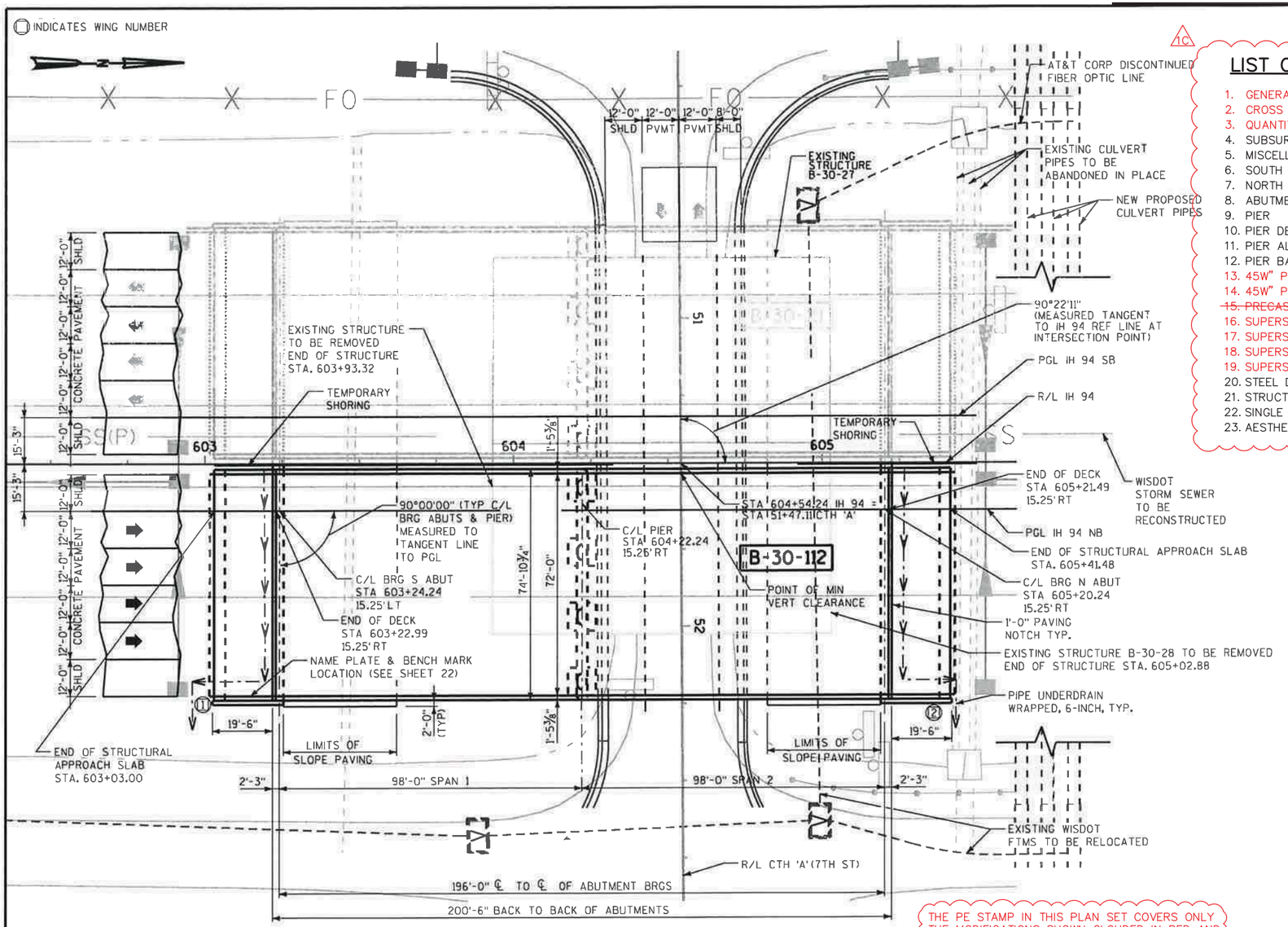
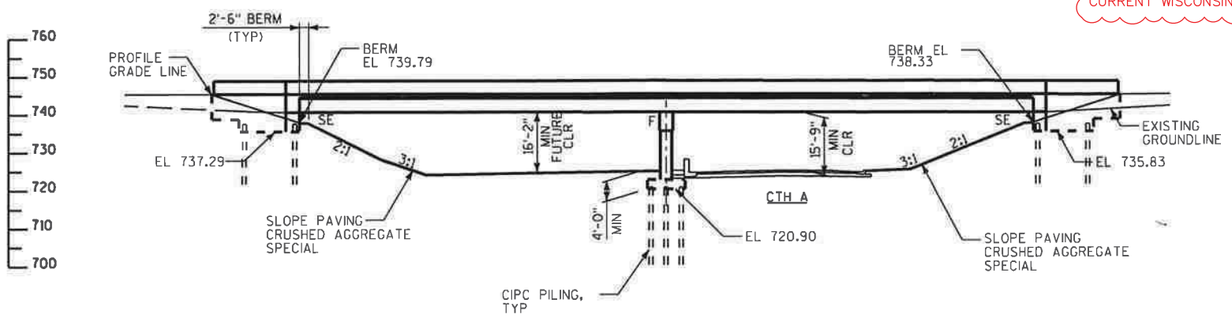
STATE PROJECT NUMBER

1035-03-79



PLAN

(2 SPAN - 45W" PRESTRESSED GIRDERS)



ELEVATION

(LOOKING WEST)

1C

LIST OF DRAWINGS

DESIGN DATA

LIVE LOAD:

DESIGN RATING: HL-93
INVENTORY RATING: 1.19
OPERATING RATING : 1.54
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR 20 PSF FUTURE WEARING SURFACE.

MATERIAL PROPERTIES:
CONCRETE MASONRY
SUPERSTRUCTURE (HPC) ..... f'c = 4,000 psi
STRUCTURAL APPROACH SLAB (HPC)..... f'c = 4,000 psi
ALL OTHER ..... f'c = 4,000 psi

BAR STEEL REINFORCEMENT,
HIGH STRENGTH, GRADE 60 .....fy = 60,000 psi

BAR STEEL REINFORCEMENT
STAINLESS, HIGH STRENGTH, GRADE 60.....fy = 60,000 psi

45W-INCH PRESTRESSED GIRDERS,
CONCRETE MASONRY .....f'c = 8,000 psi
PRESTRESSING STRANDS = 0.6 INCH DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 psi

1C

~~PRESTRESSED DECK PANELS,~~
~~CONCRETE MASONRY .....f'c = 6,000 psi~~
~~PRESTRESSING STRANDS = 3/8 INCH DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 psi~~

FOUNDATION DATA

SOUTH ABUTMENT AND NORTH ABUTMENT TO BE SUPPORTED ON 123/4" DIA CAST-IN-PLACE CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

THE PIER TO BE SUPPORTED ON 123/4" DIA. CAST-IN-PLACE CONCRETE PILING DRIVEN TO A REQUIRED RESISTANCE OF 210 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

PILE LENGTHS ESTIMATED TO BE 85' AT SOUTH ABUTMENT, 90' AT PIER AND 90' AT NORTH ABUTMENT.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA

CTH A

ADT = 570 (2040 PROPOSED)
RDS = 60 MPH

IH 94

ADT = 90,000 (2020)
ADT = 105,500 (2040)
RDS = 70 MPH

HORIZONTAL CURVE DATA

R/L IH 94

PI = 605+90.58
= 0°09'36" LEFT
D = 0°01'00"
T = 480.02'
L = 960.04'
R = 343786.68'
PC = 601+10.56
PT = 610+70.60

THE PE STAMP IN THIS PLAN SET COVERS ONLY THE MODIFICATIONS SHOWN CLOUDED IN RED AND SIGNIFIED BY 1C, WHICH MODIFY THE ORIGINAL BRIDGE PLANS TO UTILIZE A TRADITIONAL FULL-DEPTH, CAST-IN-PLACE CONCRETE DECK. THE DECK REINFORCEMENT IS DESIGNED PER CURRENT WISCONSIN DOT BRIDGE MANUAL.

