T3 SW MOBK			GND													
206	20	12	THWN	120		PRGS	S. FIXED DROOP CABLE BOX	SUBMARINE CABLE BOX	730A	732A	734A	737A	739A	741A	744A	746A	748A	751A	753A	755A	119A	GND	CB-2	N-2	H	N		
									SP	SP	SP																	
207	3 PAIR	16	THWN		1	PRGS	S. FIXED DROOP CABLE BOX	SUBMARINE CABLE BOX	1 - TSP			SM FIBER																
									2 - TSP																			
208	7	10	THWN	480	1	PRGS	S. FIXED DROOP CABLE BOX	SUBMARINE CABLE BOX	T1,T2,T3 SW GATE			T1,T2,T3 SW LOCK			GND													
209	19	10	THWN	120	2	PRGS	S. FIXED DROOP CABLE BOX	SUBMARINE CABLE BOX	GND	119A	344A	347A	CBI7	NI7	1247A	450A	453A	CB-13	N-13	H	N							
	1	12							RAISE/LOWER						DRIVE/PULL													
225																												
226																												

PRELIMINARY

DRAFT

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PLOT DATE: 2/24/2020 PLOT TIME: 11:27:58 AM
BATCH PRINT SHEET 64 OF 64

April 20, 2020

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-70-324

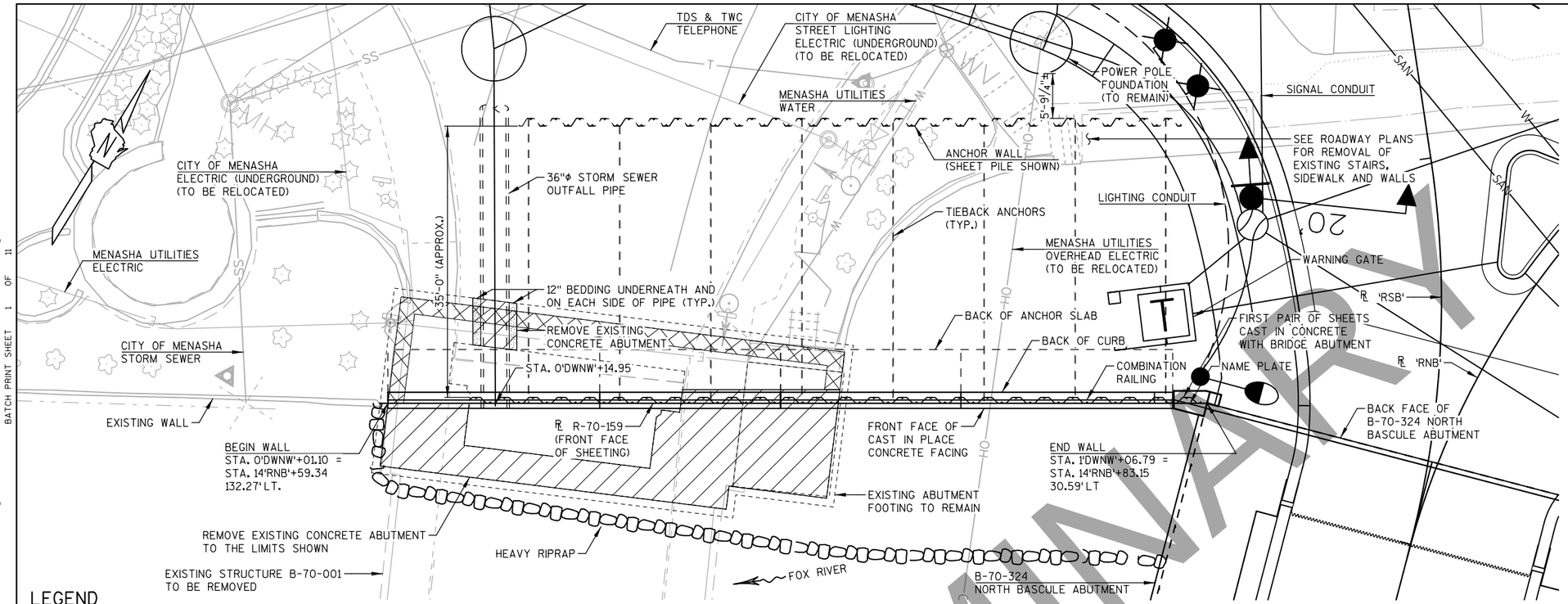
DRAWN BY HVP | PLANS CK'D. DAD

CONDUIT SCHEDULE (10 OF 10)

DRAWING E64 OF E64

PRE_489

PRELIMINARY

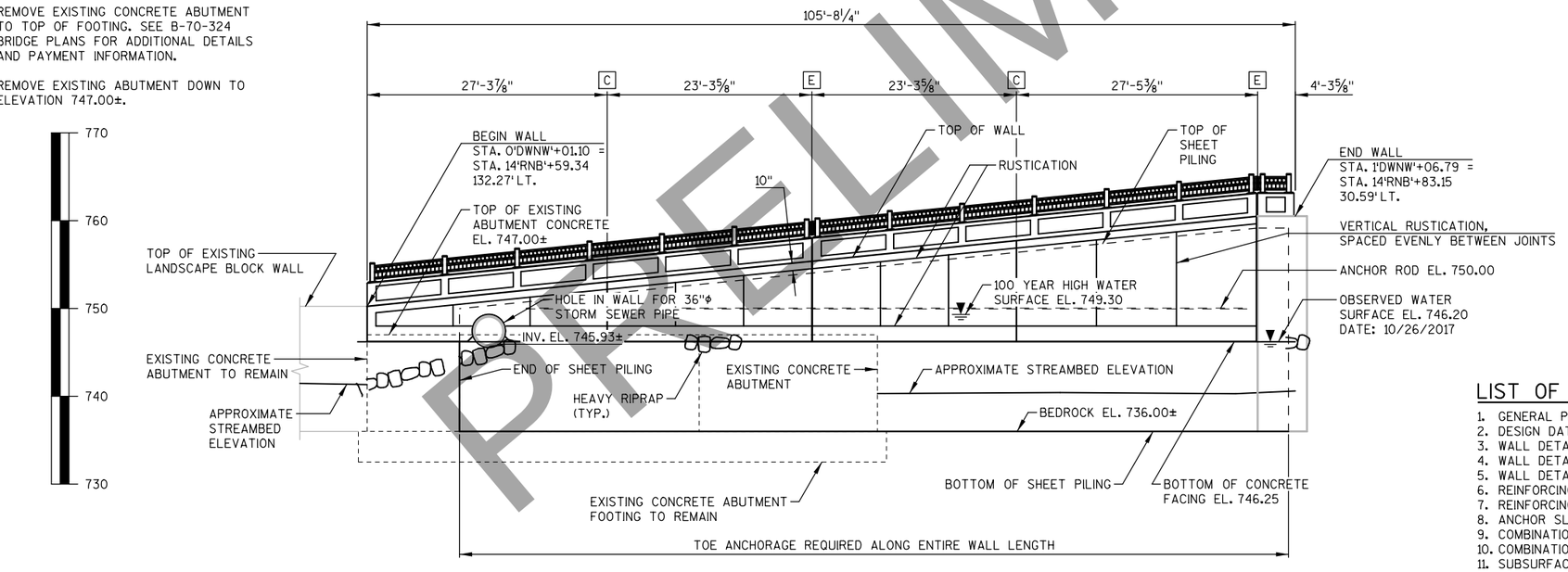


PLAN

ANCHORED SHEET PILE WALL

LEGEND

- [C] CONTRACTION JOINT
- [E] EXPANSION JOINT
- REMOVE EXISTING CONCRETE ABUTMENT TO TOP OF FOOTING. SEE B-70-324 BRIDGE PLANS FOR ADDITIONAL DETAILS AND PAYMENT INFORMATION.
- REMOVE EXISTING ABUTMENT DOWN TO ELEVATION 747.00±.



ELEVATION

(LOOKING @ F.F. OF WALL)

DESIGN DATA

LIVE LOAD:
LIVE LOAD SURCHARGE ..... 240 PSF

MATERIAL PROPERTIES:
CONCRETE MASONRY RETAINING WALL ..... f'c = 3,500 PSI
BAR STEEL REINFORCEMENT ..... fy = 60,000 PSI
STEEL SHEET PILE (ASTM A328) ..... fy = 39,000 PSI
STEEL SHEET PILE MINIMUM
REQUIRED SECTION MODULUS ..... S = 18.1 IN³/FT

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA = 6,030 SQ. MI.
Q100 = 9,700 CFS
VELOCITY 100 = 2.8 FT/SEC
WATERWAY AREA = 3464 SQ. FT.
HIGH WATER 100 ELEVATION = 749.30
SCOUR CRITICAL CODE = 5
REGULATORY HIGH WATER = 749.3
OVERTOPPING N/A

2 YEAR FREQUENCY
Q2 = 7,100 CFS
VELOCITY 2 = 2.0 FT/SEC
HIGH WATER 2 ELEVATION = 749.19

TRAFFIC DATA:

RACINE STREET:
A.D.T. = 11,300 (2012)
A.D.T. = 12,900 (2030)
R.D.S. = 30 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN AND ELEVATION
2. DESIGN DATA, QUANTITIES & ALIGNMENT
3. WALL DETAILS 1
4. WALL DETAILS 2
5. WALL DETAILS 3
6. REINFORCING DETAILS 1
7. REINFORCING DETAILS 2
8. ANCHOR SLAB DETAILS AND BILL OF BARS
9. COMBINATION RAILING ELEVATION
10. COMBINATION RAILING DETAILS
11. SUBSURFACE EXPLORATION

STRUCTURES DESIGN CONTACTS

BUREAU OF STRUCTURES CONTACT - AARON BONK (608) 261-0261
CONSULTANT CONTACT - MICHAEL ARNOLD (414) 944-6142

STATE PROJECT NUMBER

4992-03-71

WISCONSIN
MICHAEL J. ARNOLD
E-41717
NEW BERLIN, WI
PROFESSIONAL ENGINEER
03/05/2020

NO.	DATE	REVISION	BY

AECOM
1555 North Rivercenter Drive, Suite 214
Milwaukee, WI 53212
(414) 944-6080

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-70-159

RACINE STREET OVER FOX RIVER

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
WINNEBAGO	MENASHA

DESIGN SPEC.
AASHTO LRFD DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
CEB	MJA	CEB/DNJ	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 11

PRE_490

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PLOT DATE: 3/4/2020 PLOT TIME: 4:30:43 PM BATCH PRINT SHEET 2 OF 11

STATE PROJECT NUMBER

4992-03-71

GEOMETRY TABLE

LOCATION	WALL STATION	ROADWAY STATION 'RNB'	OFFSET TO F.F. WALL	OFFSET SIDE	TOP OF WALL ELEV.	FINISHED GRADE*	STREAMBED ELEV. (APPROX.)	BEDROCK ELEV. (APPROX.)
BEGIN ALIGNMENT	0+00.00	14+59.06	133.33	LEFT	750.25	742.00	742.00	736.00
BEGIN WALL	0+01.10	14+59.34	132.27	LEFT	750.25	742.25	736.00	--
EAST EDGE EXIST. ABUT. TO REMAIN	0+11.59	14+61.98	122.11	LEFT	751.31	745.00	736.00	--
℄ STORM SEWER PIPE	0+14.95	14+62.83	118.87	LEFT	751.65	745.88	736.00	--
END OF TIE-BACK ANCHORAGE	0+19.21	14+63.90	114.75	LEFT	752.08	747.00	736.00	--
STA. ALONG WALL	0+20.00	14+64.10	113.98	LEFT	752.16	747.00	736.00	--
CONTRACTION JOINT	0+28.42	14+66.23	105.83	LEFT	753.01	747.00	736.00	--
STA. ALONG WALL	0+40.00	14+69.15	94.62	LEFT	754.18	747.00	736.00	--
EXPANSION JOINT	0+51.73	14+72.11	83.28	LEFT	755.37	747.00	736.00	--
STA. ALONG WALL	0+60.00	14+73.83	75.27	LEFT	756.21	747.00	737.49	736.00
CONTRACTION JOINT	0+75.03	14+76.27	60.79	LEFT	757.72	747.00	740.30	736.00
STA. ALONG WALL	0+80.00	14+77.18	56.03	LEFT	758.23	747.00	740.41	736.00
STA. ALONG WALL	1+00.00	14+81.44	36.99	LEFT	760.25	747.00	740.60	736.00
KINK IN WALL PPT. (EXP. JT.)	1+02.48	14+82.05	34.65	LEFT	760.50	747.00	740.86	736.00
END WALL	1+06.79	14+83.15	30.59	LEFT	760.50	747.00	740.59	736.00

*TOP OF RIPRAP

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
209.0300.S	BACKFILL COARSE AGGREGATE SIZE NO. 2	CY	250
210.1500	BACKFILL STRUCTURE TYPE A	TON	1,280
310.0110	BASE AGGREGATE OPEN-GRADED	TON	1,270
502.3200	PROTECTIVE SURFACE TREATMENT	SY	12
502.3210	PIGMENTED SURFACE SEALER	SY	45
502.4208	ADHESIVE ANCHORS NO. 8 BAR	EACH	10
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	80
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	7,300
506.3008	WELDED STUD SHEAR CONNECTORS 5/8X5-INCH	EACH	130
512.0500	PILING STEEL SHEET PERMANENT DELIVERED	SF	1,788
512.0600	PILING STEEL SHEET PERMANENT DRIVEN	SF	1,788
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	20
606.0300	RIPRAP HEAVY	CY	127
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	130
645.0112	GEOTEXTILE TYPE DF SCHEDULE B	SY	387
645.0120	GEOTEXTILE TYPE HR	SY	219
SPV.0090.02	RAILING ALUMINUM SPECIAL R-70-159	LF	102
SPV.0105.32	ANCHORING SYSTEM FOR SHEET PILE WALL R-70-159	LS	1
	NON-BID ITEMS		
	FILLER	SIZE	3/4" & 1 1/2"
	NAME PLATE	EACH	1

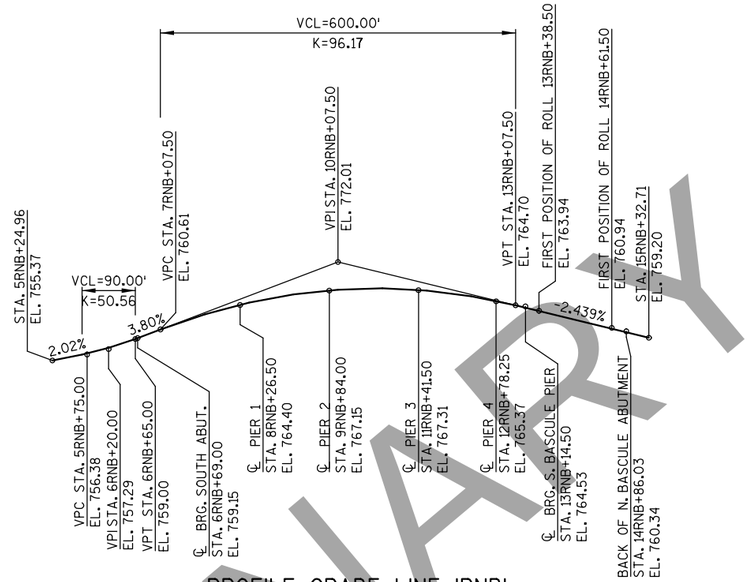
SOIL PARAMETERS AT BORINGS

BORING B-7D			
STRATUM LOCATIONS & SOIL DESCRIPTION	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
EL. 737.8 TO EL. 734.1 - SILTY SAND, GRAY, WET	130	36	0
EL. 734.1 TO EL. 730.6 - FRACTURED BEDROCK	130	45	0
BELOW EL. 730.6 - SOUND BEDROCK	140	45	0

BORING B-8			
STRATUM LOCATIONS & SOIL DESCRIPTION	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
EL. 752.7 TO EL. 741.5 - FILL, LEAN CLAY WITH GRAVEL	125	0	500
EL. 741.5 TO EL. 736.7 - SILTY SAND, GRAY, WET	130	36	0
BELOW EL. 736.7 - FRACTURED BEDROCK	130	45	0

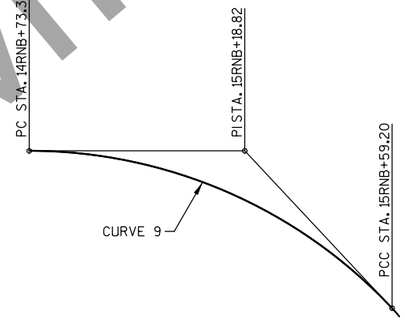
DESIGN SOIL PARAMETERS

MATERIAL	LOCATION	ELEVATION	UNIT WEIGHT (PCF)		FRICTION ANGLE (DEG.)
			DRY	SATURATED	
BACKFILL STRUCTURE TYPE A	BEHIND WALL	FINISHED GRADE TO EL. 749.00	120	125	30
BASE AGGREGATE OPEN-GRADED	BEHIND WALL	EL. 749.00 TO EXIST. STREAMBED (EL. 740.00±)	120	130	32
BACKFILL COARSE AGGREGATE SIZE NO. 2	IN FRONT OF WALL	EL. 745.00 TO EXIST. STREAMBED (EL. 740.00±)	110	125	35



PROFILE GRADE LINE 'RNB'

(NTS)



HORIZONTAL ALIGNMENT RACINE STREET 'RNB'

GENERAL NOTES

WALL TYPE IS AN ANCHORED SHEET PILE WALL WITH CAST-IN-PLACE CONCRETE FACING, ANCHOR SLAB AND COMBINATION BARRIER.

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND DIMENSIONS ARE IN SURVEY FEET, ALL ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD88 (1991) DATUM.

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

ALL BAR STEEL IN CAST IN PLACE CONCRETE SHALL BE EPOXY COATED.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE FACING, ANCHOR SLAB AND PARAPET IS PAID FOR UNDER THE BID ITEM "CONCRETE MASONRY RETAINING WALLS".

WALL STATIONS ARE ALONG THE ℄ FOR R-70-159, WHICH IS LOCATED AT THE FRONT FACE OF SHEET PILING.

THE RETAINING WALL IS TO BE CONSTRUCTED USING THE ELEVATIONS GIVEN IN THE GEOMETRY TABLE.

EXCAVATION FOR ANCHOR TIE RODS IS INCIDENTAL TO THE BID ITEM "ANCHORING SYSTEM FOR SHEET PILE WALL R-70-159."

DO NOT OPERATE HEAVY EQUIPMENT OR STOCKPILE MATERIALS IN CLOSE PROXIMITY TO THE WALL.

REMOVAL OF THE EXISTING WALL (OR PORTIONS THEREOF) IS INCLUDED WITH THE ITEM "EXCAVATION COMMON". SEE ROADWAY PLANS.

REQUIRED SHEET PILE SECTION MODULUS IS GIVEN ON THIS PLAN. FULL DESIGN AND DETAILS OF ANCHORING SYSTEM, INCLUDING WALES, ANCHOR RODS, ANCHOR WALL AND TOE ANCHORS ARE TO BE PROVIDED BY THE CONTRACTOR UNDER THE BID ITEM "ANCHORING SYSTEM FOR SHEET PILE WALL R-70-159."

AT THE STORM SEWER PIPE OUTLET, PROVIDE A HOLE IN THE SHEET PILING. POUR THE CONCRETE FACING TO SEAL THE OPENING IN THE SHEET PILES. WHERE THE FACING DOES NOT SURROUND THE PIPE AT THE BOTTOM, PROVIDE A CONCRETE MORTAR SEAL.

PROTECTIVE SURFACE TREATMENT IS APPLIED TO THE TOP OF THE CURB PAN. PIGMENTED SURFACE SEALER IS APPLIED TO THE TOP AND INSIDE FACE OF THE PARAPET.

WALL DESIGN DATA

TIEBACK ANCHOR FORCE = 13.2 KIPS/FT.
TOE ANCHOR FORCE = 5.2 KIPS/FT.
FORCES GIVEN PER LENGTH ALONG WALL.

CURVE 9 DATA

PI STA = 15+18.82'RNB'
Y = 540119.384
X = 817133.824
DELTA = 46°51'58"
D = 54°34'03"
T = 45.51'
L = 85.89'
R = 105.00'
PC STA = 14+73.31'RNB'
Y = 540075.907
X = 817147.275
PT STA = 15+59.20'RNB'
Y = 540158.925
X = 817156.355
BK = N17°11'28.7"W
AH = N29°40'29.5"E

PRELIMINARY

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-159

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DESIGN DATA, QUANTITIES AND ALIGNMENT

SHEET 2 OF 11

PRE_491

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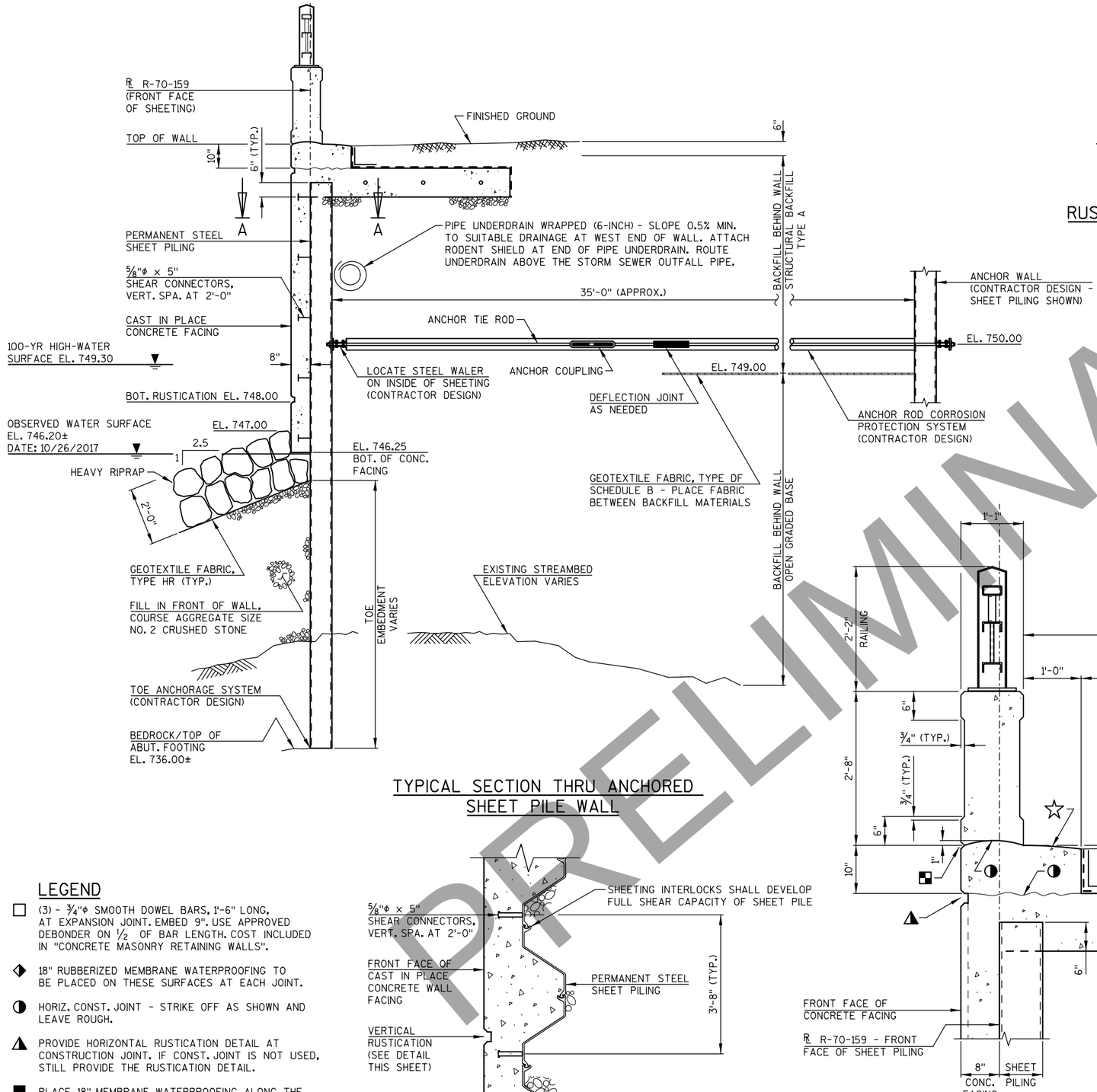
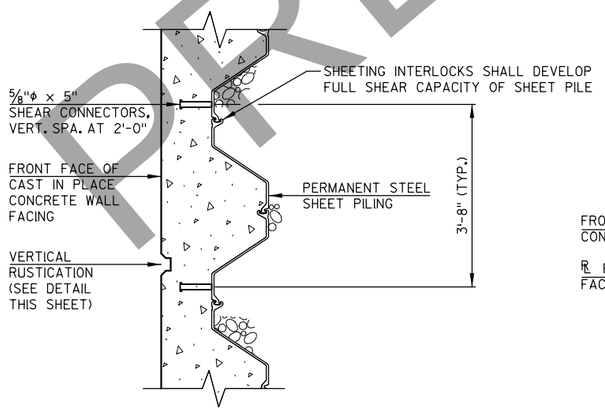


TYPICAL SECTION THRU ANCHORED SHEET PILE WALL

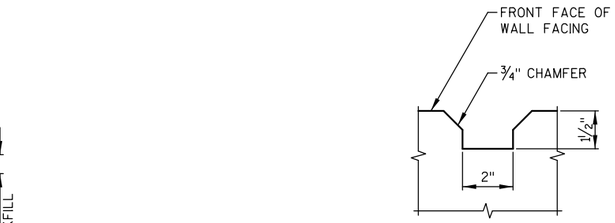


SECTION A-A

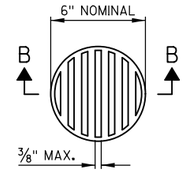
REINF. NOT SHOWN FOR CLARITY

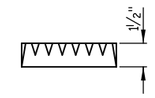
LEGEND

- □ (3) - ¾"ϕ SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT. EMBED 9". USE APPROVED DEBONDER ON ½ OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".
- ◆ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.
- ◑ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ◭ PROVIDE HORIZONTAL RUSTICATION DETAIL AT CONSTRUCTION JOINT. IF CONST. JOINT IS NOT USED, STILL PROVIDE THE RUSTICATION DETAIL.
- ■ PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT.
- ◪ ¾" "V" GROOVE
- † SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)



RUSTICATION DETAIL





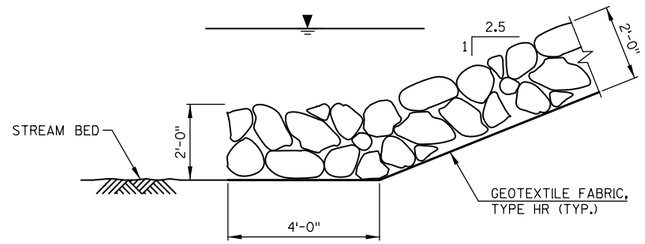
SECTION B-B

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 COMMERCIALLY 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.



RIPRAP TOE DETAIL

SECTION THRU ANCHOR SLAB

ANCHOR SLAB RUNS ENTIRE LENGTH OF PARAPET, EXCEPT OVER ABUTMENT ATTACHMENT CONCRETE.

☆ SLOPE TO DRAIN

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STRUCTURE R-70-159

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WALL DETAILS 1 PRE_492

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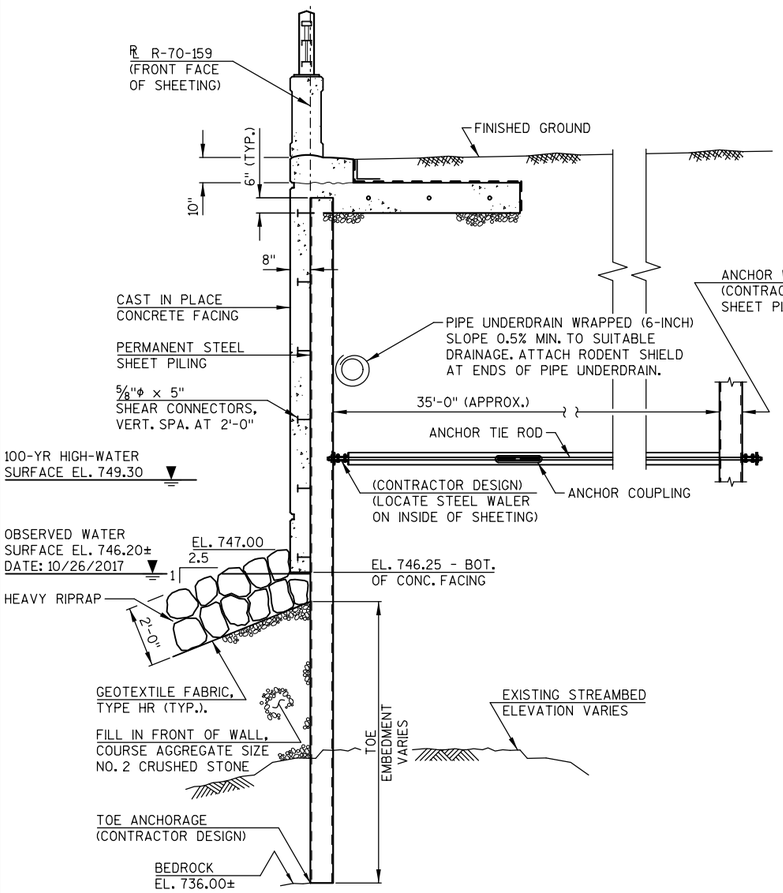
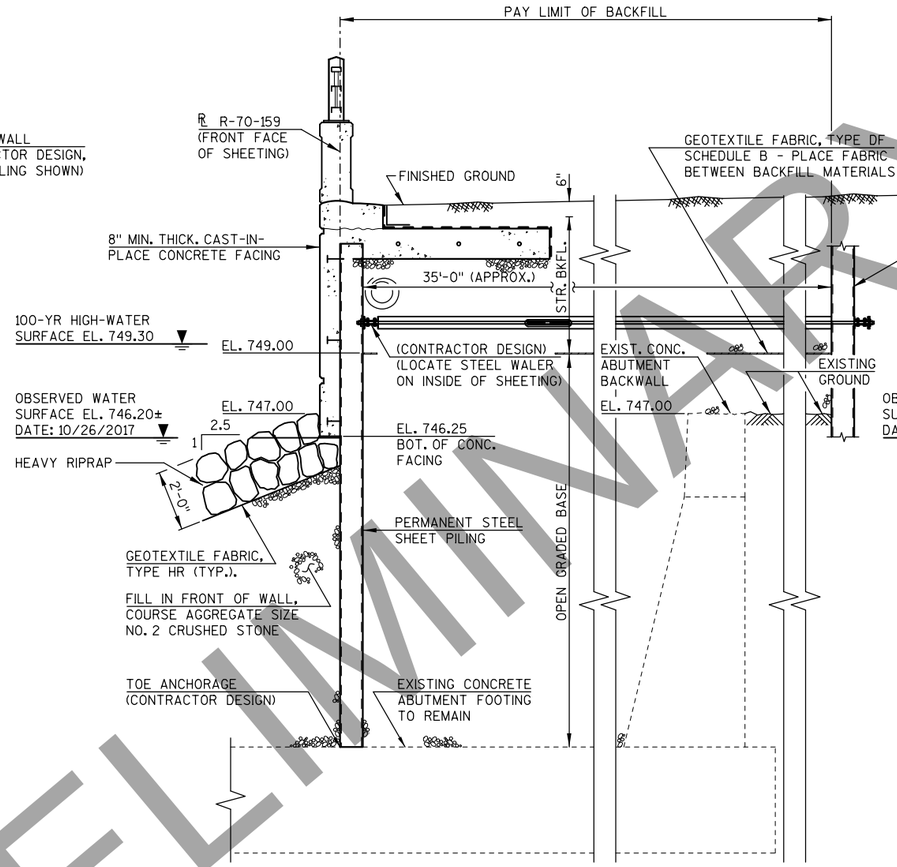
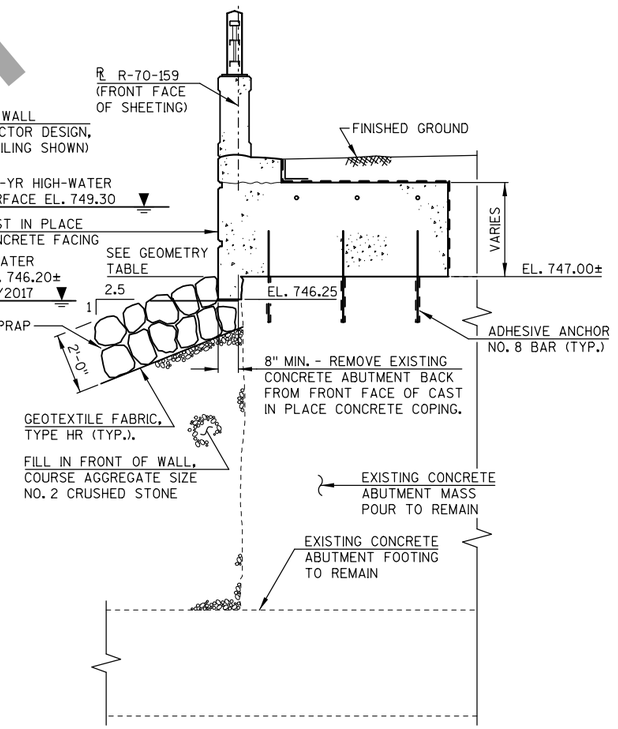


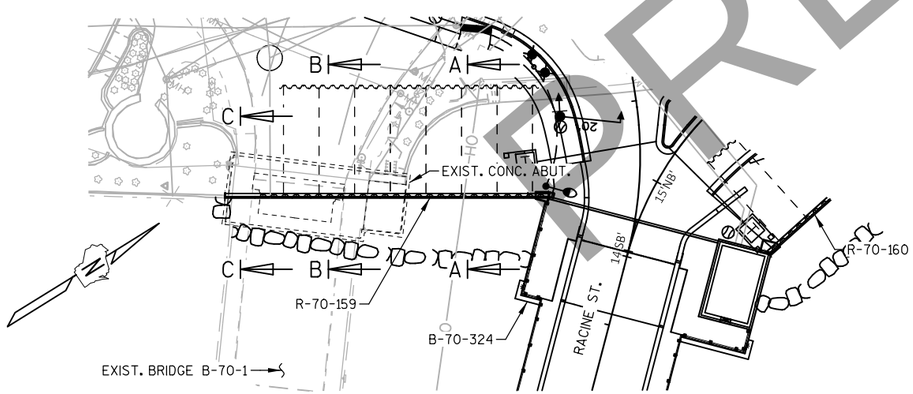
SECTION A-A



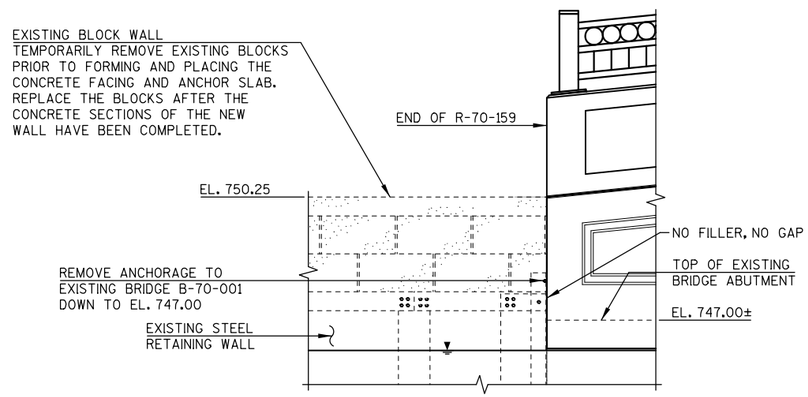
SECTION B-B



SECTION C-C



LOCATION MAP



PART ELEVATION - DETAIL AT EXISTING WALL

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STRUCTURES DESIGN SECTION

STRUCTURE R-70-159

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WALL DETAILS 2

SHEET 4 OF 11

PRE_493

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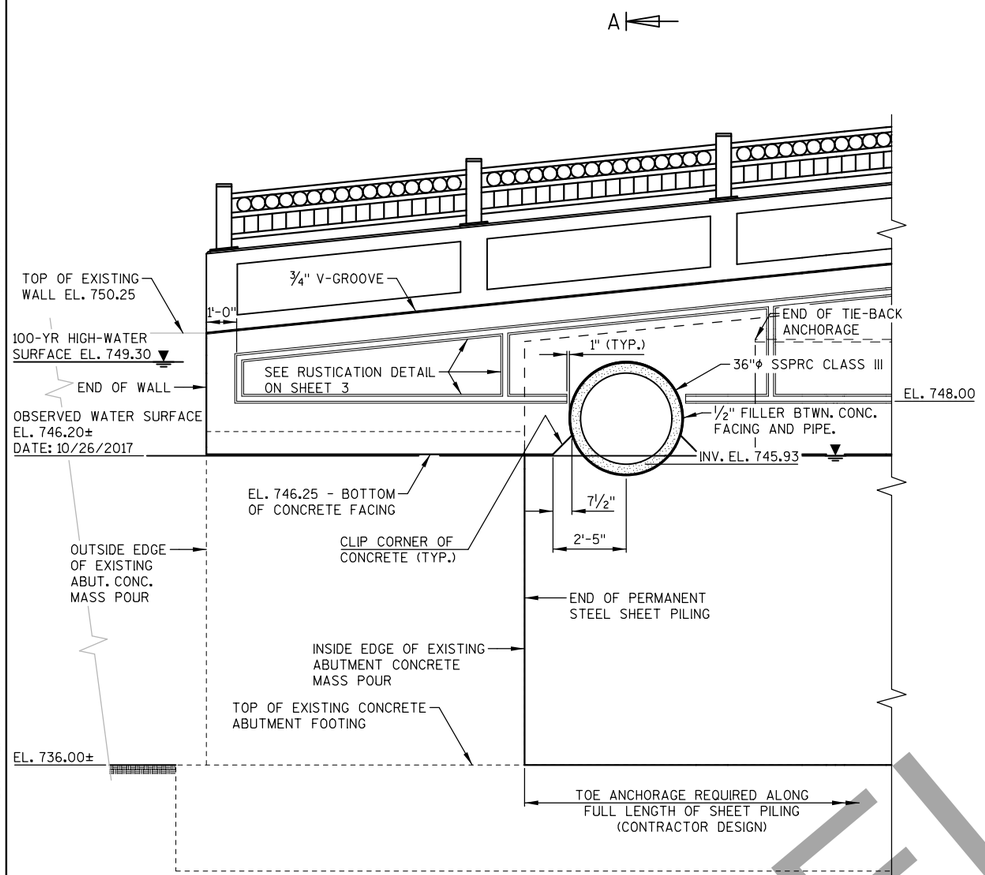
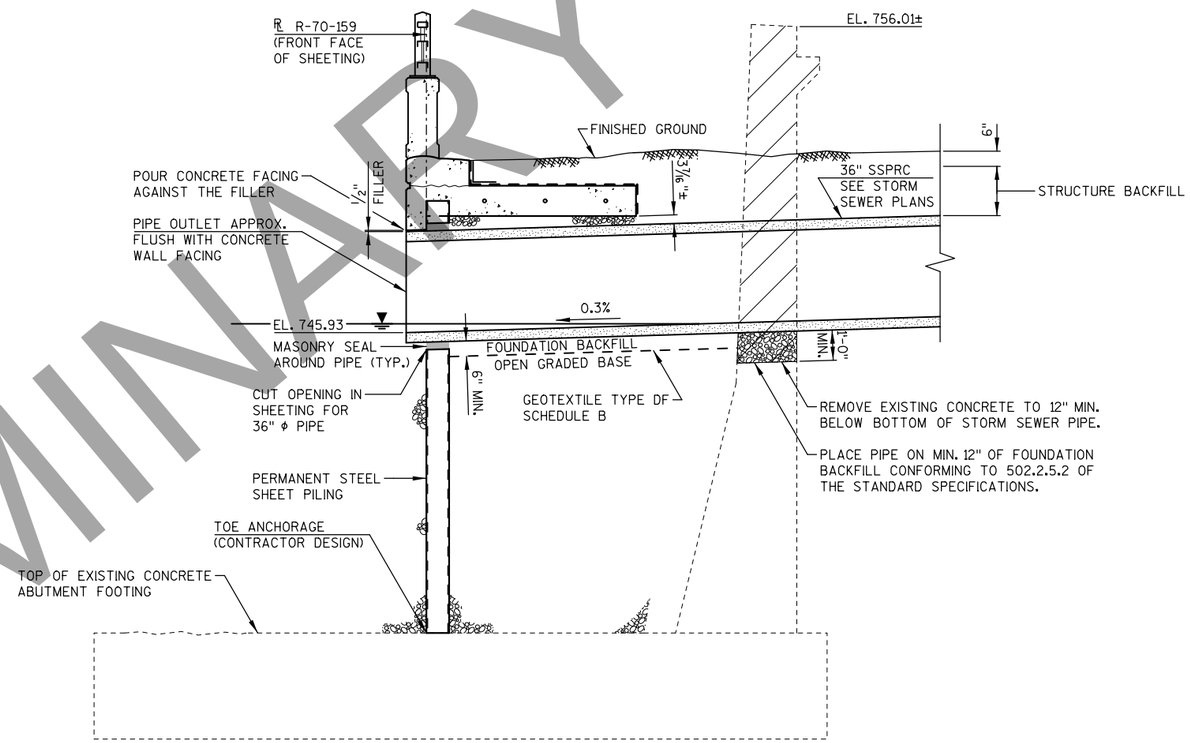


ELEVATION VIEW AT OPENING IN WALL FOR STORM SEWER PIPE

RIPRAP NOT SHOWN FOR CLARITY



SECTION A-A

RIPRAP NOT SHOWN FOR CLARITY

NOTES

FOUNDATION BACKFILL IS INCIDENTAL TO THE STORM SEWER BID ITEM. SEE ROADWAY PLANS.

LIMITS OF THE OPEN GRADED BASE COURSE ARE FROM THE EXISTING STREAMBED OR TOP OF FOOTING ELEVATION TO ELEVATION 749.00 BEHIND THE WALL.

LIMITS OF STRUCTURE BACKFILL TYPE A ARE FROM ELEVATION 749.00 TO 6" BELOW THE FINISHED SURFACE BEHIND THE WALL.

COURSE AGGREGATE SIZE NO. 2 FILL PLACED IN FRONT OF THE WALL FROM THE EXISTING STREAMBED OR TOP OF FOOTING ELEVATION UP TO 2 FEET BELOW FINISHED GRADE (SEE GEOMETRY TABLE).

AT STORM SEWER PIPE OUTLET, PROVIDE A HOLE IN THE SHEET PILING. POUR CONCRETE FACING TO SEAL THE OPENING IN THE SHEET PILES. PLACE 1/2" FILLER AROUND THE OUTLET OF THE STORM SEWER PIPE PRIOR TO POURING THE CONCRETE FACING AGAINST THE PIPE. WHERE CONCRETE FACING DOES NOT SURROUND THE PIPE, PROVIDE A CONCRETE MORTAR SEAL.