WISCONSIN
ANDREW C. KNUTSON
E-34662
SPRING GREEN, WI
8-3-18
PROFESSIONAL ENGINEER

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES
8/6/18

STRUCTURES DESIGN CONTACTS
BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
KEVIN WOOD (414) 266-9144

NO.	DATE	REVISION	BY
1C	8/3/18	REMOVE PRECAST PANELS	PMF

K&C Kenosha LLC
A Kapur & Associates and GRAEF Joint Venture
7711 North Port Washington Road Milwaukee, WI 53217

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SMB 3/12/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-30-112

IH 94 WB / USH 41 NB OVER CTH A

COUNTY	TOWN/CITY/VILLAGE
KENOSHA	PARIS

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
WAR	VG	RBH	JZ

GENERAL PLAN & ELEVATION

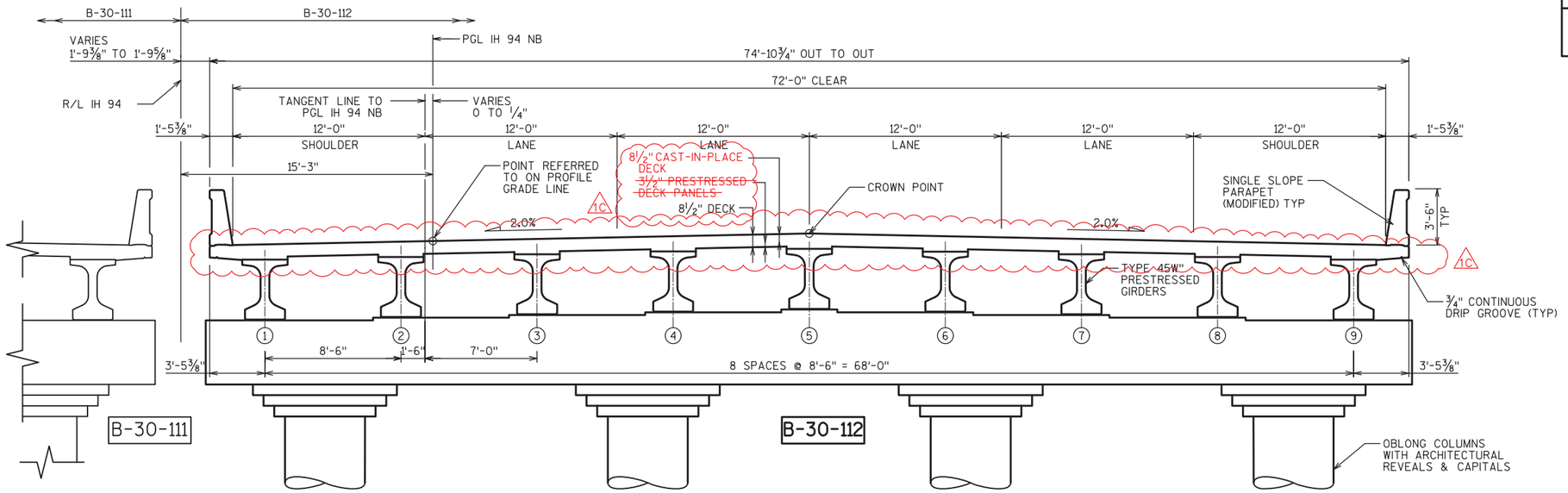
SHEET 1 OF 23

PLOT DATE: Aug 03, 2018

PLOT SCALE:

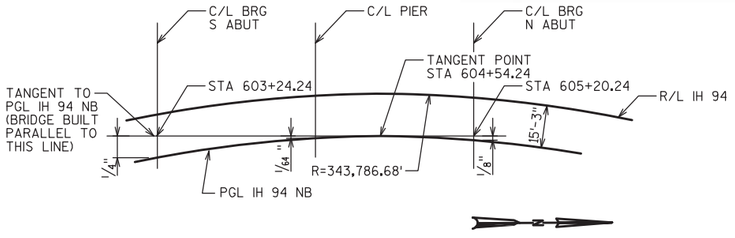
STATE PROJECT NUMBER

1035-03-79



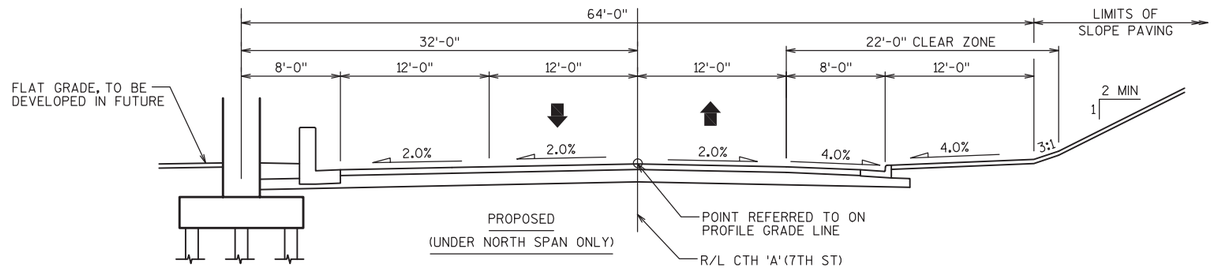
TYPICAL SECTION THRU B-30-112

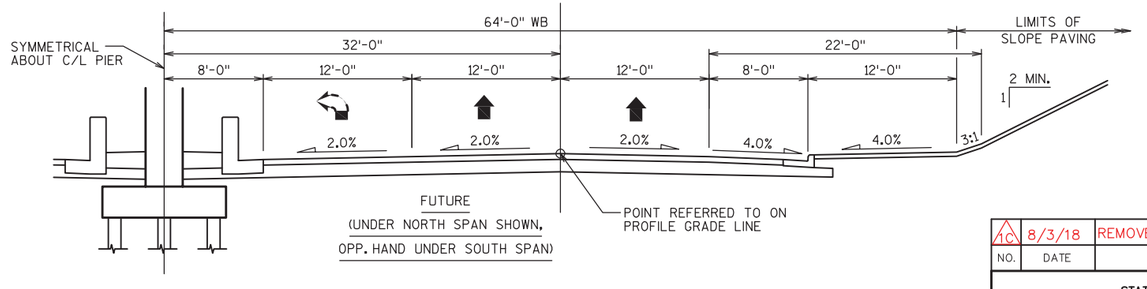
(LOOKING NORTH)



ALIGNMENT LAYOUT - IH 94 NB

(SEE SHEET 1 FOR CURVE DATA)





TYPICAL SECTION THRU CTH 'A'

(LOOKING WEST)

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2271	STA 603+89.12, 54-56 RT	ALUM. CAP IN SE PARAPET WALL OF B-30-28 194 OVER CTHA	744.12

WISCONSIN
ANDREW C. KNUTSON
E-34662
SPRING GREEN, WI
8-3-18
PROFESSIONAL ENGINEER

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

8/6/18

NO.	DATE	REVISION	BY
1C	8/3/18	REMOVE PRECAST PANELS	PMF

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-30-112

DRAWN BY RBH | PLANS CK'D JZ

CROSS SECTION

SHEET 2 OF 23

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PLOT DATE: Aug 03, 2018

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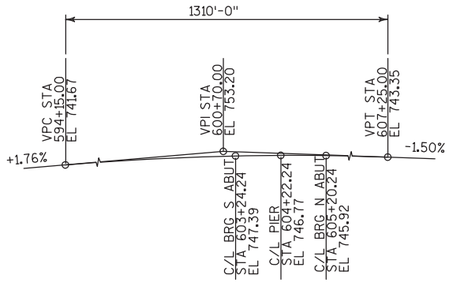
TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID – ITEM	UNIT	S ABUT	S APPR	N ABUT	N APPR	PIER	SUPER	TOTAL
203.0200.050	REMOVING OLD STRUCTURE STA 604+54.24, 15.25 RT	LS	–	–	–	–	–	–	1
203.0210.S.020	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-30-28	LS	–	–	–	–	–	–	1
206.1000.029	EXCAVATION FOR STRUCTURES BRIDGES B-30-112	LS	–	–	–	–	–	–	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	250	–	250	–	–	–	500
305.0125	BASE AGGREGATE DENSE 11/4-INCH	CY	139	–	139	–	–	–	278
416.0620	DRILLED DOWEL BARS	EACH	–	–	–	–	24	–	24
501.1000.S	ICE HOT WEATHER CONCRETING	LB	510	751	510	751	1,103	3,233	6,858
1C 501.1000.S	ICE HOT WEATHER CONCRETING	LB	–	–	–	–	–	820	820
502.0100	CONCRETE MASONRY BRIDGES	CY	68	21	68	21	147	–	325
502.3200	PROTECTIVE SURFACE TREATMENT	SY	–	160	–	160	–	1,626	1,946
502.3210	PIGMENTED SURFACE SEALER	SY	–	20	–	20	–	195	235
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	–	–	–	–	–	1,771	1,771
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	–	–	–	–	2,810	–	2,810
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	6,580	16,930	6,580	16,930	25,370	89,980	162,370
1C 505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	–	–	–	–	–	33,110	33,110
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	–	1,280	–	1,280	–	–	2,560
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	–	–	–	–	–	36	36
506.4000.049	STEEL DIAPHRAGMS B-30-112	EACH	–	–	–	–	–	32	32
511.1200.003	TEMPORARY SHORING B-30-112	SF	275	–	1,700	–	–	–	1,975
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	18	–	18	–	–	2	38
517.1010.S.463	CONCRETE STAINING B-30-112	SF	474	70	474	70	1,550	5,654	9,033
517.1050.S.013	ARCHITECTURAL SURFACE TREATMENT B-30-112	SF	16	–	16	–	–	–	32
550.0600	PILE REDRIVING	EACH	3	–	3	–	6	–	12
550.2126	PILING CIP CONCRETE 123/4-INCH X 0.375-INCH	LF	1,190	–	1,260	–	3,240	–	5,690
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	100	–	100	–	–	–	200
612.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	78	–	78	–	–	–	156
SPV.0035.400	HPC MASONRY SUPERSTRUCTURES	CY	–	79	–	79	–	431	589
1C SPV.0035.400	HPC MASONRY SUPERSTRUCTURES	CY	–	–	–	–	–	139	139
SPV.0165.401	LONGITUDINAL GROOVING BRIDGE DECK	SF	–	1,440	–	1,440	–	14,292	17,172
1C SPV.0165.464	PARTIAL DEPTH PRECAST CONCRETE DECK PANELS B-30-112	SF	–	–	–	–	–	9,703	9,703
SPV.0180.400	SLOPE PAVING CRUSHED AGGREGATE SPECIAL	SY	335	–	335	–	–	–	670
	NON BID ITEMS								
	PREFORMED JOINT FILLER	SIZE							½", ¾", 1½"
	CORK FILLER	SIZE							¾"
	NON-STAINING NON-BITUMINOUS JOINT SEALER	SIZE							½"
	NAME PLATE	EACH							1
*	PRECAST PIER COLUMNS								
*	GROUTED BAR COUPLERS								

ALL ITEMS ARE CATEGORY 2280 UNLESS SPECIFIED OTHERWISE.

PROFILE GRADE LINE - CTH A



PROFILE GRADE LINE - NB & SB IH 94

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE PLACED WITH 2" OF CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED. THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 2½" OF CLEAR CONCRETE COVER.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO NAVD 88 (2007).

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT OF EXCAVATION FOR STRUCTURES.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL. THE EXISTING BRIDGE B-30-28 IS A THREE SPAN HAUNCHED CONCRETE SLAB WITH AN OVERALL WIDTH OF 60'-11" AND AN OVERALL LENGTH OF 110'-8". REMOVE THE ENTIRE STRUCTURE. EXISTING PILES TO REMAIN, IN ACCORDANCE WITH STRUCTURE REMOVAL, EXCEPT AS NOTED ON THE PIER PLANS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING CRUSHED AGGREGATE SPECIAL TO THE EXTENT SHOWN ON THE PLANS.

THE VERTICAL JOINT BETWEEN THE GIRDERS AT THE ENDS OF THE PIER DIAPHRAGM SHALL BE FINISHED TO HAVE A SMOOTH APPEARANCE. COST INCIDENTAL TO BID ITEM "HPC MASONRY SUPERSTRUCTURES".

ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

2-WAY TRAFFIC ON I-94 WILL BE MAINTAINED ON THE (EXISTING) I-94 SOUTHBOUND LANES AND BRIDGE OVER CTH A DURING THE REMOVAL OF B-30-28 AND THE CONSTRUCTION OF THE REPLACEMENT NORTHBOUND STRUCTURE B-30-112.

THE WISCONSIN DEPARTMENT OF TRANSPORTATION WILL FURNISH THE CONTRACTOR WITH A BENCHMARK CAP TO BE INSTALLED AS SHOWN ON THE PLANS.

EXISTING PIER CAP, COLUMNS AND FOOTING SHALL BE REMOVED AND NEW PILES DRIVEN BETWEEN EXISTING PILES AS SHOWN IN THE PIER DETAILS.

DRIVE PILING TO PLAN LENGTH UNLESS REQUIRED BEARING IS OBTAINED AT A SHORTER LENGTH. IF REQUIRED BEARING IS NOT OBTAINED WHEN PILE IS DRIVEN TO PLAN LENGTH, CONTACT THE BUREAU OF STRUCTURES.

THE HORIZONTAL ALIGNMENT OF I-94 IS CURVED, AND BRIDGE B-30-112 IS BUILT STRAIGHT, PARALLEL TO THE TANGENT LINE. SEE SHEET 2 FOR LAYOUT DETAILS.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF DECK, PAVING NOTCHES AND TOP OF THE STRUCTURAL APPROACH SLABS.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND TOP OF PARAPETS, INCLUDING PARAPETS ON THE STRUCTURAL APPROACH SLABS.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

GAP THE TEMPORARY SHORING INSTALLATION TO AVOID IMPACTING UNDERGROUND UTILITY CROSSINGS.

CONTACT THE UTILITY COMPANY 7 DAYS IN ADVANCE TO COORDINATE LOCATIONS AND ANY EXCAVATION NEAR THEIR FACILITIES.

* PRECAST COLUMN NON-BID ITEMS (PRECAST PIER COLUMNS & GROUTED BAR COUPLERS) ARE FOR INFORMATIONAL PURPOSES ONLY. IF THE CONTRACTOR ELECTS TO UTILIZE PRECAST PIER COLUMNS, THE NON-BID ITEM SPECIAL PROVISIONS WITHIN THIS CONTRACT SHALL GOVERN THE WORK. PAYMENT FOR THE PRECAST COLUMNS SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES" FOR THE CAST-IN-PLACE PIER. IF THE CONTRACTOR ELECTS TO UTILIZE PRECAST COLUMN ELEMENTS, CONTRACTOR TO ADJUST BOTTOM OF FOOTING ELEVATION OR COLUMN HEIGHT IN ORDER TO ENSURE THAT BEAM SEAT ELEVATIONS, AS SHOWN IN THE CAST-IN-PLACE PIER DETAILS, ARE MAINTAINED.

1C
- REVISION QUANTITIES FOR INFORMATIONAL PURPOSES ONLY.
- THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "45W" PRESTRESSED GIRDER DETAILS" SHEET.

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Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES
8/6/18

NO.	DATE	REVISION	BY
1C	8/3/18	REMOVE PRECAST PANELS	PMF

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-30-112

DRAWN BY RBH | PLANS CK'D JZ

QUANTITIES & GENERAL NOTES

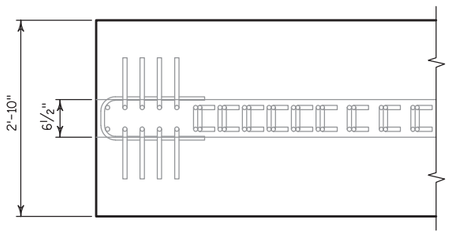
SHEET 3 OF 23

PLOT DATE: Aug 03, 2018

PLOT SCALE:

STATE PROJECT NUMBER

1035-03-79



TOP FLANGE

GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECTION 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

PRESTRESSING STRANDS SHALL BE 0.6" ϕ - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

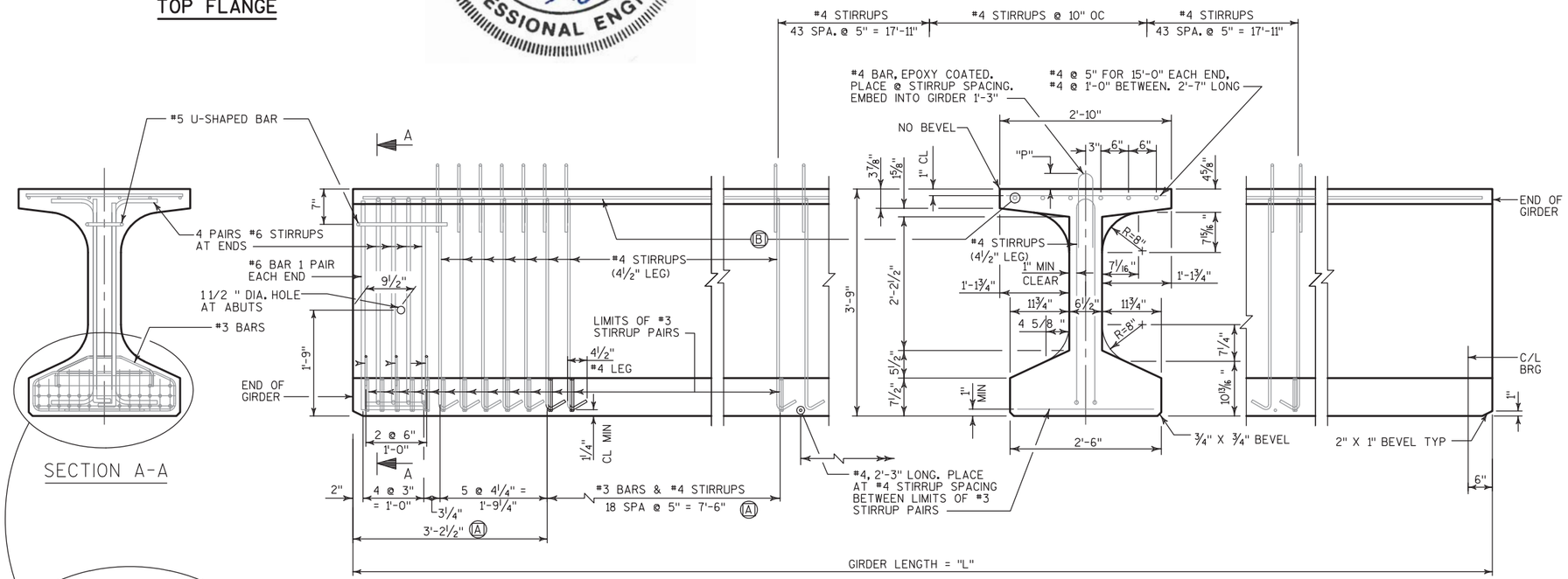
FOR DIAPHRAGM INSERT & CONNECTION DETAILS, SEE "STEEL DIAPHRAGM" SHEET.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