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STRUCTURE R-70-159

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WALL DETAILS 3 PRE_494

SHEET 5 OF 11

PRELIMINARY

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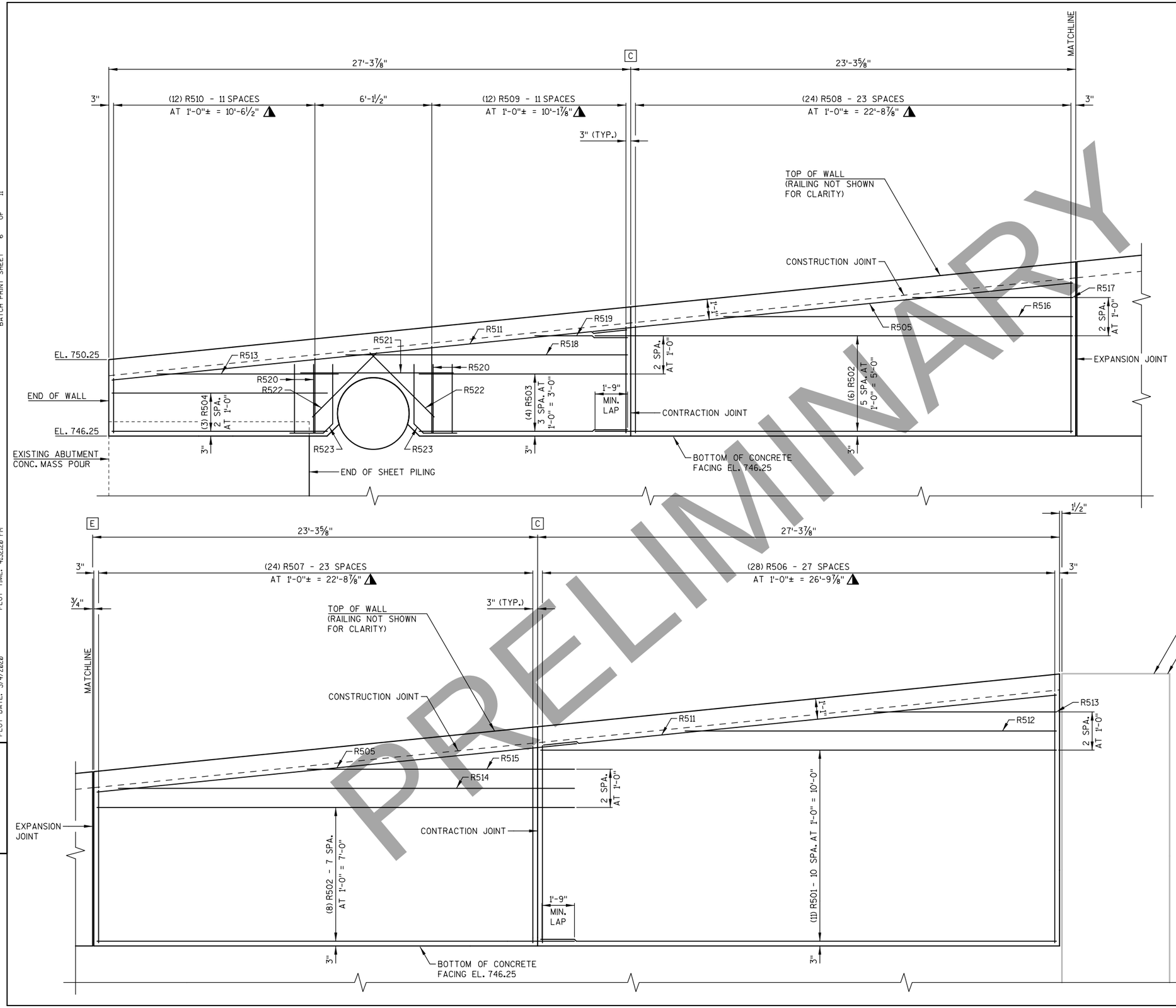

PRELIMINARY

LEGEND

- ▲ BAR SERIES
- C VERTICAL CONTRACTION JOINT
- E VERTICAL EXPANSION JOINT

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REINFORCING LAYOUT 1

SHEET 6 OF 11

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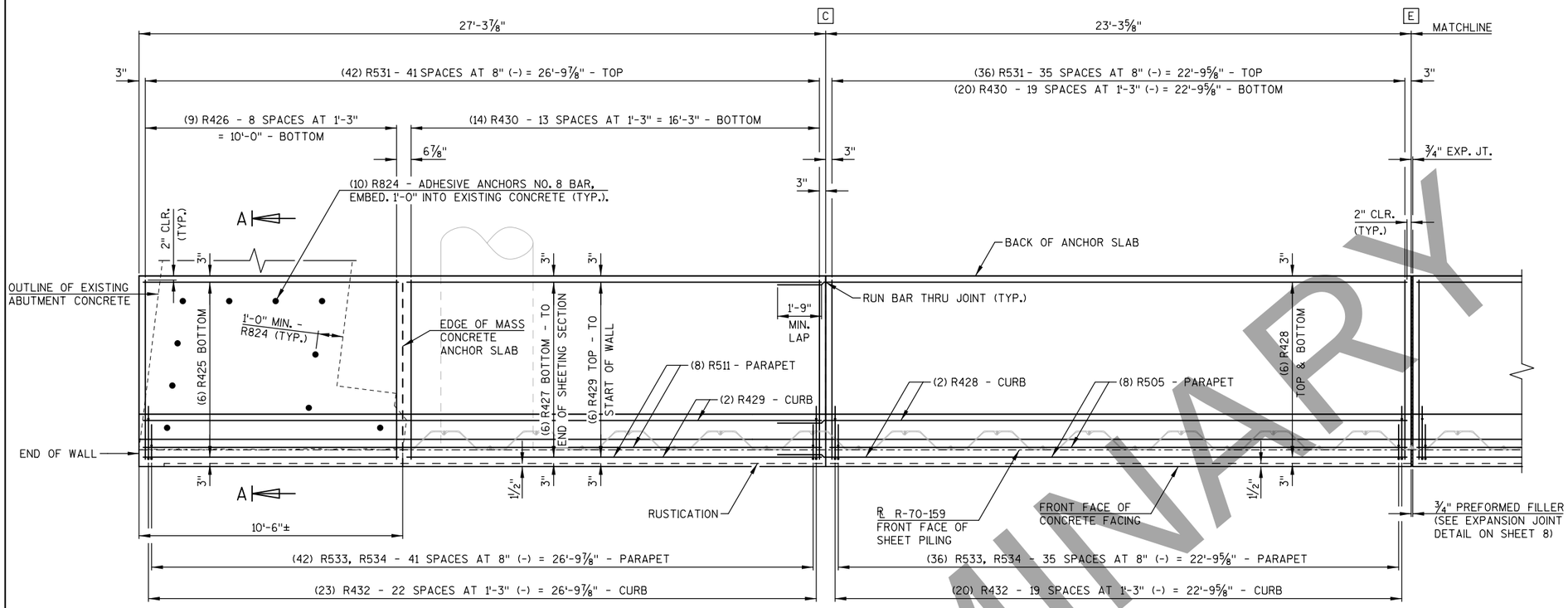
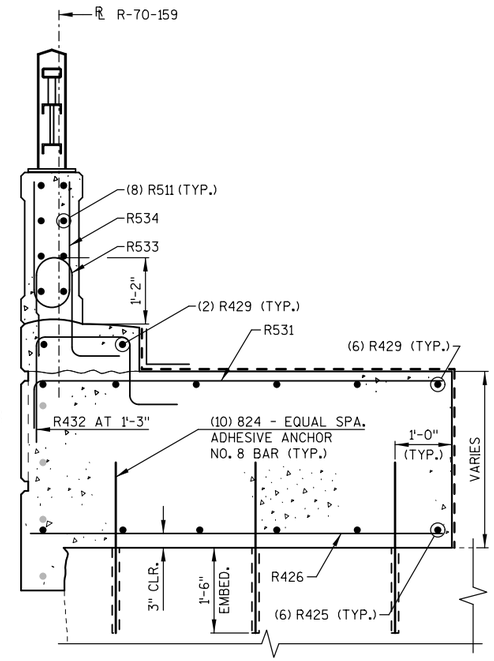


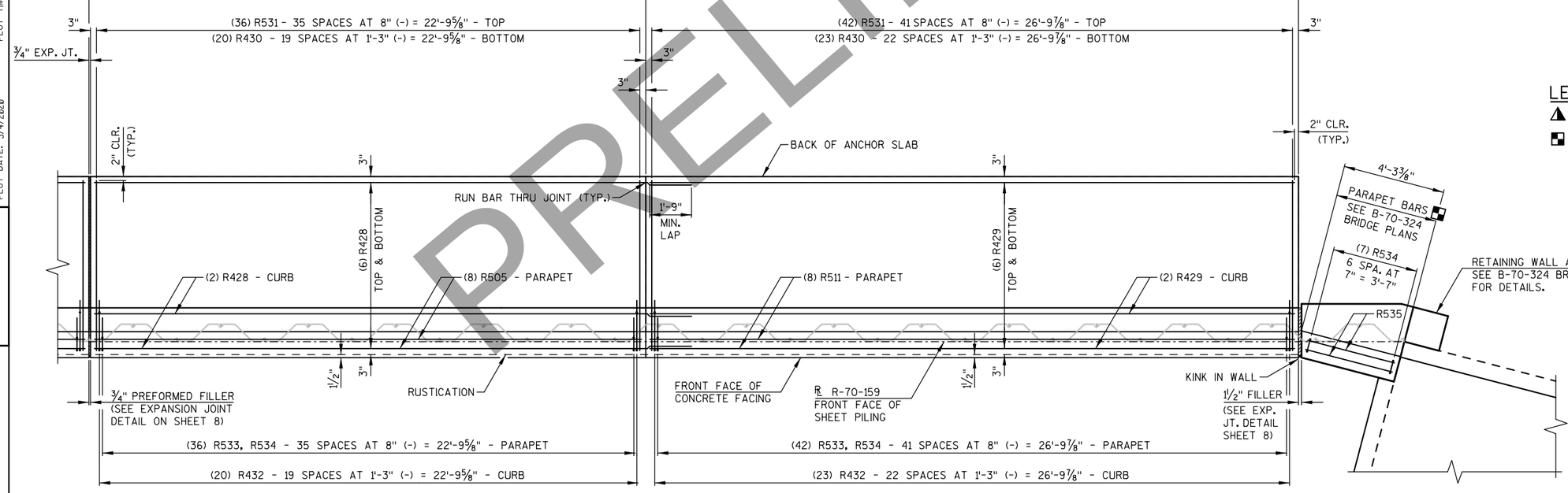


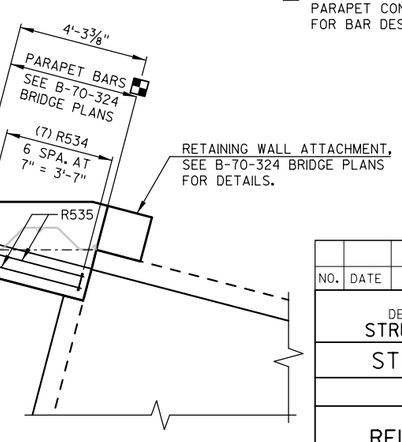
SECTION A-A

CONCRETE FACING REINFORCEMENT NOT SHOWN

LEGEND

- SERIES BAR
- PLACE BARS IN COLUMN CONCRETE PRIOR TO PLACING PARAPET CONCRETE. SEE B-70-324 BRIDGE PLANS FOR BAR DESIGNATION AND PLACEMENT.





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STRUCTURE R-70-159

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REINFORCING LAYOUT 2

SHEET 7 OF 11

PRE_496

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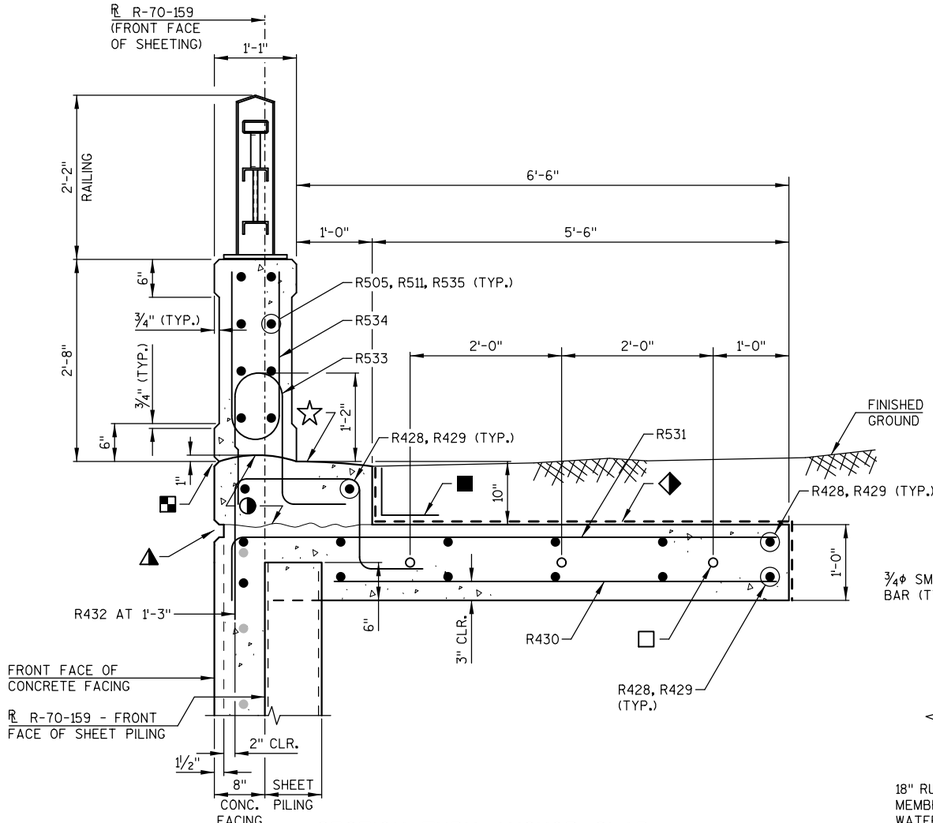


SECTION THRU ANCHOR SLAB

(ANCHOR SLAB RUNS ENTIRE LENGTH OF PARAPET)

☆ SLOPE TO DRAIN

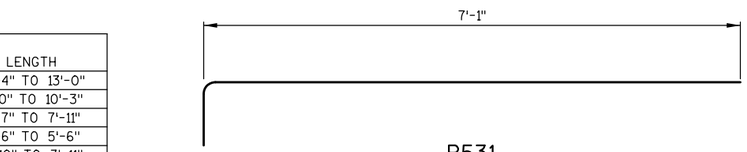
LEGEND

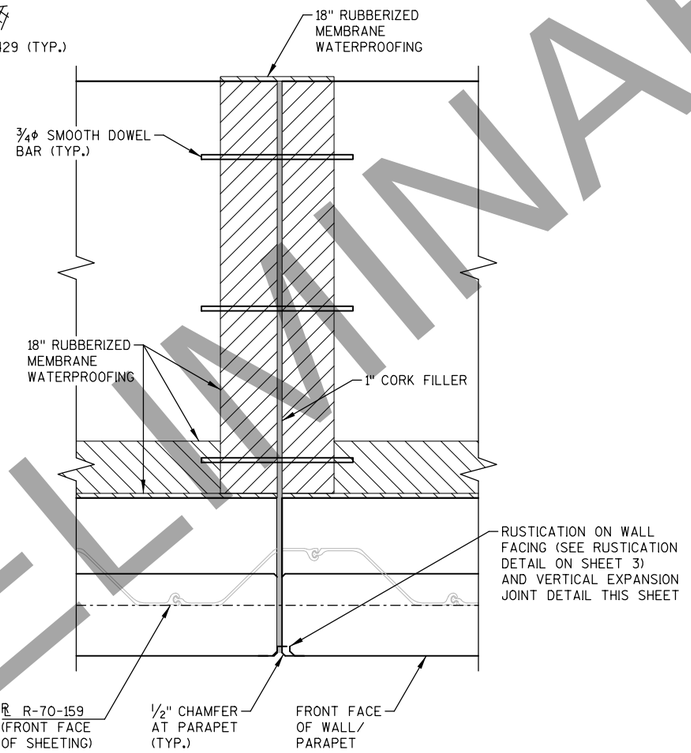
- □ (3) - ¾"ϕ SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT. EMBED 9". USE APPROVED DEBONDER ON ½ OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".
- ◆ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.
- ◑ HORIZ. CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ◭ PROVIDE HORIZONTAL RUSTICATION DETAIL AT CONSTRUCTION JOINT. IF CONSTRUCTION JOINT IS NOT USED, STILL PROVIDE RUSTICATION DETAIL.
- ■ PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT.
- ▪ ¾" "V" GROOVE
- † SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
R506	1 SERIES OF 28	10'-4" TO 13'-0"
R507	1 SERIES OF 24	8'-0" TO 10'-3"
R508	1 SERIES OF 24	5'-7" TO 7'-11"
R509	1 SERIES OF 12	4'-6" TO 5'-6"
R510	1 SERIES OF 12	2'-10" TO 3'-11"

BUNDLE AND TAG EACH SERIES SEPARATELY.



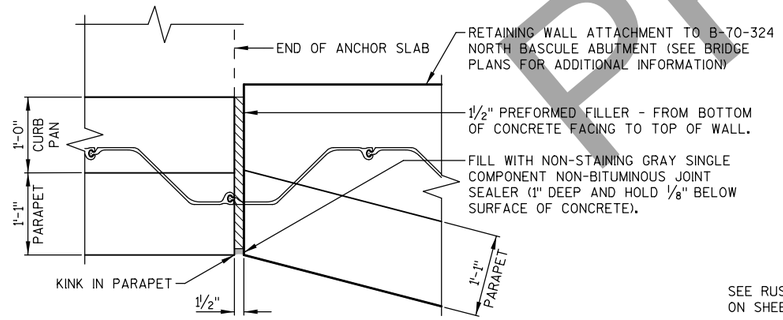


ANCHOR SLAB EXPANSION JOINT DETAIL

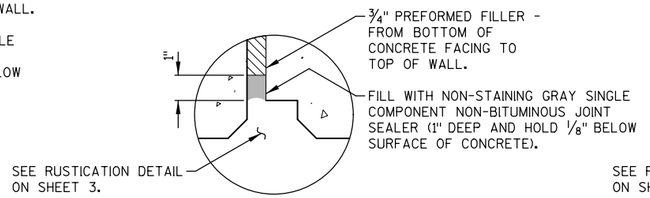
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

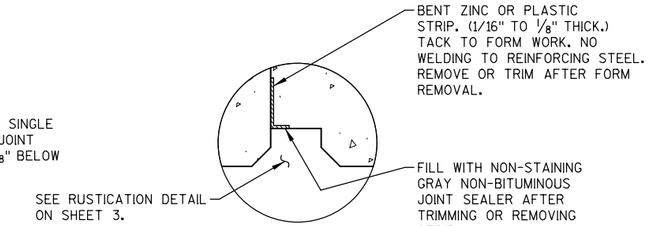
MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 7,300 LBS
R501	11	27-0			WALL FACING	HORIZ.
R502	14	25-0			WALL FACING	HORIZ.
R503	4	10-11			WALL FACING	HORIZ.
R504	3	11-3			WALL FACING	HORIZ.
R505	18	25-3			WALL FACING - TOP & PARAPET	HORIZ.
R506	28	11-8		◭	WALL FACING	VERT.
R507	24	9-2		◭	WALL FACING	VERT.
R508	24	6-9		◭	WALL FACING	VERT.
R509	12	5-0		◭	WALL FACING	VERT.
R510	12	3-5		◭	WALL FACING	VERT.
R511	18	27-1			WALL FACING - TOP & PARAPET	HORIZ.
R512	1	19-5			WALL FACING	HORIZ.
R513	2	9-6			WALL FACING	HORIZ.
R514	1	23-10			WALL FACING	HORIZ.
R515	1	14-0			WALL FACING	HORIZ.
R516	1	18-3			WALL FACING	HORIZ.
R517	1	8-4			WALL FACING	HORIZ.
R518	1	14-9			WALL FACING	HORIZ.
R519	1	4-10			WALL FACING	HORIZ.
R520	4	3-7			WALL FACING AT PIPE OPENING	VERT.
R521	1	8-0			WALL FACING AT PIPE OPENING	HORIZ.
R522	2	4-9			WALL FACING AT PIPE OPENING	DIAG.
R523	2	5-6	X		WALL FACING AT PIPE OPENING	DIAG.
R824	10	2-0			ADHESIVE AHCHORS	VERT.
R425	6	10-1			ANCHOR SLAB - BOTTOM	LONGIT.
R426	9	7-3			ANCHOR SLAB - BOTTOM	TRANS.
R427	6	16-6			ANCHOR SLAB - BOTTOM	LONGIT.
R428	28	25-3			ANCHOR SLAB - TOP & BOTTOM	LONGIT.
R429	22	27-1			ANCHOR SLAB - TOP & BOTTOM	LONGIT.
R430	77	5-10			ANCHOR SLAB - BOTTOM	TRANS.
R531	156	7-10	X		ANCHOR SLAB - TOP	TRANS.
R432	86	5-2	X		ANCHOR SLAB - CURB PAN	VERT.
R533	156	4-6	X		PARAPET - BOTTOM	VERT.
R534	163	4-11	X		PARAPET - TOP	VERT.
R535	8	3-9			PARAPET	LONGIT.



DETAIL AT RETAINING WALL ATTACHMENT TO B-70-324 NORTH ABUTMENT



VERTICAL EXPANSION JOINT



VERTICAL CONTRACTION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-159

DRAWN BY DNJ | PLANS CK'D. MJA

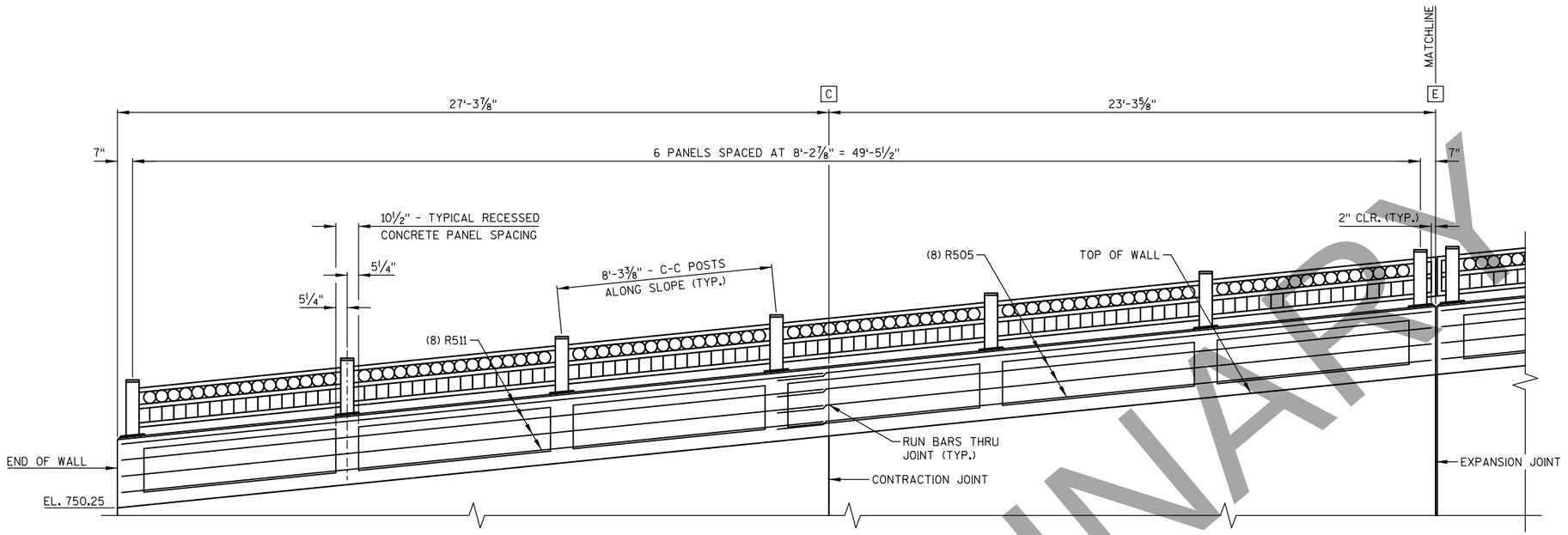
ANCHOR SLAB DETAILS AND BILL OF BARS

SHEET 8 OF 11

PRE_497

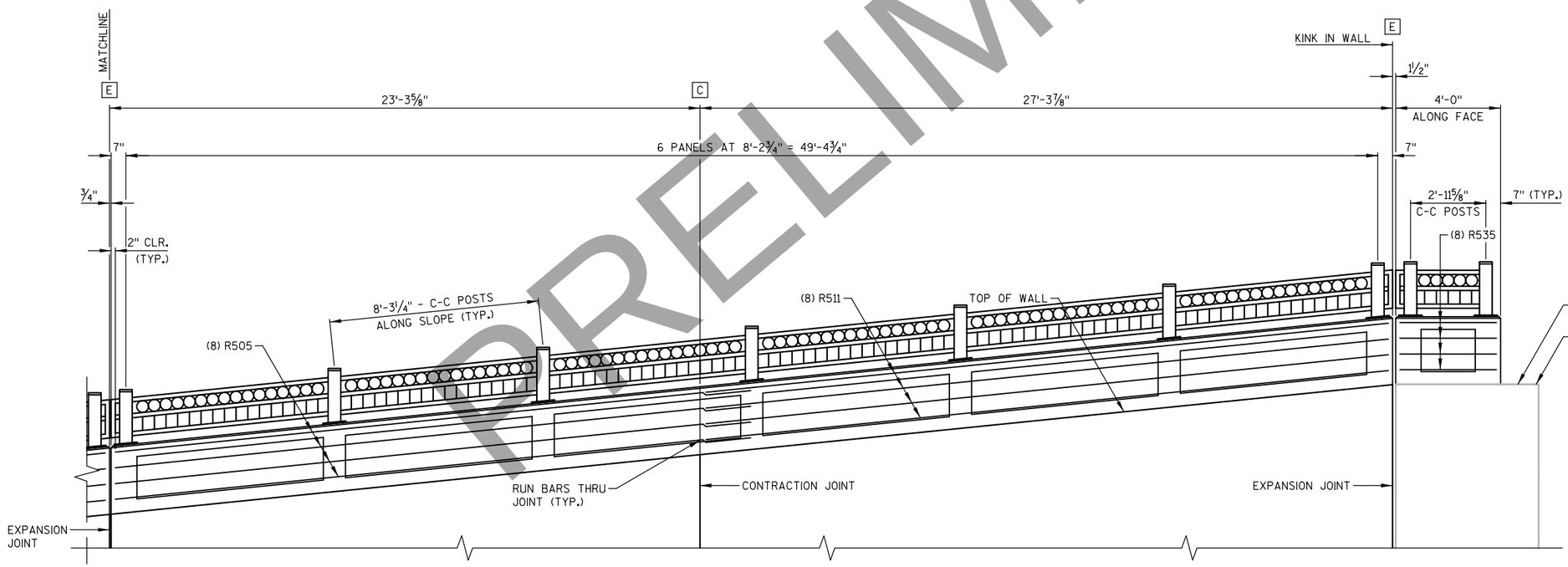
PRELIMINARY

STATE PROJECT NUMBER
4992-03-71



OUTSIDE ELEVATION OF COMBINATION RAILING - WEST

(UNFOLDED, LOOKING AT FRONT FACE OF WALL)



OUTSIDE ELEVATION OF COMBINATION RAILING - EAST

(UNFOLDED, LOOKING AT FRONT FACE OF WALL)

LEGEND

- ▲ BAR SERIES
- [C] VERTICAL CONTRACTION JOINT
- [E] VERTICAL EXPANSION JOINT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-159

DRAWN BY DNJ | PLANS CK'D. MJA

COMBINATION RAILING ELEVATION

SHEET 9 OF 11

PRE_498

PRELIMINARY

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PLOT DATE: 3/4/2020 PLOT TIME: 4:33:07 PM
BATCH PRINT SHEET 9 OF 11
DRAWN STAKED 2020

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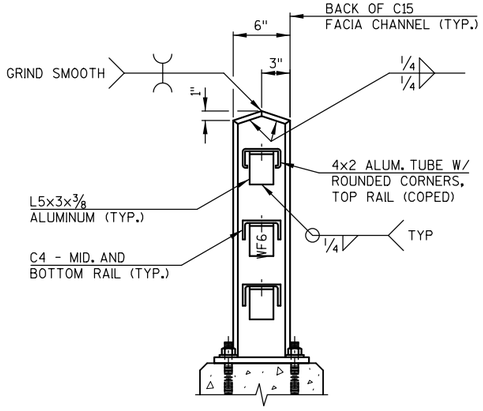
PLOT TIME: 4:33:22 PM
BATCH PRINT SHEET 10 OF 11

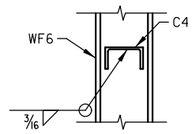
DRAFT
Wisconsin Department of Transportation
SOD-1 STANDARD
Approved 2020

STATE PROJECT NUMBER

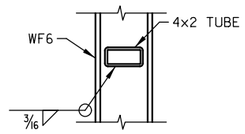
4992-03-71



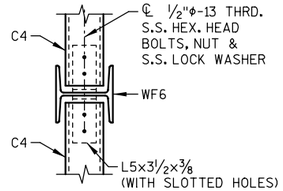
POST DETAIL



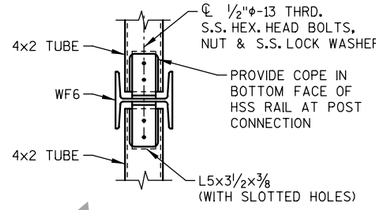
CHANNEL RAIL TO POST CONNECTION DETAIL FOR CANTILEVER SECTIONS



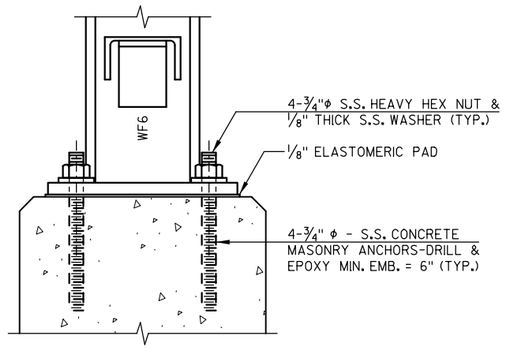
TUBE RAIL TO POST CONNECTION DETAIL FOR CANTILEVER SECTIONS



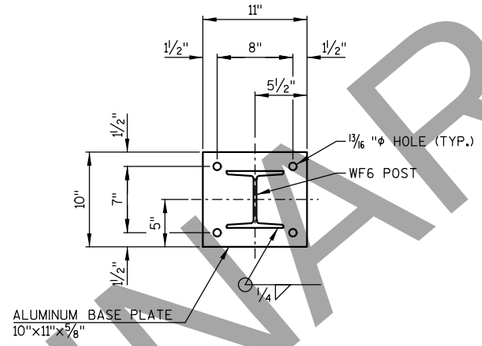
CHANNEL RAIL TO POST CONNECTION DETAIL FOR SIMPLE SPAN SECTIONS



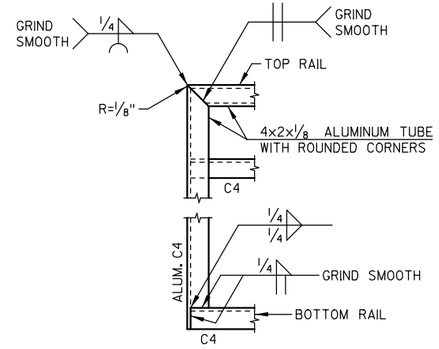
TUBE RAIL TO POST CONNECTION FOR SIMPLE SPAN SECTIONS
(VIEW FROM BELOW)



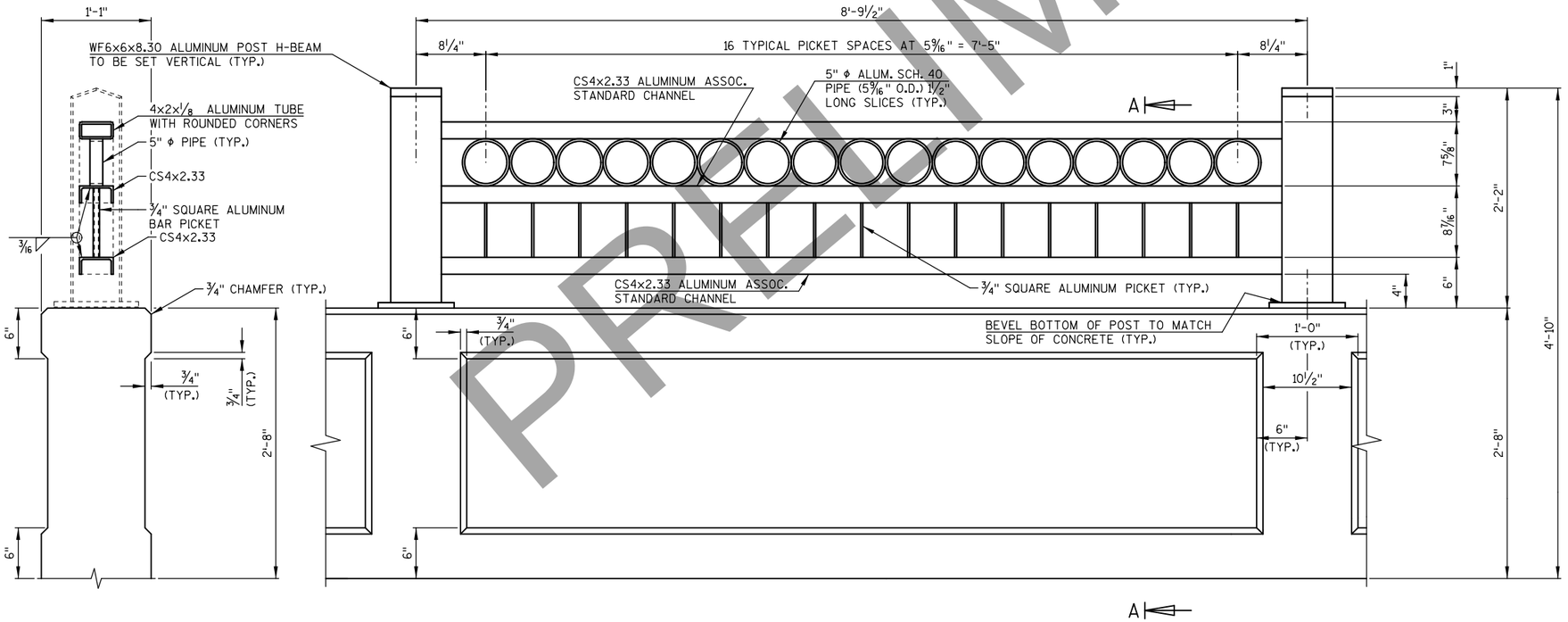
POST MOUNTING DETAIL



POST BASE PLATE DETAIL
(CONCRETE ATTACHMENT DETAIL)



RAIL DETAIL AT CANTILEVERED ENDS



SECTION A-A

TYPICAL PEDESTRIAN RAILING PANEL

NOTES:

BID ITEM SHALL BE "RAILING ALUMINUM SPECIAL R-70-159," WHICH SHALL INCLUDE ALL ALUMINUM ITEMS SHOWN AND ASSOCIATED CONNECTIONS AND ANCHORS.

ENDS OF ALUMINUM SECTIONS ARE TO BE SAWED OR MILLED. CUT ENDS ARE TO BE TRUE, SMOOTH AND FREE FROM BURRS OR RAGGED EDGES. ALL JOINED CORNERS SHALL BE ROUNDED TO A MIN. 1/8" RADIUS.

S.S. DENOTES STAINLESS STEEL.

CUT BOTTOM OF POST TO MAKE HANDRAIL POSTS VERTICAL IN BOTH THE TRANSVERSE AND LONGITUDINAL DIRECTION. PLACE PICKET TUBES VERTICAL (PARALLEL WITH THE HANDRAIL POSTS).

CAULK AROUND THE PERIMETER OF POST BASE PLATE WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

AFTER FABRICATION, ANODIZE ALL POSTS, RAILINGS, AND APPURTENANT PARTS WITH "STATUARY BRONZE" COLOR.

ALL ANCHOR BOLTS SHALL BE SET TO A TEMPLATE.
FOR ANCHORAGE DETAILS SEE DETAILS THIS SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-159

DRAWN BY DNJ | PLANS CK'D.

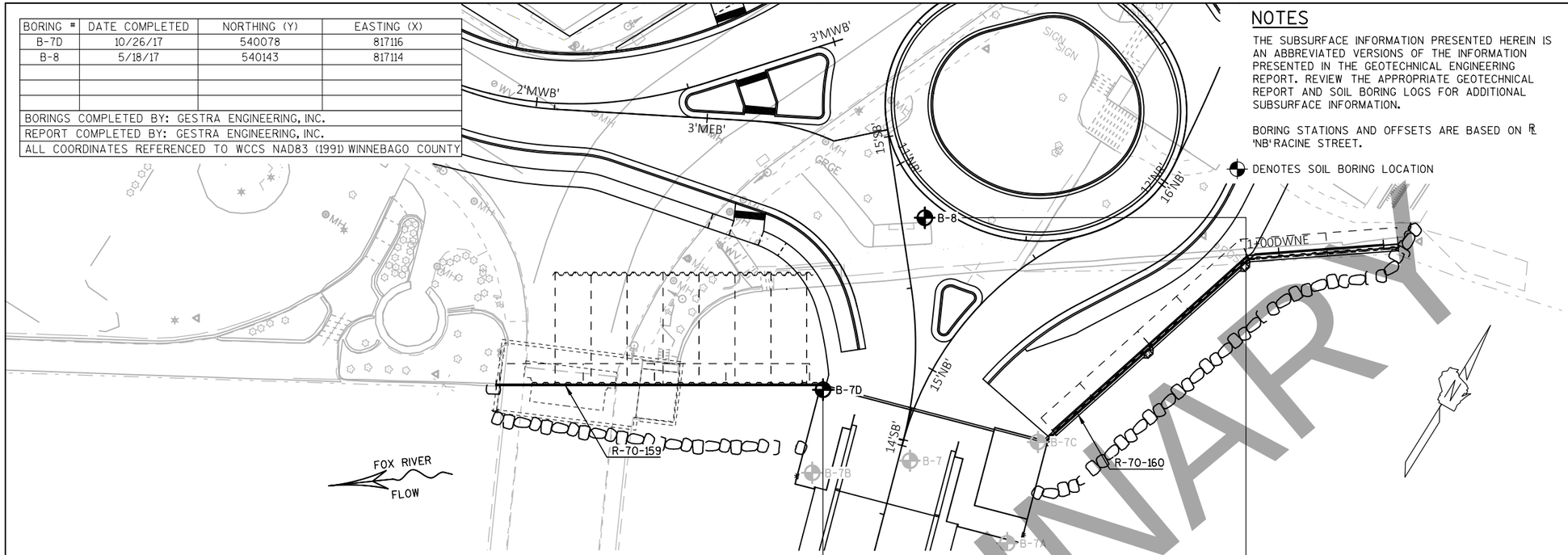
COMBINATION RAILING DETAILS

SHEET 10 OF 11

PRE_499

PRELIMINARY

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-7D	10/26/17	540078	817116
B-8	5/18/17	540143	817114
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: GESTRA ENGINEERING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD83 (1991) WINNEBAGO COUNTY			

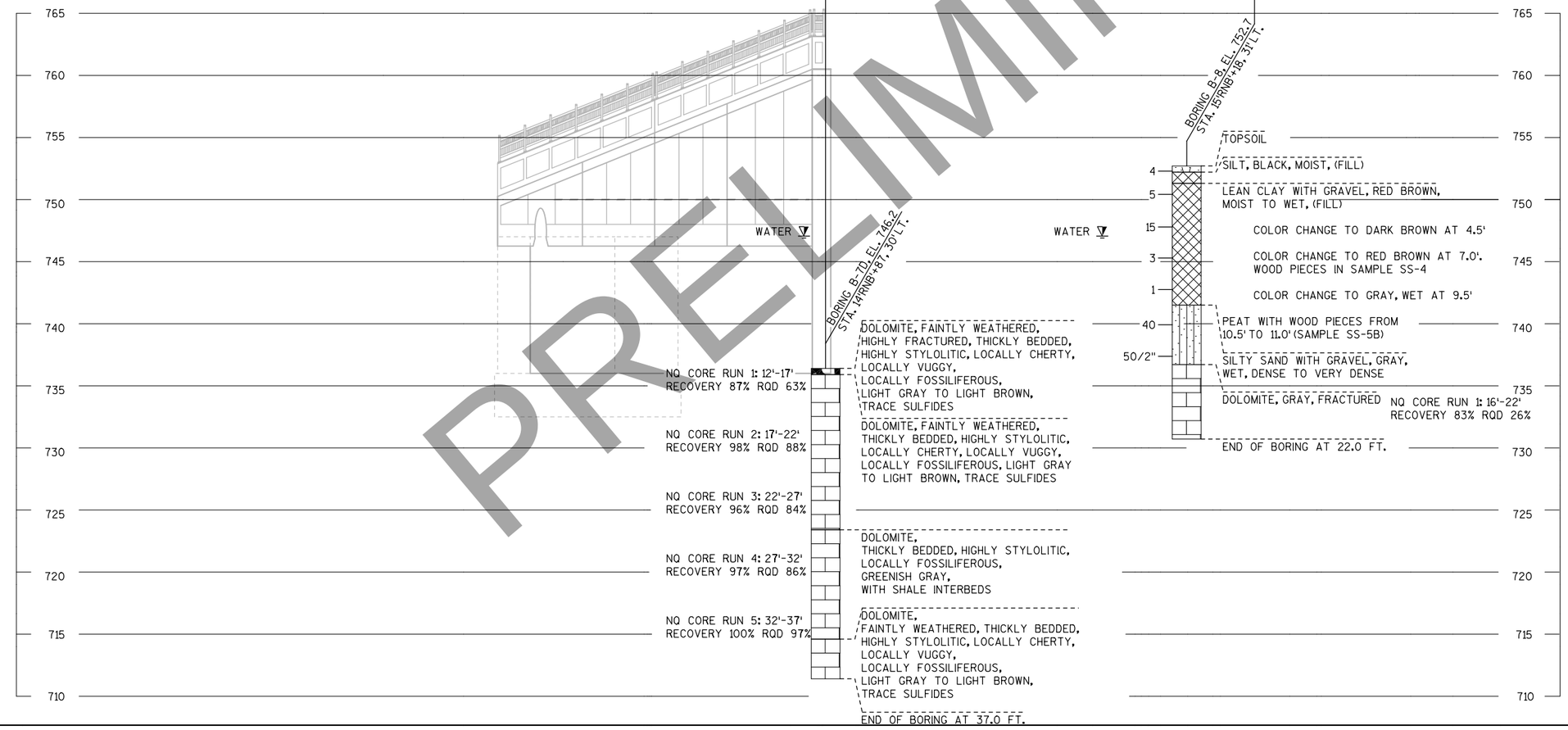


NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSIONS OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORING STATIONS AND OFFSETS ARE BASED ON ℄ 'NB' RACINE STREET.

DENOTES SOIL BORING LOCATION



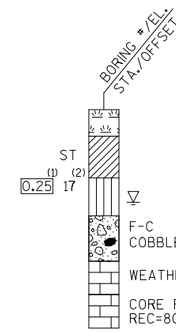
STATE PROJECT NUMBER

4992-03-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▼ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-159

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

SUBSURFACE EXPLORATION

SHEET 11 OF 11

PRE_500

SCALE =

DRAFT April 20, 2020

PRELIMINARY

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DRAFT April 20, 2020

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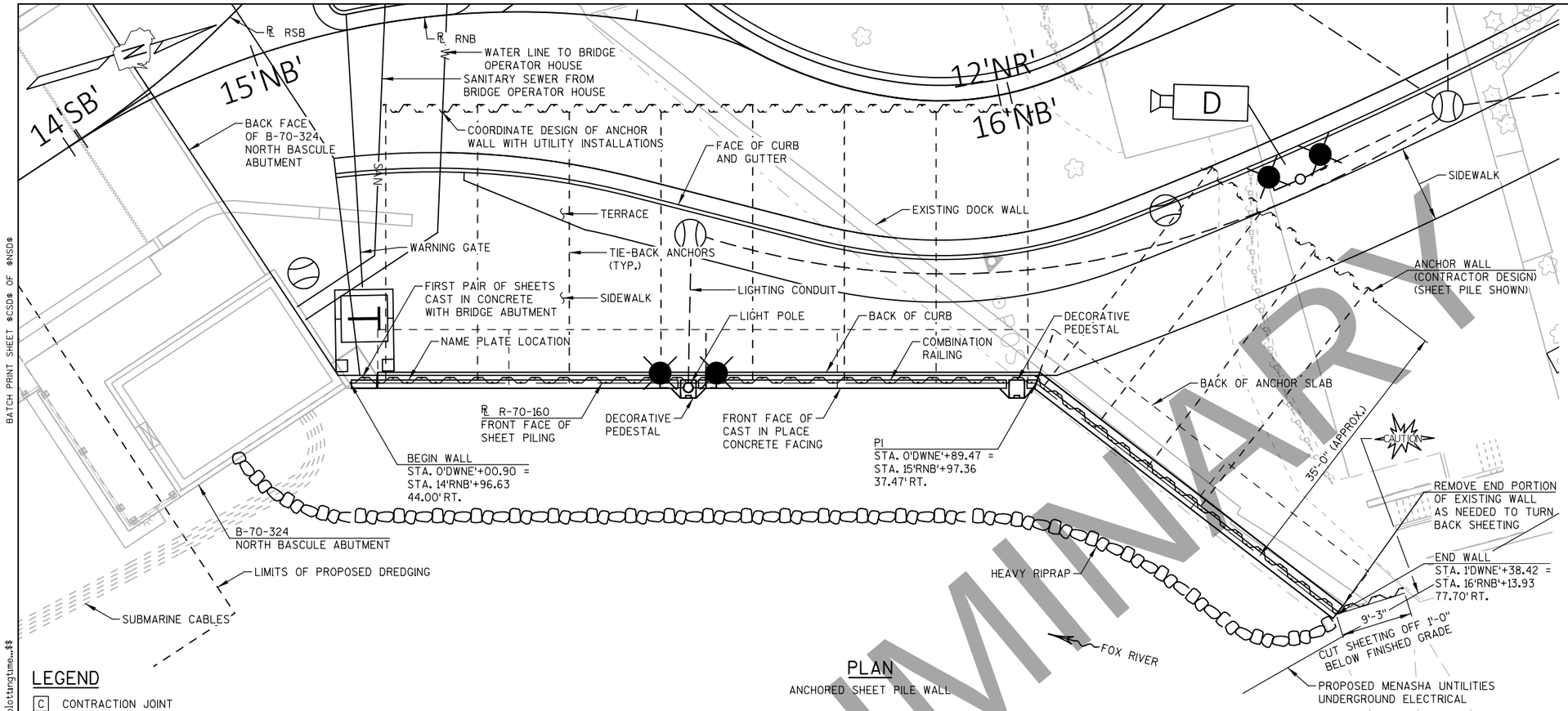
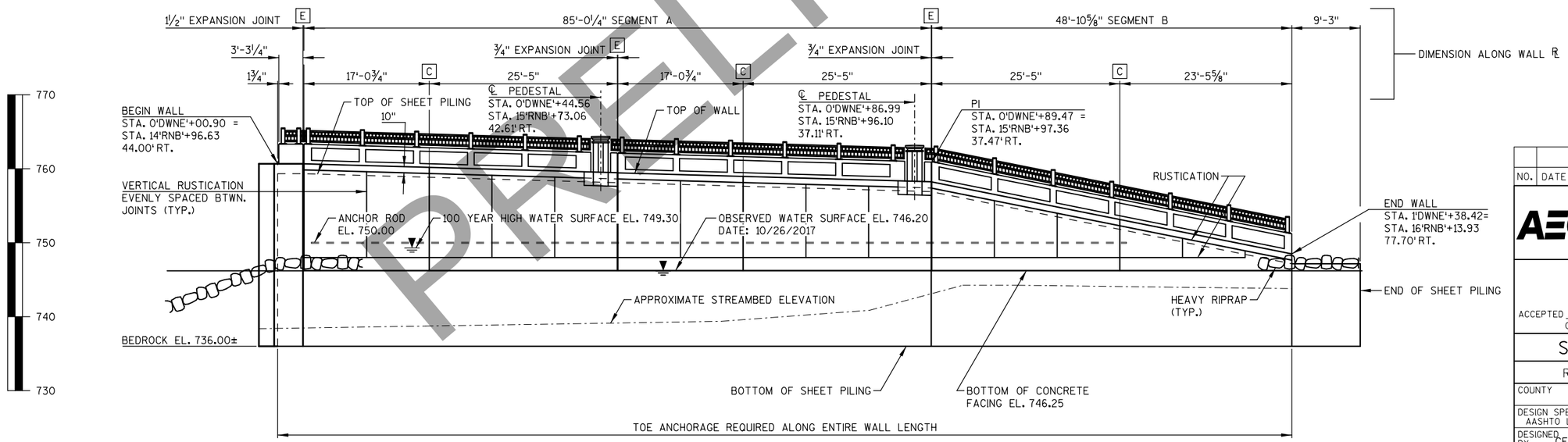
PRELIMINARY



PLAN
ANCHORED SHEET PILE WALL

LEGEND
- [C] CONTRACTION JOINT
- [E] EXPANSION JOINT



ELEVATION
(UNFOLDED, LOOKING @ F.F. OF WALL)

DESIGN DATA
LIVE LOAD:
LIVE LOAD SURCHARGE ..... 240 PSF

MATERIAL PROPERTIES:
CONCRETE MASONRY RETAINING WALL ..... f'c = 3,500 PSI
BAR STEEL REINFORCEMENT ..... fy = 60,000 PSI
STEEL SHEET PILE (ASTM A328) ..... fy = 39,000 PSI
STEEL SHEET PILE MINIMUM
REQUIRED SECTION MODULUS ..... S = 18.1 IN³/FT

HYDRAULIC DATA
100 YEAR FREQUENCY
DRAINAGE AREA = 6,030 SQ. MI.
Q100 = 9,700 CFS
VELOCITY 100 = 2.8 FT/SEC
WATERWAY AREA = 3464 SQ. FT.
HIGH WATER 100 ELEVATION = 749.30
SCOUR CRITICAL CODE = 5
REGULATORY HIGH WATER = 749.3
OVERTOPPING N/A

2 YEAR FREQUENCY
Q2 = 7,100 CFS
VELOCITY 2 = 2.0 FT/SEC
HIGH WATER 2 ELEVATION = 749.19

TRAFFIC DATA:
RACINE STREET:
A.D.T. = 11,300 (2012)
A.D.T. = 12,900 (2030)
R.D.S. = 30 M.P.H.

LIST OF DRAWINGS
1. GENERAL PLAN AND ELEVATION
2. DESIGN DATA, QUANTITIES & ALIGNMENT
3. TYPICAL SECTIONS
4. WALL DETAILS
5. REINFORCING DETAILS 1
6. REINFORCING DETAILS 2
7. REINFORCING DETAILS 3
8. COMBINATION RAILING ELEVATION
9. COMBINATION RAILING DETAILS
10. PEDESTAL DETAILS 1
11. PEDESTAL DETAILS 2
12. SUBSURFACE EXPLORATION

STATE PROJECT NUMBER
4992-03-71

WISCONSIN
MICHAEL J. ARNOLD
E-41717
NEW BERLIN, WI
PROFESSIONAL ENGINEER
03/12/2020

NO.	DATE	REVISION	BY

AECOM
1555 North Rivercenter Drive, Suite 214
Milwaukee, WI 53212
(414) 944-6080

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-70-160
RACINE STREET OVER FOX RIVER

COUNTY WINNEBAGO | ~~TOWN~~/CITY/~~VILLAGE~~ MENASHA

DESIGN SPEC. AASHTO LRFD DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D	DRAWN BY	PLANS CK'D
CEB	MJA	DNJ	MJA

GENERAL PLAN AND ELEVATION

SHEET 1 OF 12

PRE_501

STRUCTURES DESIGN CONTACTS
BUREAU OF STRUCTURES CONTACT - AARON BONK (608) 261-0261
CONSULTANT CONTACT - MICHAEL ARNOLD (414) 944-6142

8

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BATCH PRINT SHEET CSD OF NSD
DRAFT April 20, 2020
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STATE PROJECT NUMBER

4992-03-71

GEOMETRY TABLE

LOCATION	WALL STATION ALONG ℄	ROADWAY STATION 'RNB'	OFFSET TO F.F. WALL	OFFSET SIDE	TOP OF WALL ELEV.	FINISHED GRADE *	STREAMBED ELEV. (APPROX.)	BEDROCK ELEV. (APPROX.)
BEGIN ALIGNMENT	0+00.00	14+95.19	43.6731	RIGHT	760.68	747.00	738.69	736.00
BEGIN WALL	0+00.90	14+96.63	43.9976	RIGHT	760.68	747.00	738.75	736.00
BEGIN PARAPET	0+01.05	14+96.87	44.0504	RIGHT	760.68	747.00	738.76	736.00
EXPANSION JOINT	0+04.33	15+02.25	45.1254	RIGHT	760.68	747.00	738.97	736.00
STA. ALONG WALL	0+20.00	15+30.04	47.9009	RIGHT	760.23	747.00	739.77	736.00
CONTRACTION JOINT	0+21.39	15+32.60	47.9453	RIGHT	760.19	747.00	739.78	736.00
STA. ALONG WALL	0+40.00	15+70.71	44.3181	RIGHT	759.66	747.00	740.41	736.00
℄ LIGHT POLE & PEDESTAL	0+44.56	15+73.06	42.6131	RIGHT	759.53	747.00	740.41	736.00
EXPANSION JOINT	0+46.81	15+74.24	41.8411	RIGHT	759.47	747.00	740.41	736.00
STA. ALONG WALL	0+60.00	15+81.54	38.2940	RIGHT	759.09	747.00	739.73	736.00
CONTRACTION JOINT	0+63.82	15+83.75	37.5962	RIGHT	758.98	747.00	740.04	736.00
STA. ALONG WALL	0+80.00	15+92.46	36.5283	RIGHT	758.52	747.00	742.80	736.00
℄ PEDESTAL	0+86.99	15+96.10	37.1114	RIGHT	758.32	747.00	743.95	736.00
EXPANSION JOINT/WALL KINK	0+89.47	15+97.36	37.4685	RIGHT	758.25	747.00	744.26	736.00
STA. ALONG WALL	1+00.00	16+00.74	45.4539	RIGHT	756.15	747.00	744.28	736.00
CONTRACTION JOINT	1+14.95	16+04.54	57.6178	RIGHT	753.17	747.00	744.27	736.00
STA. ALONG WALL	1+20.00	16+05.62	61.8967	RIGHT	752.17	747.00	744.26	736.00
END WALL FACING & PARAPET	1+38.42	16+13.93	77.7032	RIGHT	748.50	747.00	743.83	736.00
STA. ALONG WALL	1+40.00	16+15.31	77.9108	RIGHT	748.50	747.00	--	736.00
END OF SHEETING	1+47.67	16+21.95	78.5277	RIGHT	748.50	747.00	--	736.00

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
209.0300.S	BACKFILL COARSE AGGREGATE SIZE NO. 2	CY	140
210.1500	BACKFILL STRUCTURE TYPE A	TON	3,060
310.0110	BASE AGGREGATE OPEN-GRADED	TON	1,480
502.3200	PROTECTIVE SURFACE TREATMENT	SY	15
502.3210	PIGMENTED SURFACE SEALER	SY	59
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	108
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	11,010
506.3008	WELDED STUD SHEAR CONNECTORS 5/8X5-INCH	EACH	228
512.0500	PILING STEEL SHEET PERMANENT DELIVERED	SF	2,849
512.0600	PILING STEEL SHEET PERMANENT DRIVEN	SF	2,849
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	29
606.0300	RIPRAP HEAVY	CY	162
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	158
645.0112	GEOTEXTILE TYPE DF SCHEDULE B	SY	556
645.0120	GEOTEXTILE TYPE HR	SY	278
652.0220	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/2-INCH	LF	18
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	18
657.6005	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	1
SPV.0060.09	DECORATIVE PEDESTAL MASONRY	EACH	2
SPV.0090.03	RAILING ALUMINUM SPECIAL R-70-160	LF	129
SPV.0105.33	ANCHORING SYSTEM FOR SHEET PILE WALL R-70-160	LS	1
	NON-BID ITEMS		
	FILLER	SIZE	1/2" & 3/4"
	NAME PLATE	EACH	1

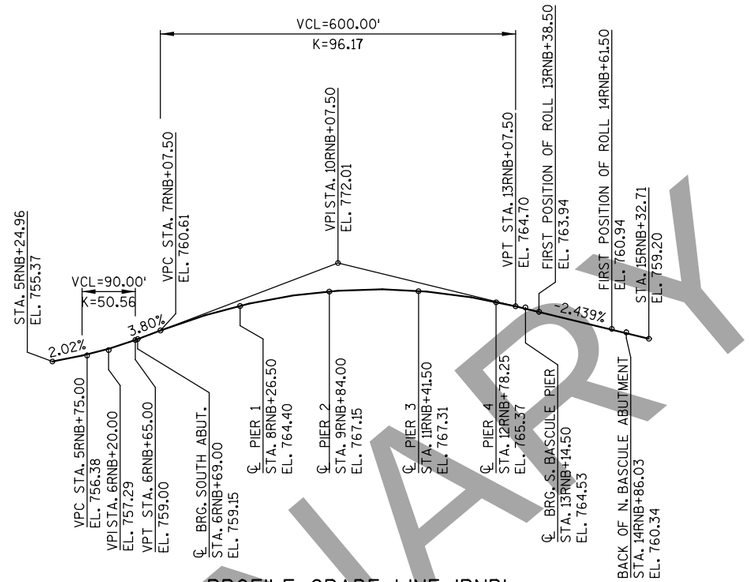
SOIL PARAMETERS

BORING B-7C			
STRATUM LOCATIONS & SOIL DESCRIPTION	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
EL. 737.8 TO EL. 734.1 - SILTY SAND, GRAY, WET	130	36	0
EL. 734.1 TO EL. 730.6 - FRACTURED BEDROCK	130	45	0
BELOW EL. 730.6 - SOUND BEDROCK	140	45	0

BORING B-8			
STRATUM LOCATIONS & SOIL DESCRIPTION	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
EL. 752.7 TO EL. 741.5 - FILL, LEAN CLAY WITH GRAVEL	125	0	500
EL. 741.5 TO EL. 736.7 - SILTY SAND, GRAY, WET	130	36	0
BELOW EL. 736.7 - FRACTURED BEDROCK	130	45	0

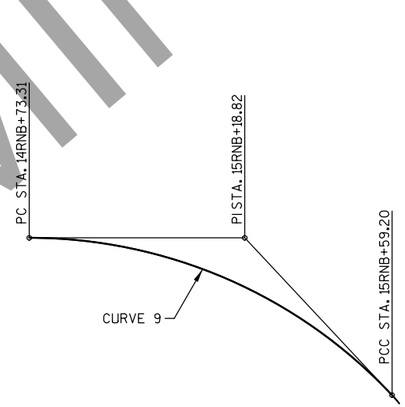
DESIGN SOIL PARAMETERS

MATERIAL	LOCATION	ELEVATION	UNIT WEIGHT (PCF)		FRICTION ANGLE (DEG.)
			DRY	SATURATED	
BACKFILL STRUCTURE TYPE A	BEHIND WALL	FINISHED GRADE TO EL. 749.00	120	125	30
BASE AGGREGATE OPEN-GRADED	BEHIND WALL	EL. 749.00 TO EXIST. STREAMBED (EL. 740.00±)	120	130	32
BACKFILL COARSE AGGREGATE SIZE NO. 2	IN FRONT OF WALL	EL. 745.00 TO EXIST. STREAMBED (EL. 740.00±)	110	125	35



PROFILE GRADE LINE 'RNB'

(NTS)



HORIZONTAL ALIGNMENT RACINE STREET 'RNB'

GENERAL NOTES

WALL TYPE IS AN ANCHORED SHEET PILE WALL WITH CAST-IN-PLACE CONCRETE FACING, ANCHOR SLAB AND COMBINATION BARRIER.

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND DIMENSIONS ARE IN SURVEY FEET. ALL ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD88 (1991) DATUM.

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

ALL BAR STEEL IN CAST IN PLACE CONCRETE SHALL BE EPOXY COATED.

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

THE QUANTITY OF CONCRETE MASONRY FOR THE CAST-IN-PLACE FACING, ANCHOR SLAB AND PARAPET IS PAID FOR UNDER THE BID ITEM "CONCRETE MASONRY RETAINING WALLS".

WALL STATIONS ARE ALONG THE ℄ FOR R-70-160, WHICH IS LOCATED AT THE FRONT FACE OF SHEET PILING.

THE RETAINING WALL IS TO BE CONSTRUCTED USING THE ELEVATIONS GIVEN IN THE GEOMETRY TABLE.

EXCAVATION FOR ANCHOR TIE RODS IS INCIDENTAL TO THE BID ITEM "ANCHORING SYSTEM FOR SHEET PILE WALL R-70-160."

DO NOT OPERATE HEAVY EQUIPMENT OR STOCKPILE MATERIALS IN CLOSE PROXIMITY TO THE WALL.

REMOVAL OF THE EXISTING WALL (OR PORTIONS THEREOF) IS INCLUDED WITH THE ITEM "EXCAVATION COMMON". SEE ROADWAY PLANS.

REQUIRED SHEET PILE SECTION MODULUS IS GIVEN ON THIS PLAN. FULL DESIGN AND DETAILS OF ANCHORING SYSTEM, INCLUDING WALES, ANCHOR RODS, ANCHOR WALL AND TOE ANCHORS ARE TO BE PROVIDED BY THE CONTRACTOR UNDER THE BID ITEM "ANCHORING SYSTEM FOR SHEET PILE WALL R-70-160."

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE CURB PAN. APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACE OF THE PARAPET.

WALL DESIGN DATA

TIEBACK ANCHOR FORCE = 13.2 KIPS/FT.
TOE ANCHOR FORCE = 5.2 KIPS/FT.
FORCES GIVEN PER LENGTH ALONG WALL.

CURVE 9 DATA

PI STA = 15+18.82'RNB'
Y = 540119.384
X = 817133.824
DELTA = 46°51'58"
D = 54°34'03"
T = 45.51'
L = 85.89'
R = 105.00'
PC STA = 14+73.31'RNB'
Y = 540075.907
X = 817147.275
PT STA = 15+59.20'RNB'
Y = 540158.925
X = 817156.355
BK = N17°11'28.7"W
AH = N29°40'29.5"E

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-160

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DESIGN DATA, QUANTITIES AND ALIGNMENT

SHEET 2 OF 12

PRE_502

PRELIMINARY

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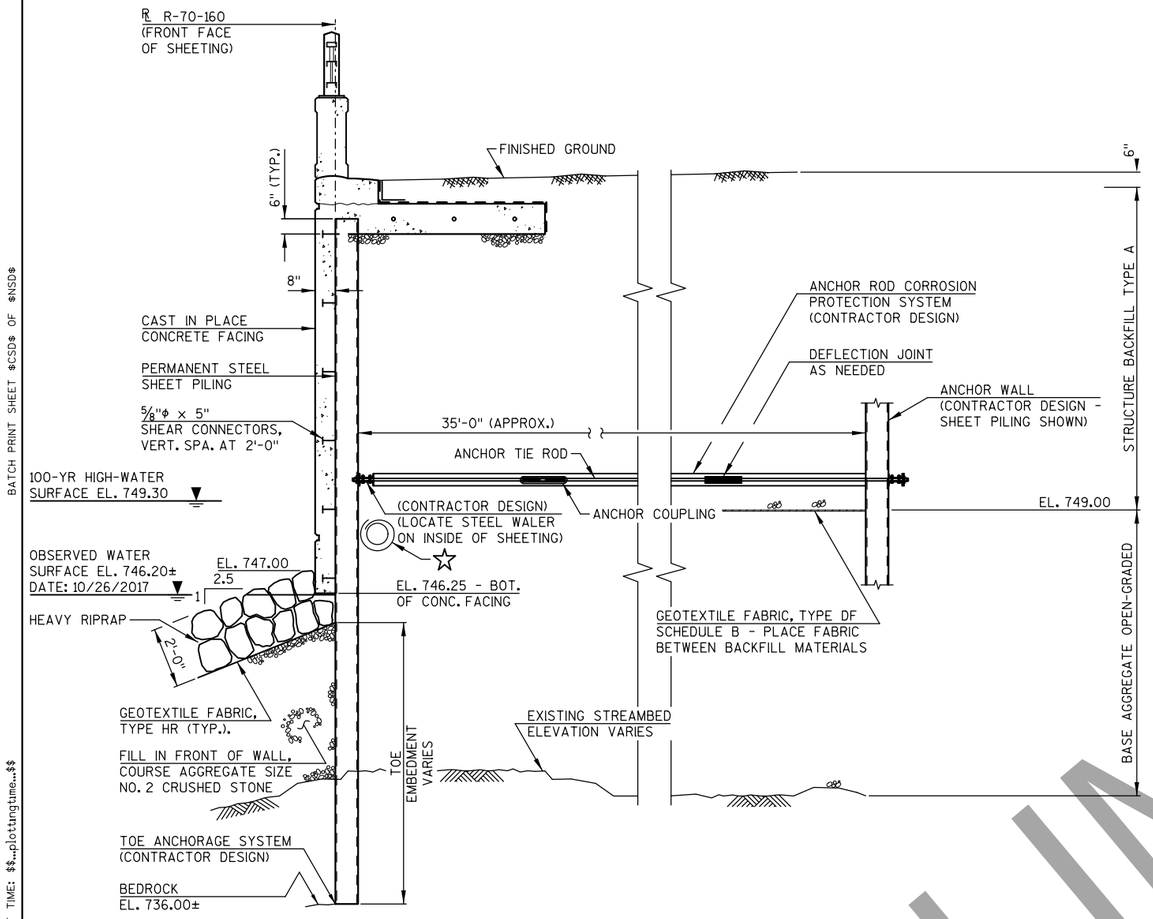
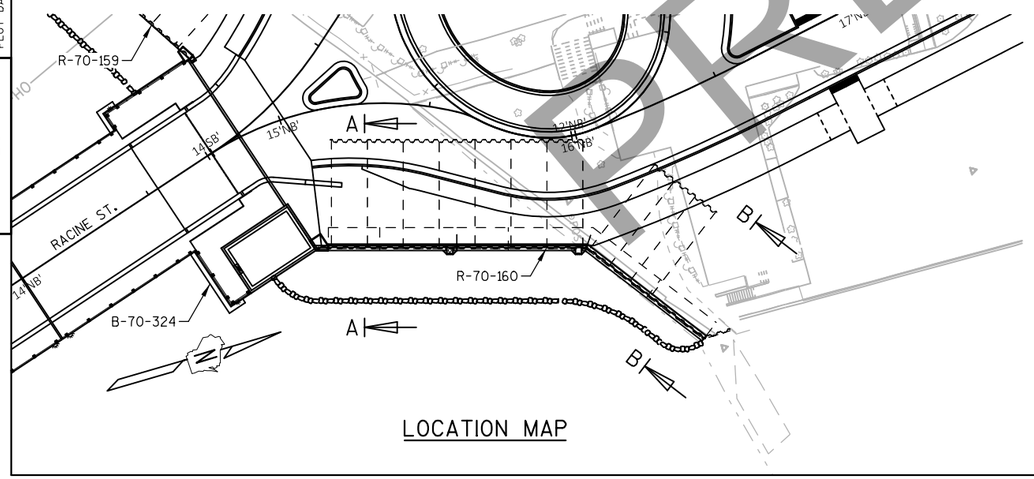
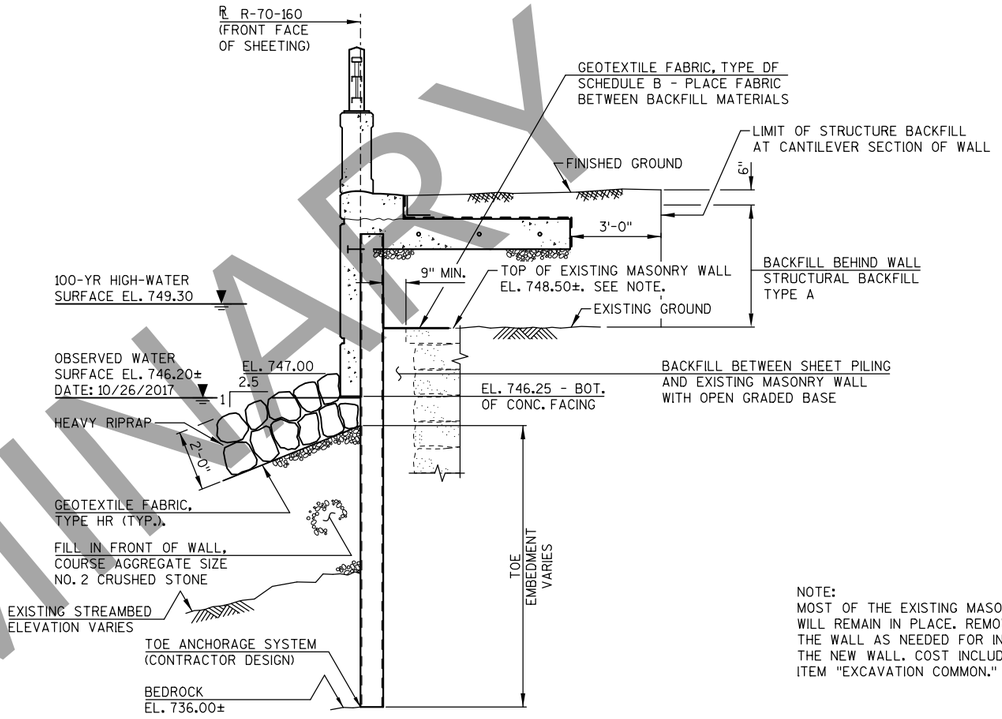


SECTION A-A

☆ PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN. TO SUITABLE DRAINAGE AT EAST END OF WALL. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN.

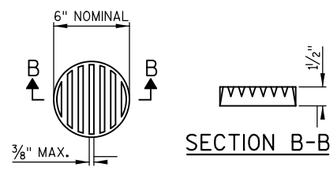


LOCATION MAP



SECTION B-B

NOTE:
MOST OF THE EXISTING MASONRY DOCK WALL WILL REMAIN IN PLACE. REMOVE PORTIONS OF THE WALL AS NEEDED FOR INSTALLATION OF THE NEW WALL. COST INCLUDED WITH BID ITEM "EXCAVATION COMMON."



SECTION B-B

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 COMMERCIALLY 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.

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STRUCTURE R-70-160

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SHEET 3 OF 12

TYPICAL SECTIONS PRE_503

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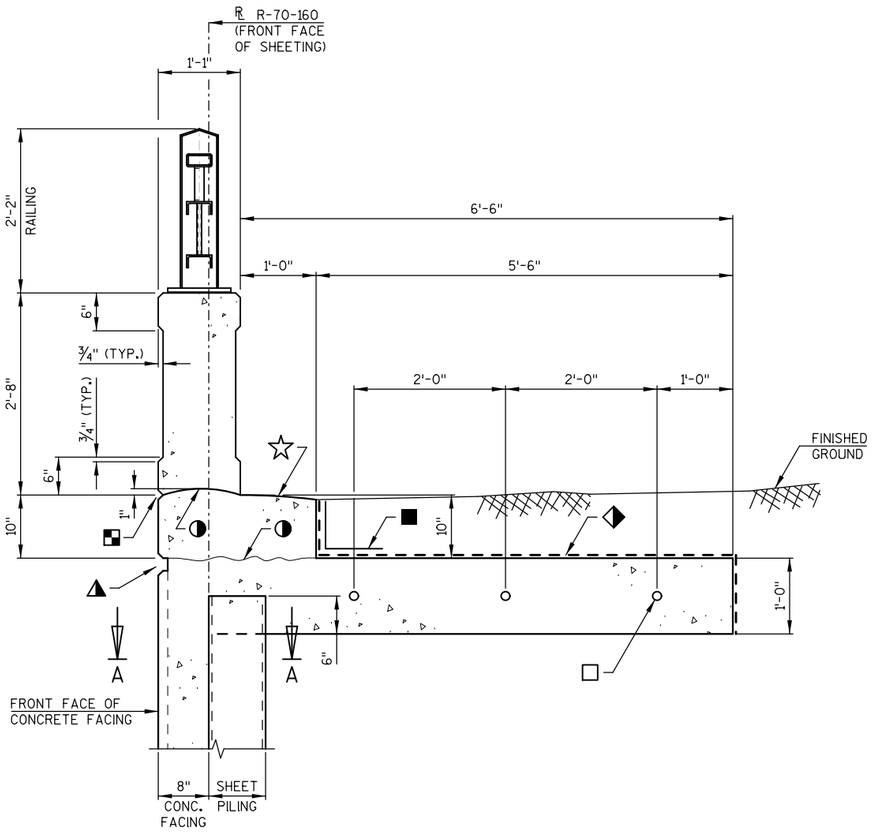
STATE PROJECT NUMBER
4992-03-71



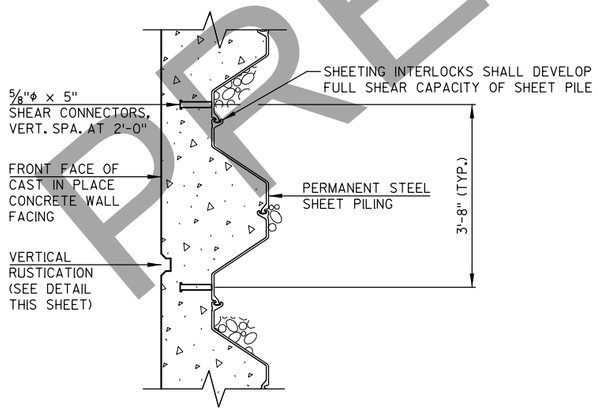
SECTION THRU ANCHOR SLAB

ANCHOR SLAB RUNS ENTIRE LENGTH OF PARAPET, EXCEPT AT ABUTMENT ATTACHMENT CONCRETE.

☆ SLOPE TO DRAIN

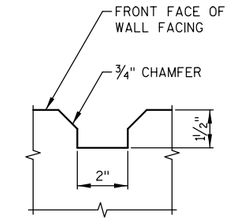
LEGEND

- □ (3) - ¾"ϕ SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT. EMBED 9". USE APPROVED DEBONDER ON ½ OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".
- ◆ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.
- ◑ HORIZONTAL CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ◭ PROVIDE HORIZONTAL RUSTICATION DETAIL AT CONSTRUCTION JOINT. IF CONSTRUCTION JOINT IS NOT USED, STILL PROVIDE THE RUSTICATION DETAIL.
- ■ PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT.
- ◪ ¾" "V" GROOVE

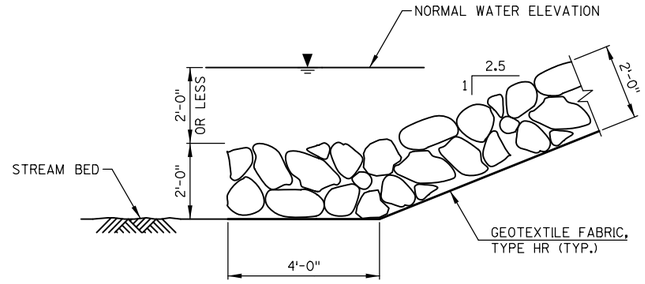


VIEW A-A

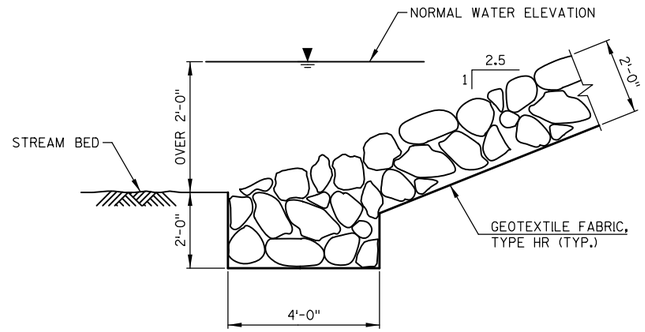
REINFORCEMENT NOT SHOWN FOR CLARITY



RUSTICATION DETAIL



RIPRAP TOE DETAIL



RIPRAP TOE DETAIL

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-160

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WALL DETAILS

SHEET 4 OF 12

PRE_504

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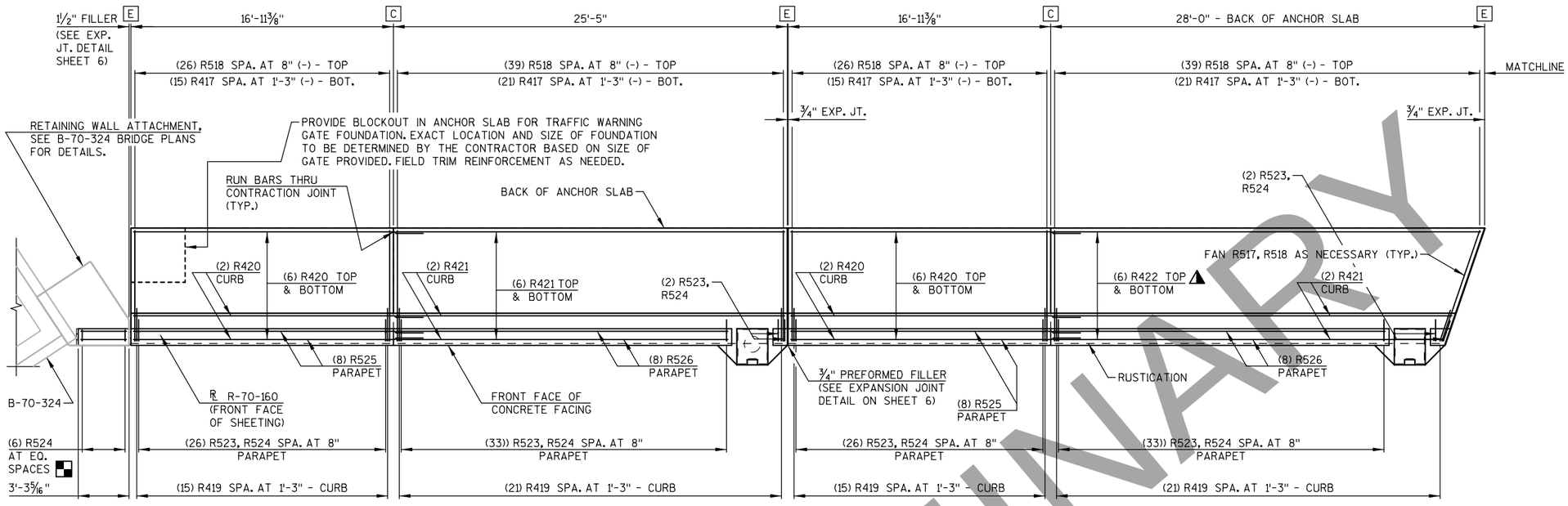
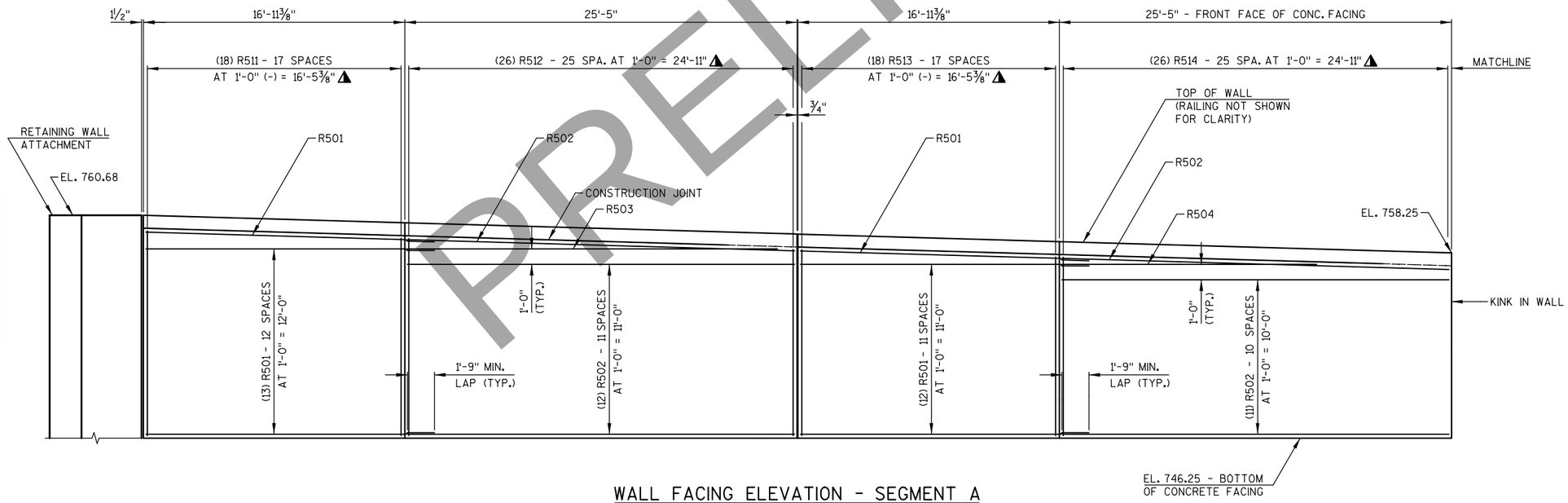


ANCHOR SLAB PLAN - SEGMENT A



WALL FACING ELEVATION - SEGMENT A

PARAPET NOT SHOWN FOR CLARITY

LEGEND

- ▲ BAR SERIES
- C VERTICAL CONTRACTION JOINT
- E VERTICAL EXPANSION JOINT
- ■ SEE B-70-324 BRIDGE PLANS FOR PARAPET DOWEL BAR DESIGNATION AND PLACEMENT.

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STRUCTURE R-70-160

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REINFORCING DETAILS 1

SHEET 5 OF 12

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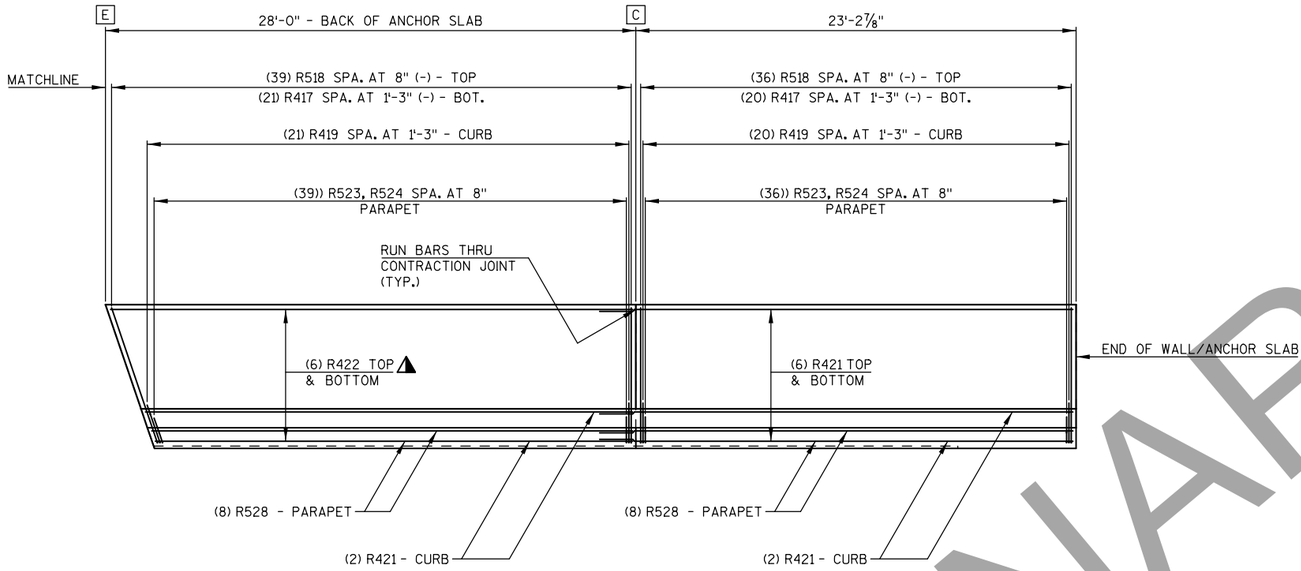
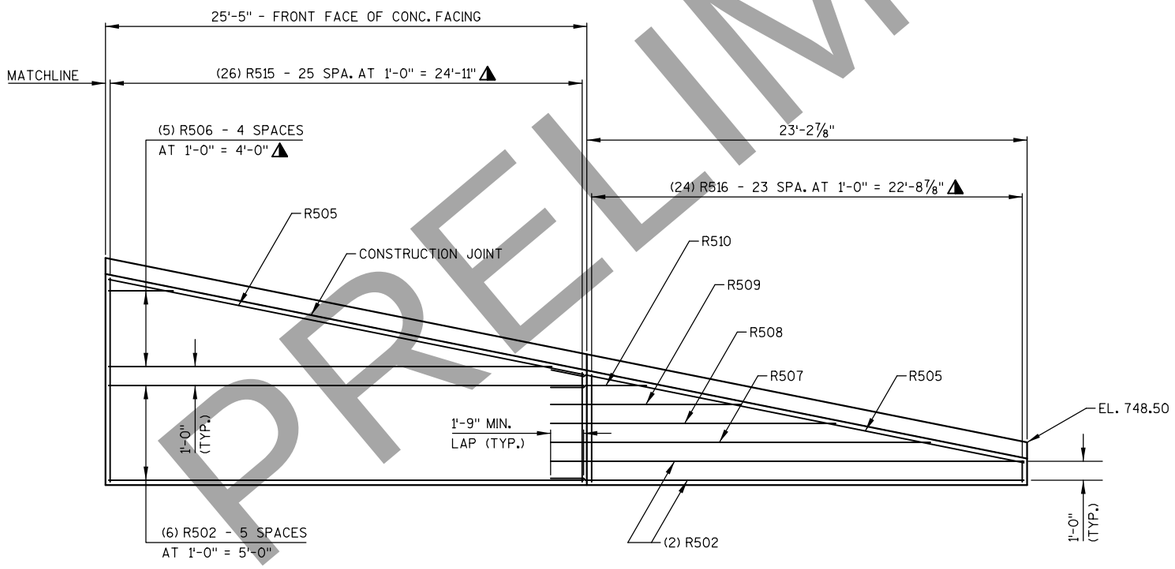


ANCHOR SLAB PLAN - SEGMENT B



WALL FACING ELEVATION - SEGMENT B

PARAPET NOT SHOWN FOR CLARITY

LEGEND

- ▲ BAR SERIES
- [C] VERTICAL CONTRACTION JOINT
- [E] VERTICAL EXPANSION JOINT

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REINFORCING DETAILS 2

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PRE_506

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BATCH PRINT SHEET CSD OF NSD
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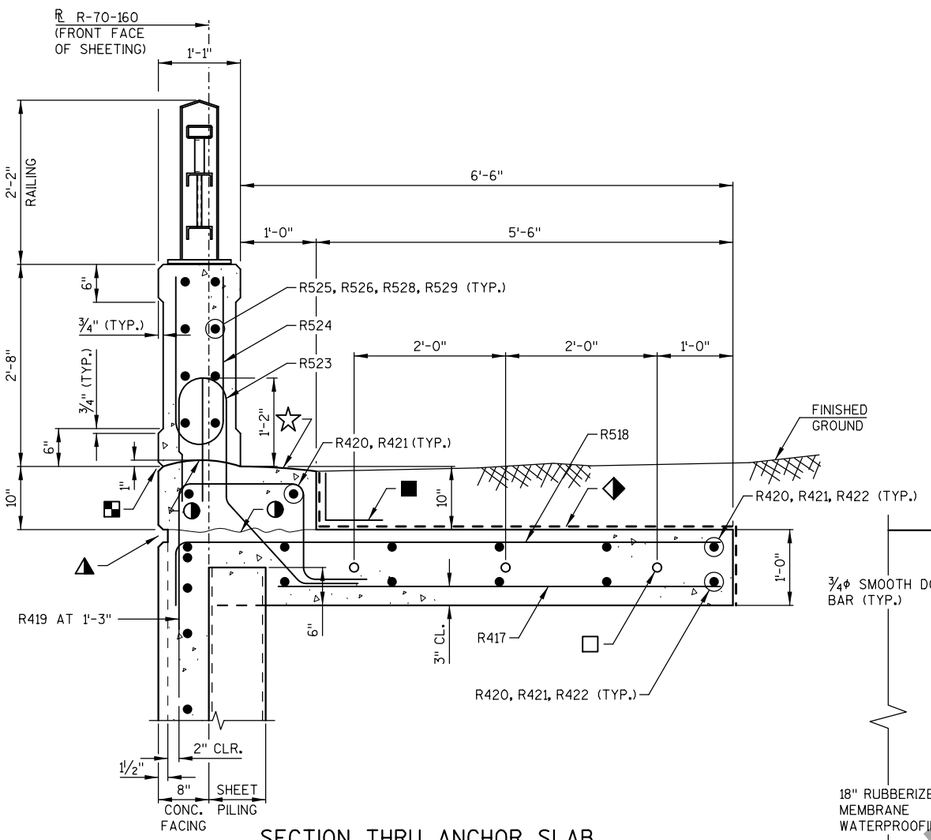


SECTION THRU ANCHOR SLAB

(ANCHOR SLAB RUNS ENTIRE LENGTH OF PARAPET)

☆ SLOPE TO DRAIN

LEGEND

- □ (3) - ¾"⌖ SMOOTH DOWEL BARS, 1'-6" LONG, AT EXPANSION JOINT. EMBED 9". USE APPROVED DEBONDER ON ½ OF BAR LENGTH. COST INCLUDED IN "CONCRETE MASONRY RETAINING WALLS".
- ◆ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.
- ◑ HORIZONTAL CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ◭ PROVIDE HORIZONTAL RUSTICATION DETAIL AT CONSTRUCTION JOINT. IF CONSTRUCTION JOINT IS NOT USED, STILL PROVIDE THE RUSTICATION DETAIL.
- ■ PLACE 18" MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT.
- ◩ ¾" "V" GROOVE

BAR SERIES TABLE

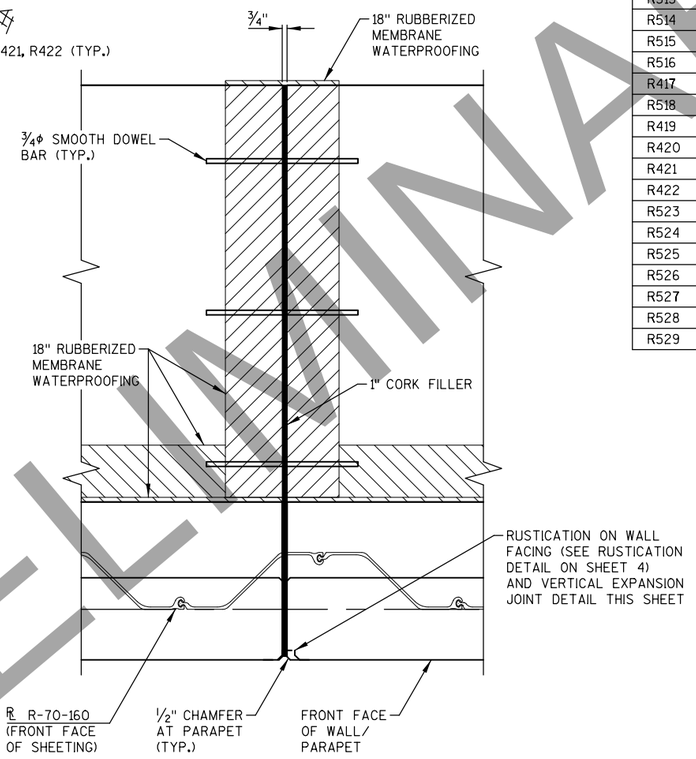
MARK	NO. REQ'D	LENGTH
R506	1 SERIES OF 5	3'-5" TO 23'-4"
R511	1 SERIES OF 18	12'-10" TO 13'-3"
R512	1 SERIES OF 26	12'-1" TO 12'-9"
R513	1 SERIES OF 18	11'-7" TO 12'-0"
R514	1 SERIES OF 26	10'-10" TO 11'-7"
R515	1 SERIES OF 26	5'-10" TO 10'-9"
R516	1 SERIES OF 24	1'-2" TO 5'-8"
R422	4 SERIES OF 6	25'-1" TO 27'-8"

BUNDLE AND TAG EACH SERIES SEPARATELY.