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.

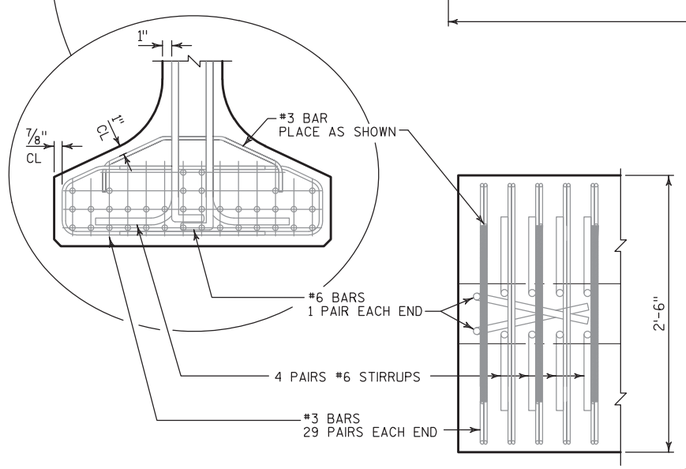


SECTION A-A

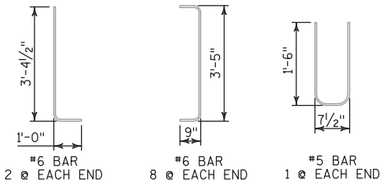
SIDE VIEW & TYP SECTION IN SPAN

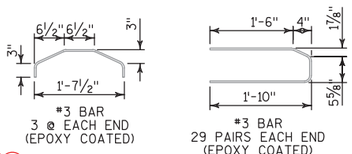
Ⓐ DETAIL TYP AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN LAP = 1'-11"



BOTTOM FLANGE





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8/6/18

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✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER LENGTH "L"	TOTAL 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" 1ST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	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&2~~	~~98'-4½"~~	~~½~~	~~1~~	~~1½~~	~~1¾~~	~~1⅞~~	~~1¾~~	~~1½~~	~~1~~	~~½~~	~~8000~~	~~7¾"~~	~~7⅝"~~	~~7¾"~~	~~0.6~~	~~36~~	~~6400~~	~~40~~	~~14~~	~~17~~	~~5~~	~~N/A~~	~~N/A~~
		△ DECK PANEL DEAD LOAD DEFL. (IN.)																					
~~1&2~~	~~98'-4½"~~	~~¼~~	~~½~~	~~¾~~	~~15/16~~	~~7/8~~	~~15/16~~	~~¾~~	~~½~~	~~¼~~													

△ DEFLECTIONS SHOWN INCLUDE 2½" HAUNCH GROUT OVER ~~GIRDER~~ TOP FLANGE

NO.	DATE	REVISION	BY
1C	8/3/18	REMOVE PRECAST PANELS	PMF

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-30-112

DRAWN BY RBH | PLANS CK'D JZ

45W" PRESTRESSED GIRDER

SHEET 13 OF 23

PLOT DATE: Aug 03, 2018

PLOT SCALE:

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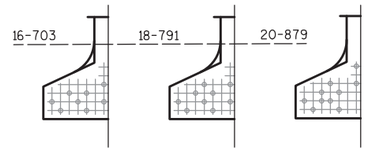
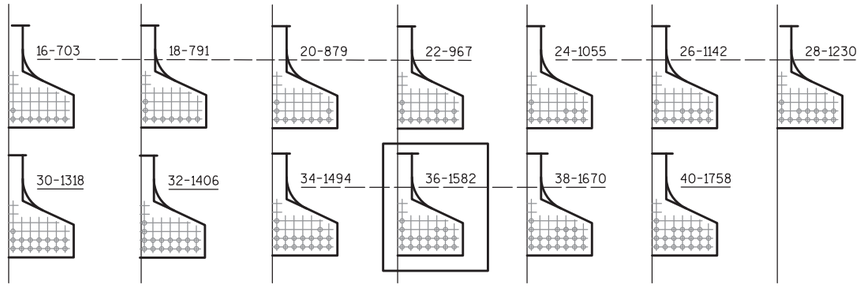


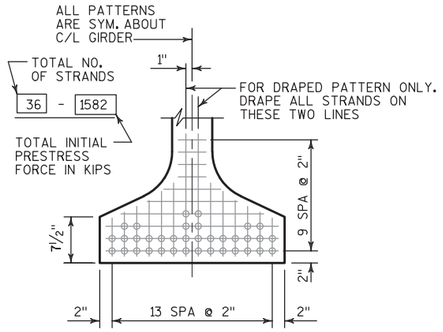
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"ϕ STRANDS



ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

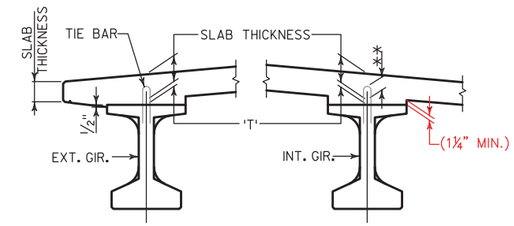
0.6" DIA STRANDS



TYP. STRAND PATTERN

0.6" DIA STRANDS

1C



SLAB HAUNCH DETAIL

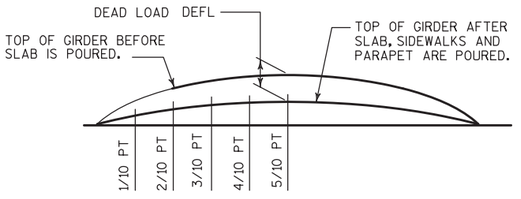
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** 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
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 2.5" WAS USED IN THE QUANTITY "HPC MASONRY STRUCTURES".



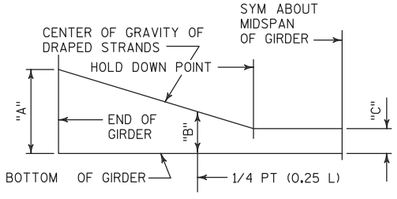
DEAD LOAD DEFLECTION DIAGRAM

*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.

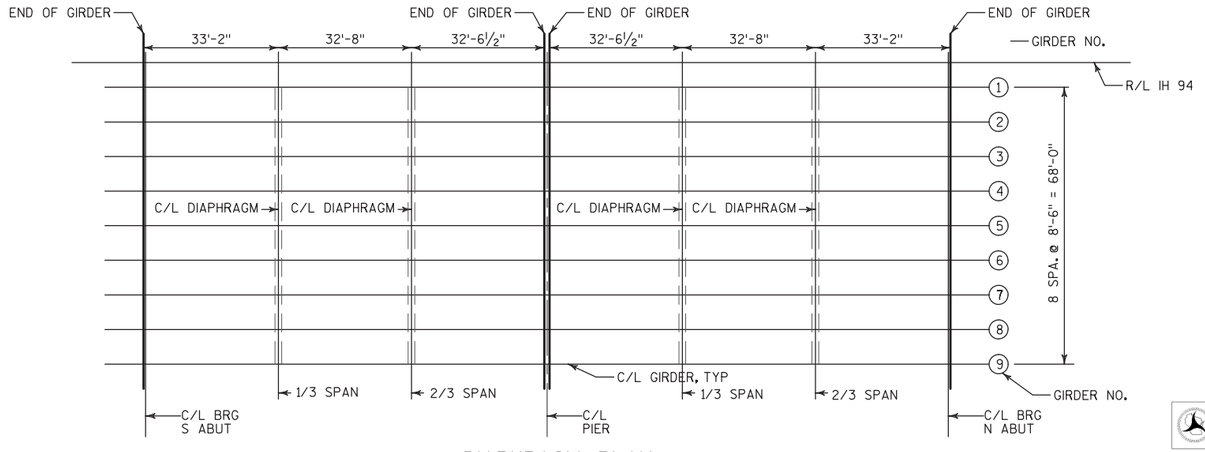
SPAN	CAMBER (IN)*
1 & 2	3⅞"

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DRAPED STRAND PROFILE



DIAPHRAGM PLAN

N

1C THE PE STAMP IN THIS PLAN SET COVERS ONLY THE MODIFICATIONS SHOWN CLOUDED IN RED AND SIGNIFIED BY 1C, WHICH MODIFY THE ORIGINAL BRIDGE PLANS TO UTILIZE A TRADITIONAL FULL-DEPTH, CAST-IN-PLACE CONCRETE DECK. THE DECK REINFORCEMENT IS DESIGNED PER CURRENT WISCONSIN DOT BRIDGE MANUAL.