BILL OF BARS

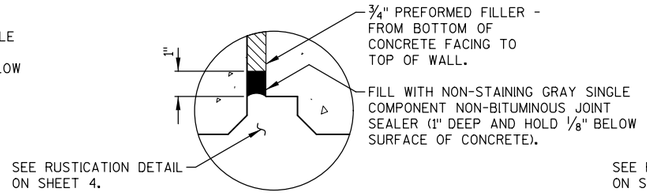
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 10,220 LBS
R501	27	18-9			WALL FACING	HORIZ.
R502	33	25-1			WALL FACING	HORIZ.
R503	1	24-0			WALL FACING	HORIZ.
R504	1	16-6			WALL FACING	HORIZ.
R505	2	25-7			WALL FACING	HORIZ.
R506	5	13-5		◭	WALL FACING	HORIZ.
R507	1	20-1			WALL FACING	HORIZ.
R508	1	15-1			WALL FACING	HORIZ.
R509	1	10-1			WALL FACING	HORIZ.
R510	1	5-1			WALL FACING	HORIZ.
R511	18	13-1		◭	WALL FACING	VERT.
R512	26	12-5		◭	WALL FACING	VERT.
R513	18	11-10		◭	WALL FACING	VERT.
R514	26	11-3		◭	WALL FACING	VERT.
R515	26	8-4		◭	WALL FACING	VERT.
R516	24	3-5		◭	WALL FACING	VERT.
R417	113	5-10			ANCHOR SLAB - BOTTOM	TRANS.
R518	205	7-10	X		ANCHOR SLAB - TOP	TRANS.
R419	113	5-2	X		ANCHOR SLAB - CURB PAN	VERT.
R420	28	18-9			ANCHOR SLAB - TOP AND BOTTOM	LONGIT.
R421	32	25-1			ANCHOR SLAB - TOP AND BOTTOM	LONGIT.
R422	24	26-5		◭	ANCHOR SLAB - TOP AND BOTTOM	LONGIT.
R523	197	5-11	X		PARAPET - BOTTOM	VERT.
R524	203	4-11	X		PARAPET - TOP	VERT.
R525	16	18-9			PARAPET	LONGIT.
R526	16	21-5			PARAPET	LONGIT.
R527					BAR MARK NOT USED	
R528	16	25-1			PARAPET	LONGIT.
R529	8	2-11			PARAPET	LONGIT.

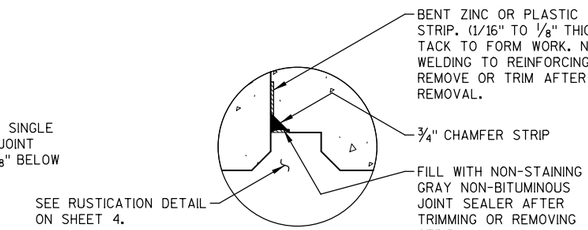


ANCHOR SLAB EXPANSION JOINT DETAIL

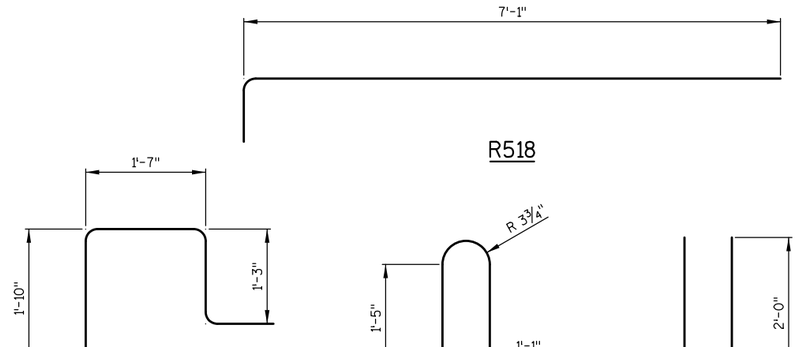
DETAIL AT RETAINING WALL ATTACHMENT TO B-70-324 NORTH ABUTMENT



VERTICAL EXPANSION JOINT



VERTICAL CONTRACTION JOINT



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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-160

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REINFORCING DETAILS 3

SHEET 7 OF 12

PRE_507

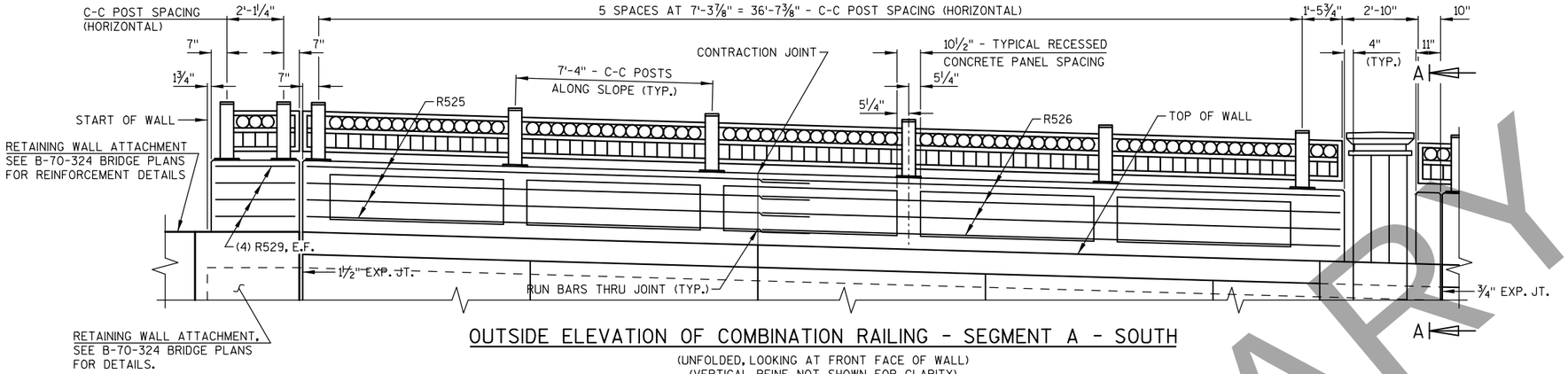
8

8

PRELIMINARY

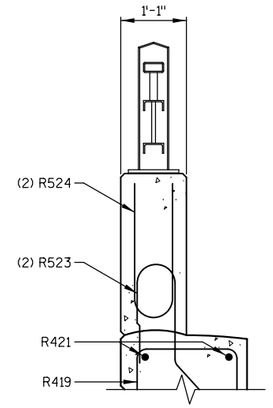
STATE PROJECT NUMBER

4992-03-71



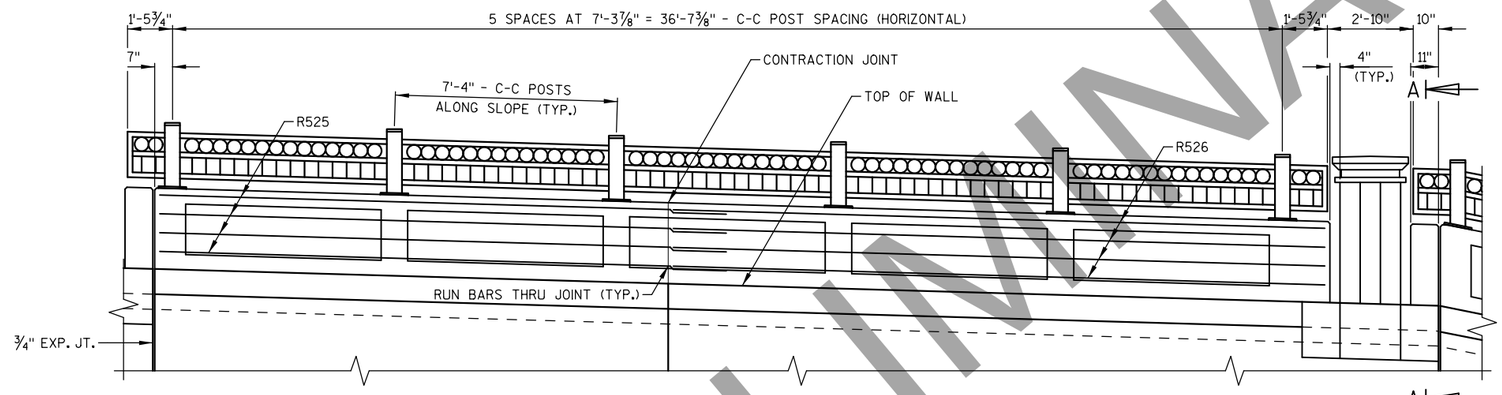
OUTSIDE ELEVATION OF COMBINATION RAILING - SEGMENT A - SOUTH

(UNFOLDED, LOOKING AT FRONT FACE OF WALL)
(VERTICAL REINF. NOT SHOWN FOR CLARITY)



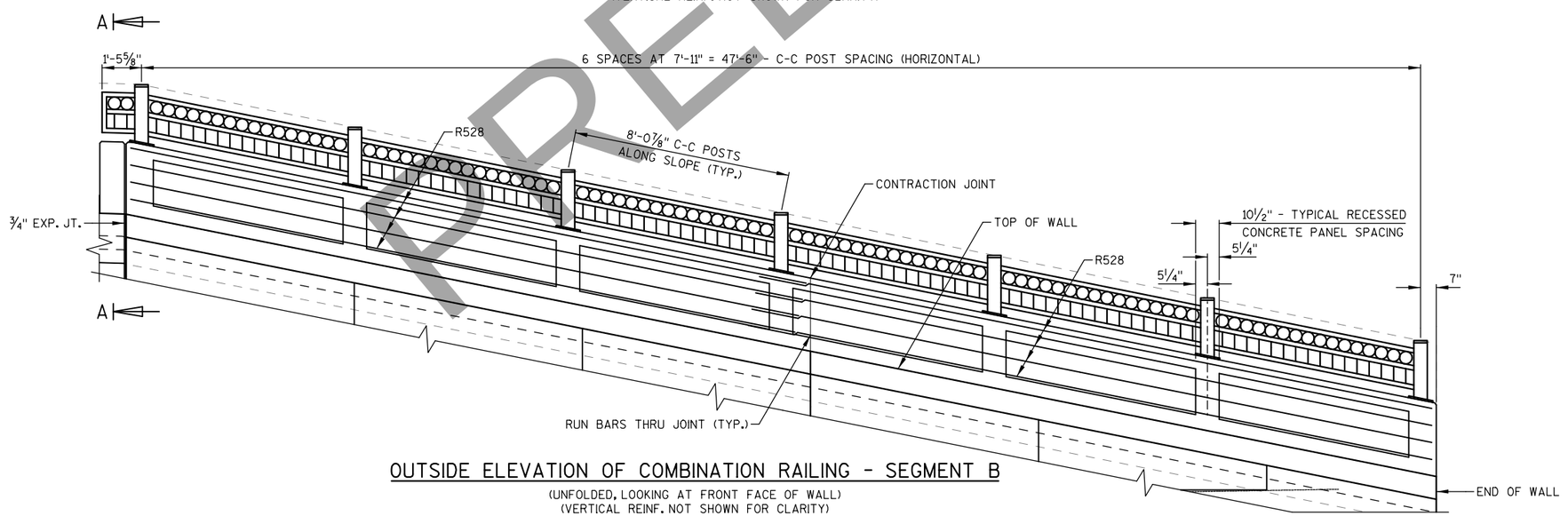
SECTION A-A

CROSS SECTION OF PARAPET AT DECORATIVE PEDESTAL



OUTSIDE ELEVATION OF COMBINATION RAILING - SEGMENT A - NORTH

(UNFOLDED, LOOKING AT FRONT FACE OF WALL)
(VERTICAL REINF. NOT SHOWN FOR CLARITY)



OUTSIDE ELEVATION OF COMBINATION RAILING - SEGMENT B

(UNFOLDED, LOOKING AT FRONT FACE OF WALL)
(VERTICAL REINF. NOT SHOWN FOR CLARITY)

LEGEND

- ▲ BAR SERIES
- [C] VERTICAL CONTRACTION JOINT
- [E] VERTICAL EXPANSION JOINT

PRELIMINARY

DRAFT April 20, 2020

BATCH PRINT SHEET CSD OF NSD

PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-160

DRAWN BY DNJ | PLANS CK'D. MJA

COMBINATION RAILING ELEVATION

SHEET 8 OF 12

PRE_508

DRAFT April 20, 2020

BATCH PRINT SHEET CSD OF NSD
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
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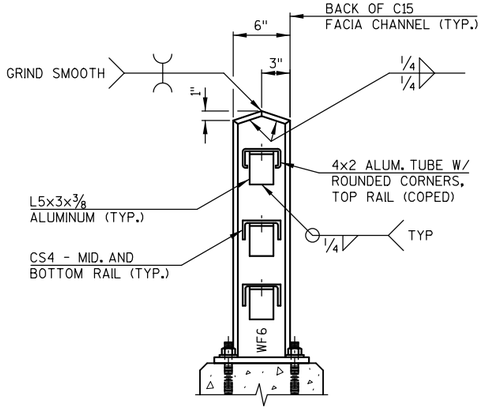
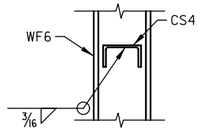
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$

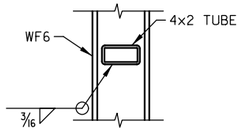
STATE PROJECT NUMBER
4992-03-71



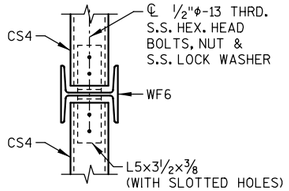
POST DETAIL



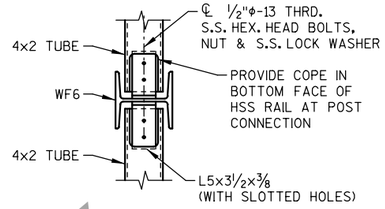
CHANNEL RAIL TO POST CONNECTION DETAIL FOR CANTILEVER SECTIONS



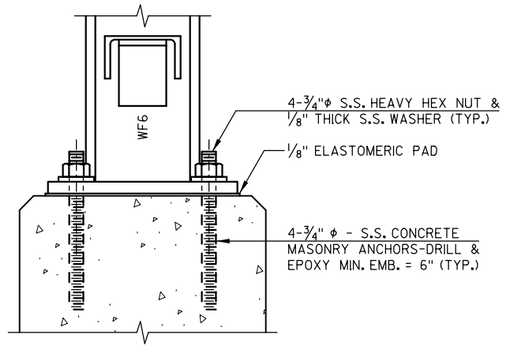
TUBE RAIL TO POST CONNECTION DETAIL FOR CANTILEVER SECTIONS



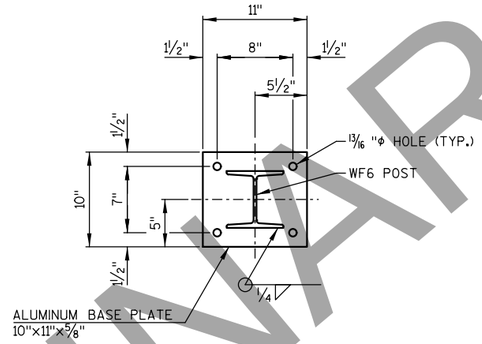
CHANNEL RAIL TO POST CONNECTION DETAIL FOR SIMPLE SPAN SECTIONS



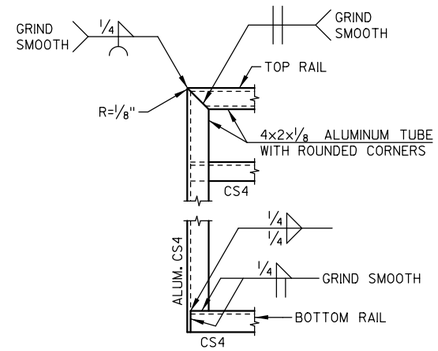
TUBE RAIL TO POST CONNECTION FOR SIMPLE SPAN SECTIONS
(VIEW FROM BELOW)



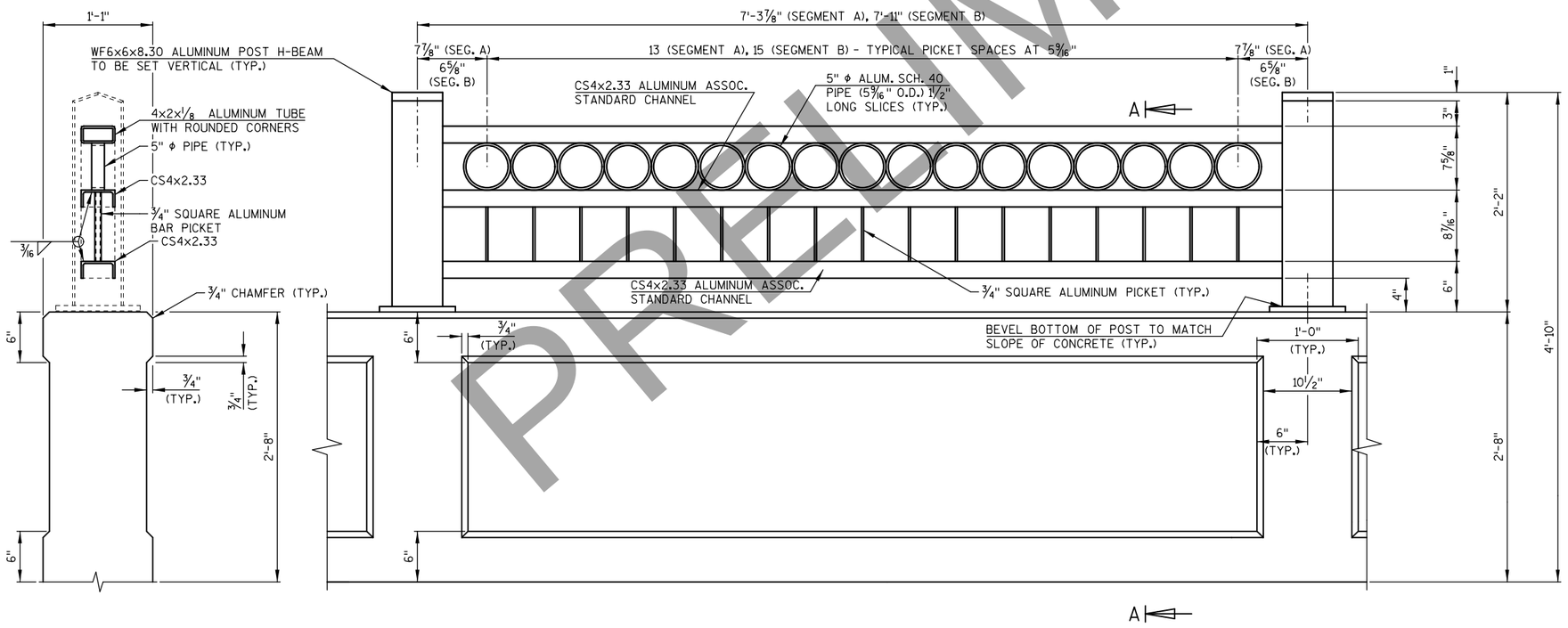
POST MOUNTING DETAIL



POST BASE PLATE DETAIL
(CONCRETE ATTACHMENT DETAIL)



RAIL DETAIL AT CANTILEVERED ENDS



SECTION A-A

TYPICAL PEDESTRIAN RAILING PANEL

NOTES:

BID ITEM SHALL BE "RAILING ALUMINUM SPECIAL R-70-160," WHICH SHALL INCLUDE ALL ALUMINUM ITEMS SHOWN AND ASSOCIATED CONNECTIONS AND ANCHORS.

ENDS OF ALUMINUM SECTIONS ARE TO BE SAWED OR MILLED. CUT ENDS ARE TO BE TRUE, SMOOTH AND FREE FROM BURRS OR RAGGED EDGES. ALL JOINED CORNERS SHALL BE ROUNDED TO A MIN. 1/8" RADIUS.

S.S. DENOTES STAINLESS STEEL.

CUT BOTTOM OF POST TO MAKE HANDRAIL POSTS VERTICAL IN BOTH THE TRANSVERSE AND LONGITUDINAL DIRECTION. PLACE PICKET TUBES VERTICAL (PARALLEL WITH THE HANDRAIL POSTS).

CAULK AROUND THE PERIMETER OF POST BASE PLATE WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

AFTER FABRICATION, ANODIZE ALL POSTS, RAILINGS, AND APPURTENANT PARTS WITH "STATUARY BRONZE" COLOR.

ALL ANCHOR BOLTS SHALL BE SET TO A TEMPLATE.
FOR ANCHORAGE DETAILS SEE DETAILS THIS SHEET.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-160

DRAWN BY DNJ | PLANS CK'D. MJA

COMBINATION RAILING DETAILS

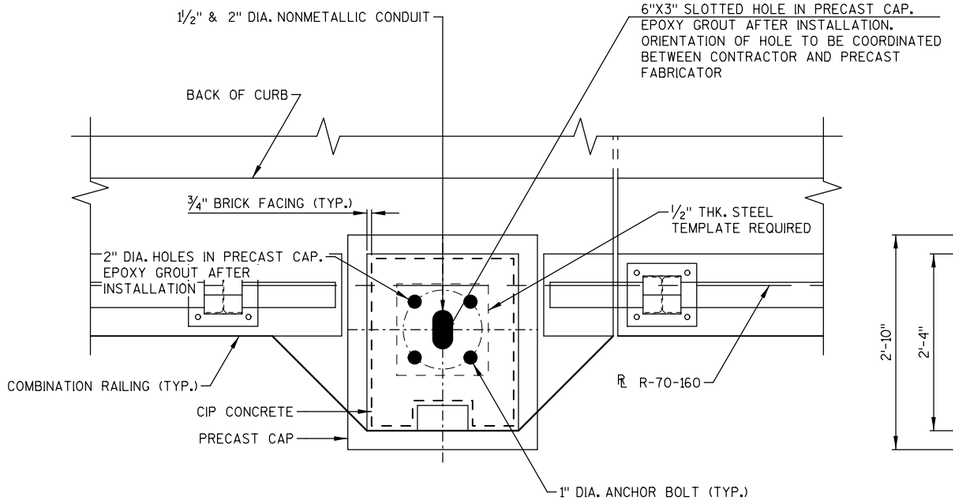
PRE_509

8

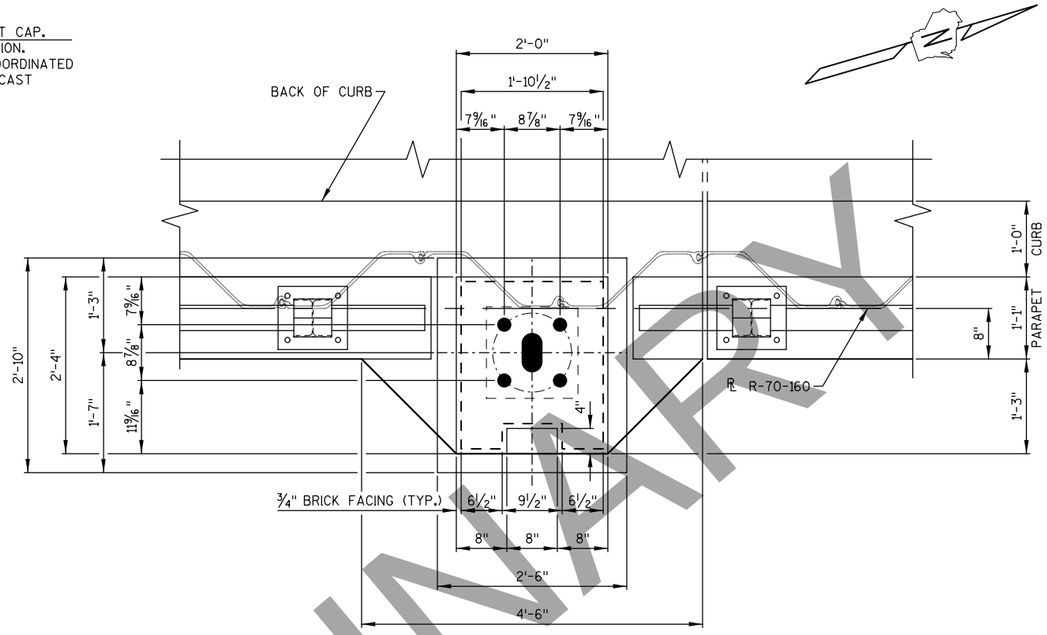
8

DRAFT April 20, 2020

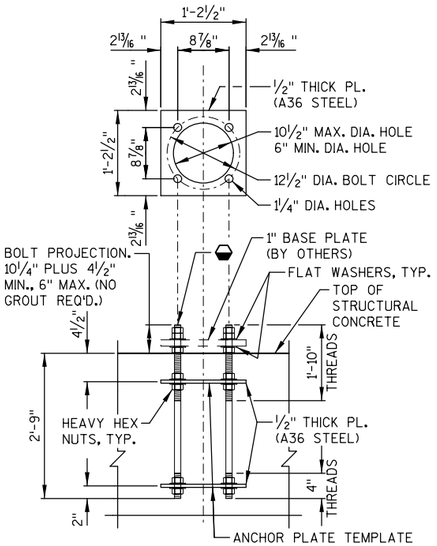
PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$
BATCH PRINT SHEET CSD OF NSD



PLAN



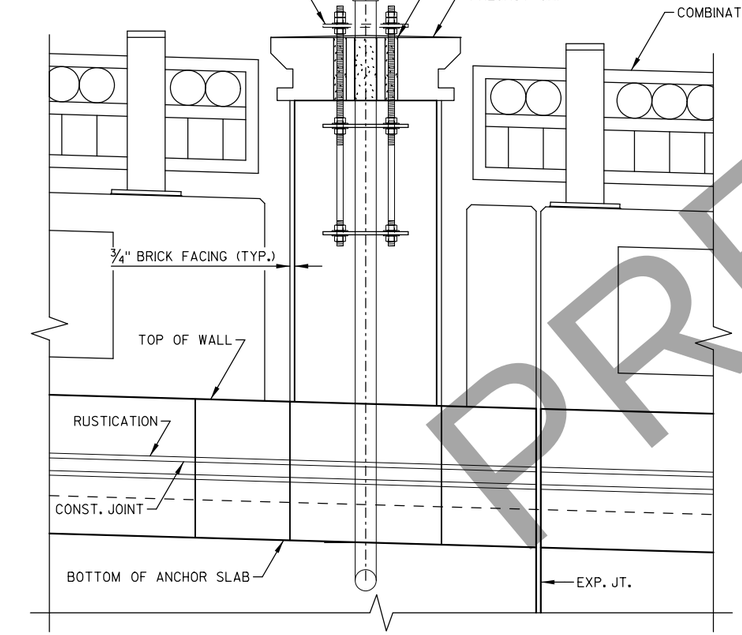
PLAN



ANCHORAGE DETAIL

(1 REQUIRED)

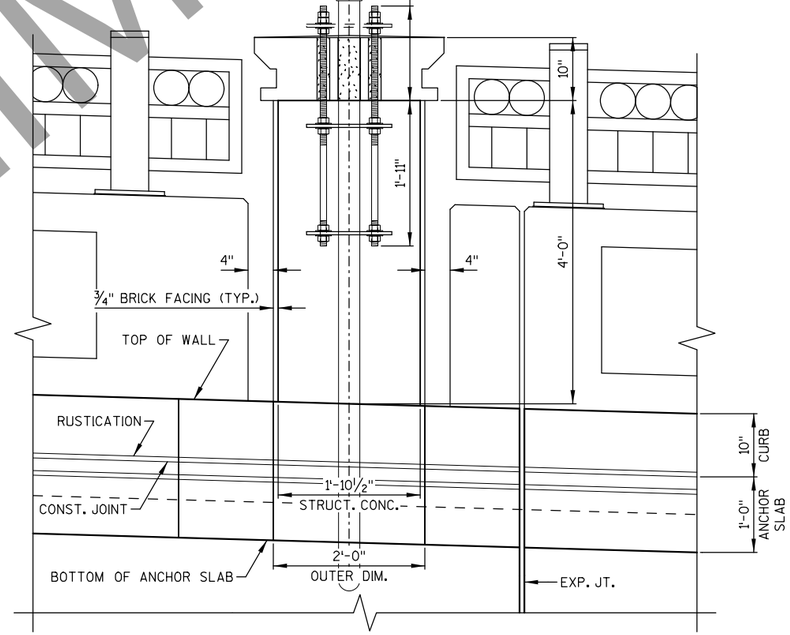
1" DIA. THREADED ANCHOR RODS PER STANDARD SPEC. 657.2.8. PROVIDE ENLARGED THREAD ON NUTS FOR PROPER FIT AFTER GALVANIZING.



PEDESTAL DETAILS

ELEVATION

(FACING WEST)



PEDESTAL DIMENSIONS

ELEVATION

(FACING WEST)

NOTE: DETAILS AND DIMENSIONS SHOWN ARE FOR PEDESTALS WITH ANCHORAGES FOR LIGHT POLES. PRECAST CAP IS TO BE CAST WITHOUT HOLES FOR PEDESTALS WITHOUT ANCHORAGES.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-160

DRAWN BY DNJ | PLANS CK'D. MJA

PEDESTAL DETAILS 1

SHEET 10 OF 12

PRE_510

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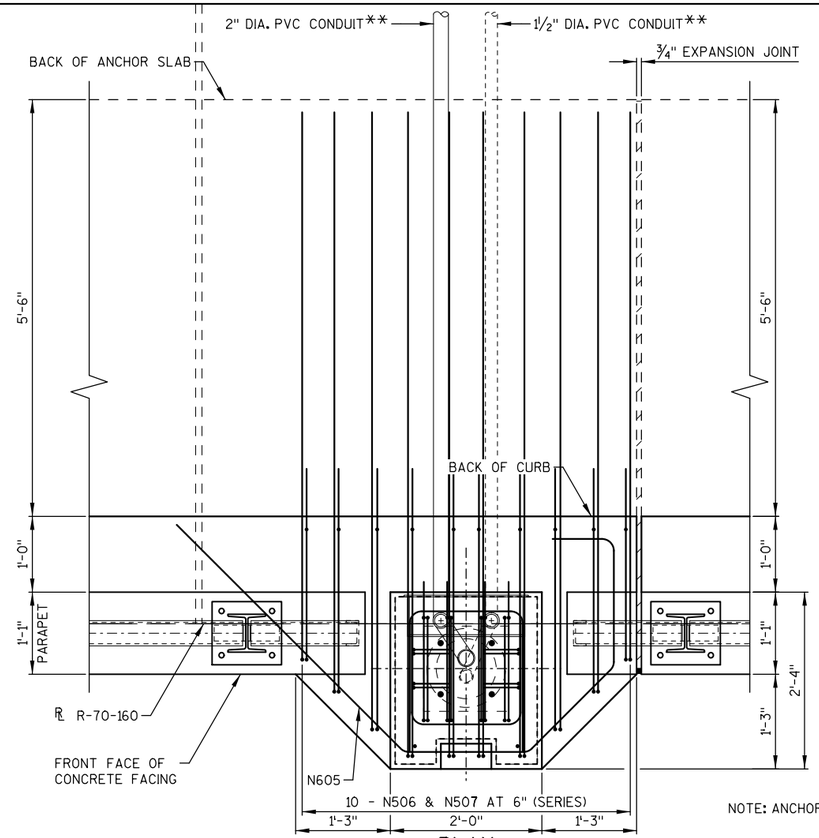
DRAFT April 20, 2020

PRINTER DRIVER: $$...printerdriver...$$
PEN TABLE: $$...pentable...$$
FILE NAME: $$...designfile...$$
PLOT DATE: $$...plottingdate...$$ PLOT TIME: $$...plottingtime...$$
BATCH PRINT SHEET CSD OF NSD

STATE PROJECT NUMBER

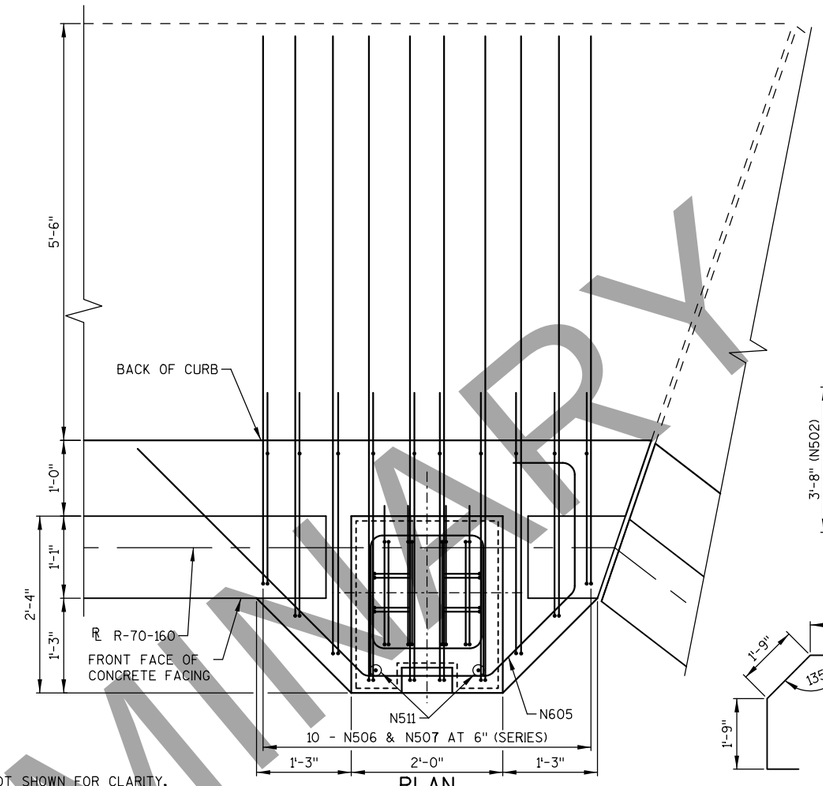
4992-03-71



PLAN

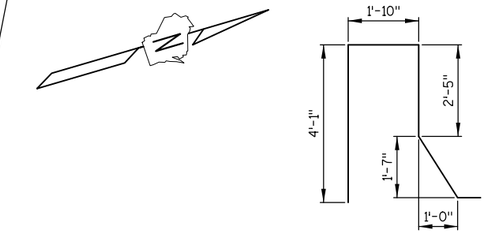
AT LIGHT POLE

NOTE: ANCHOR SLAB REINFORCEMENT NOT SHOWN FOR CLARITY.

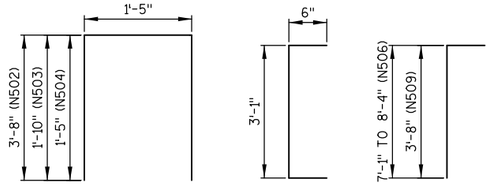


PLAN

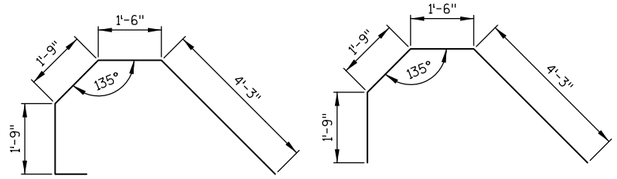
AT PEDESTAL ONLY



N501

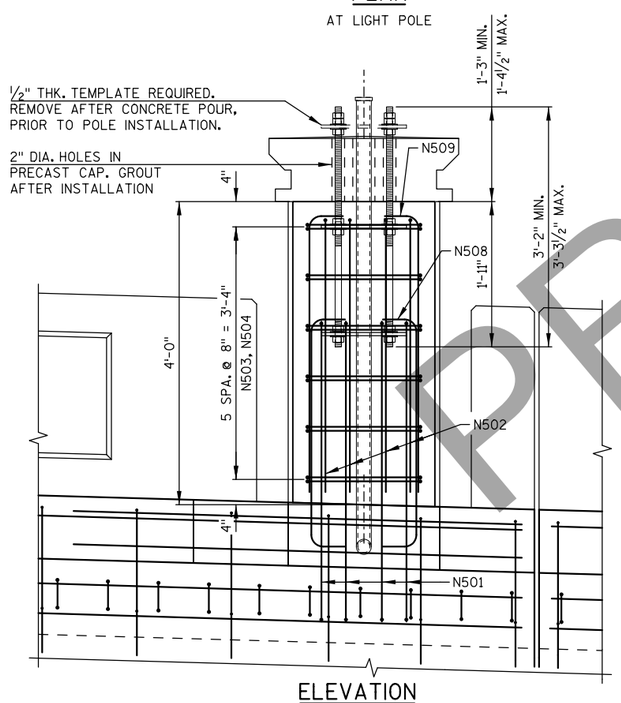


N502 N503 N504 N508 N506 N509



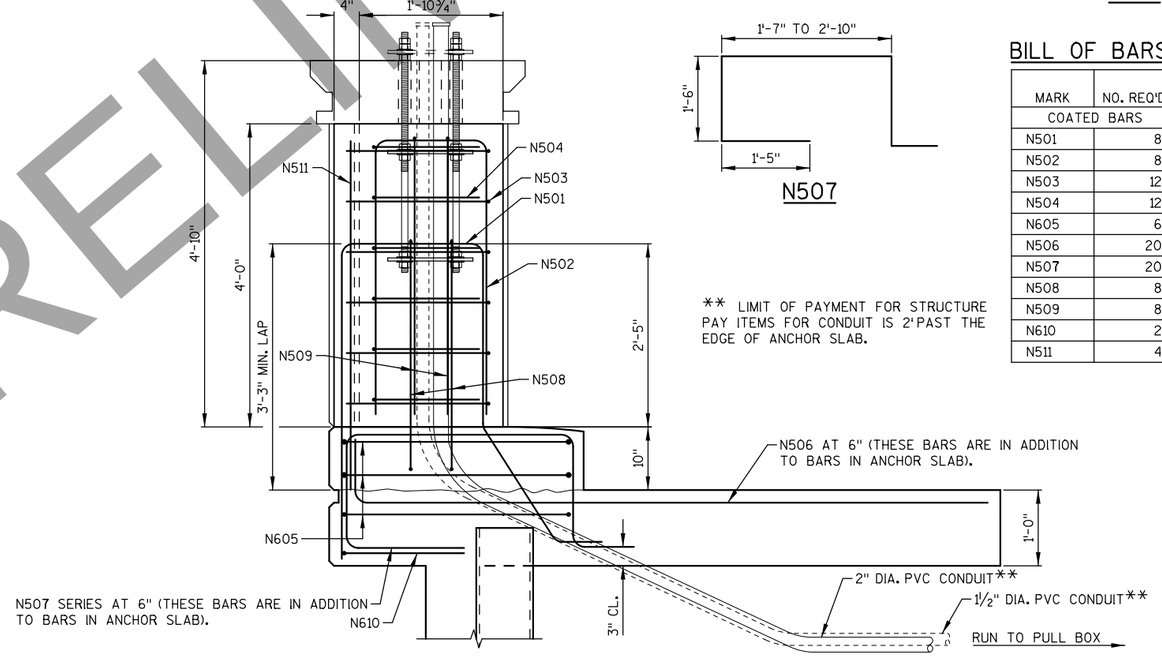
N605

N610



ELEVATION

LOOKING AT FRONT FACE OF WALL



SECTION THRU ANCHOR SLAB

N507

** LIMIT OF PAYMENT FOR STRUCTURE PAY ITEMS FOR CONDUIT IS 2' PAST THE EDGE OF ANCHOR SLAB.

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BILL OF BARS

MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS					TOTAL WEIGHT = 790 LBS	
N501	8	10-6	X		PEDESTALS	VERT.
N502	8	8-6	X		PEDESTALS	VERT.
N503	12	4-10	X		PEDESTALS	HORIZ.
N504	12	4-0	X		PEDESTALS	HORIZ.
N605	6	9-7	X		PEDESTALS	HORIZ.
N506	20	8-1	X	X	PEDESTALS	HORIZ.
N507	20	7-0	X	X	PEDESTALS	HORIZ.
N508	8	3-10	X		PEDESTALS	VERT.
N509	8	4-1	X		PEDESTALS	VERT.
N610	2	8-9	X		PEDESTALS	HORIZ.
N511	4	4-8			PEDESTAL BASE	VERT.

BAR SERIES TABLE

MARK	NO. REQ'D	LENGTH
N506	4 SERIES OF 5	7'-6" TO 8'-9"
N507	4 SERIES OF 5	6'-4" TO 7'-7"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-160

DRAWN BY DNJ | PLANS CK'D. MJA

PEDESTAL DETAILS 2

SHEET 11 OF 12

PRE_511

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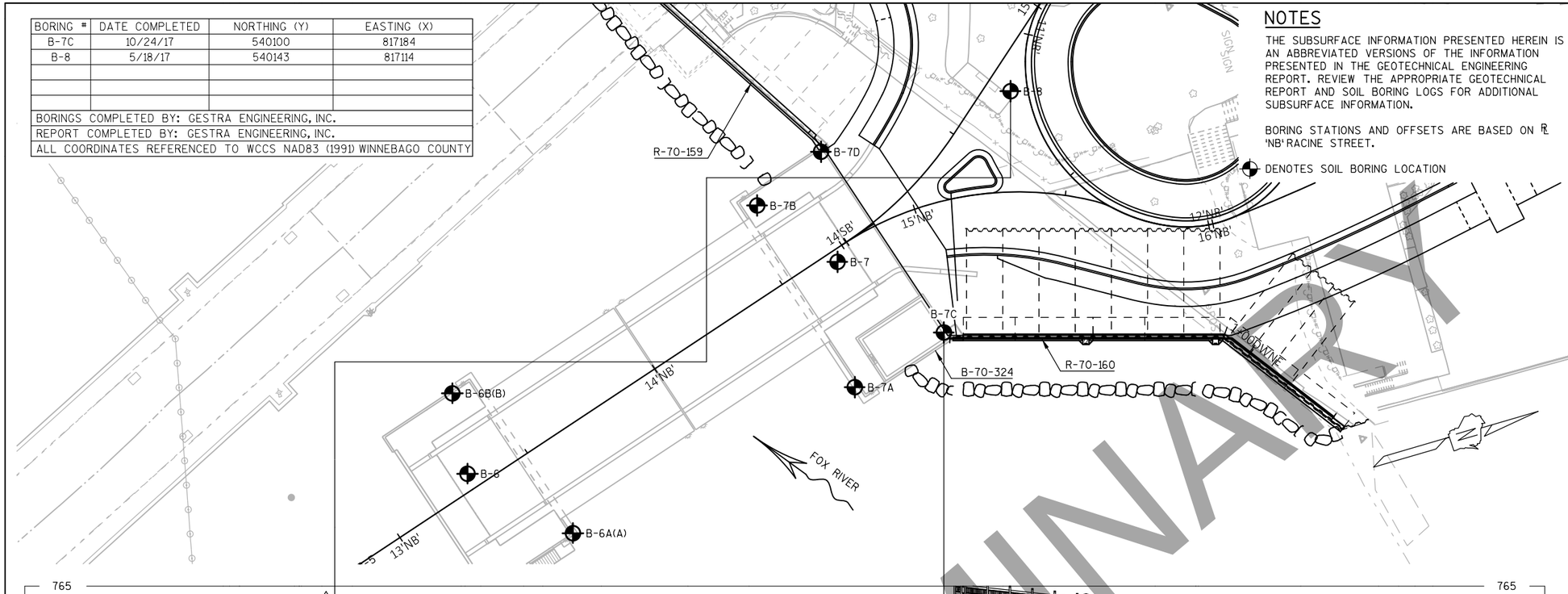
PRELIMINARY

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-7C	10/24/17	540100	817184
B-8	5/18/17	540143	817114
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: GESTRA ENGINEERING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD83 (1991) WINNEBAGO COUNTY			

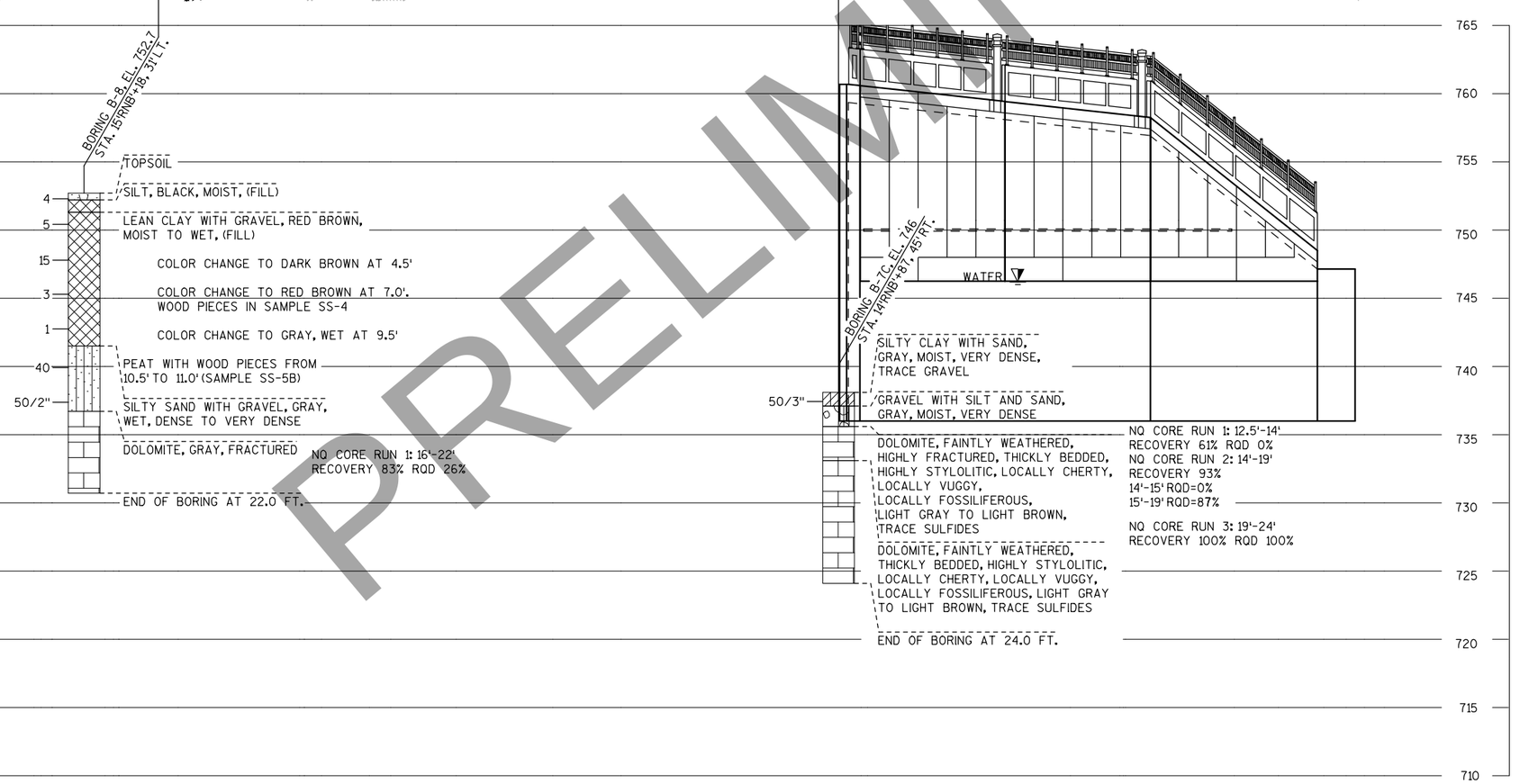


NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSIONS OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

BORING STATIONS AND OFFSETS ARE BASED ON ℄ 'NB' RACINE STREET.

DENOTES SOIL BORING LOCATION



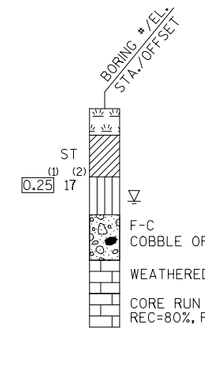
STATE PROJECT NUMBER

4992-03-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-160

DRAWN BY CEB/DNJ | PLANS CK'D. MJA

SUBSURFACE EXPLORATION

SHEET 12 OF 12
PRE_512

SCALE =

DRAFT April 20, 2020
PRELIMINARY

8

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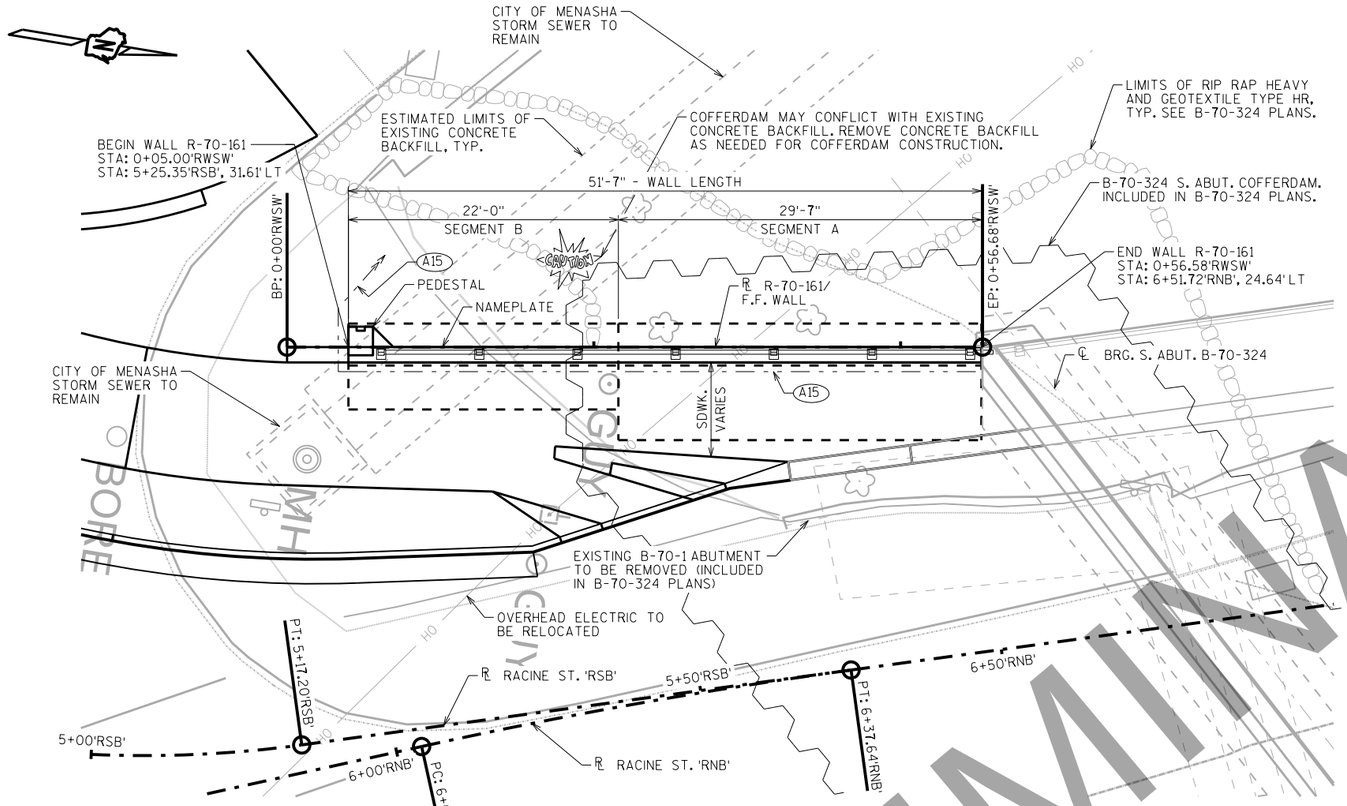
DRAFT April 20, 2020

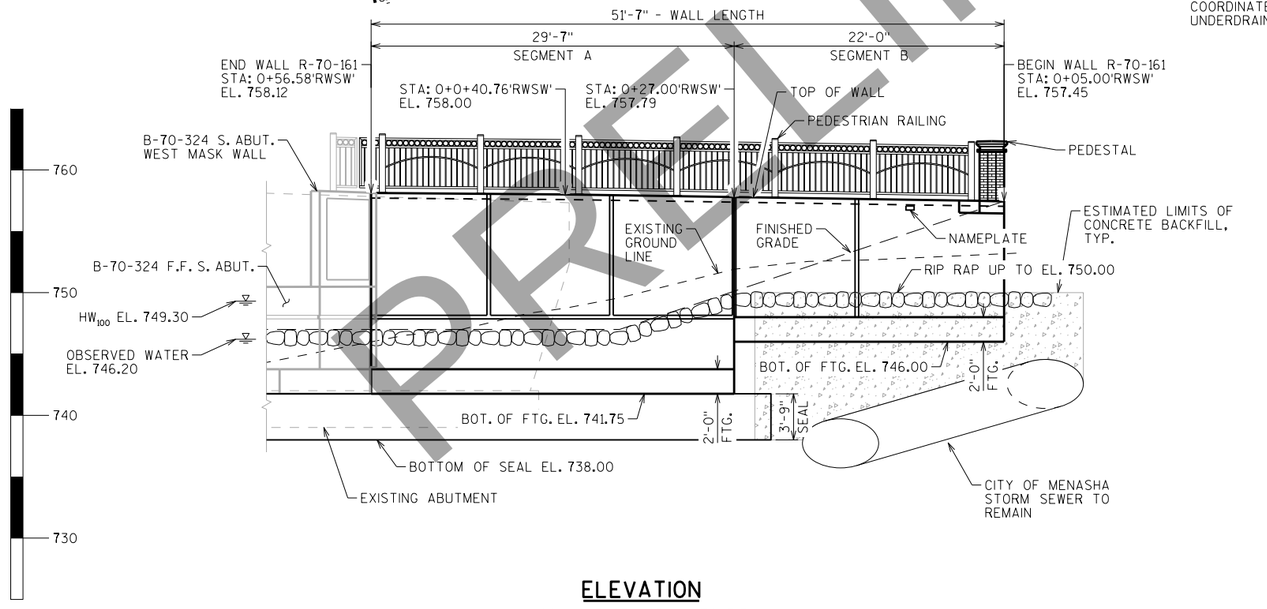
STATE PROJECT NUMBER

4992-03-71



PLAN

C.I.P. RETAINING WALL



ELEVATION

LOOKING EAST, NORMAL TO F.F.
(STATIONS AND ELEVATIONS ARE GIVEN ALONG THE FRONT FACE OF WALL)

A15 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. MIN. INVERT = 749.20. RODENT SHIELD REQUIRED. COORDINATE INSTALLATION WITH PIPE UNDERDRAIN AT S. ABUT. OF B-70-324

DESIGN DATA

MATERIAL PROPERTIES:

CONCRETE MASONRY:
FOOTING, STEM, & PEDESTAL —— f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 —— fy = 60,000 P.S.I.

RETAINED SOIL WEIGHT PROPERTIES;

UNIT WEIGHT —— 120 P.C.F.

ANGLE OF INTERNAL FRICTION —— 30°

FOUNDATION DATA

WALL "SEGMENT A" SPREAD FOOTINGS TO BE SUPPORTED ON SOUND ROCK WITH A REQUIRED FACTORED BEARING RESISTANCE OF 23,500 PSF*** A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE ABUTMENT SEAL.

WALL "SEGMENT B" SPREAD FOOTINGS TO BE SUPPORTED BY UNDERLYING NATIVE SOILS WITH A REQUIRED FACTORED BEARING RESISTANCE OF 2,500 PSF***. A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE FOOTING.

*** THE FACTORED BEARING RESISTANCE IS THE VALUE USED FOR DESIGN.

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100} = 9,700 C.F.S.
VEL.$_{100}$ = 2.8 F.P.S.
HW.$_{100}$ = EL. 749.30
REGULATORY HIGH WATER = 749.3
WATERWAY AREA = 3464 SQ. FT.
DRAINAGE AREA = 6.030 SQ. MI.
OVERTOPPING = N/A
SCOUR CRITICAL CODE = 5

2 YEAR FREQUENCY

Q_2 = 7,100 C.F.S.
VEL.$_2$ = 2.0 F.P.S.
HW.$_2$ = EL. 749.19

TRAFFIC VOLUME

RACINE ST.

ADT = 11,300 (2012)
ADT = 12,900 (2030)
R.D.S. = 30 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES, WALL DATA, & NOTES
3. SUBSURFACE EXPLORATION
4. WALL DETAILS
5. TYPICAL SECTIONS
6. RAILING DETAILS

STRUCTURE DESIGN CONTACTS:
ADAM SWIERCZEK (608) 267-4593
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

WISCONSIN DEPARTMENT OF TRANSPORTATION
BUREAU OF STRUCTURES

ACCEPTED _____ _____
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-70-161

SOUTHWEST WING FOR B-70-324

COUNTY	CITY
WINNEBAGO	MENASHA

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
ABS	CAD	ABS	BAF

SHEET 1 OF 6

GENERAL PLAN

PRE_513

I.D. 4992-03-00B DATE: FEB. 2020

SCALE = 6.00

PRELIMINARY

DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL BEHIND THE WALL IN THE STRUCTURE BACKFILL ZONE	30	--	120
B-1 - STA. 5+82'RNB'- 30'LT OF ℄ RACINE ST. 'RNB'			
FILL LEAN CLAY ABOVE EL. 749.1	26	500[B]	125
SILTY GRAVEL WITH SAND EL. 749.1 TO EL. 740.4	34	--	130
FRACTURED BEDROCK[D] BELOW EL. 740.4	45	--	135
BEARING CAPACITY AT AN ELEVATION OF 749 FEET OR BELOW[C]		4,000 PSF	

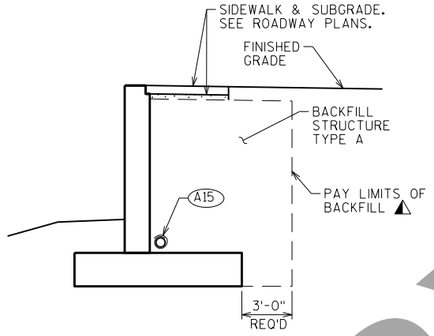
NOTES:
B. AT UNDRAINED SOIL CONDITION ONLY (FRICTION ANGLE = 0 DEGREES)
C. HIGHER BEARING CAPACITY AVAILABLE NEAR THE BEDROCK
D. REFUSAL DURING DRILLING OF BORING B-1 WAS ENCOUNTERED AT 740.4, DIFFICULT EXCAVATION CONDITIONS EXPECTED BELOW AN ELEVATION OF 740.4 FEET.

GEOMETRY TABLE

WALL STATION	℄ STATION	OFFSET TO F.F. WALL	TOP OF WALL ELEV.	FINISHED GRADE ELEV.	EXISTING GRADE ELEV.
0+05.00	5+25.35'RSB'	31.61' LT	757.45	757.45	753.17
0+27.00	5+47.15'RSB'	28.64' LT	757.79	750.11	751.91
0+40.76	5+60.78'RSB'	26.78' LT	758.00	747.00	748.73
0+56.58	6+51.72'RNB'	24.64' LT	758.12	747.00	745.86

TOTAL ESTIMATED QUANTITIES

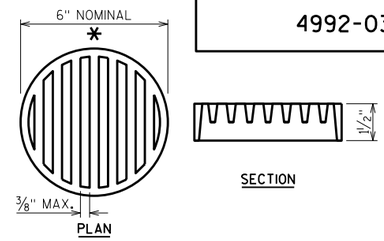
	BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
☆	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS R-70-161	LS	1
	210.1500	BACKFILL STRUCTURE TYPE A	TON	107
	501.1000.S	ICE HOT WEATHER CONCRETING	LB	510
	502.3200	PROTECTIVE SURFACE TREATMENT	SY	11
	504.0500	CONCRETE MASONRY RETAINING WALLS	CY	68
	505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,860
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,690
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2
	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	72
	SPV.0060.09	DECORATIVE PEDESTAL MASONRY	EACH	1
	SPV.0090.04	RAILING ALUMINUM SPECIAL R-70-161	LF	50
◐	SPV.0105.39	SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM R-70-161 SEGMENT B	LS	1
		NON-BID ITEMS		
		PREFORMED JOINT FILLER	SIZE	½" & 1"
		NON-BITUMINOUS JOINT SEALER	SIZE	½" & 1"
		EXPANDED POLYSTYRENE	SIZE	1"



TYPICAL SECTION THRU RETAINING WALL

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

(A15) SEE "TYPICAL SECTIONS" SHEET.

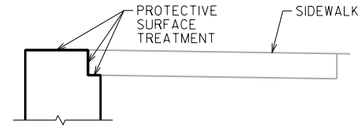


RODENT SHIELD DETAIL

* 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 COMMERCIALLY 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.



PROTECTIVE SURFACE TREATMENT LIMITS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF JOINT FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP & HOLD 1/8" BELOW THE SURFACE OF CONCRETE).

ALL WALL STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL R-70-161.

COORDINATE THE CONSTRUCTION OF RETAINING WALL R-70-161 WITH THE SOUTH ABUTMENT OF BRIDGE B-70-324.

☆ THE EXISTING GROUND LINE IS THE UPPER LIMITS OF EXCAVATION FOR STRUCTURES. EXCAVATION WITHIN THE B-70-324 S. ABUT. COFFERDAM (R-70-161 SEGMENT A) IS INCLUDED IN THE B-70-324 PLANS. EXCAVATION FOR SEGMENT B IS INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-70-161".

REMOVE STORM SEWER CONCRETE BACKFILL TO 1'-0" BELOW BOTTOM OF FOOTING. TAKE CARE NOT TO DAMAGE EXISTING STORM SEWER PIPE. BACKFILL WITH CRUSHED STONE. WORK IS INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-70-161".

AT THE BACK FACE OF WALL ALL VOLUME WHICH CANNOT BE PLACED BEFORE WALL CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE QUANTITY FOR "BACKFILL STRUCTURE TYPE A" IS BASED ON THE PAY LIMITS SHOWN IN THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED FOR THE ENTIRE WALL LENGTH. BACKFILL PLACED BEYOND THE PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

◐ THE DEWATERING SYSTEM AND CONCRETE SEAL QUANTITY REQUIRED FOR CONSTRUCTION OF R-70-161 SEGMENT A IS INCLUDED IN THE B-70-324 PLANS. THE DEWATERING SYSTEM FOR CONSTRUCTION OF R-70-161 SEGMENT B IS INCLUDED IN THE BID ITEM "SUBSTRUCTURE TEMPORARY DEWATERING SYSTEM R-70-161 SEGMENT B".

THE BID ITEM FOR REMOVAL OF THE EXISTING BRIDGE, B-70-1, IS INCLUDED IN THE B-70-324 PLANS.

ARCHITECTURAL DETAILS FOR THE PEDESTAL ARE INCLUDED IN THE B-70-324 PLANS.

HEAVY RIP RAP AND GEOTEXTILE TYPE HR SHOWN AT F.F. OF WALL IS INCLUDED IN THE B-70-324 PLANS.

PRELIMINARY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-161

DRAWN BY ABS | PLANS CK'D. BAF

QUANTITIES, WALL DATA, & NOTES

SHEET 2

PRE_514

SCALE = 1.00

8

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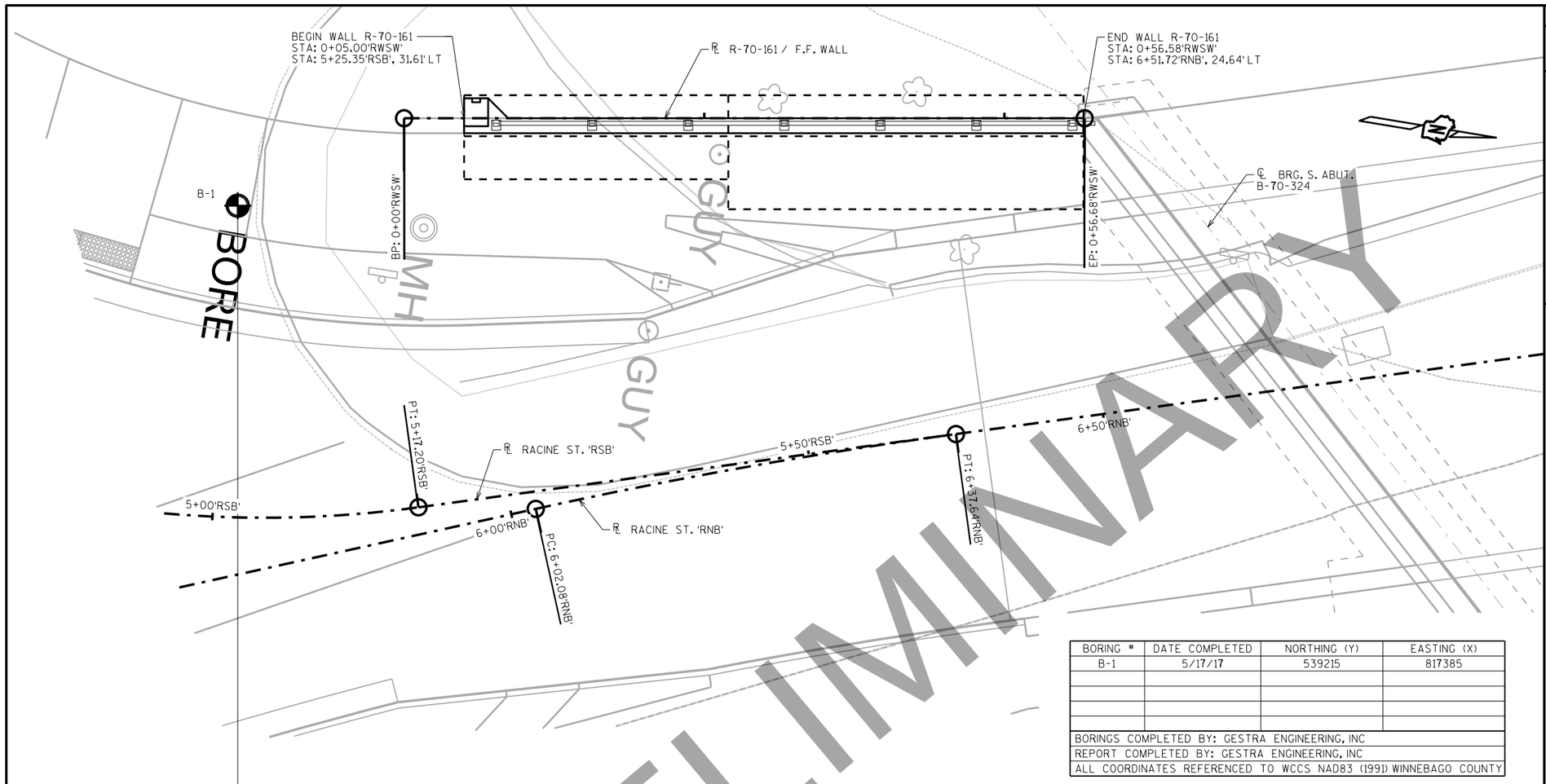
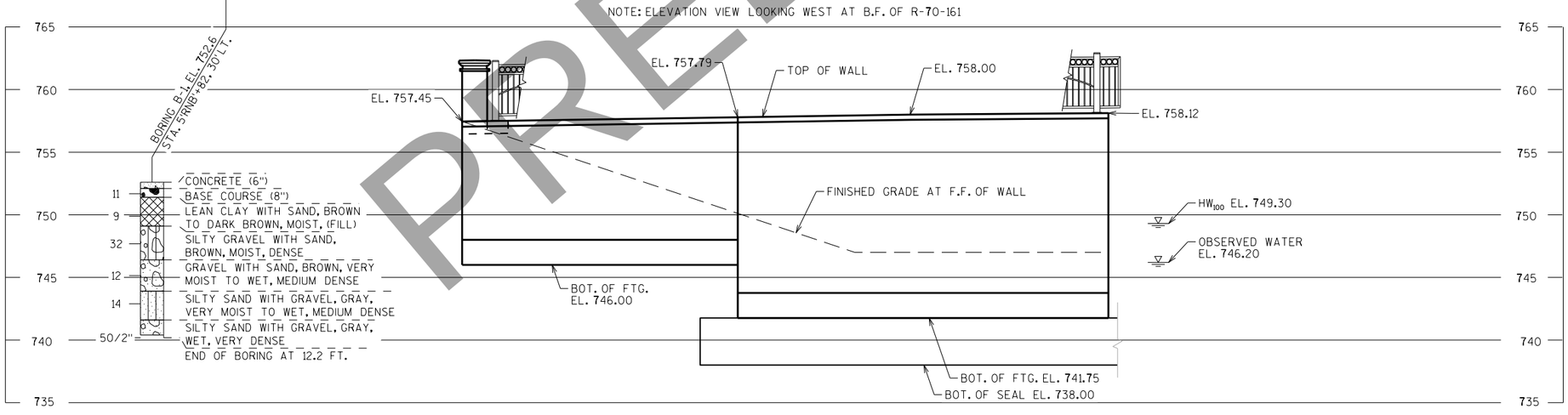


BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
B-1	5/17/17	539215	817385
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC			
REPORT COMPLETED BY: GESTRA ENGINEERING, INC			
ALL COORDINATES REFERENCED TO WCCS NAD83 (1991) WINNEBAGO COUNTY			



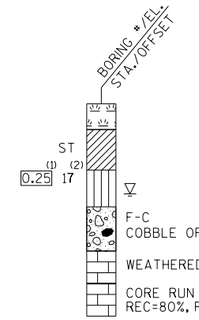
STATE PROJECT NUMBER

4992-03-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ⧩ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-161

DRAWN BY ABS | PLANS CK'D. BAF

SUBSURFACE EXPLORATION

SHEET 3

PRE_515

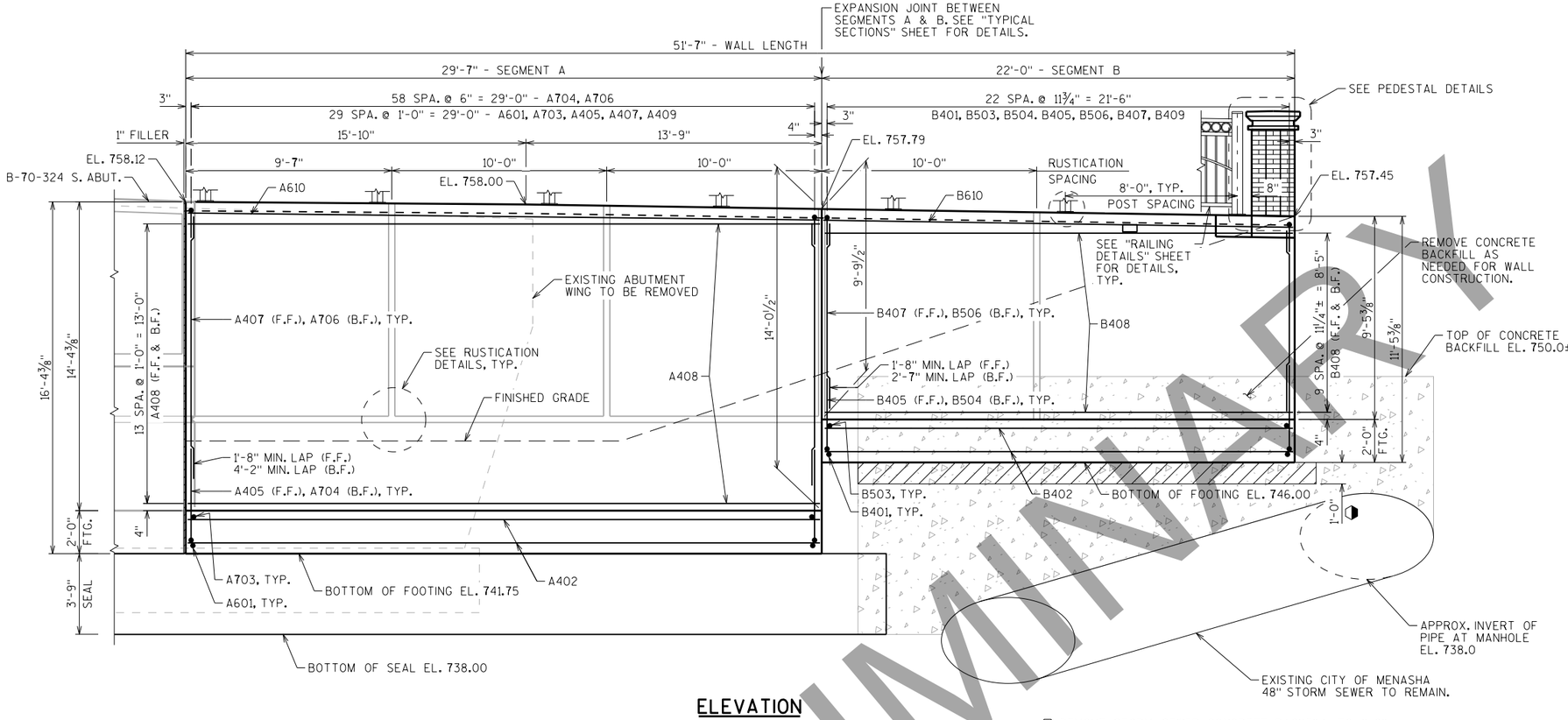
SCALE = 5.00

DRAFT April 20, 2020

PRELIMINARY

STATE PROJECT NUMBER

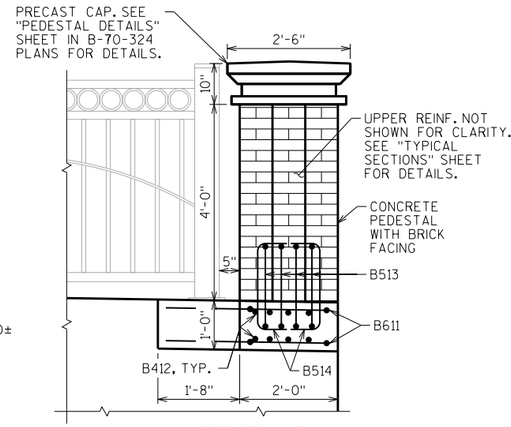
4992-03-71



ELEVATION

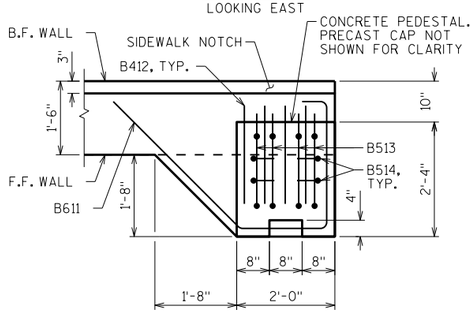
LOOKING EAST AT F.F.

REMOVE STORM SEWER CONCRETE BACKFILL TO 1'-0" BELOW BOTTOM OF FOOTING. TAKE CARE NOT TO DAMAGE EXISTING STORM SEWER PIPE. BACKFILL WITH CRUSHED STONE. WORK IS INCLUDED IN THE BID ITEM "EXCAVATION FOR STRUCTURES RETAINING WALLS R-70-161".



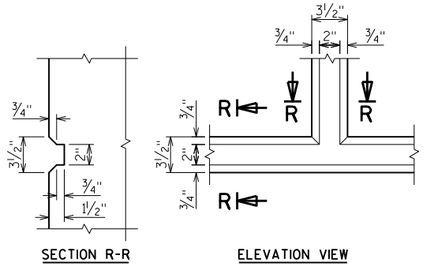
ELEVATION VIEW

LOOKING EAST



PLAN VIEW

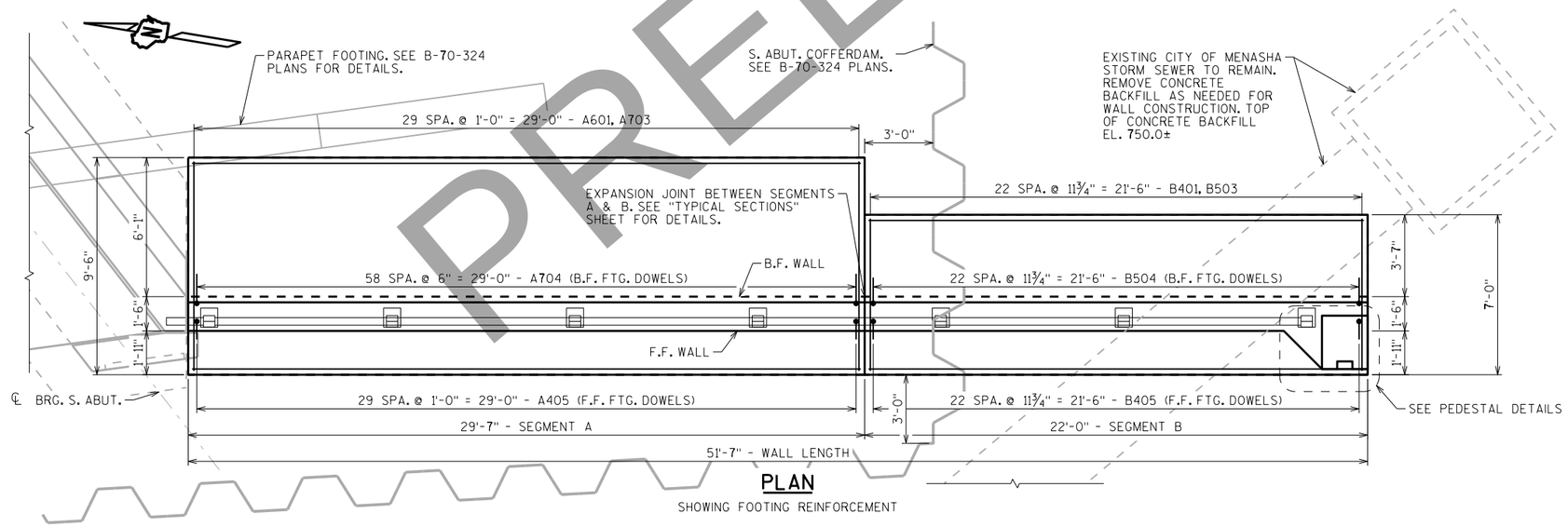
PEDESTAL DETAILS



SECTION R-R

ELEVATION VIEW

RUSTICATION DETAILS



PLAN

SHOWING FOOTING REINFORCEMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-161

DRAWN BY ABS | PLANS CK'D. BAF

WALL DETAILS

SHEET 4

PRE_516

SCALE = 3.00

DRAFT April 20, 2020

8

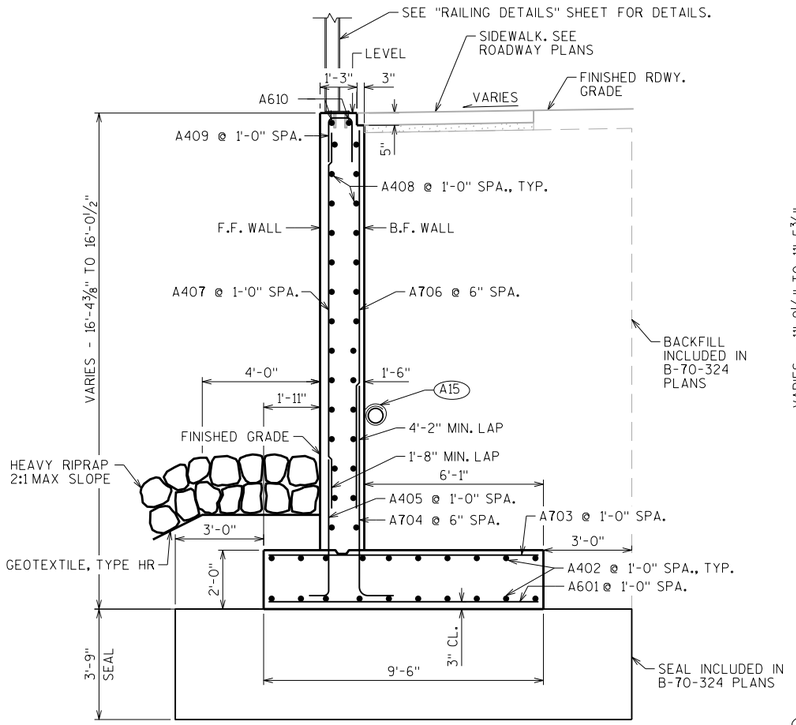
8

PRELIMINARY

DRAFT April 20, 2020

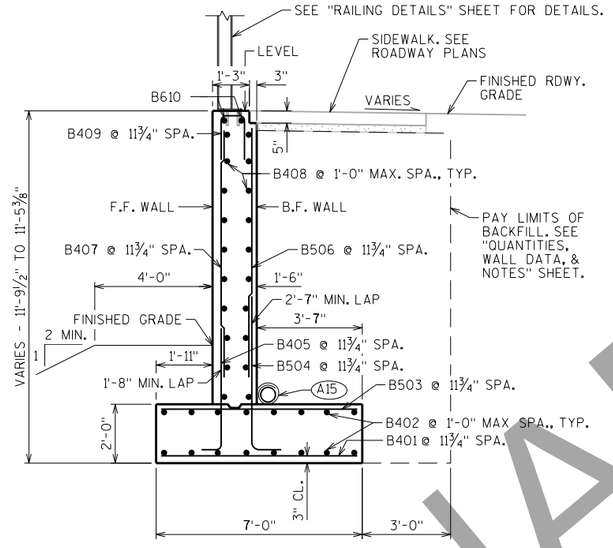
STATE PROJECT NUMBER

4992-03-71



SECTION THRU WALL SEGMENT A

LOOKING NORTH



SECTION THRU WALL SEGMENT B

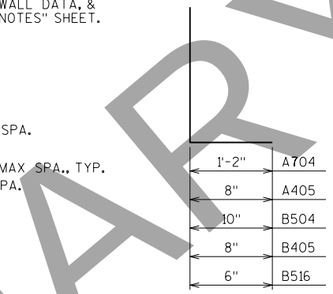
LOOKING NORTH

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. INVERT OF PIPE UNDERDRAIN OUTLET TO BE AT OR ABOVE EL. 746.20. RODENT SHIELD REQUIRED.