NO.	DATE	REVISION	BY
1C	8/3/18	REMOVE PRECAST PANELS	PMF

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-30-112

DRAWN BY RBH | PLANS CK'D JZ

45W" PRESTRESSED GIRDER DETAILS

SHEET 14 OF 23

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

8/6/18

PLOT DATE: Aug 03, 2018

PLOT SCALE:

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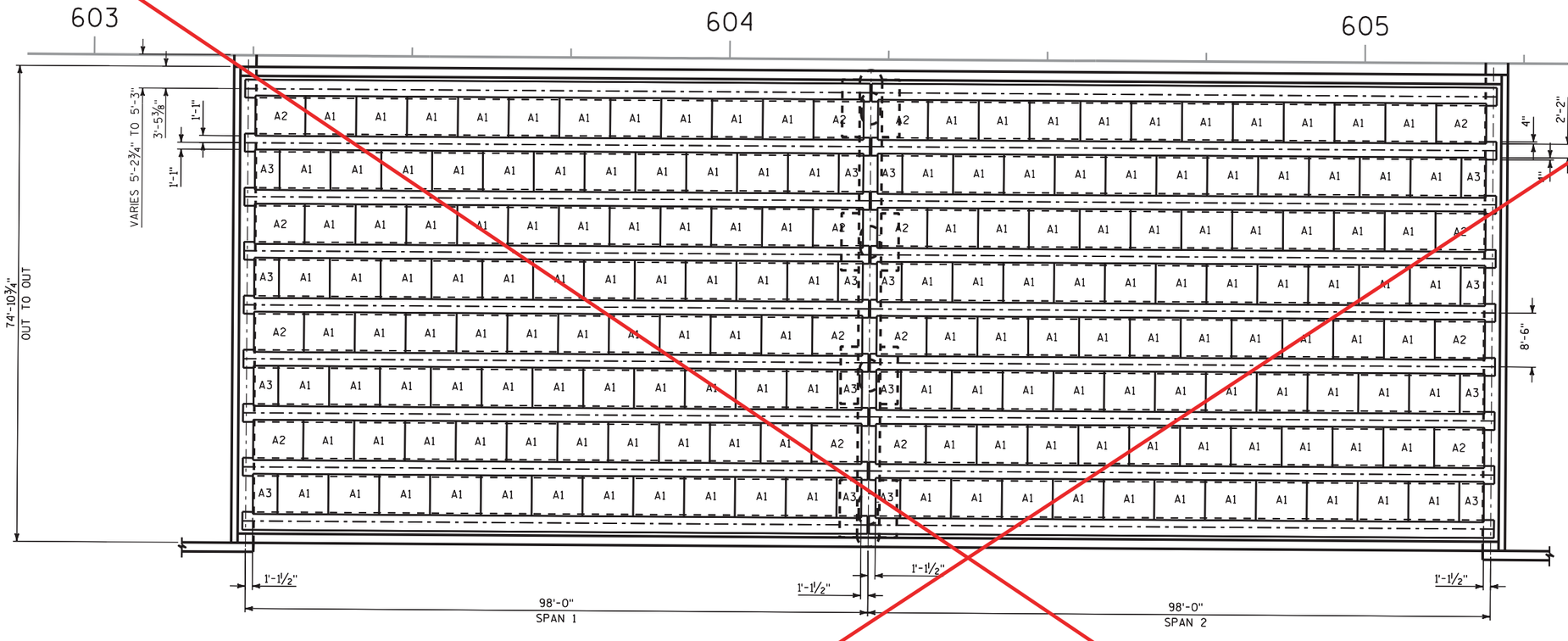
STATE PROJECT NUMBER
1035-03-79

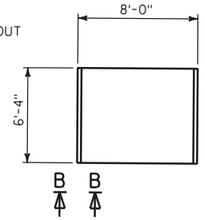


PLAN

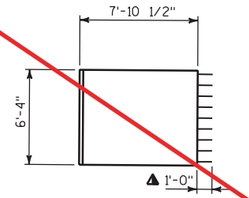
PRECAST DECK PANEL LAYOUT

THE PE STAMP IN THIS PLAN SET COVERS ONLY THE MODIFICATIONS SHOWN CLOUDED IN RED AND SIGNIFIED BY 1C, WHICH MODIFY THE ORIGINAL BRIDGE PLANS TO UTILIZE A TRADITIONAL FULL-DEPTH, CAST-IN-PLACE CONCRETE DECK. THE DECK REINFORCEMENT IS DESIGNED PER CURRENT WISCONSIN DOT BRIDGE MANUAL.

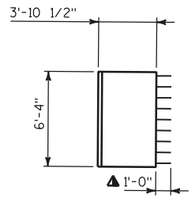
WISCONSIN
ANDREW C. KNUTSON
E-34662
SPRING GREEN, WI
8-3-18
PROFESSIONAL ENGINEER



PANEL A1



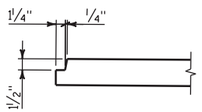
PANEL A2



PANEL A3

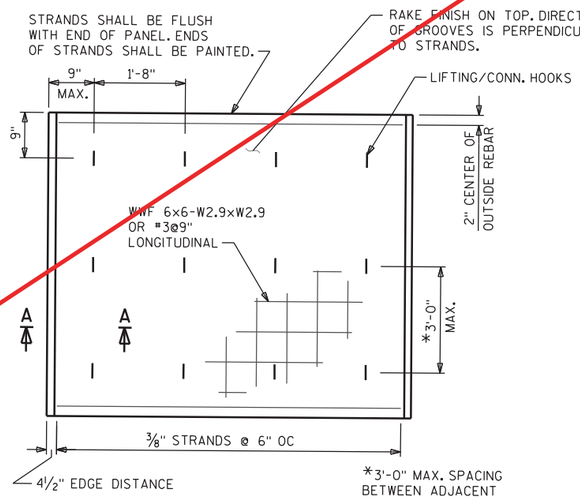
DESIGN DATA

INITIAL PRESTRESSING FORCE = 14.51 KIPS/STRAND
f'c = 6,000 PSI
f'ci = 4,400 PSI

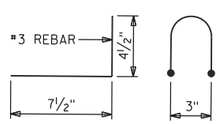


SECTION B-B

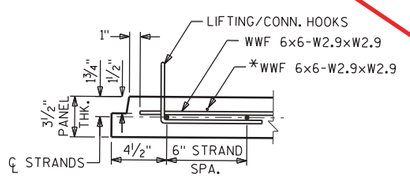
NOTE:
PANEL ENDS SHOULD NOT BE NOTCHED AT ABUTMENT/PIER DIAPHRAGMS.



DECK PANEL



LIFTING/CONN. HOOK DETAIL



PART SECTION A-A

*BARS IN WWF WHICH ARE PARALLEL TO THE STRANDS MUST BE A MINIMUM OF 1" CLEAR FROM THE STRANDS.