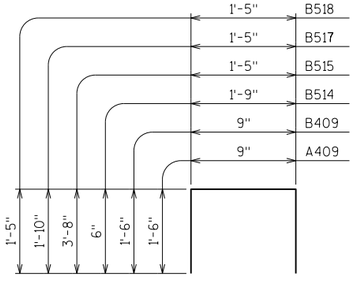
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

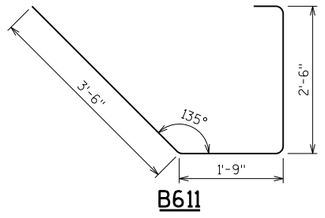
	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
SEGMENT A	A601		30	9'-2"			FOOTING - BOT. - LONGIT.
	A402		20	29'-3"			FOOTING - TRANSVERSE - TOP & BOT.
	A703		30	9'-2"			FOOTING - TOP - LONGIT.
	A704	X	59	8'-4"	X		FOOTING DOWEL - B.F.
	A405	X	30	5'-5"	X		FOOTING DOWEL - F.F.
	A706	X	59	12'-4"			STEM - B.F. - VERT.
	A407	X	30	12'-4"			STEM - F.F. - VERT.
	A408	X	28	29'-3"			STEM - HORIZ. - F.F. & B.F.
	A409	X	30	3'-7"	X		STEM - TOP - VERT.
	A610	X	2	29'-3"			STEM - TOP - HORIZ.
SEGMENT B	B401		23	6'-8"			FOOTING - BOT. - LONGIT.
	B402		16	21'-8"			FOOTING - TRANSVERSE - TOP & BOT.
	B503		23	6'-8"			FOOTING - TOP - LONGIT.
	B504	X	23	5'-6"	X		FOOTING DOWEL - B.F.
	B405	X	23	4'-5"	X		FOOTING DOWEL - F.F.
	B506	X	23	8'-8"			STEM - B.F. - VERT.
	B407	X	23	8'-8"			STEM - F.F. - VERT.
	B408	X	20	21'-8"			STEM - HORIZ. - F.F. & B.F.
	B409	X	23	3'-7"	X		STEM - TOP - VERT.
	B610	X	2	21'-8"			STEM - TOP - HORIZ.
	B611	X	2	8'-5"	X		PEDESTAL OVERHANG - HORIZ.
	B412	X	8	2'-0"			PEDESTAL OVERHANG - HORIZ.
	B513	X	4	5'-3"	X		PEDESTAL - VERT.
	B514	X	4	2'-6"	X		PEDESTAL - VERT.
	B515	X	4	8'-6"	X		PEDESTAL - VERT.
	B516	X	4	4'-1"	X		PEDESTAL - VERT.
	B517	X	6	4'-10"	X		PEDESTAL - HORIZ.
	B518	X	6	4'-0"	X		PEDESTAL - HORIZ.
	B519	X	2	3'-8"			PEDESTAL - VERT.



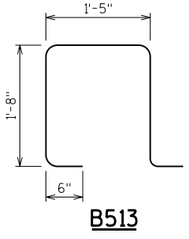
A704, A405, B504, B405, B516



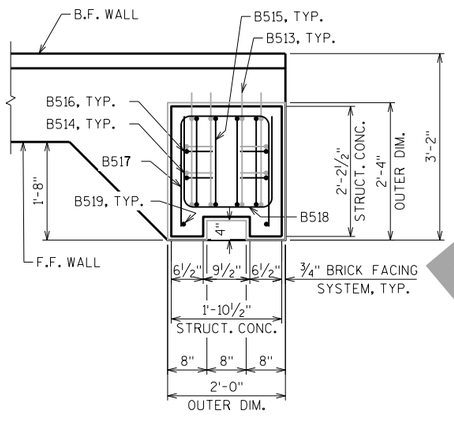
A409, B409, B514, B515, B517, B518



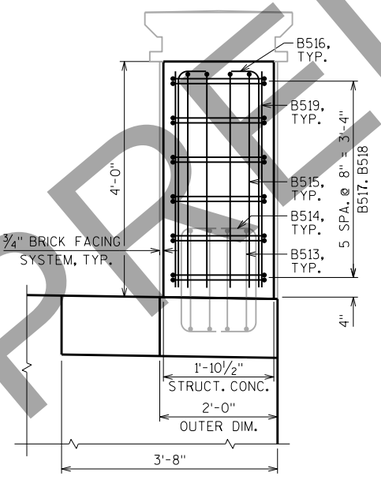
B611



B513

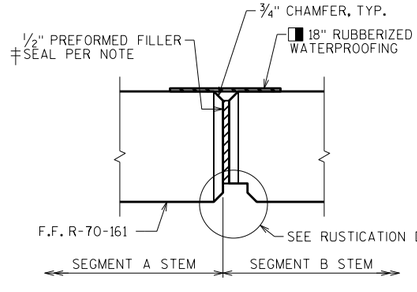


PEDESTAL REINF. - PLAN VIEW



PEDESTAL REINF. - ELEVATION VIEW

LOOKING EAST

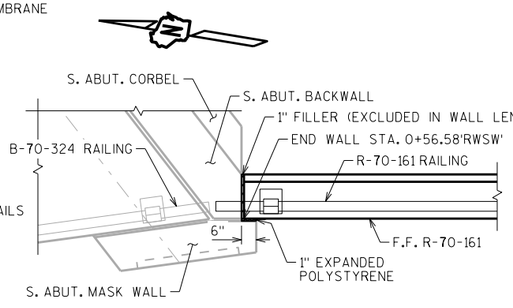


EXPANSION JOINT DETAIL

DO NOT RUN BAR STEEL THRU JOINT.

‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

MEMBRANE WATERPROOFING TO EXTEND FROM SIDEWALK NOTCH TO TOP OF SEGMENT B FOOTING



PARTIAL PLAN VIEW

(AT ABUTMENT)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-161

DRAWN BY ABS | PLANS CK'D. BAF

TYPICAL SECTIONS

SHEET 5

PRE_517

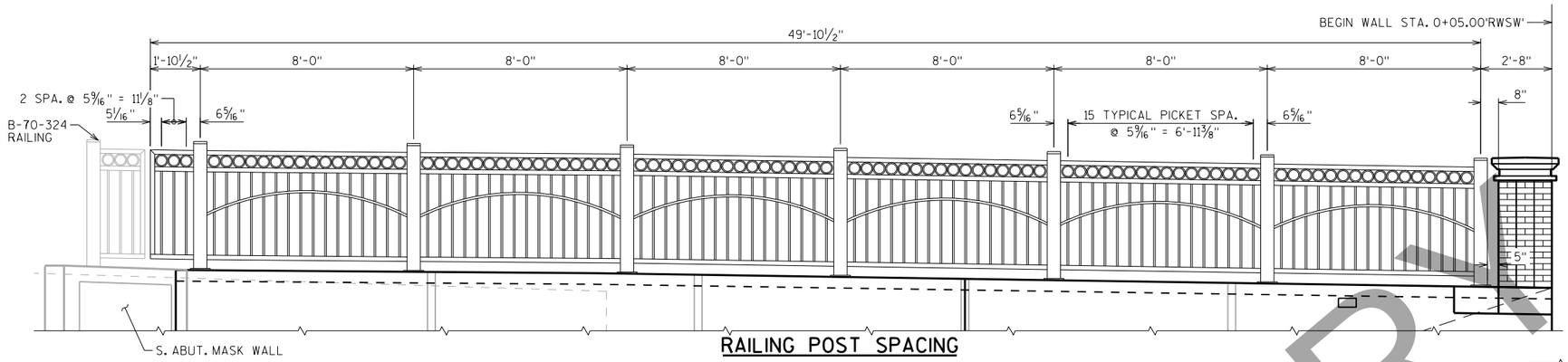
SCALE = 2.50

PRELIMINARY

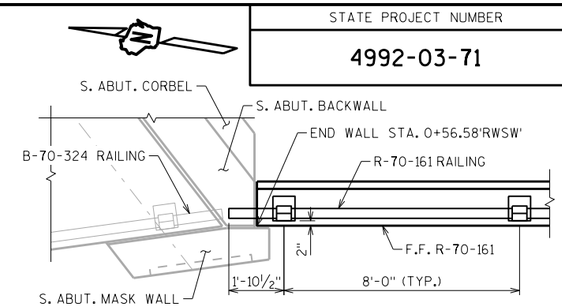
DRAFT April 20, 2020

STATE PROJECT NUMBER

4992-03-71

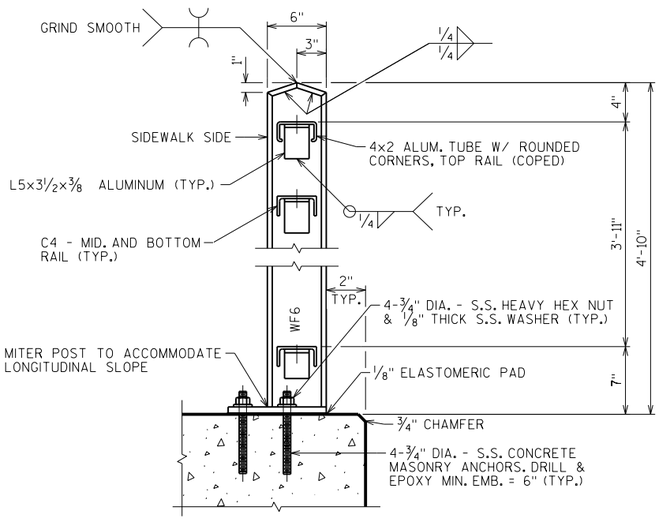


RAILING POST SPACING

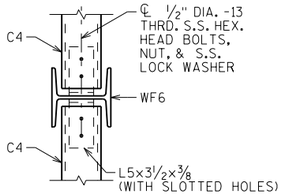


PARTIAL PLAN VIEW

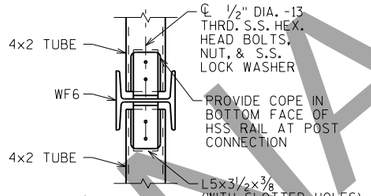
(AT ABUTMENT)



POST DETAIL ON CONCRETE

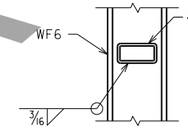


CHANNEL RAIL TO POST CONNECTION DETAIL FOR SIMPLE SPAN SECTIONS

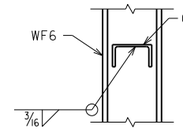


TUBE RAIL TO POST CONNECTION FOR SIMPLE SPAN SECTIONS

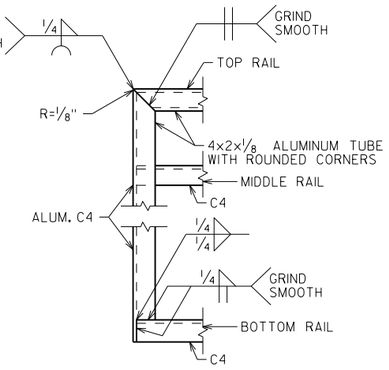
(VIEW FROM BELOW)



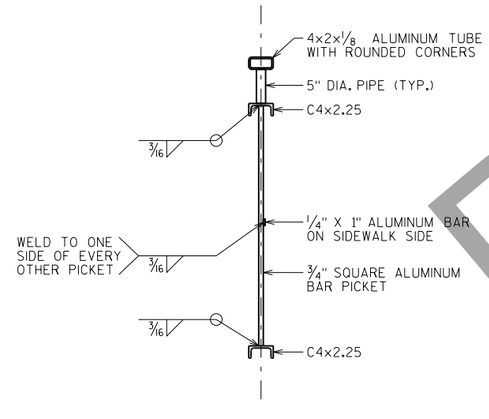
TUBE RAIL TO POST CONNECTION DETAIL FOR CANTILEVER SECTIONS



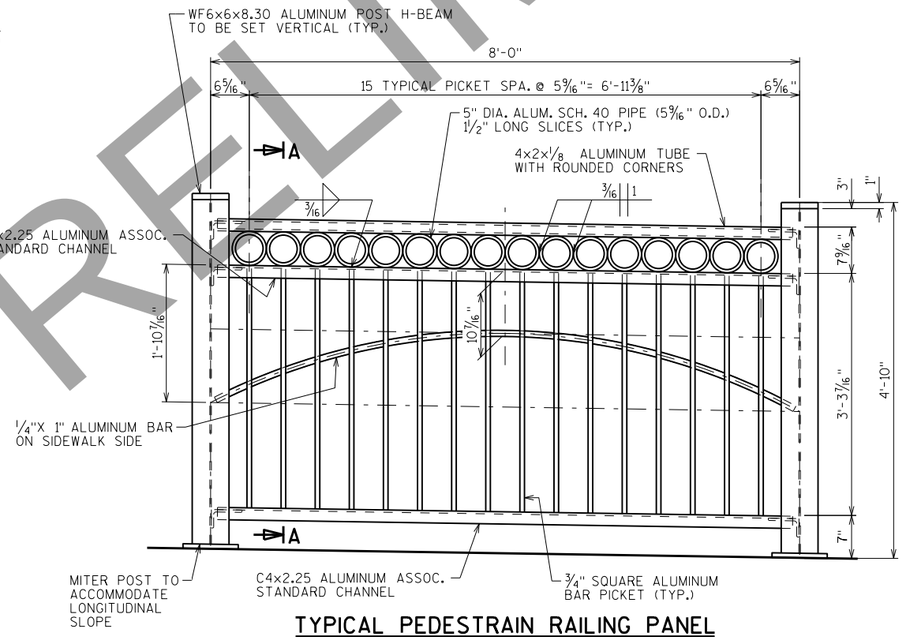
CHANNEL RAIL TO POST CONNECTION DETAIL FOR CANTILEVER SECTIONS



RAIL DETAIL AT CANTILEVERED ENDS

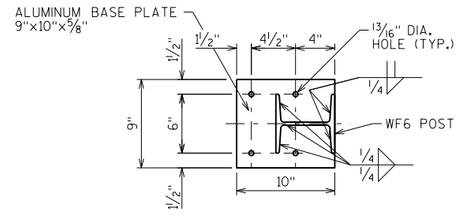


SECTION A-A



TYPICAL PEDESTRAIN RAILING PANEL

LOOKING FROM F.F. R-70-161
MEASURED HORIZONTALLY



POST BASE PLATE DETAIL

NOTES

BID ITEM SHALL BE "RAILING ALUMINUM SPECIAL R-70-161," WHICH SHALL INCLUDE ALL ALUMINUM ITEMS SHOWN.

ENDS OF ALUMINUM SECTIONS ARE TO BE SAWED OR MILLED. CUT ENDS ARE TO BE TRUE, SMOOTH AND FREE FROM BURRS OR RAGGED EDGES. ALL JOINED CORNERS SHALL BE ROUNDED TO A MIN. ⅛" RADIUS.

S.S. DENOTES STAINLESS STEEL.

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

CAULK AROUND THE PERIMETER OF POST BASE PLATE WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

AFTER FABRICATION, ANODIZE ALL POSTS, RAILINGS, AND APPURTENANT PARTS WITH "STATUARY BRONZE" COLOR.

ALL ANCHOR BOLTS SHALL BE SET TO A TEMPLATE. FOR ANCHORAGE DETAILS SEE DETAILS ON THIS SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-70-161

DRAWN BY ABS | PLANS CK'D. BAF

RAILING DETAILS

SHEET 6

PRE_518

SCALE = 2.50

8

8

PRELIMINARY

SOUTH ROUNDABOUT - DAM ACCESS 'DA'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
1+50.00		21.18	0.45	0	0	0	0	0
2+00.00	50	0	13.48	20	13	20	13	7
2+50.00	50	0	48.37	0	57	20	70	-51
3+00.00	50	0	54.55	0	95	20	165	-146
3+37.00	37	0	57.00	0	76	20	242	-222
3+50.00	13	0.62	50.31	0	26	20	268	-248
3+81.00	31	17.86	14.36	11	37	30	305	-274
3+92.00	11	30.07	22.00	10	7	40	312	-272
				40	312			

Notes: 1 - MASS ORDINATE = CUT - FILL

SOUTH ROUNABOUT - RETAINING WALL 'RWSW'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
0+00.00		5.88	110.30	0	0	0	0	0
0+10.00	10	9.69	104.96	3	40	3	40	-37
0+20.00	10	12.89	85.19	4	35	7	75	-68
0+30.00	10	16.44	86.77	5	32	12	107	-94
0+40.00	10	14.14	107.18	6	36	18	143	-125
0+50.00	10	13.06	149.89	5	48	23	190	-167
0+56.68	7	12.83	100.65	3	31	26	221	-195
				26	221			

Note 1: Mass Ordinate = Cut - Fill

FOR PRELIMINARY

SOUTH ROUNDABOUT - KEYES STREET 'KWB'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
10+05.00		9.93	53.03	0	0	0	0	0
10+50.00	45	62.85	0	61	44	61	44	16
11+00.00	50	104.99	0	155	0	216	44	172
11+46.20	46	77.89	0.26	157	0	373	44	328
				373	44			

SOUTH ROUNDABOUT - NAYMUT STREET 'N'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
0+29.26		5.78	0.41	0	0	0	0	0
0+50.00	21	5.3	1.01	4	1	4	1	4
1+00.00	50	5.78	17.35	10	17	15	18	-3
1+23.33	23	87.92	20.48	40	16	55	34	21
1+50.00	27	96.87	0.11	91	10	146	44	102
2+00.00	50	45.58	0	132	0	278	44	234
2+27.81	28	16.95	0	32	0	310	44	266
				310	44			

SOUTH ROUNDABOUT - 'SR'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
0+00.00		0	104.48	0	0	0	0	0
0+50.00	50	0	167.57	0	252	0	252	-252
1+00.00	50	0	16.52	0	170	0	422	-422
1+50.00	50	0	48.79	0	60	0	483	-483
2+00.00	50	59.45	112.39	55	149	55	632	-577
2+50.00	50	6.97	84.9	62	183	117	815	-698
2+69.06	19	0	105.33	2	67	119	882	-763
				119	882			

Note 1: Mass Ordinate = Cut - Fill

FOR PRELIMINARY

SOUTH ROUNDABOUT - RACINE STREET 'NB'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
1+47.43		109.13	0.00	0	0	0	0	0
1+50.00	3	110.91	2.52	10	0	10	0	10
2+00.00	50	103.99	0.90	199	3	209	3	206
2+50.00	50	112.10	11.10	200	11	410	14	395
3+00.00	50	77.24	26.96	175	35	585	50	535
3+49.21	49	45.33	25.97	112	48	697	98	599
5+34.16	185	0.00	76.51	155	351	852	449	403
5+50.00	16	0.87	114.23	0	56	852	505	347
6+00.00	50	8.81	109.89	9	208	861	712	149
6+40.03	40	13.30	129.17	16	177	877	890	-12
6+50.00	10	12.76	112.60	5	45	882	934	-52
6+64.85	15	16.36	13.12	8	35	890	969	-79
6+80.92	16	0.00	201.97	5	64	895	1033	-138
				895	1033			

NORTH ROUNDABOUT - BROAD STREET 'B'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
0+92.76		104.37	4.34	0	0	0	0	0
1+00.00	7	90.49	6.36	26	1	26	1	25
2+00.00	100	150.55	0	446	12	473	13	459
2+50.00	50	131.31	4.74	261	4	733	18	716
2+72.50	22	98.74	9.67	96	6	829	24	806
				829	24			

Note 1: Mass Ordinate = Cut - Fill

FOR PREFORMATION ONLY

NORTH ROUNDABOUT - MAIN STREET 'MEB'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
1+35.29		119.01	0.12	0	0	0	0	0
1+50.00	15	115.85	0.14	64	0	64	0	64
2+00.00	50	89.52	3.25	190	3	254	3	251
2+50.00	50	275.61	1.29	338	4	592	7	585
3+00.00	50	41.66	99.55	294	93	886	101	785
3+42.42	42	0	203.1	33	238	919	339	580
				919	339			

NORTH ROUNDABOUT 'NR'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
9+94.88		74.24	143.28	0	0	0	0	0
10+00.00	5	88.12	66.36	15	20	15	20	-4
10+50.00	50	21.10	138.95	101	190	117	210	-93
11+00.00	50	0	434.83	20	531	136	741	-605
11+50.00	50	0	361.26	0	737	136	1478	-1342
12+00.00	50	0	587.80	0	879	136	2357	-2221
12+50.00	50	109.01	110.45	101	647	237	3004	-2767
				237	3004			

Note 1: Mass Ordinate = Cut - Fill

FOR PRELIMINARY ONLY

NORTH ROUNDABOUT - RACINE STREET 'NB'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
14+79.51		0	0	0	0	0	0	0
15+00.00	20	0	0	0	0	0	0	0
15+25.84	26	0	0	0	0	0	0	0
16+60.43	135	105.88	4.05	264	10	264	10	254
17+00.00	40	130.39	1.12	173	4	437	14	423
17+50.00	50	136.88	1.25	247	2	685	16	668
18+00.00	50	182.95	2.30	296	3	981	19	961
18+50.00	50	124.59	1.75	285	4	1265	23	1242
19+00.00	50	141.82	0.85	247	2	1512	26	1487
19+50.00	50	126.57	0.20	249	1	1761	26	1734
20+00.00	50	116.80	0.13	225	0	1986	27	1959
20+50.00	50	114.09	0.37	214	0	2200	27	2172
20+90.40	50	120.10	0.00	217	0	2417	28	2389
				2417	28			

NORTH ROUNDABOUT - RACINE STREET 'SB'

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Fill 1.00	Mass Ordinate Note 1
16+24.00		97.44	0.03	0	0	0	0	0
16+50.00	26	100.69	0.90	95	0	95	0	95
16+51.86	2	101.19	0.85	7	0	102	1	102
16+87.63	36	108.51	0.65	139	1	241	2	240
17+00.00	12	106.36	0.79	49	0	290	2	289
17+50.00	50	101.96	1.46	193	2	483	4	479
17+53.00	3	100.23	1.41	11	0	495	4	491
				495	4			

Note 1: Mass Ordinate = Cut - Fill

FOR PRELIMINARY

DRAFT April 20, 2020

DAM ACCESS

RW RW TLE

2+00'RNB'

2.0% 2.0% 2.0% 3.1% 2.0% 4.0% 1.5% 0.6%

-29.17, 751.69
-24.21, 751.79
-12.20, 752.03
-5.19, 752.16
0.00, 752.00
12.00, 751.76
15.79, 751.69
20.47, 751.60
21.30, 753.73
26.28, 753.80
30.68, 754.44

760 750 -70 -60 -50 -40 -30 -20 -10 10 20 30 40 50 60 70

RW RW RW TLE

1+50'RNB'

4.0:1 1.5% 4.0% 0.2% 0.0% 0.0% 0.1% 2.0% 4.0% 1.5% 3.3%

-43.31, 755.15
-41.30, 754.56
-36.37, 754.49
-32.26, 752.31
-27.76, 752.32
-25.99, 752.33
-6.99, 752.35
0.00, 752.34
11.01, 752.12
13.58, 752.07
18.08, 751.98
18.38, 754.05
23.11, 754.15
28.71, 755.00

760 750 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

RW RW TLE

1+47'RNB'

BEGIN PROJECT
STA 1+47.43 'RNB'
MATCH EXISTING
SAWCUT REQ'D

10 FT
10 FT

PRELIMINARY

9 9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET NORTHBOUND	SHEET PRE_524 E

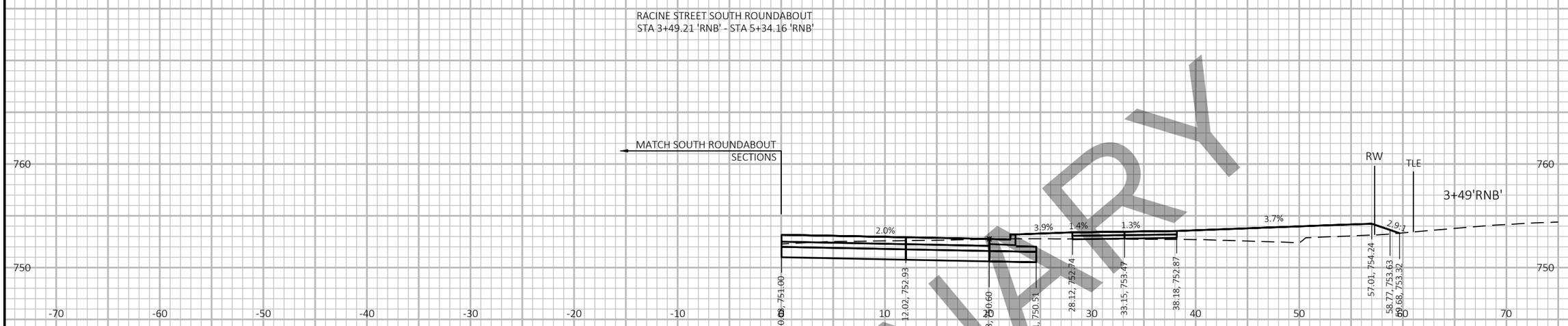
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - RNB(1)

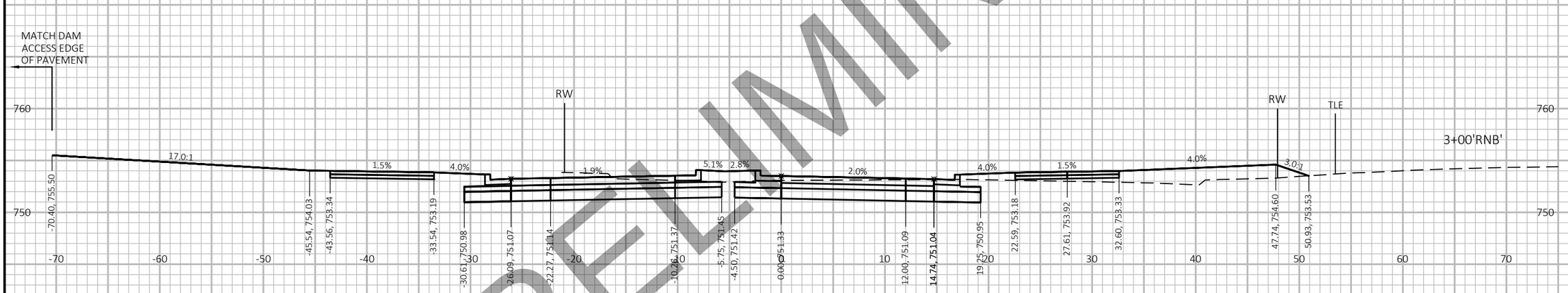
PLOT DATE : 4/20/2020 1:07 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

RACINE STREET SOUTH ROUNDABOUT
STA 3+49.21 'RNB' - STA 5+34.16 'RNB'





PRELIMINARY

9 9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET NORTHBOUND	SHEET E

PRE_525

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - RNB(2)

PLOT DATE : 4/20/2020 1:07 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET NORTHBOUND	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - RNB(3)

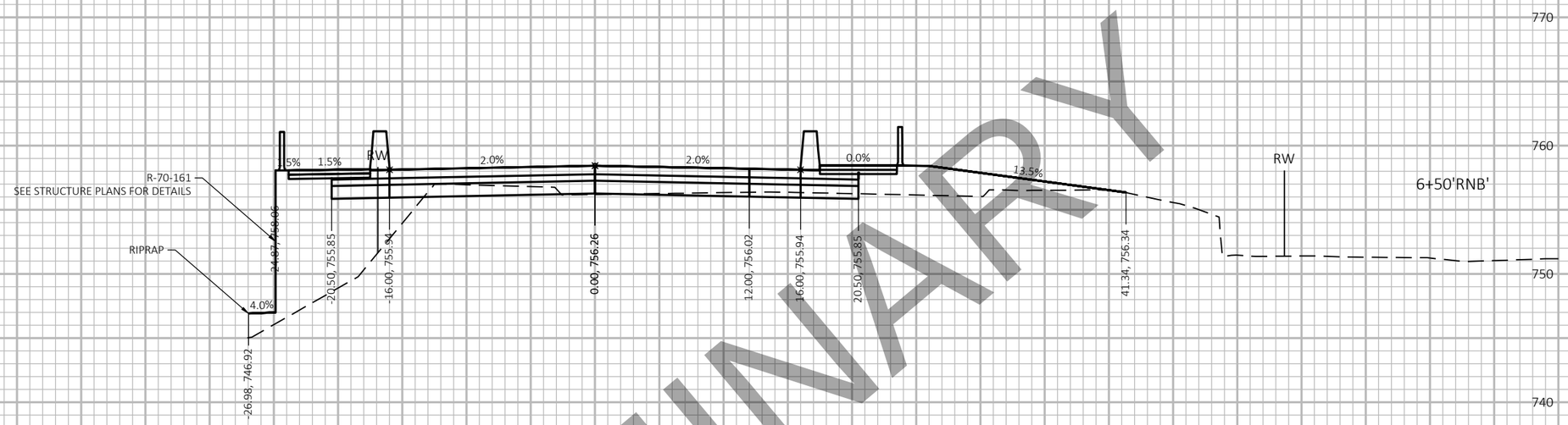
PLOT DATE : 4/20/2020 1:07 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

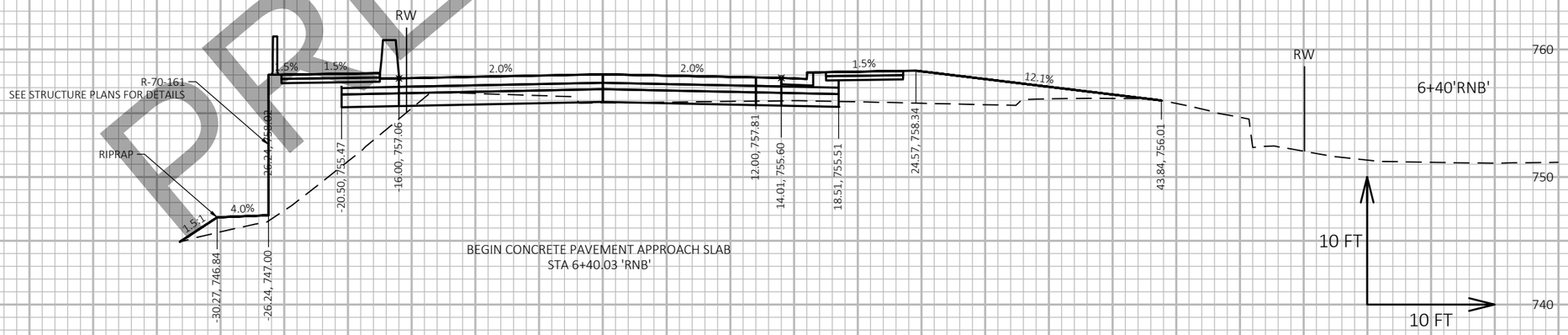
PRE_526

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PROPOSED STRUCTURE B-70-324
STA 6+64.27 'RNB' - STA 14+86.03 'RNB'
REFER TO STRUCTURE PLANS FOR DETAILS





BEGIN CONCRETE PAVEMENT APPROACH SLAB
STA 6+40.03 'RNB'

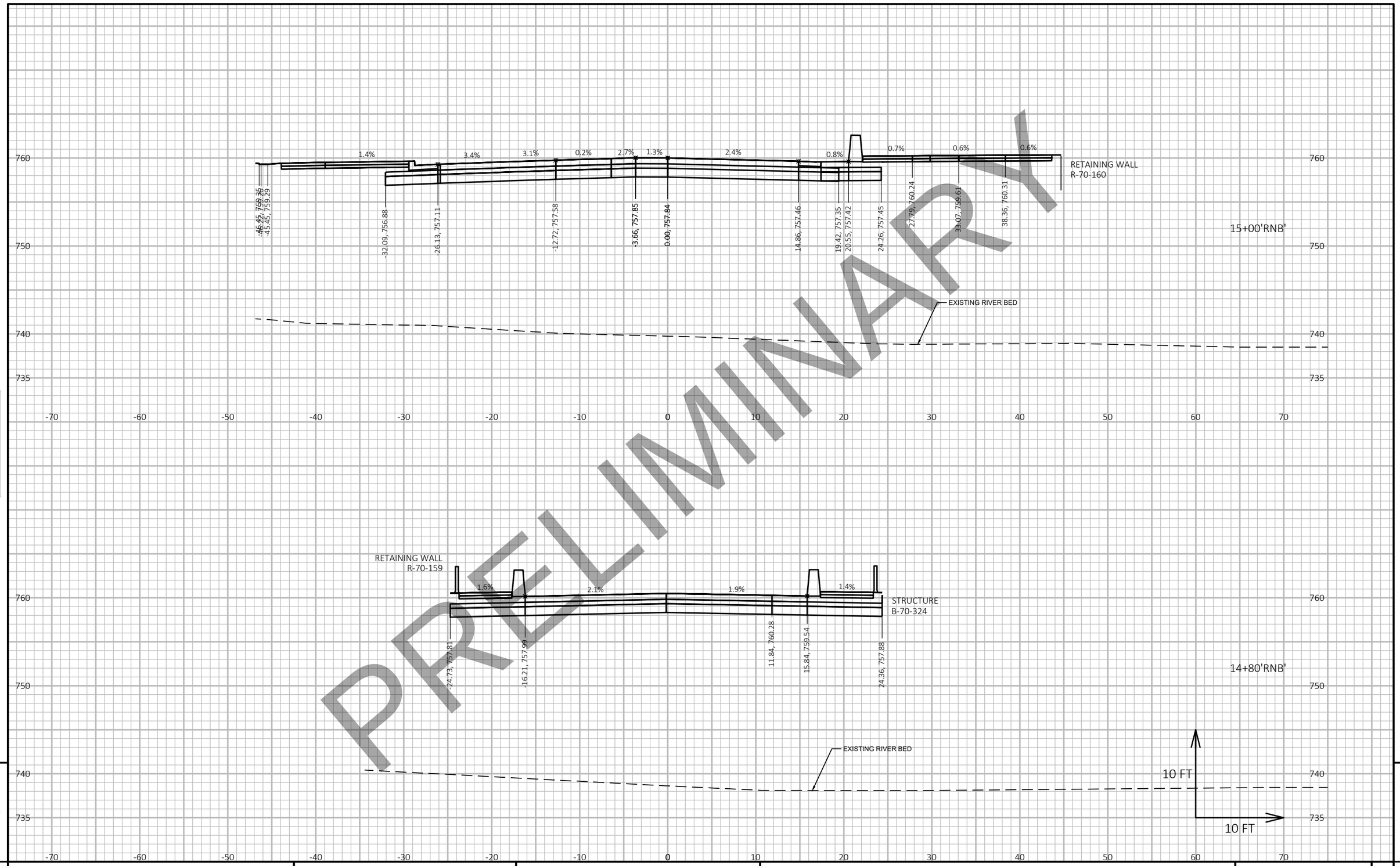
PRELIMINARY

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET NORTHBOUND	SHEET PRE_527 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - RNB(4)
PLOT DATE : 4/20/2020 9:02 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

DRAFT April 20, 2020



PRELIMINARY

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET NORTHBOUND	SHEET E

PRE_528

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090106

PLOT DATE : 4/19/2020 4:18 PM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

DRAFT April 20, 2020

MATCH RACINE STREET SB SECTIONS

RW

TLE

2.6%

2.0%

4.0%

6.0:1

24.5:1

17+00'RNB'

-4.50, 753.87

0.00, 753.96

18.00, 753.60

22.50, 753.51

26.01, 755.74

31.00, 755.81

35.99, 755.89

51.98, 754.26

90.93, 755.84

MATCH NORTH ROUNDABOUT SECTIONS

RW

TLE

2.0%

4.0%

6.0:1

14.7:1

16+60'RNB'

0.00, 754.46

18.00, 754.10

22.50, 754.01

26.01, 756.24

31.00, 756.32

35.99, 756.39

56.19, 754.06

82.60, 755.85

RACINE STREET NORTH ROUNDABOUT
STA 15+25.84 'RNB' - STA 16+60.43 'RNB'

MATCH NORTH ROUNDABOUT SECTIONS

2.0%

RETAINING WALL
R-70-160

0.00, 757.21

22.45, 756.76

25.99, 758.97

31.70, 759.04

36.72, 759.11

41.73, 759.16

46.74, 759.22

47.75, 759.34

15+26'RNB'

10 FT

10 FT

760

750

740

735

0 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90

PRELIMINARY

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET NORTHBOUND	SHEET E

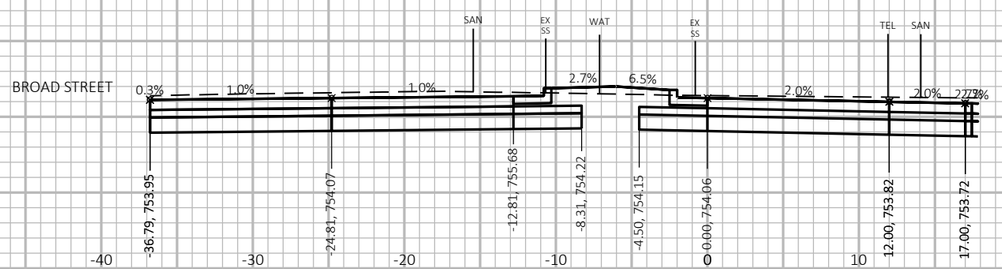
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090107

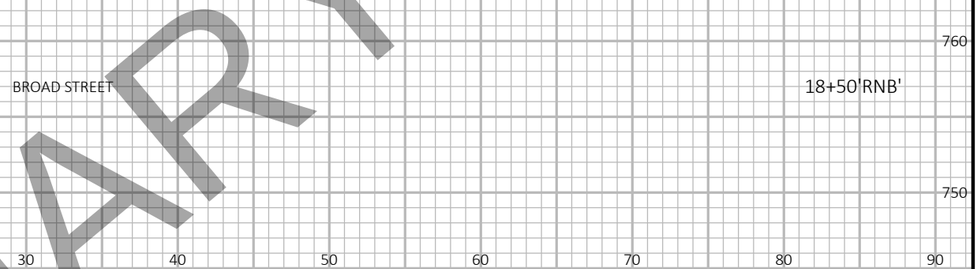
PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

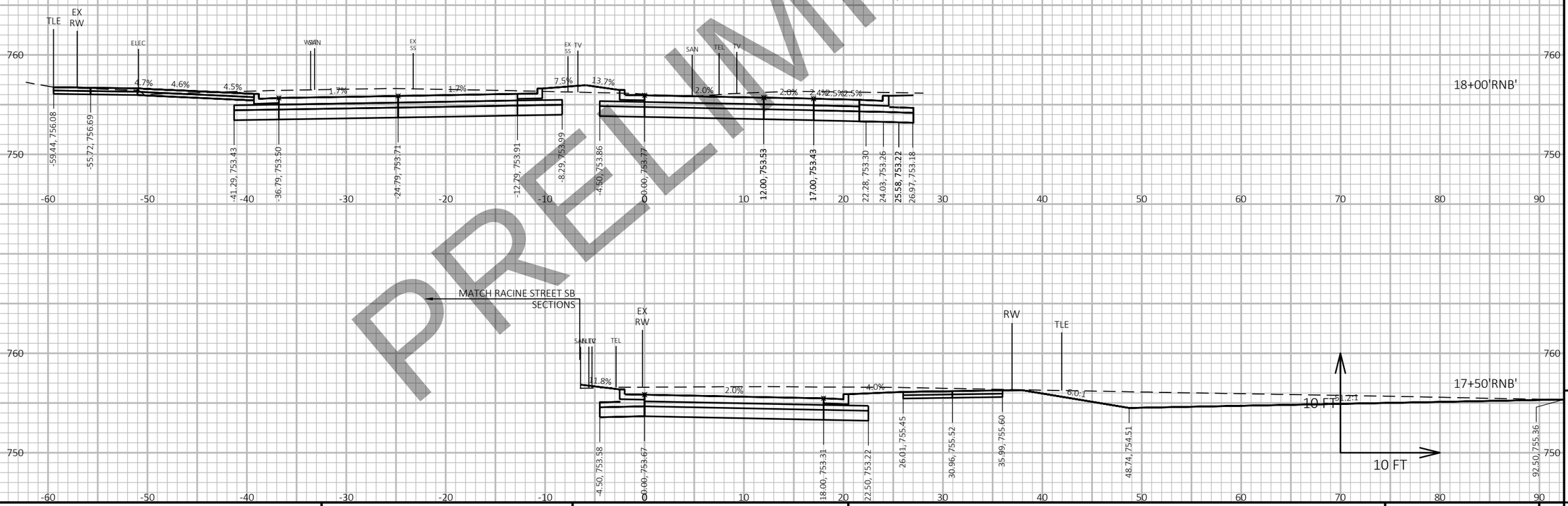
PRE_529

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020







PRELIMINARY

9

9

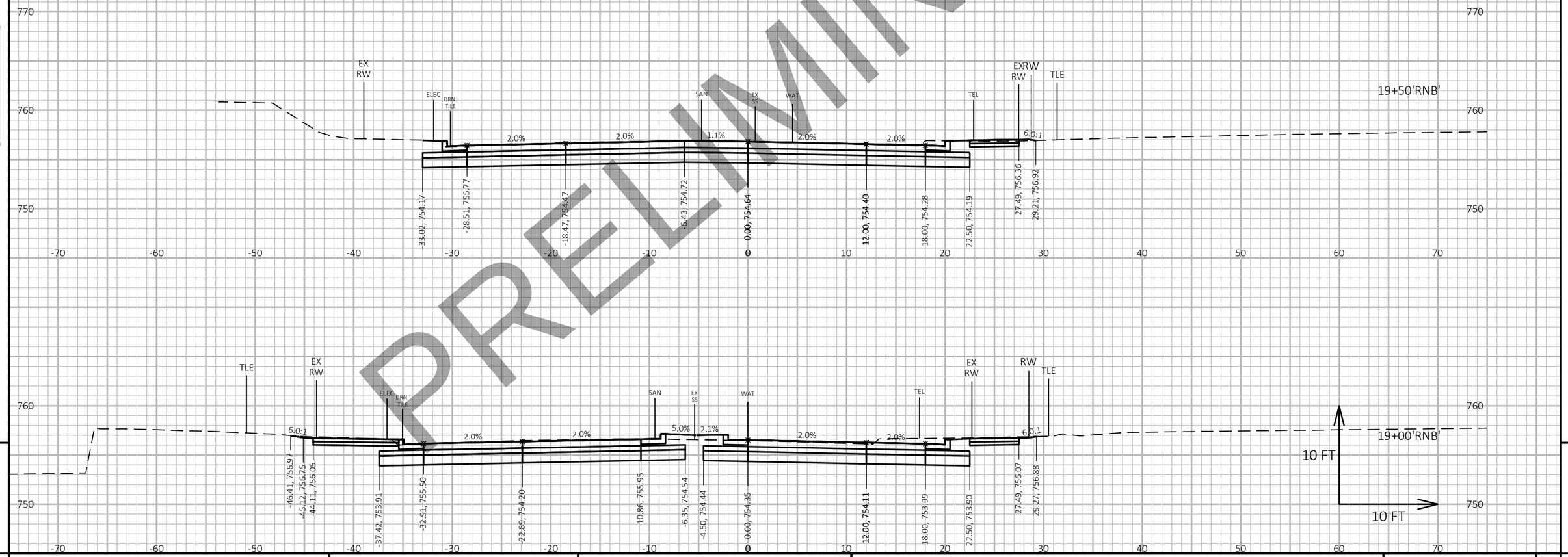
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET NORTHBOUND	SHEET PRE_530 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090108

PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

DRAFT April 20, 2020

PRELIMINARY



9

9

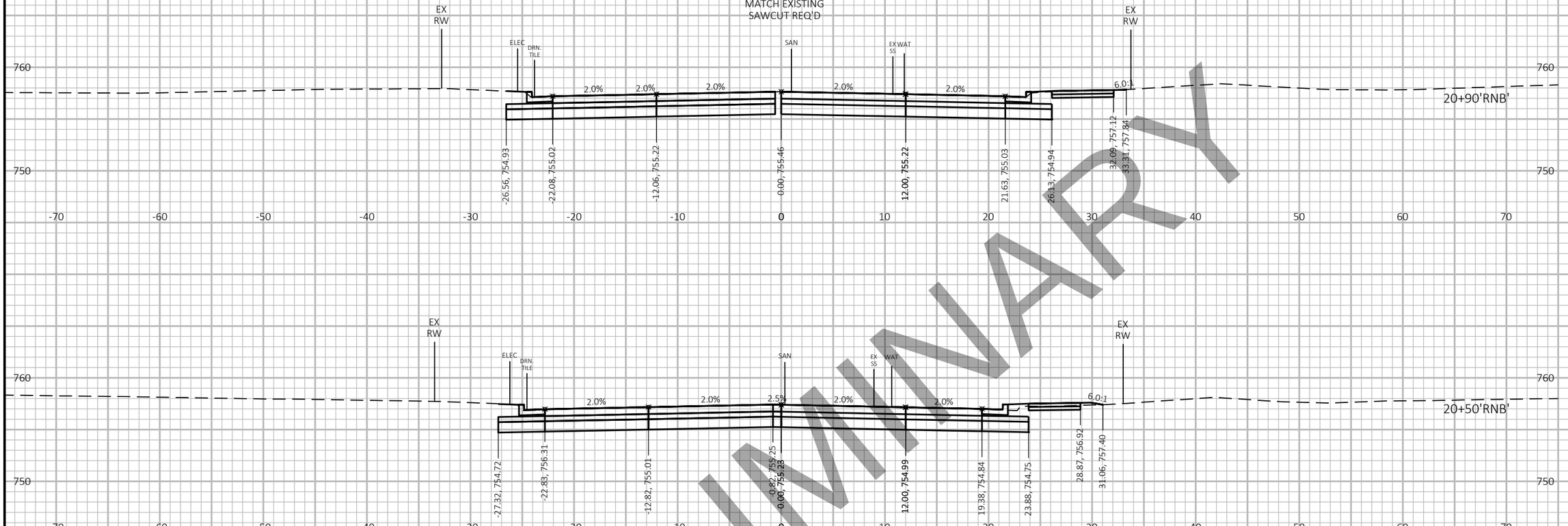
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET NORTHBOUND	SHEET PRE_531 E

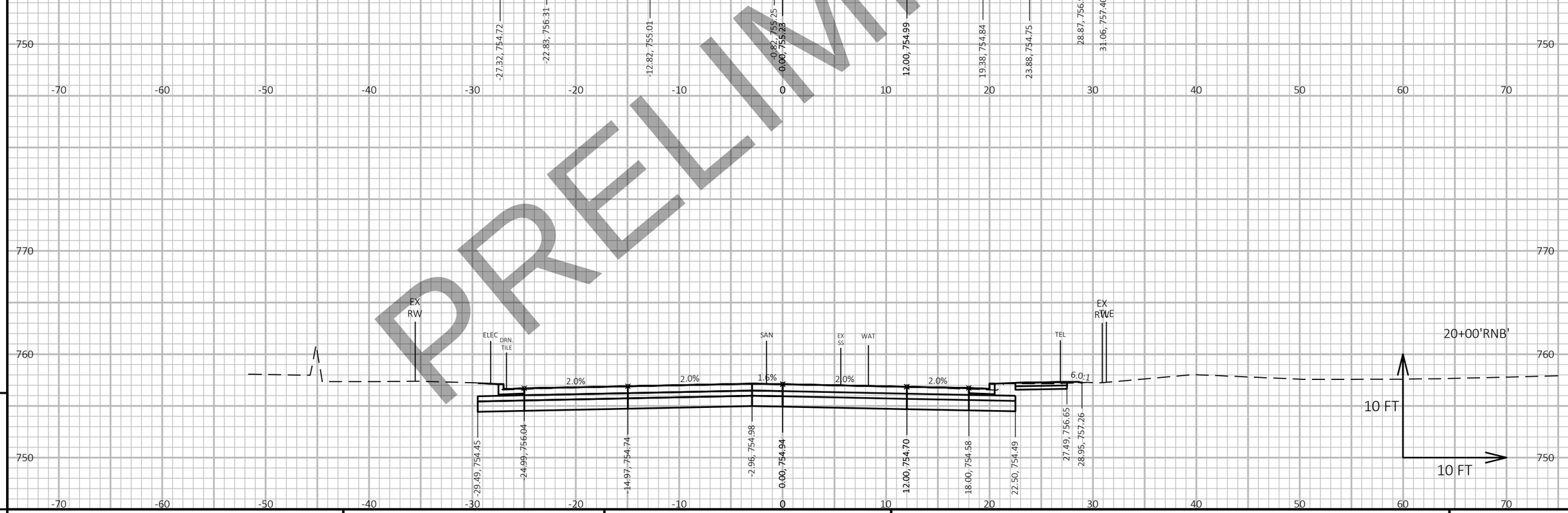
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090109

PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

DRAFT April 20, 2020

END PROJECT
STA 20+90.40 'RNB'
MATCH EXISTING
SAWCUT REQ'D





PRELIMINARY

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET NORTHBOUND	SHEET E

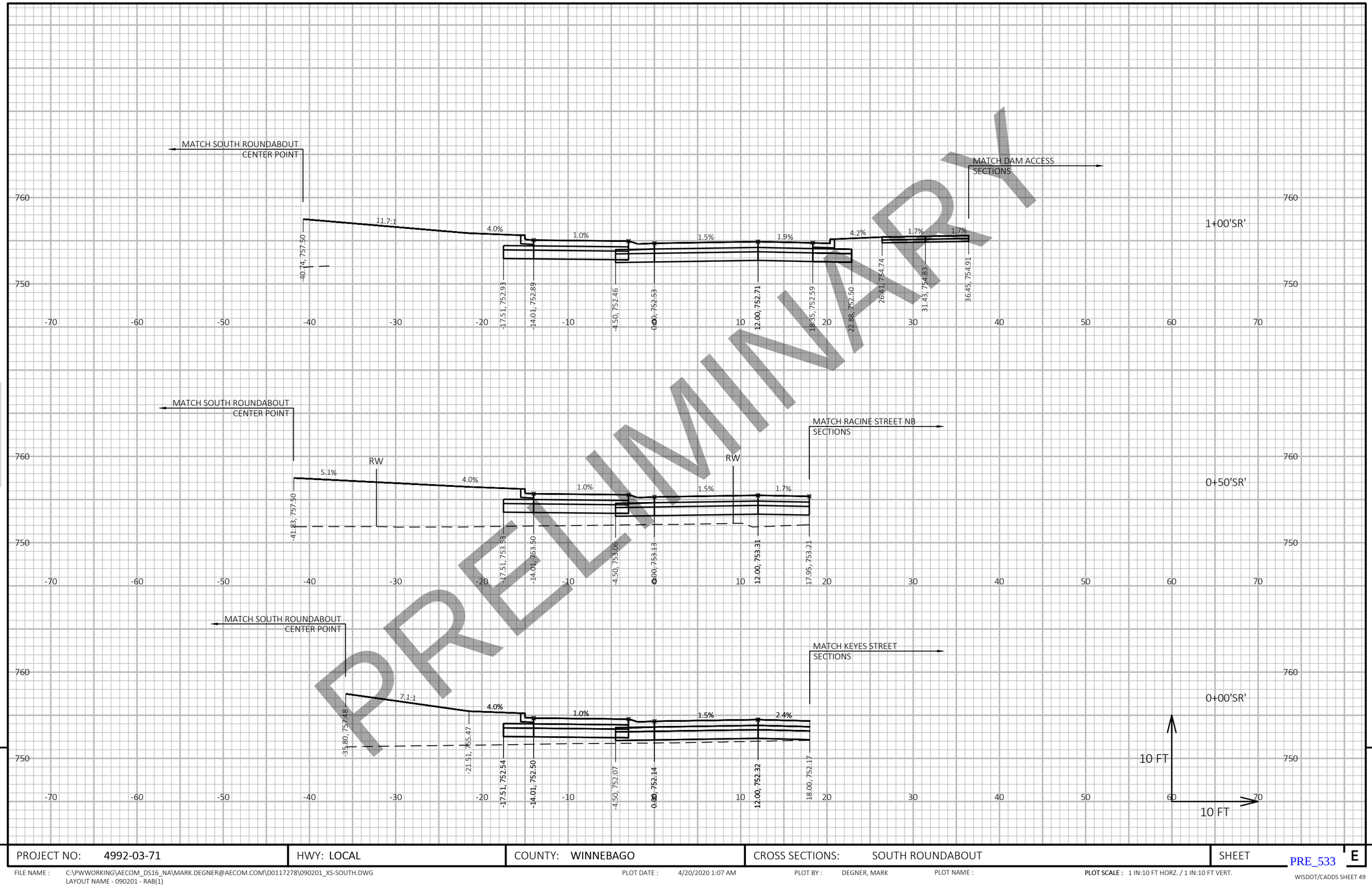
PRE_532

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090110

PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020



PRELIMINARY

9

9

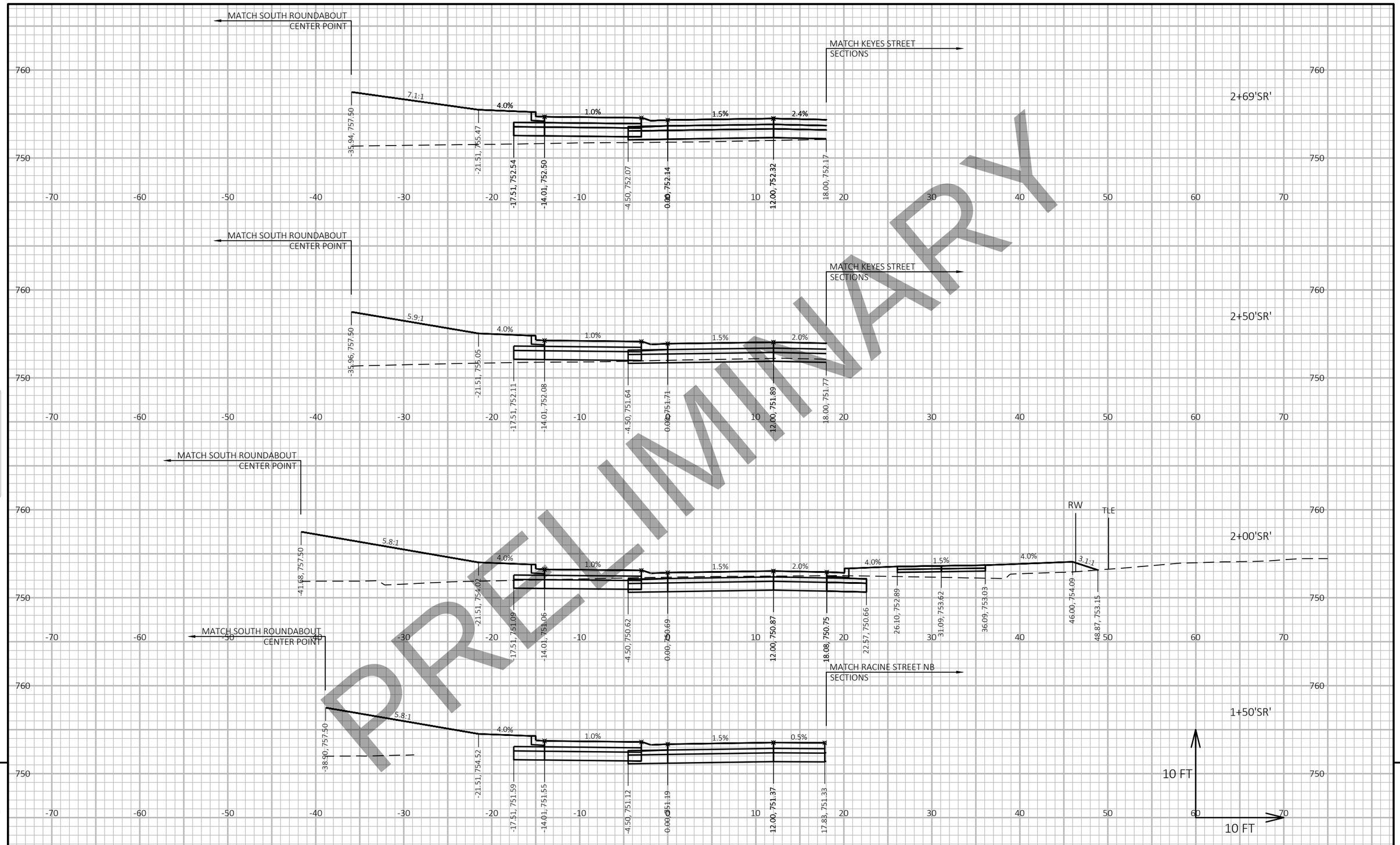
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: SOUTH ROUNDABOUT	SHEET E

PRE_533

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - RAB(1)

PLOT DATE : 4/20/2020 1:07 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

DRAFT April 20, 2020



PRELIMINARY

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: SOUTH ROUNDABOUT	SHEET E

PRE_534

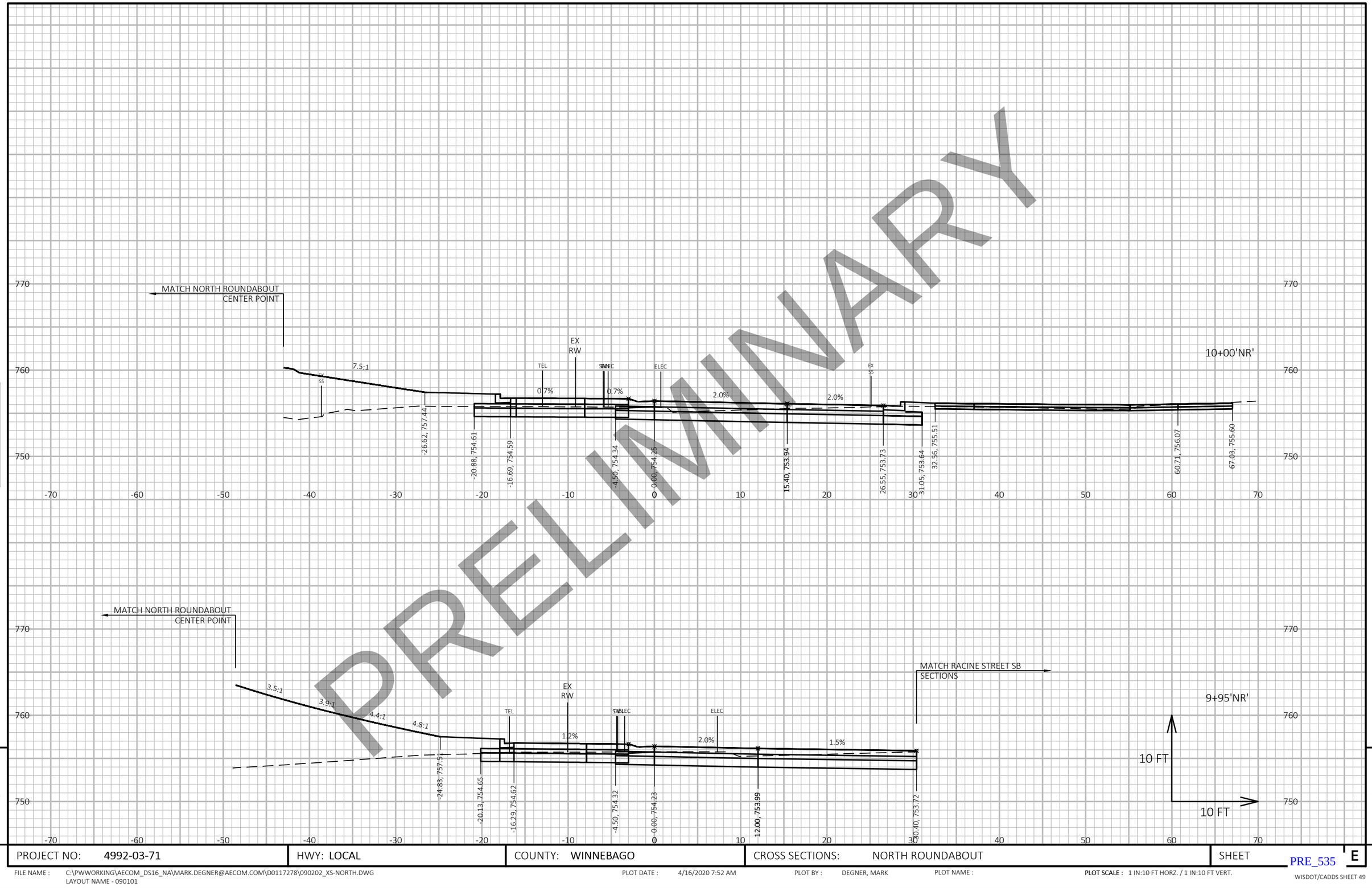
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - RAB(2)

PLOT DATE : 4/20/2020 1:07 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9

DRAFT April 20, 2020



PRELIMINARY

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: NORTH ROUNDABOUT	SHEET E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090101

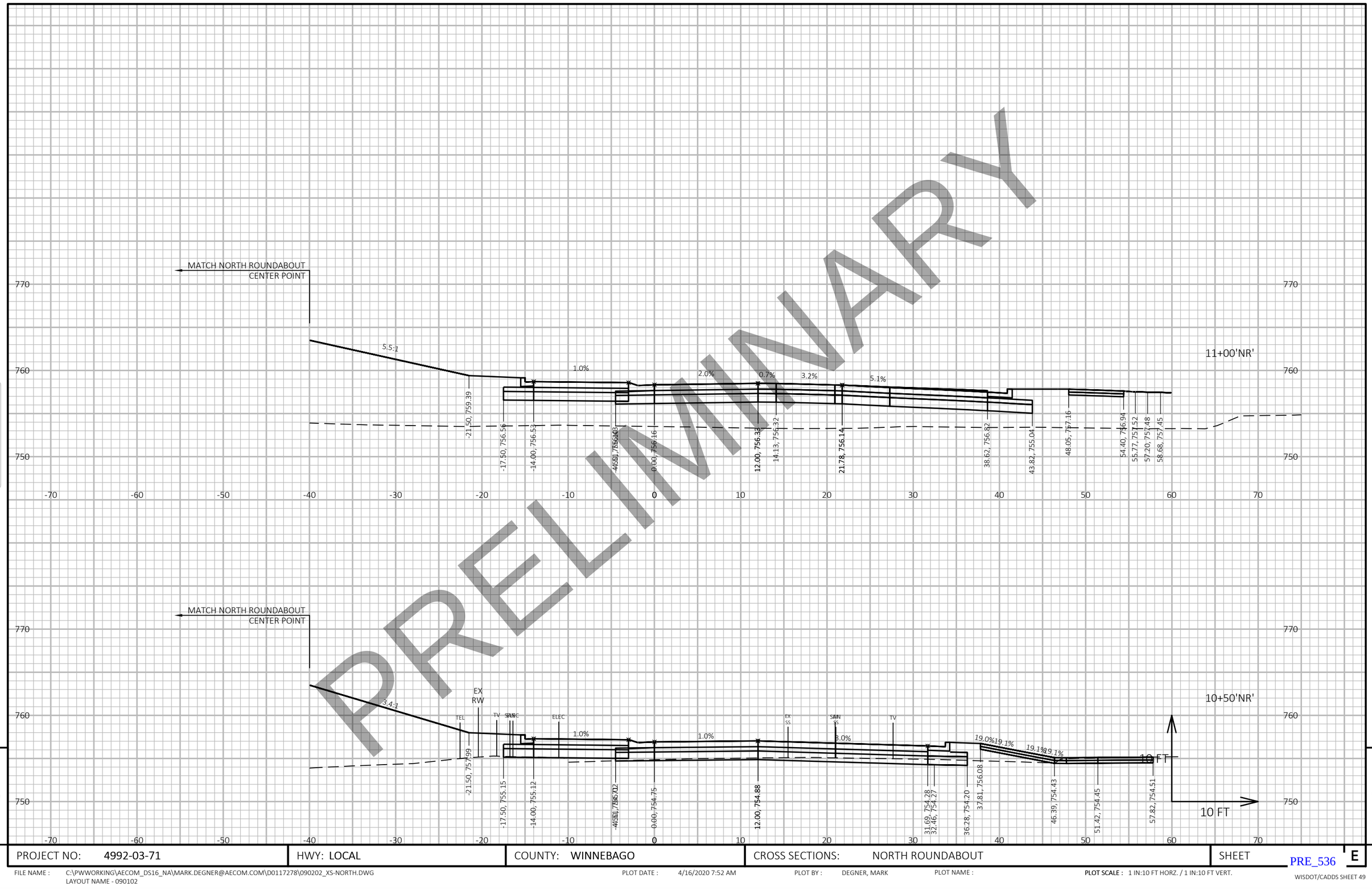
PLOT DATE : 4/16/2020 7:52 AM PLOT BY : DEGNER, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

PRE_535

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY



9

9

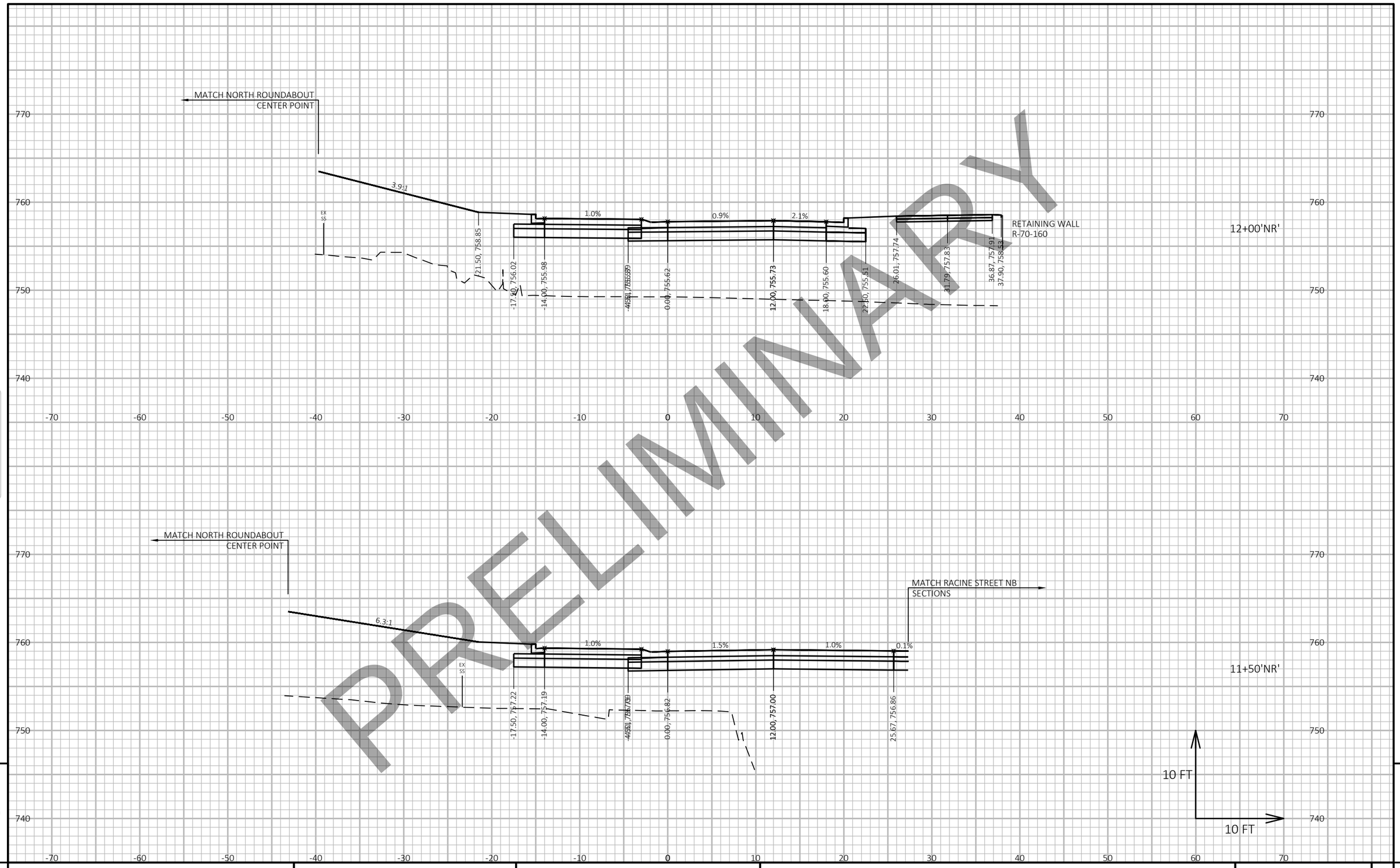
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: NORTH ROUNDABOUT	SHEET E

PRE_536

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090102

PLOT DATE : 4/16/2020 7:52 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

DRAFT April 20, 2020



PRELIMINARY

9

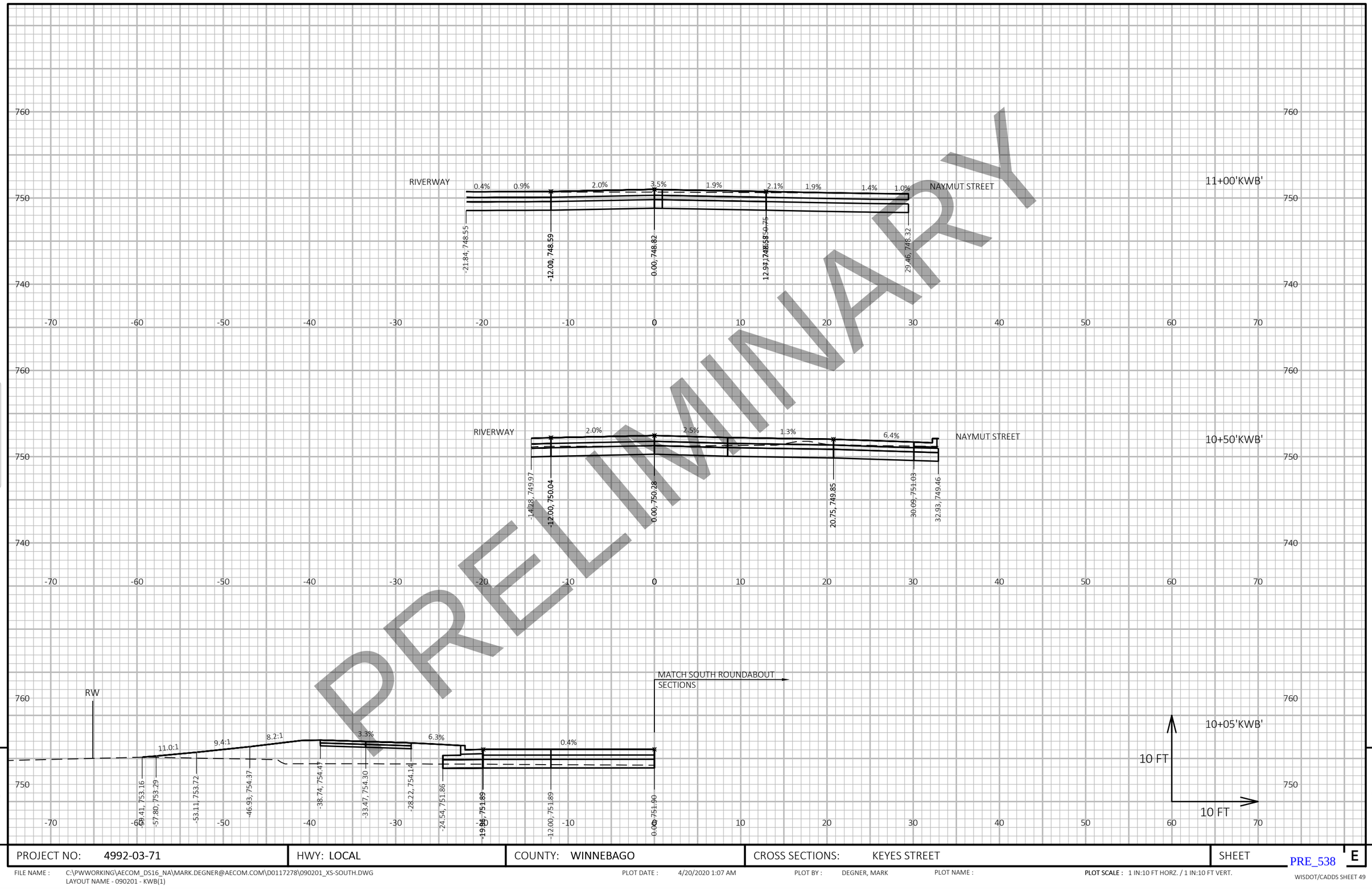
9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: NORTH ROUNDABOUT	SHEET PRE_537 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090103

PLOT DATE : 4/16/2020 7:52 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

DRAFT April 20, 2020



PRELIMINARY

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: KEYES STREET	SHEET PRE_538 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - KWB(1)

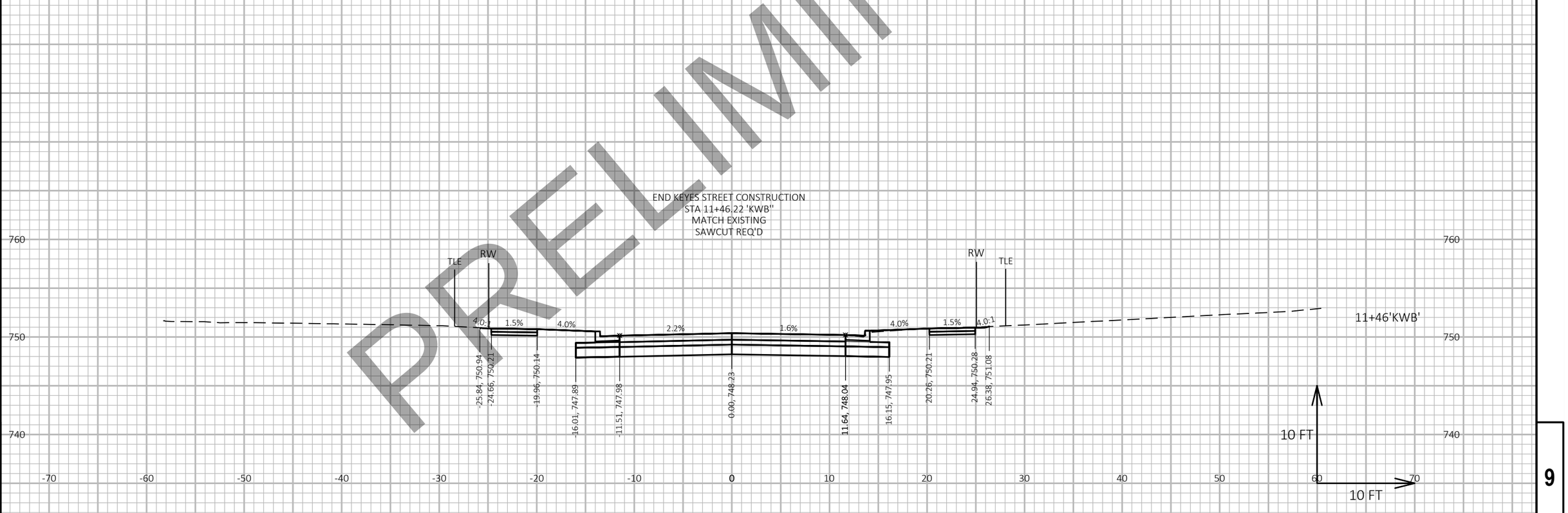
PLOT DATE : 4/20/2020 1:07 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY

END KEYES STREET CONSTRUCTION
STA 11+46.22 'KWB''
MATCH EXISTING
SAWCUT REQ'D



9 9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: KEYES STREET	SHEET E

PRE_539

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - KWB(2)

PLOT DATE : 4/20/2020 1:07 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY

1+00'N'

RW

3.0:1 1.5% 4.0%

-48.47, 751.74
-43.73, 751.41
-38.65, 751.34
-19.16, 749.47
-14.66, 749.56

0+50'N'

TLE RW

50.0:1 4.0%

-25.65, 751.67
-19.15, 749.83
-14.65, 749.92

0+29'N'

TLE RW

50.0:1 4.0%

-22.93, 751.87
-19.15, 749.98
-14.65, 750.07

760
750
740

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

10 FT
10 FT

BEGIN CURB & GUTTER AND SIDEWALK CONSTRUCTION
STA 0+29.26 'N'

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: NAYMUT STREET & RIVERWAY	SHEET E

PRE_540

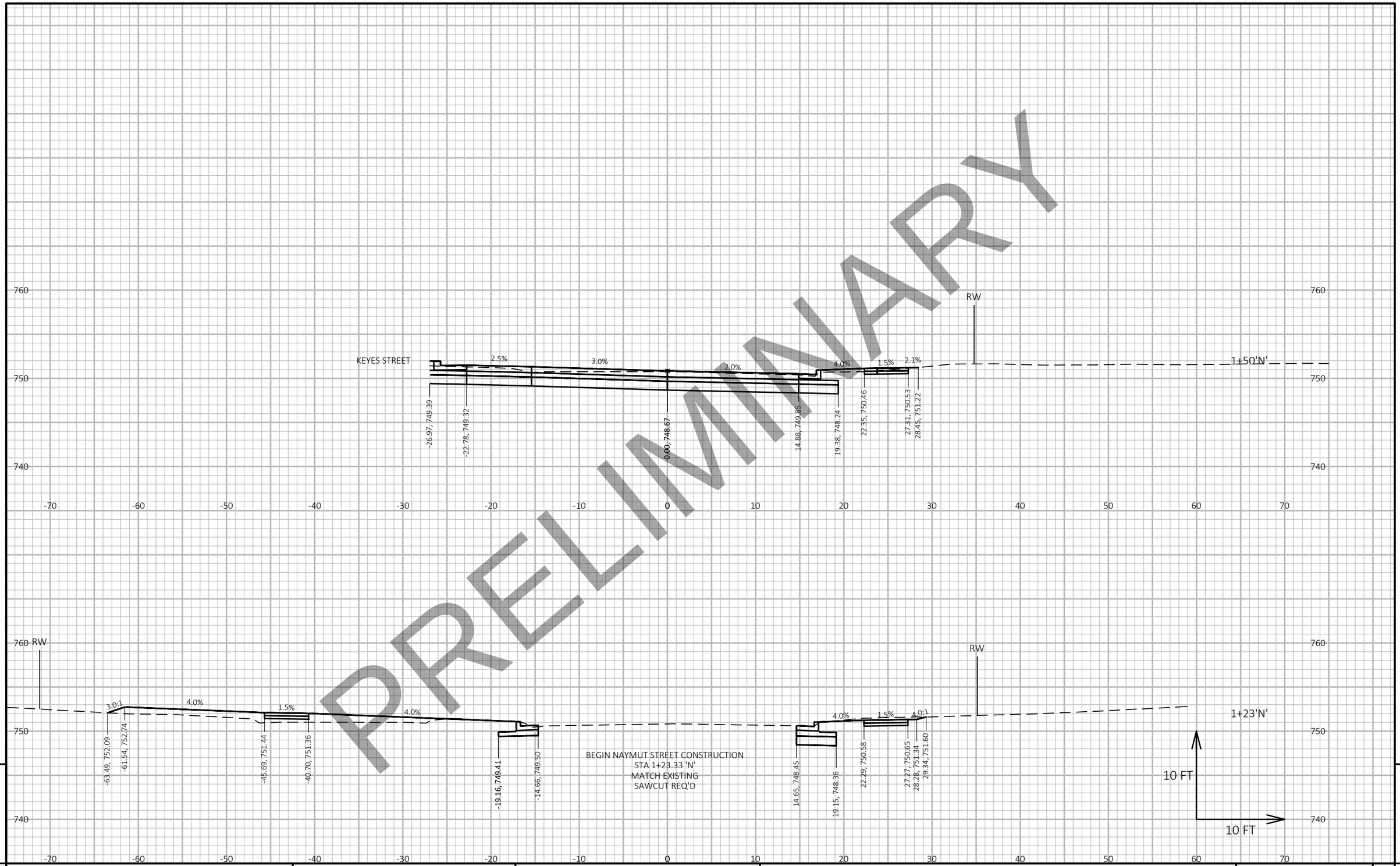
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - N(1)

PLOT DATE : 4/20/2020 1:07 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY



9 9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: NAYMUT STREET & RIVERWAY	SHEET E

PRE_541

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - N(2)

PLOT DATE : 4/20/2020 1:08 AM PLOT BY : DEGNER, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY

760
750
740
760
750
740

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

RW

2+28'N'

END RIVERWAY CONSTRUCTION
STA 2+27.81 'N'
MATCH EXISTING
SAWCUT REQ'D

KEYES STREET

2.8%

2.4%

KEYES STREET

-11.94, 749.27

0.00, 748.97

12.10, 748.68

2+00'N'

10 FT

10 FT

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: NAYMUT STREET & RIVERWAY	SHEET E

PRE_542

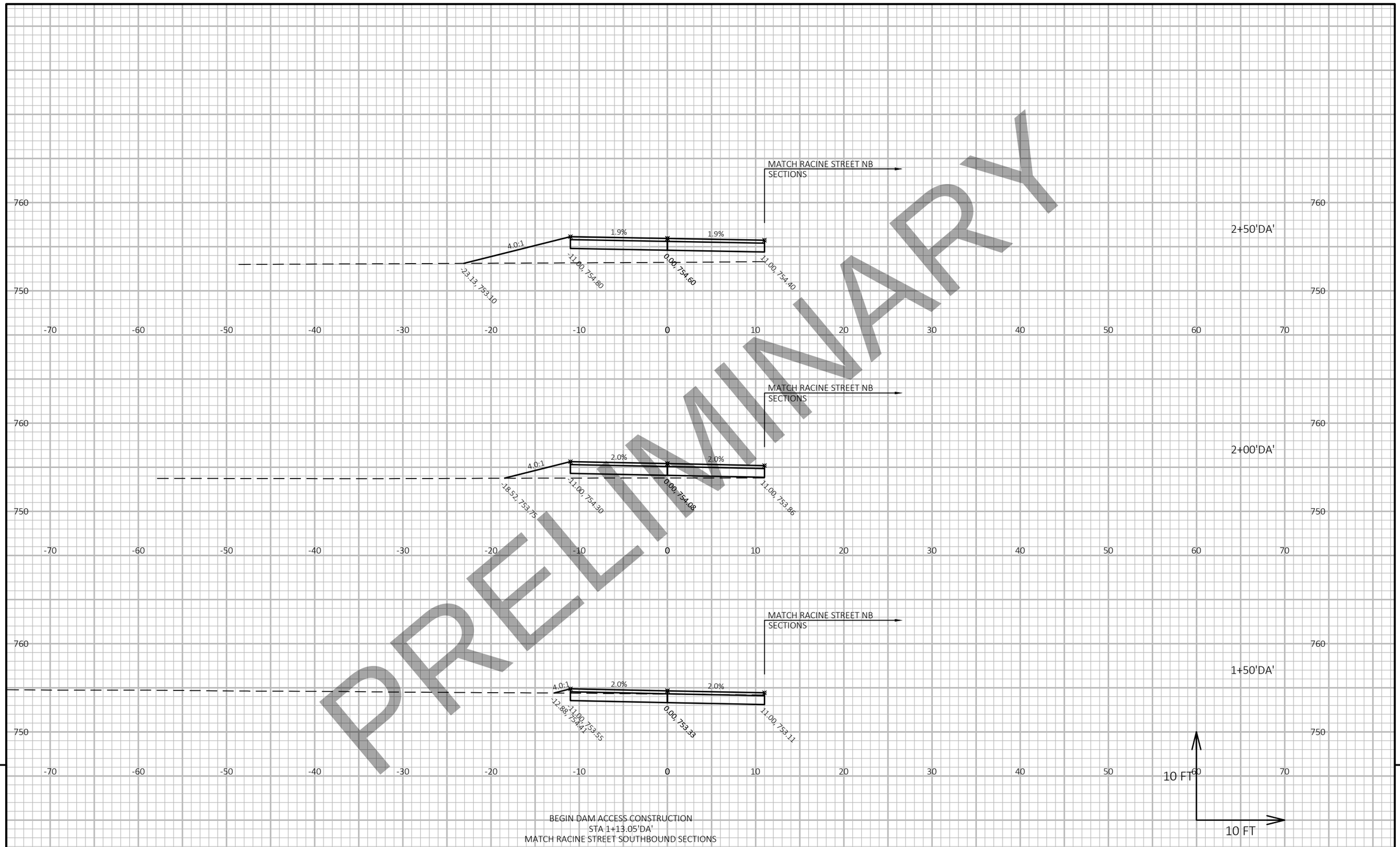
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - N(3)

PLOT DATE : 4/20/2020 1:08 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY



BEGIN DAM ACCESS CONSTRUCTION
STA 1+13.05'DA'
MATCH RACINE STREET SOUTHBOUND SECTIONS

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: DAM ACCESS	SHEET E

PRE_543

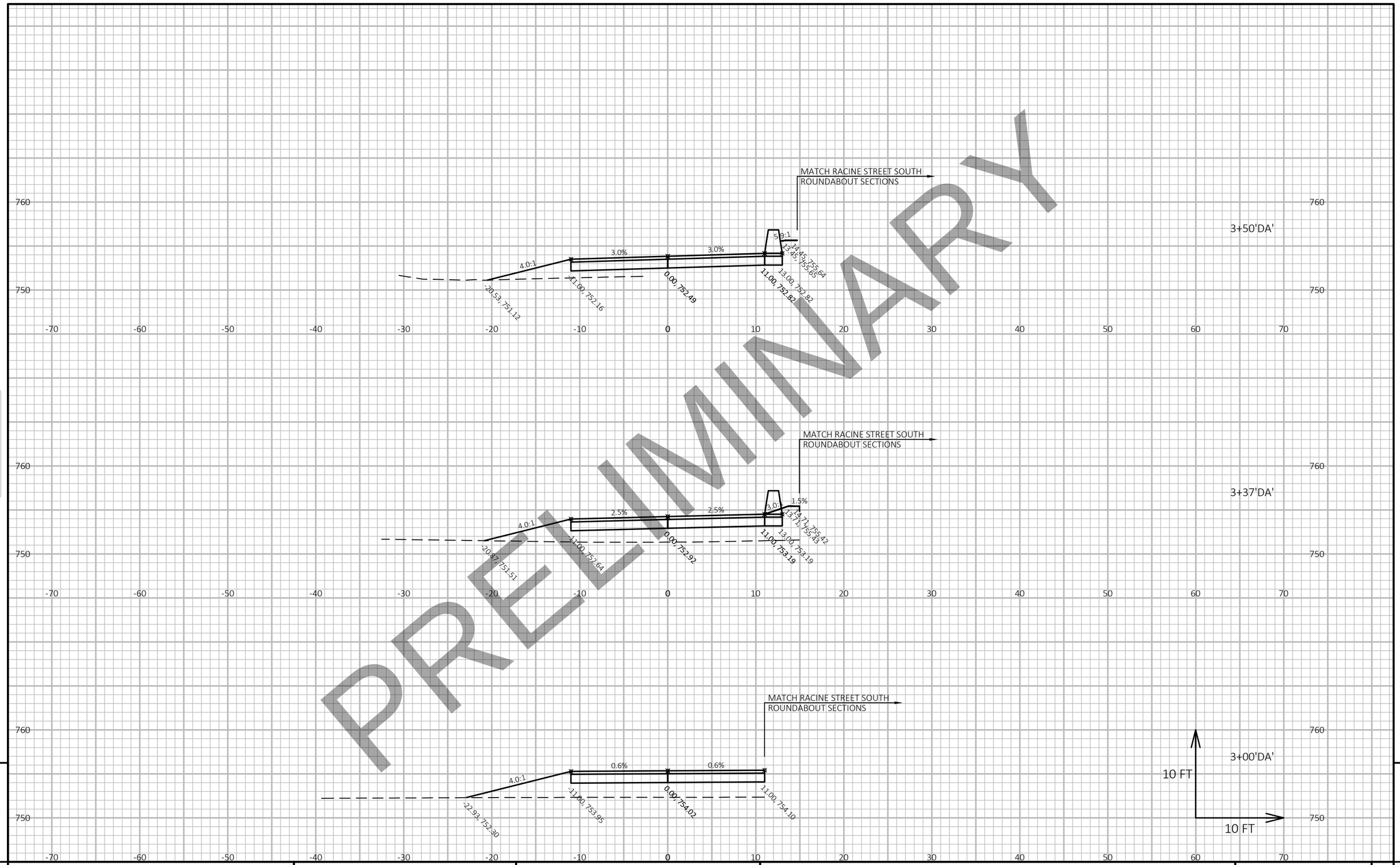
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - DA(1)

PLOT DATE : 4/20/2020 1:08 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY



PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: DAM ACCESS	SHEET PRE_544 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - DA(2)

PLOT DATE : 4/20/2020 1:08 AM PLOT BY : DEGNER, MARK PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY

END DAM ACCESS CONSTRUCTION
STA 3+99.58 'DA'
MATCH EXISTING
SAWCUT REQ'D

MATCH RACINE STREET
BACK OF SIDEWALK

3+92'DA'

4.0:1
3.0%
3.0%
3.2:1
3.4:1
3.8:1
0.0%
-13.04, 752.06
-12.06, 750.98
0.00, 751.31
11.75, 752.99
11.74, 751.66
21.91, 755.99
24.91, 756.78

MATCH RACINE STREET NB
BACK OF SIDEWALK

3+81'DA'

10 FT
10 FT

4.0:1
3.0%
3.0%
4.7:1
4.4:10.8%
-12.44, 750.15
-11.90, 751.15
0.00, 751.48
11.97, 751.84
13.97, 751.84
17.94, 755.92
18.88, 756.13

760
750
-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: DAM ACCESS	SHEET E

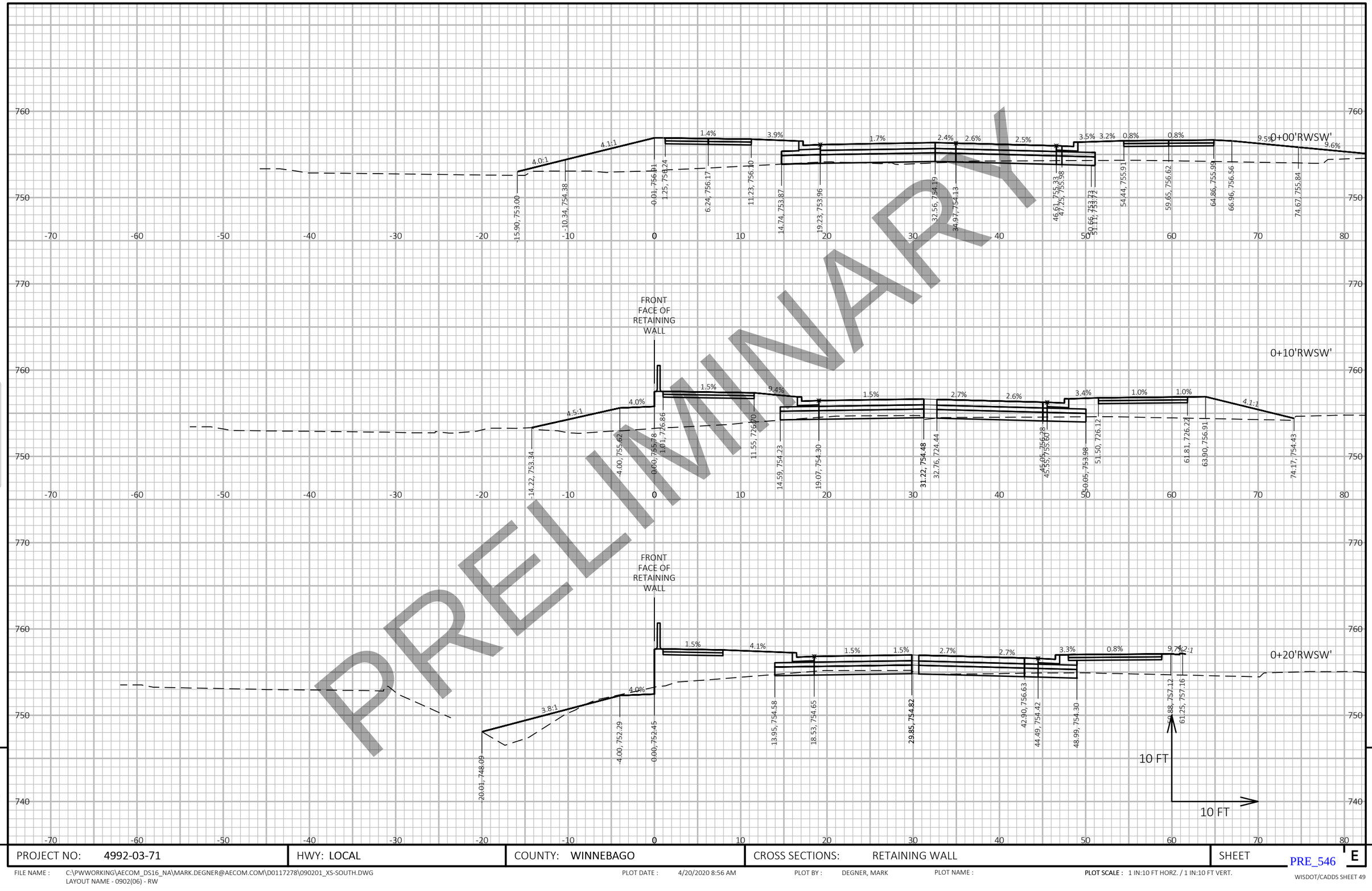
PRE_545

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 090201 - DA(3)

PLOT DATE : 4/20/2020 1:08 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020



PRELIMINARY

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RETAINING WALL	SHEET E

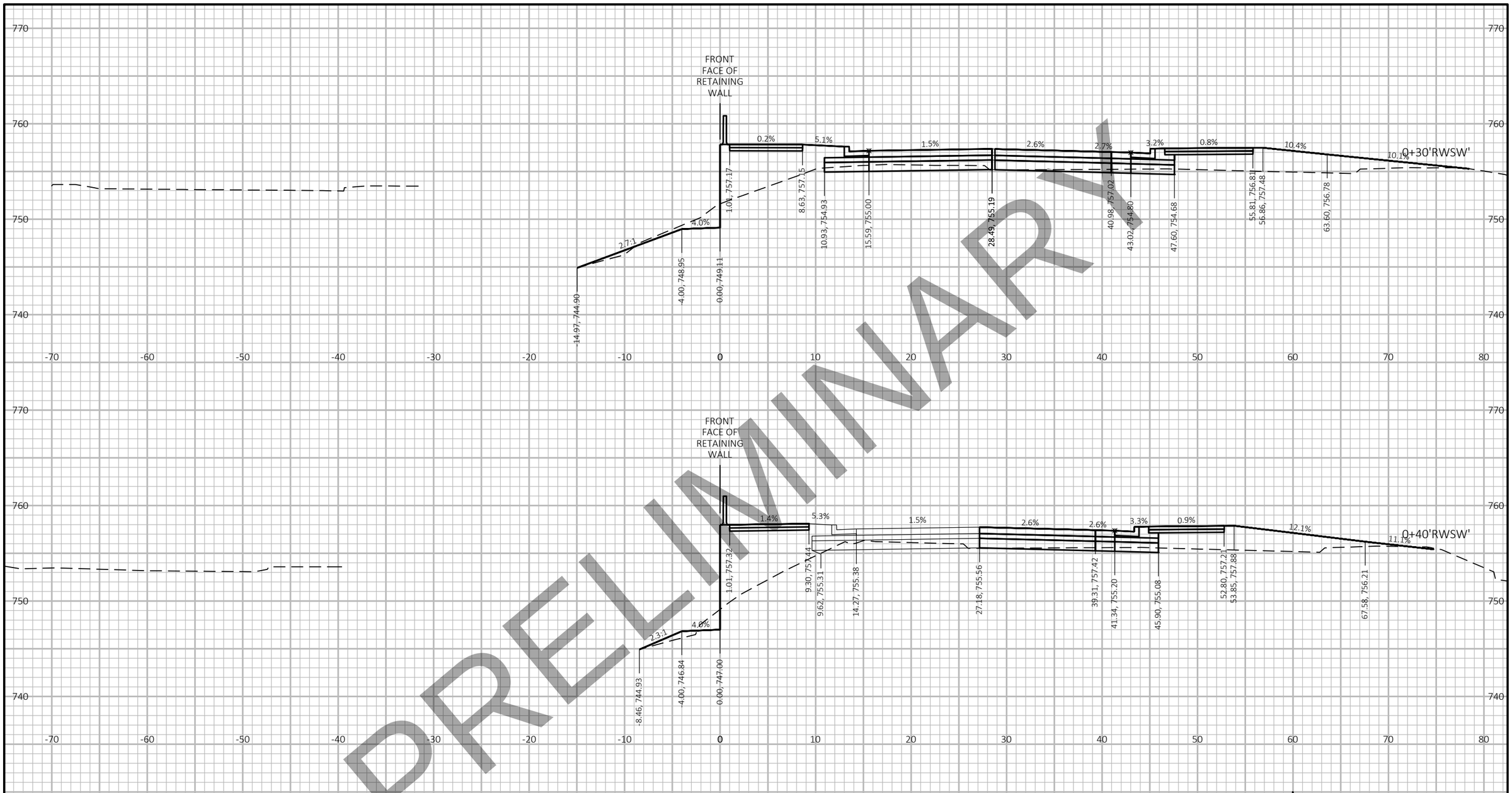
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 0902(06) - RW

PLOT DATE : 4/20/2020 8:56 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

PRE_546

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020



PRELIMINARY

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RETAINING WALL	SHEET E

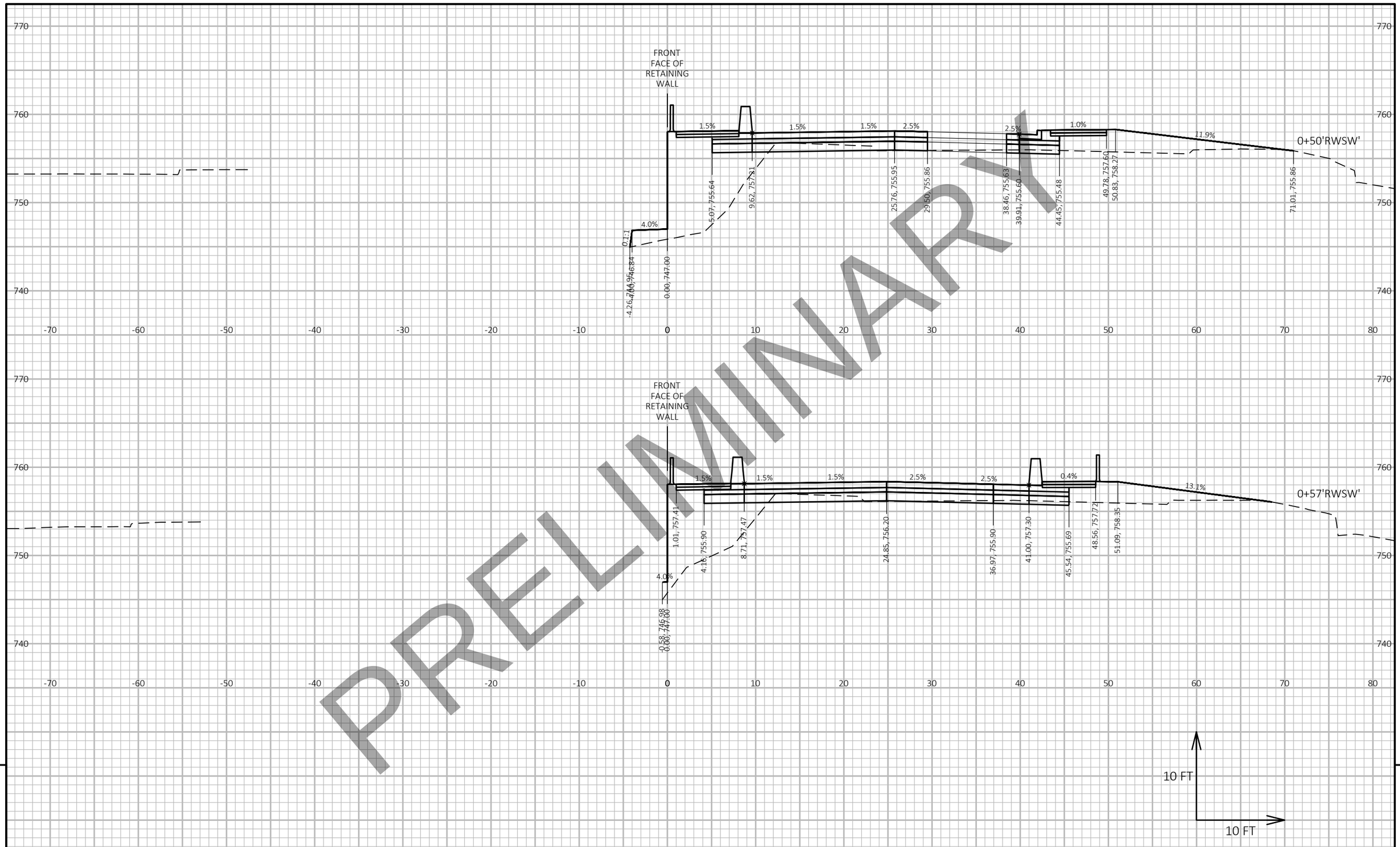
PRE_547

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 0902(07) - RW

PLOT DATE : 4/20/2020 8:56 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020



PRELIMINARY

9

9

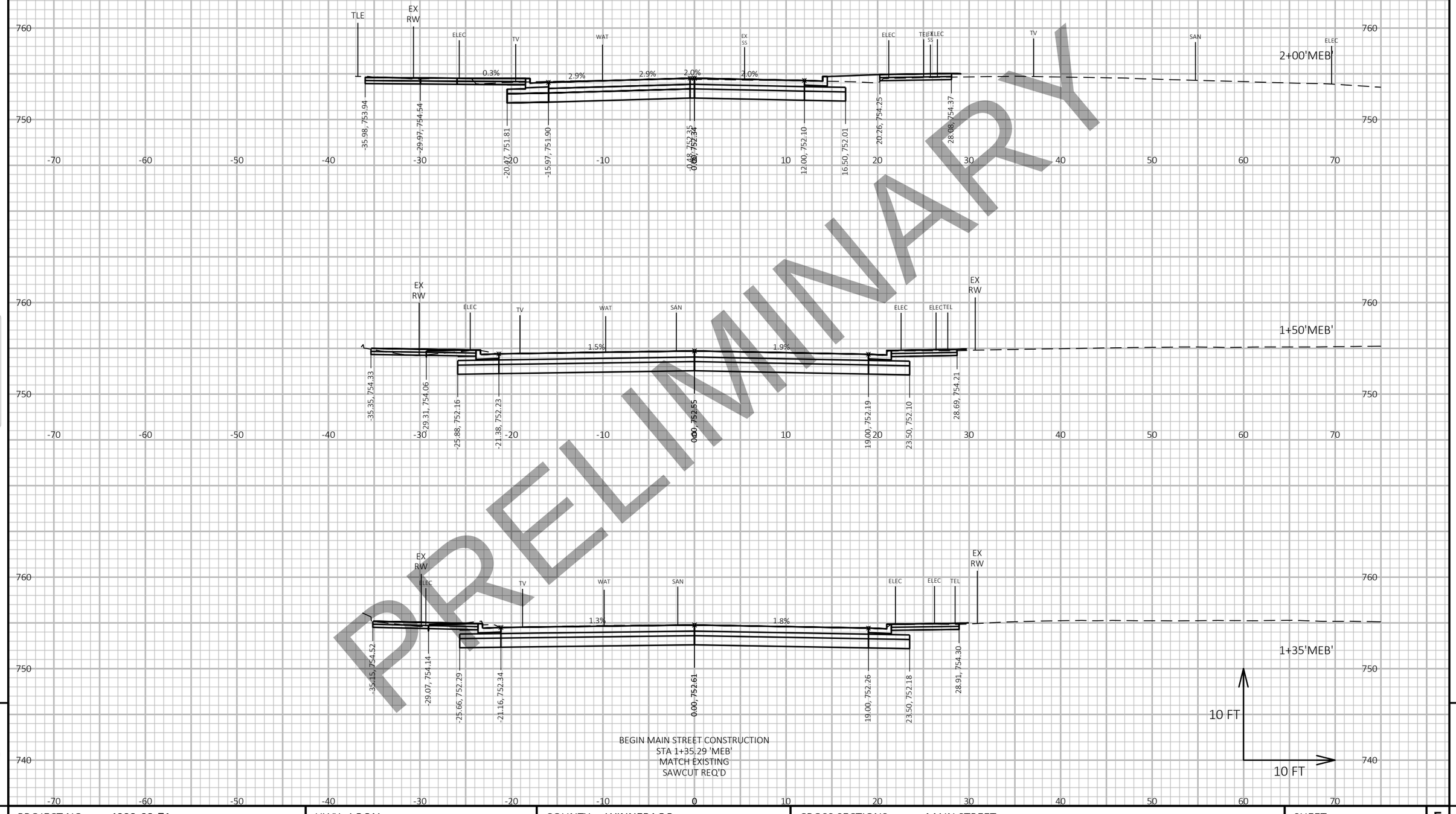
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RETAINING WALL	SHEET PRE_548 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090201_XS-SOUTH.DWG
LAYOUT NAME - 0902(08) - RW

PLOT DATE : 4/20/2020 8:56 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

DRAFT April 20, 2020

PRELIMINARY



9

9

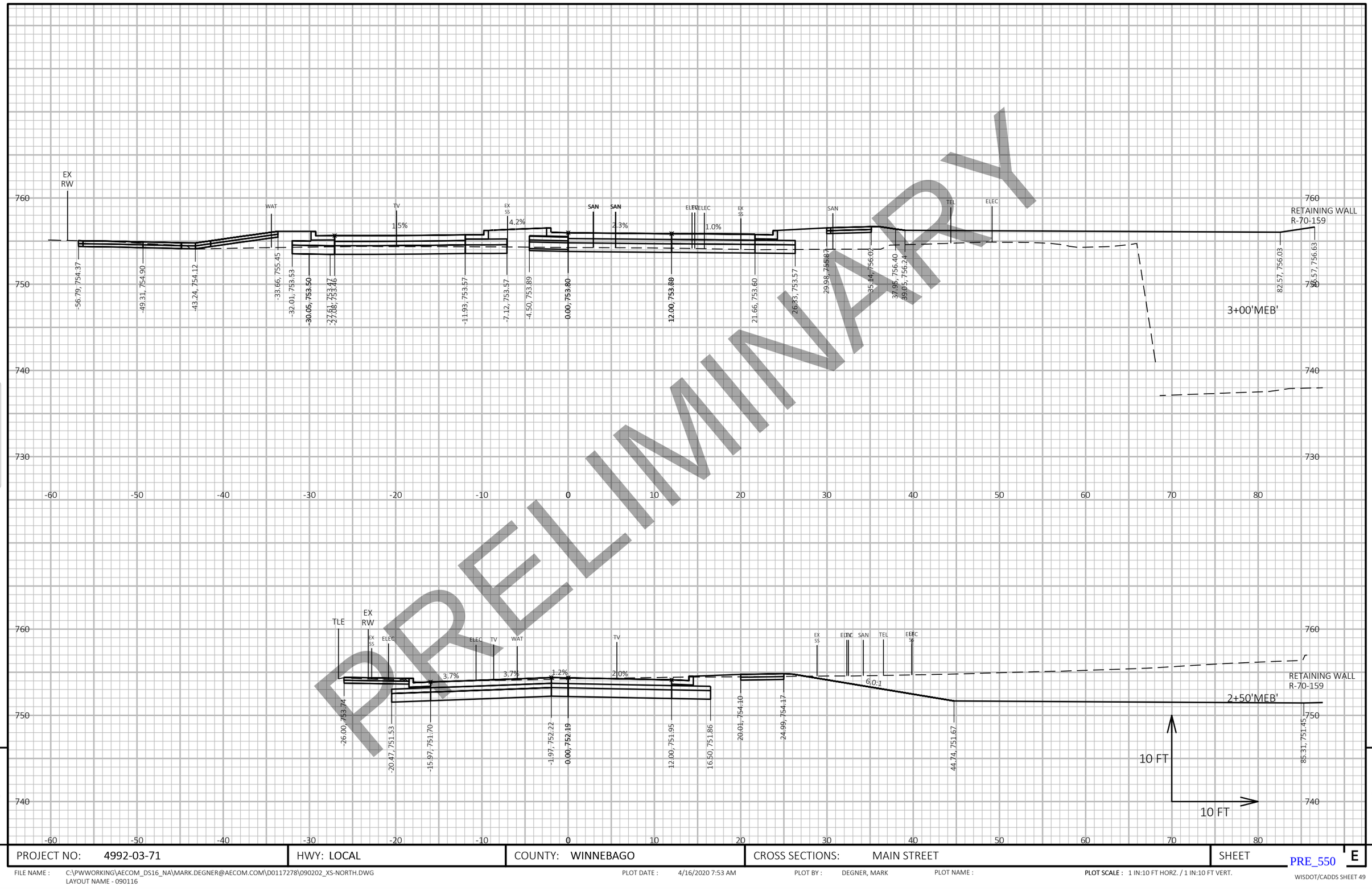
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: MAIN STREET	SHEET E

PRE_549

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090115

PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

DRAFT April 20, 2020



PRELIMINARY

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: MAIN STREET	SHEET PRE_550 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090116

PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

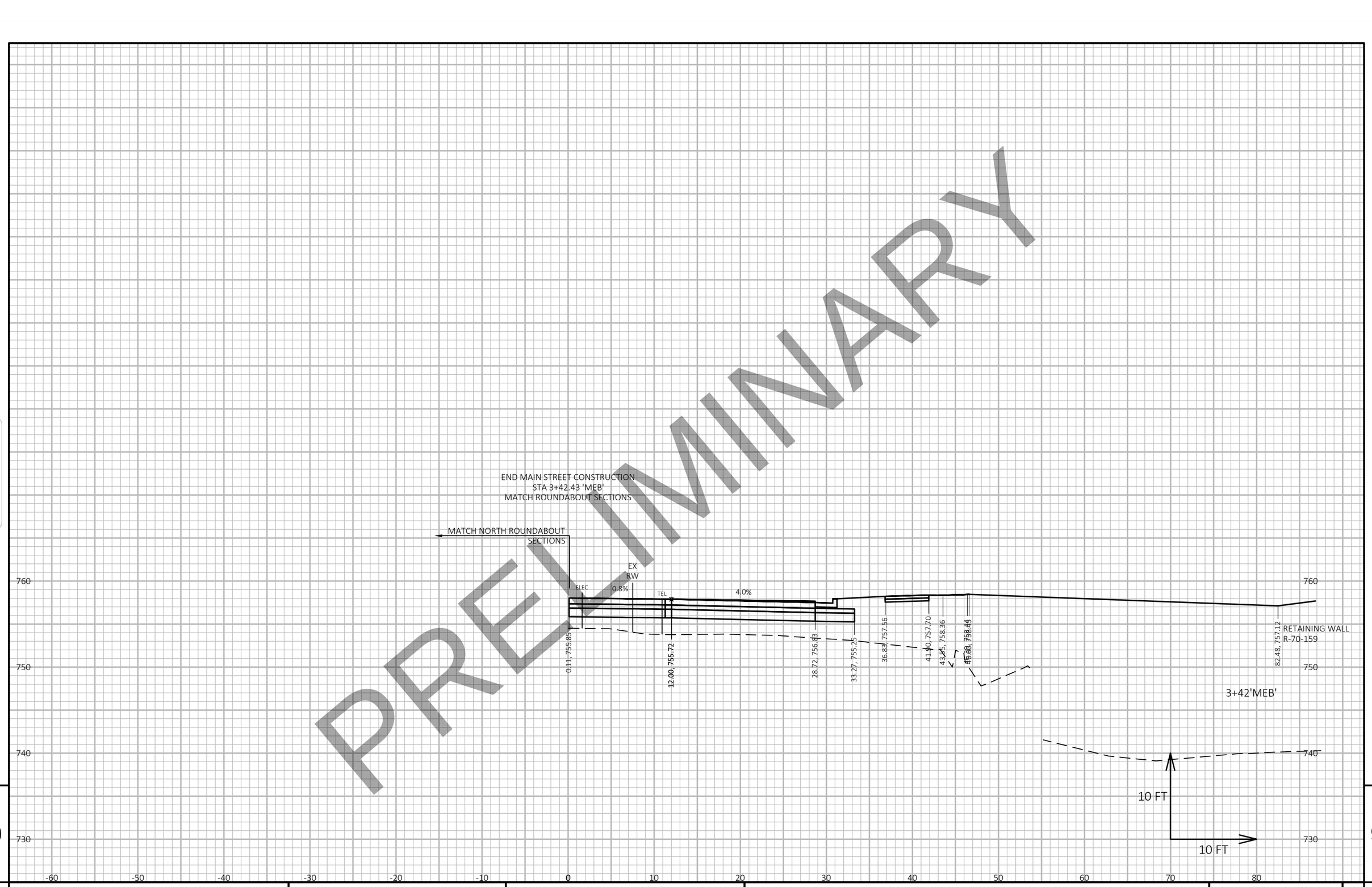
WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY

END MAIN STREET CONSTRUCTION
STA 3+42.43 'MEB'
MATCH ROUNDABOUT SECTIONS

MATCH NORTH ROUNDABOUT SECTIONS



9 9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: MAIN STREET	SHEET E

PRE_551

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090117

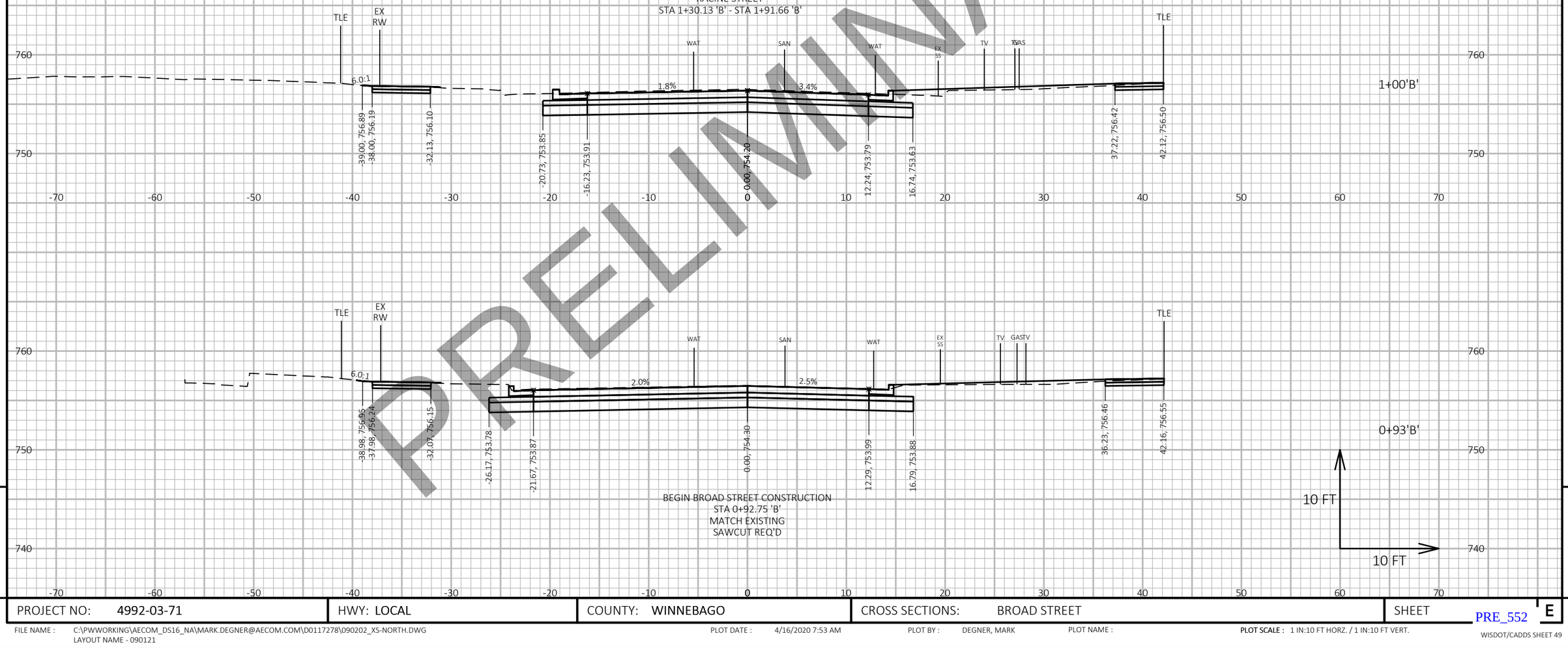
PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY

RACINE STREET
STA 1+30.13 'B' - STA 1+91.66 'B'



BEGIN BROAD STREET CONSTRUCTION
STA 0+92.75 'B'
MATCH EXISTING
SAWCUT REQ'D

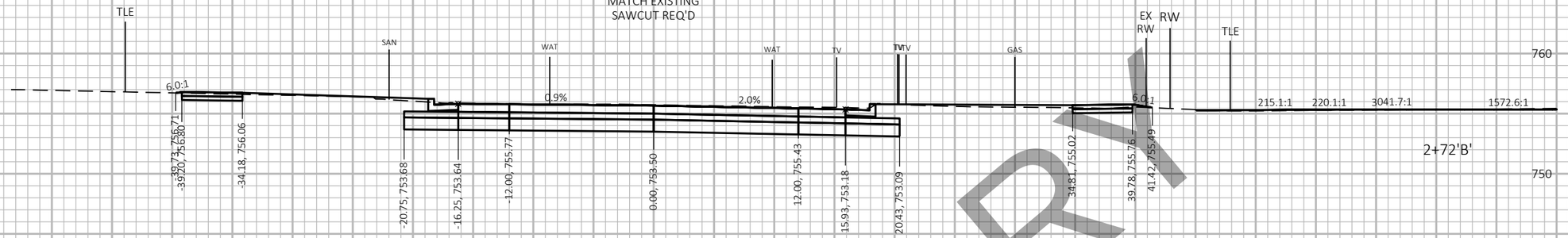
PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: BROAD STREET	SHEET E

PRE_552

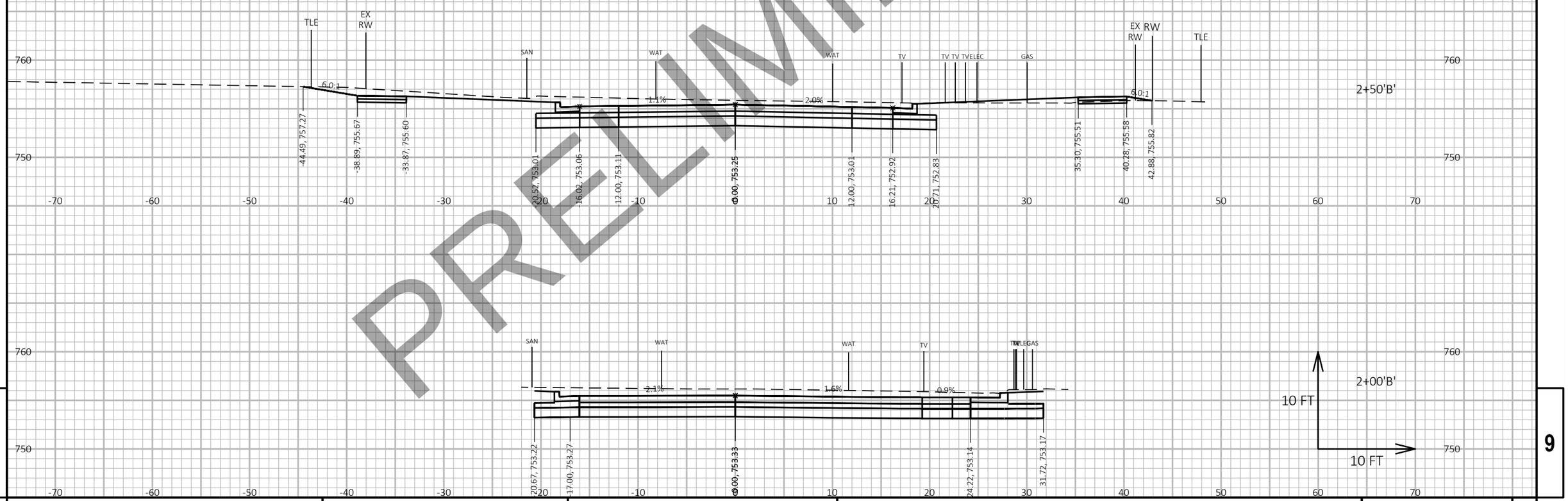
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090121

PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

END BROAD STREET CONSTRUCTION
STA 2+72.50 'B'
MATCH EXISTING
SAWCUT REQ'D



2+72'B'



2+50'B'

2+00'B'

PRELIMINARY

DRAFT April 20, 2020

9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: BROAD STREET	SHEET E

PRE_553

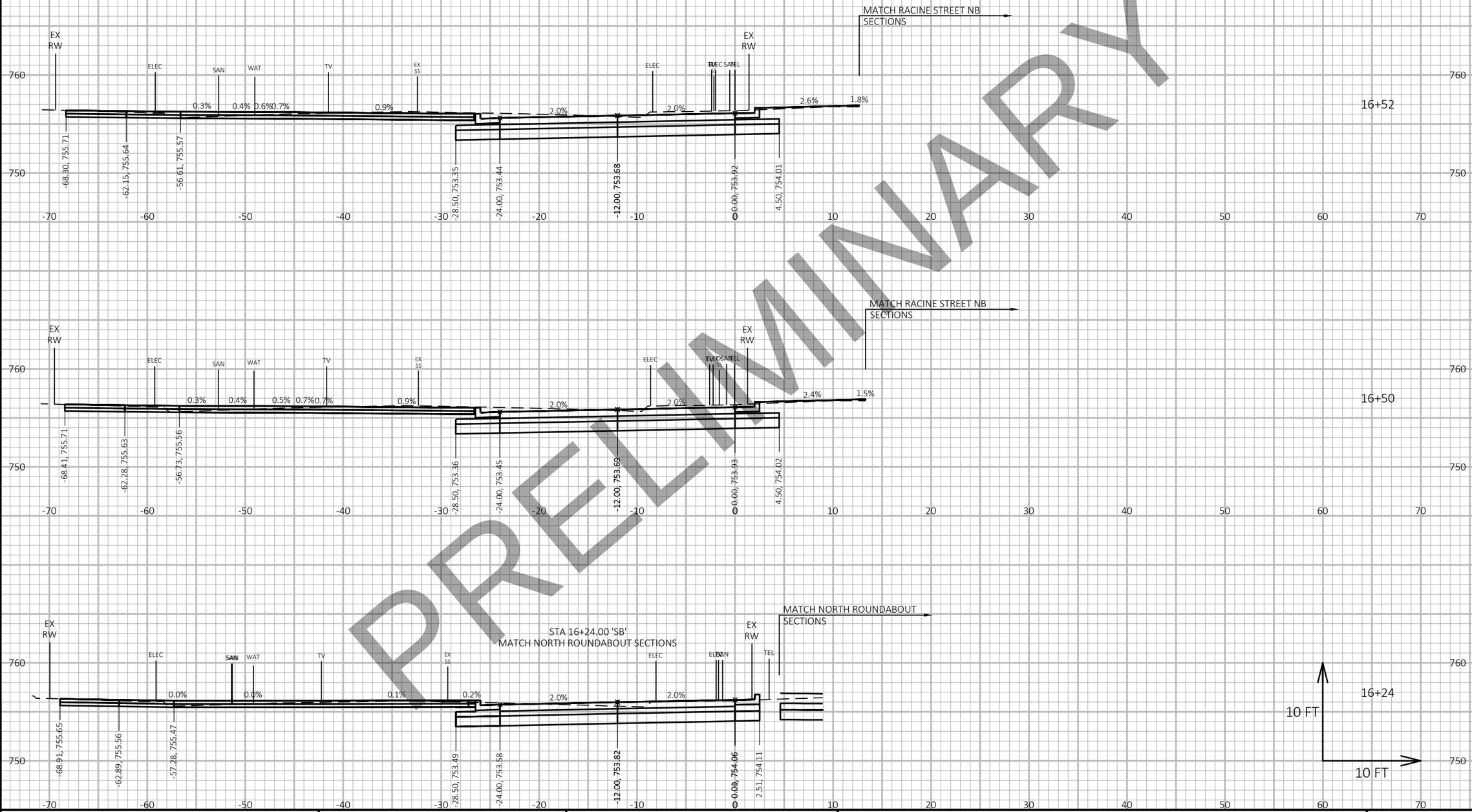
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090122

PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY



9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET SOUTHBOUND	SHEET E

PRE_554

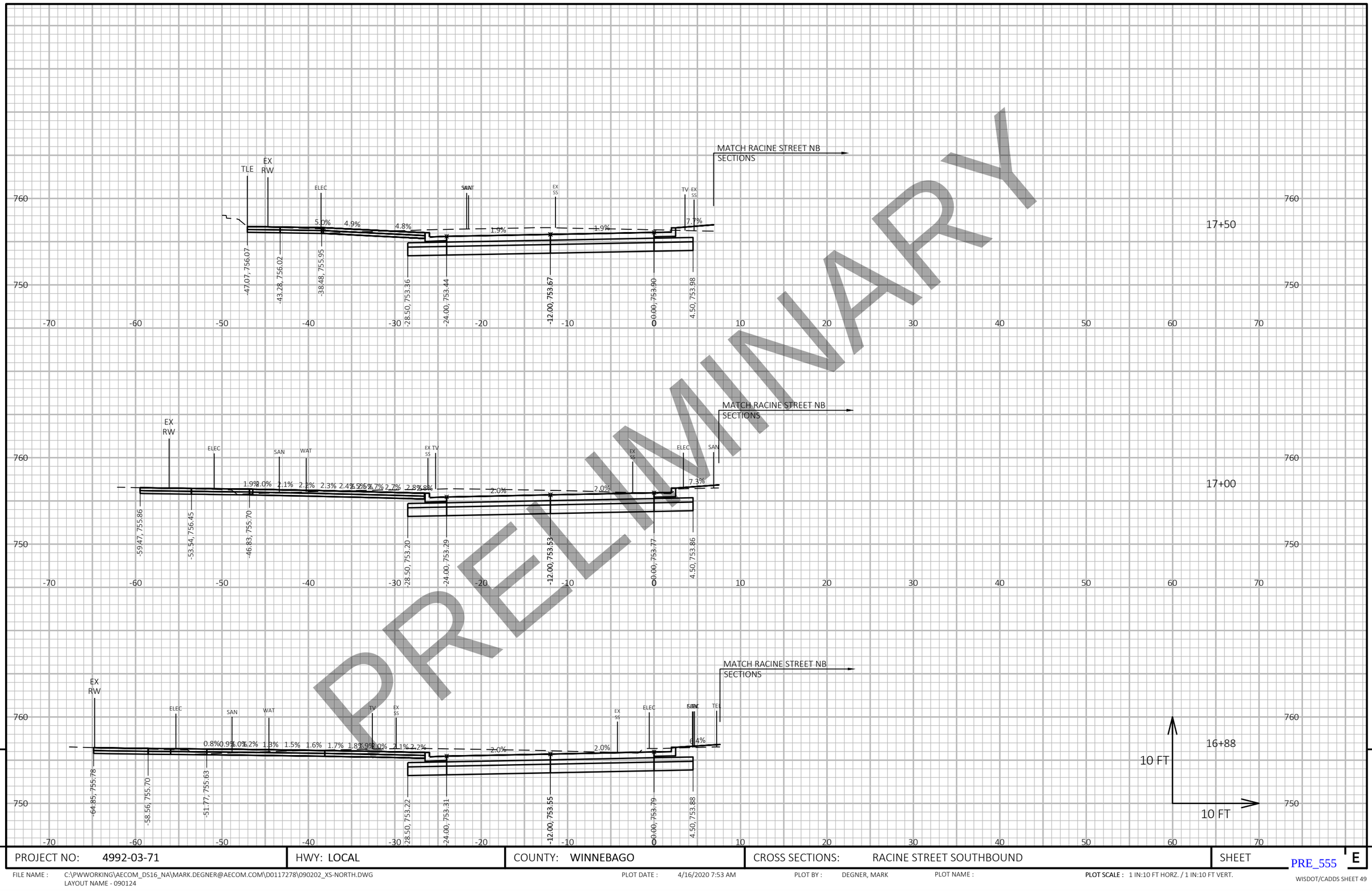
FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090123

PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY



PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET SOUTHBOUND	SHEET PRE_555 E

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090124

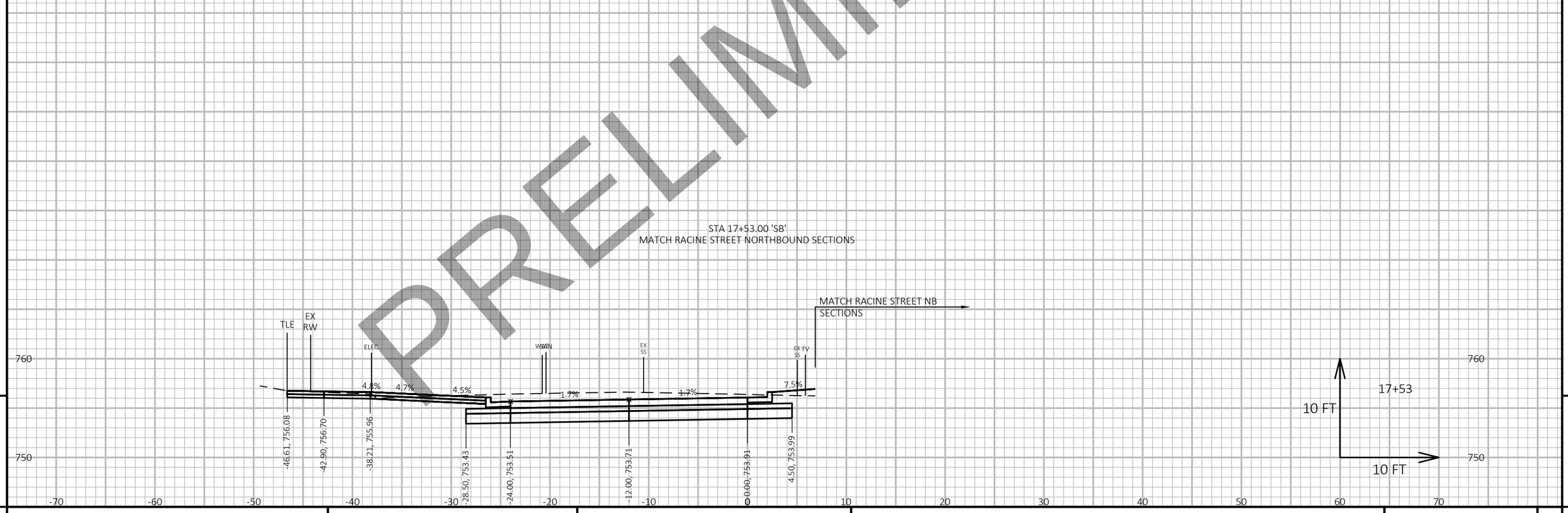
PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

DRAFT April 20, 2020

PRELIMINARY

STA 17+53.00 'SB'
MATCH RACINE STREET NORTHBOUND SECTIONS



9

9

PROJECT NO: 4992-03-71	HWY: LOCAL	COUNTY: WINNEBAGO	CROSS SECTIONS: RACINE STREET SOUTHBOUND	SHEET E

PRE_556

FILE NAME : C:\PWWORKING\AECOM_DS16_NA\MARK.DEGNER@AECOM.COM\D0117278\090202_XS-NORTH.DWG
LAYOUT NAME - 090125

PLOT DATE : 4/16/2020 7:53 AM PLOT BY : DEGNER, MARK PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

WISCONSIN DEPARTMENT OF TRANSPORTATION

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 te page number in the Acrobat Status bar).

3. Re-Save the PDF

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

Place Preliminary Sheet Numbers

TO REMOVE PRELIMINARY SHEET NUMBERS

Remove

PRELIMINARY