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES
8/6/18

LEGEND

▲ EXTEND WWF OR #3 BARS 1'-0" PAST END OF PANEL AT ABUTMENT & PIER DIAPHRAGMS

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-30-112

DRAWN BY RGH | PLANS CK'D. JZ

PRECAST DECK PANEL LAYOUT

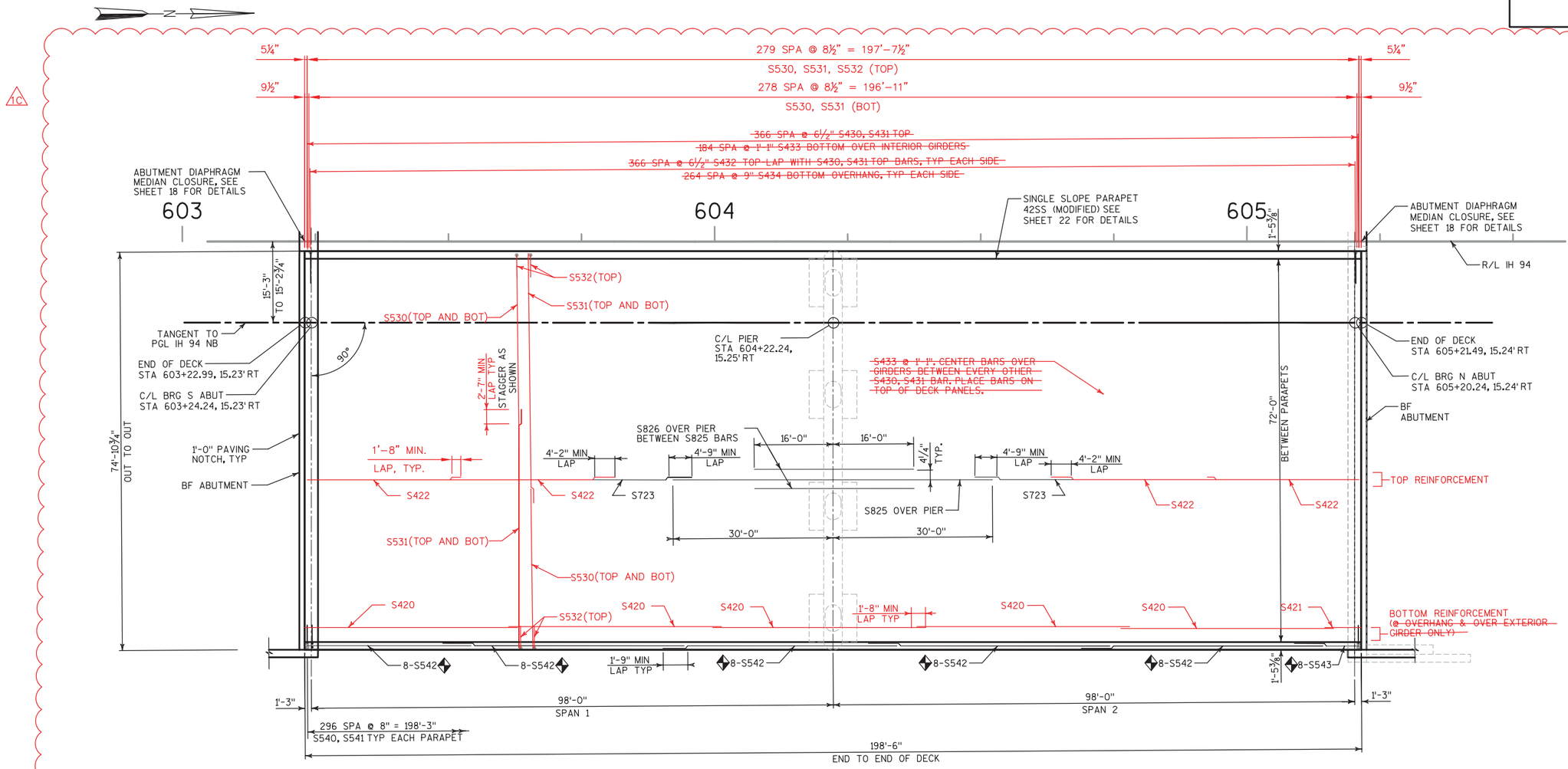
SHEET 15 OF 23
379

FILE=
SCALE =

8

8

STATE PROJECT NUMBER
1035–03–79



DECK PLAN

TOP OF DECK ELEVATIONS

		SPAN 1										SPAN 2										
	S. ABUT.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	PIER 1	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	N. ABUT.
L.DECK EDGE	747.15	747.10	747.04	746.99	746.93	746.87	746.81	746.74	746.68	746.61	746.53	746.46	746.38	746.30	746.22	746.14	746.05	745.96	745.87	745.78	745.68
GIRDER 1	747.19	747.14	747.08	747.03	746.97	746.91	746.85	746.78	746.72	746.65	746.57	746.50	746.42	746.34	746.26	746.18	746.09	746.00	745.91	745.82	745.72
GIRDER 2	747.36	747.31	747.25	747.20	747.14	747.08	747.02	746.95	746.89	746.82	746.74	746.67	746.59	746.51	746.43	746.35	746.26	746.17	746.08	745.99	745.89
PGL	747.39	747.34	747.28	747.23	747.17	747.11	747.05	746.98	746.92	746.85	746.77	746.70	746.62	746.54	746.46	746.38	746.29	746.20	746.11	746.02	745.92
GIRDER 3	747.53	474.48	747.42	747.37	747.31	747.25	747.19	747.12	747.06	746.99	746.91	746.84	746.76	746.68	746.60	746.52	746.43	746.34	746.25	745.16	746.06
GIRDER 4	747.70	747.65	747.59	747.54	747.48	747.42	747.36	747.29	747.23	747.16	747.08	747.01	746.93	746.85	746.77	746.69	746.60	746.51	746.42	746.33	746.23
GIRDER 5/CROWN	747.87	747.82	747.76	747.71	747.65	747.59	747.53	747.46	747.40	747.33	747.25	747.18	747.10	747.02	746.94	746.86	746.77	746.68	746.59	746.50	746.40
GIRDER 6	747.70	747.65	747.59	747.54	747.48	747.42	747.36	747.29	747.23	747.16	747.08	747.01	746.93	746.85	746.77	746.69	746.60	746.51	746.42	746.33	746.23
GIRDER 7	747.53	747.48	747.42	747.37	747.31	747.25	747.19	747.12	747.06	746.99	746.91	746.84	746.76	746.68	746.60	746.52	746.43	746.34	746.25	746.16	746.06
GIRDER 8	747.36	747.31	747.25	747.20	747.14	747.08	747.02	746.95	746.89	746.82	746.74	746.67	746.59	746.51	746.43	746.35	746.26	746.17	746.08	745.99	745.89
GIRDER 9	747.19	747.14	747.08	747.03	746.97	746.91	746.85	746.78	746.72	746.65	746.57	746.50	746.42	746.34	746.26	746.18	746.09	746.00	745.91	745.82	745.72
R. DECK EDGE	747.15	747.10	747.04	746.99	746.93	746.87	746.81	746.74	746.68	746.61	746.53	746.46	746.38	746.30	746.22	746.14	746.05	745.96	745.87	745.78	745.68

LEGEND

◆ PARAPET REINFORCEMENT SHOWN AT EAST PARAPET. REINFORCEMENT AT WEST PARAPET IS SIMILAR.

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WISCONSIN
ANDREW C. KNUTSON
E-34662
SPRING GREEN, WI
8-3-18
PROFESSIONAL ENGINEER

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES
8/6/18

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B–30–112

DRAWN BY RBH | PLANS CK'D JZ

SUPERSTRUCTURE PLAN

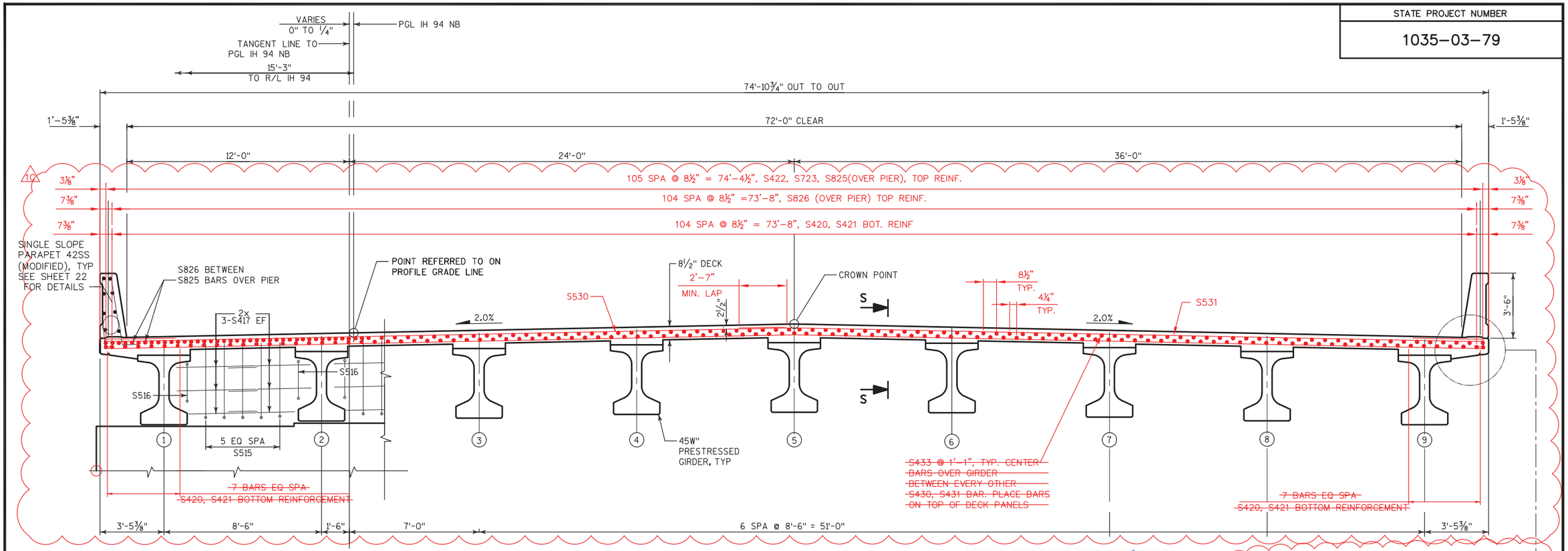
SHEET 16 OF 23

PLOT DATE: Aug 03, 2018

PLOT SCALE:

STATE PROJECT NUMBER

1035-03-79



CONC DIAPH AT PIER

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CROSS SECTION THRU SUPERSTRUCTURE

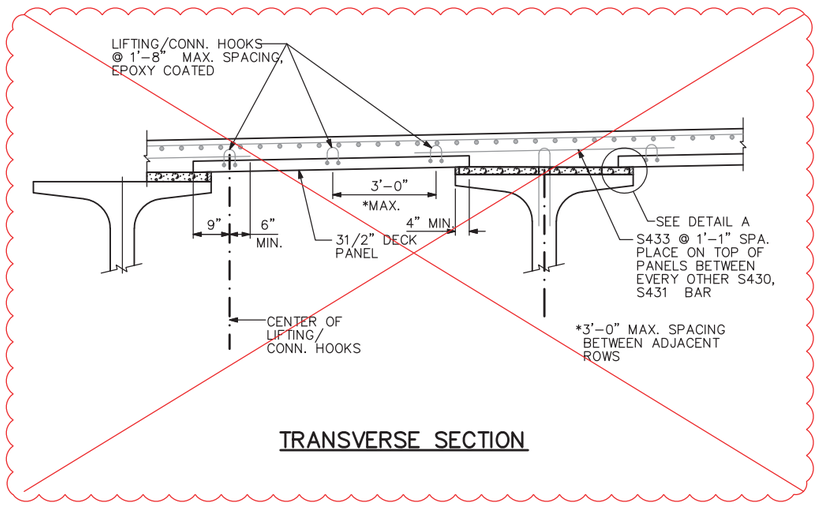
(LOOKING NORTH)

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

8/6/18

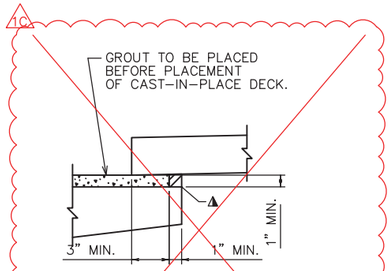
WISCONSIN ANDREW C. KNUTSON E-34662 SPRING GREEN, WI 8-3-18 PROFESSIONAL ENGINEER

1C



TRANSVERSE SECTION

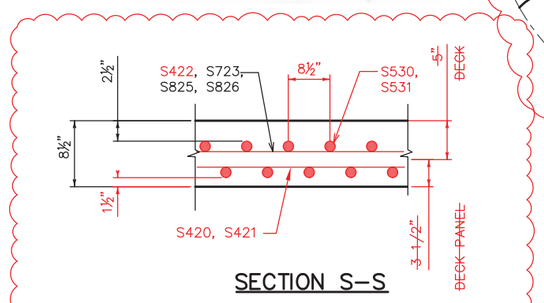
1C



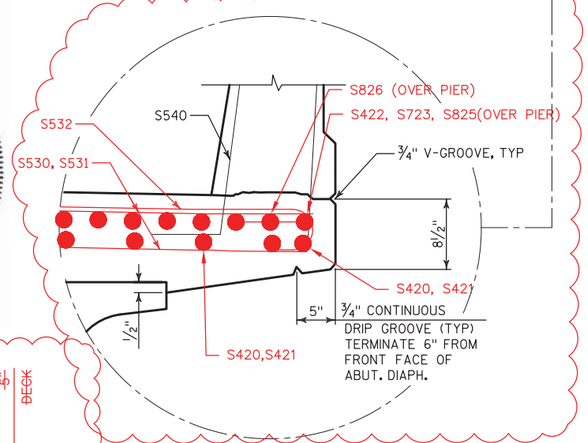
DETAIL A

1 HIGH-DENSITY EXPANDED POLYSTYRENE ADHERED TO TOP OF GIRDER FLUSH WITH EDGE OF FLANGE.

1C



SECTION S-S



1C

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-30-112

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SUPERSTRUCTURE CROSS SECTION

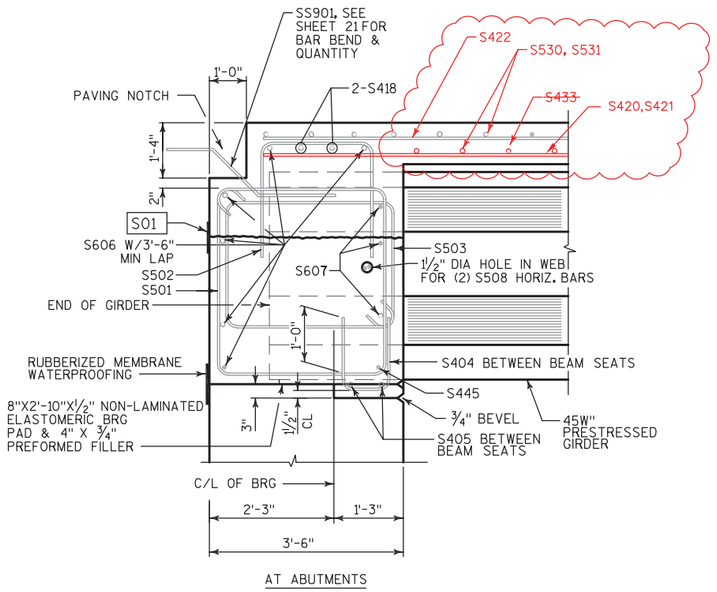
SHEET 17 OF 23

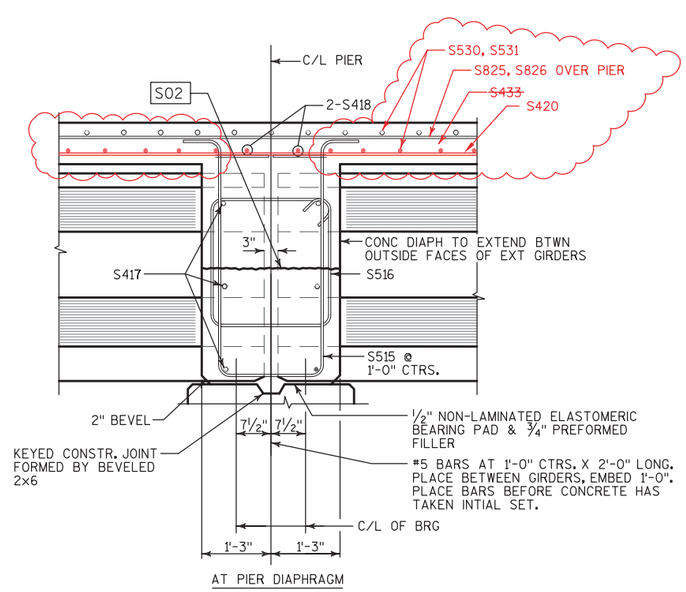
PLOT SCALE:

PLOT DATE: Aug 03, 2018

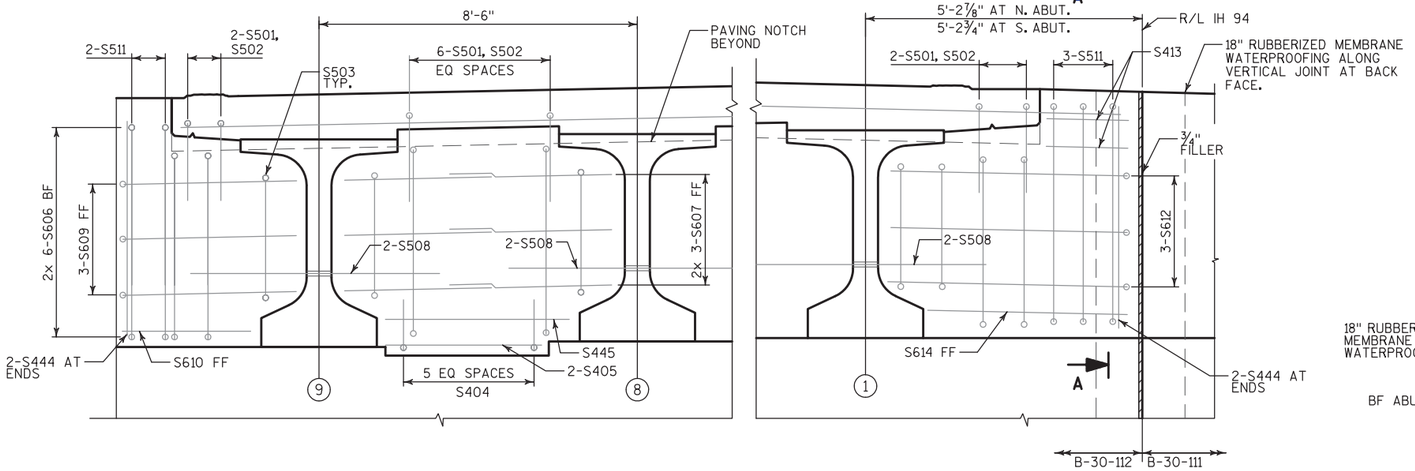
STATE PROJECT NUMBER

1035-03-79



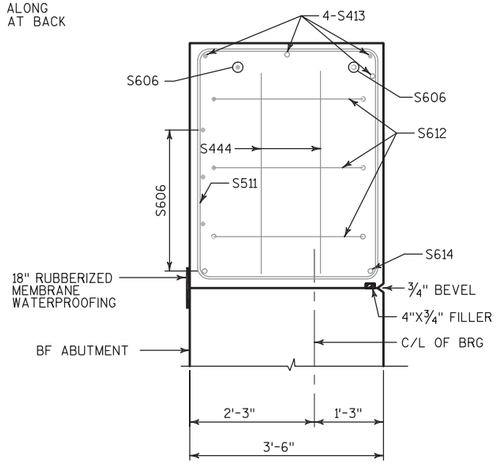


PARTIAL LONGITUDINAL SECTION



TRANSVERSE SECTION THRU ABUTMENT DIAPHRAGM

(LOOKING SOUTH, NORTH ABUT SIMILAR)



SECTION A-A

(ABUTMENT DIAPHRAGM AT MEDIAN CLOSURE)

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SPRING GREEN, WI
8-3-18
PROFESSIONAL ENGINEER

LEGEND

S01 RUBBERIZED MEMBRANE WATERPROOFING IF CONSTR. JOINT IS USED (COST INCIDENTAL TO BID ITEM "HPC MASONRY SUPERSTRUCTURES")

S02 OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR. TYPICAL AT ABUTMENT AND PIER DIAPHRAGMS.

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-30-112

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SUPERSTRUCTURE DETAILS-1

SHEET 18 OF 23

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8/6/18

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PLOT DATE: Aug 03, 2018

PLOT SCALE:

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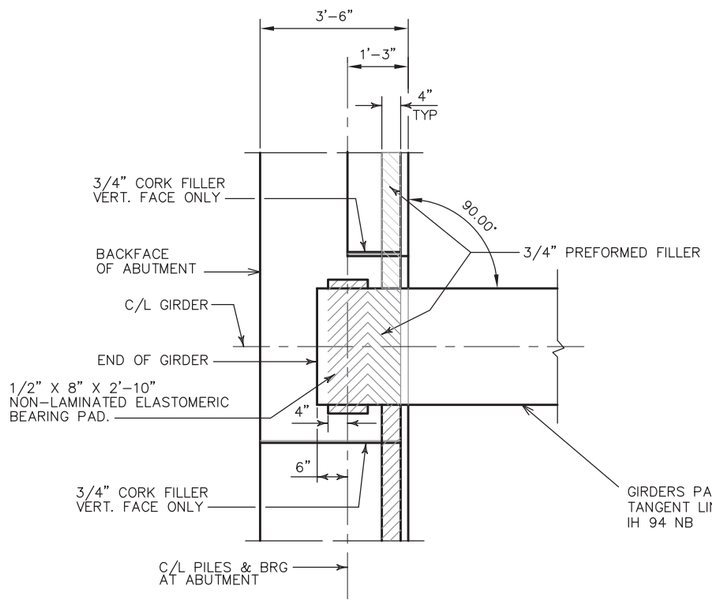
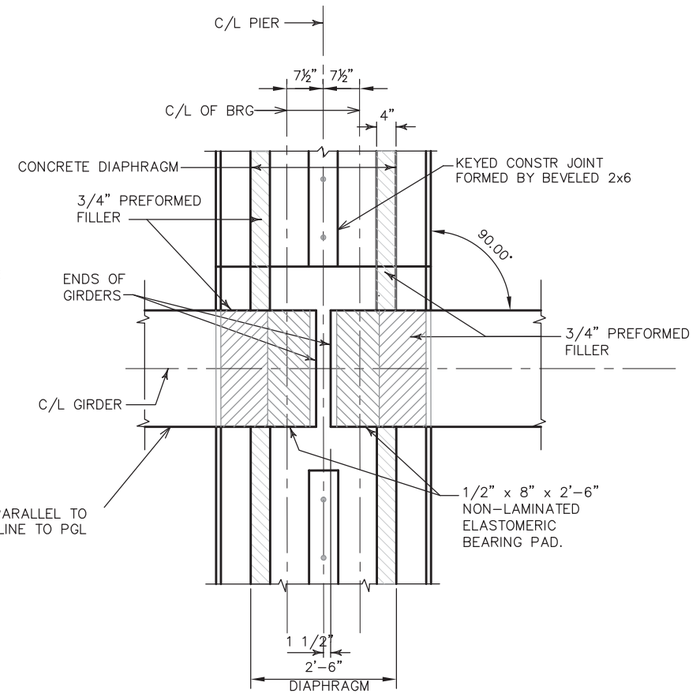
SUPERSTRUCTURE BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
S501	X	104	12'-10"	X		ABUTMENT DIAPHRAGM VERT
S502	X	104	6'-3"	X		ABUTMENT DIAPHRAGM VERT
S503	X	36	11'-0"	X		ABUTMENT DIAPHRAGM VERT
S404	X	96	3'-3"	X		ABUTMENT DIAPHRAGM VERT AT SEAT
S405	X	32	4'-8"			ABUTMENT DIAPHRAGM HORIZ AT SEAT
S606	X	24	41'-0"			ABUTMENT DIAPHRAGM HORIZ BF
S607	X	96	4'-11"			ABUTMENT DIAPHRAGM HORIZ FF
S508	X	36	6'-0"			ABUTMENT DIAPHRAGM HORIZ THRU GIRDERS
S609	X	6	11'-0"	X		ABUTMENT DIAPHRAGM HORIZ ENDS
S610	X	2	3'-9"			ABUTMENT DIAPHRAGM HORIZ FF ENDS
S511	X	10	15'-10"	X		ABUTMENT DIAPHRAGM VERT MEDIAN
S612	X	6	11'-8"	X		ABUTMENT DIAPHRAGM HORIZ FF MEDIAN
S413	X	8	1'-6"			ABUTMENT DIAPHRAGM HORIZ TOP MEDIAN
S614	X	2	3'-7"			ABUTMENT DIAPHRAGM HORIZ FF MEDIAN
S515	X	48	11'-6"	X		PIER DIAPHRAGM VERT
S516	X	16	9'-4"	X		PIER DIAPHRAGM VERT
S417	X	96	4'-6"			PIER DIAPHRAGM HORIZ
S418	X	12	38'-6"			ABUTMENT/PIER DIAPHRAGM HORIZ TOP
S420	X	535	40'-0"			DECK LONG BOTTOM
S421	X	107	6'-10"			DECK LONG BOTTOM
S422	X	424	31'-0"			DECK LONG TOP
S723	X	212	18'-6"			DECK LONG TOP
S825	X	106	60'-0"			DECK LONG TOP OVER PIER
S826	X	105	32'-0"			DECK LONG TOP OVER PIER
S530	X	559	39'-9"			DECK TRANSVERSE TOP AND BOTTOM
S531	X	559	37'-5"			DECK TRANSVERSE TOP AND BOTTOM
S532	X	560	5-6"	X		DECK TRANSVERSE TOP OVERHANGS
~~S433~~	~~X~~	~~1295~~	~~4'-8"~~			~~DECK TRANSVERSE BOTTOM OVER INTERIOR GIRDERS~~
~~S434~~	~~X~~	~~530~~	~~6'-2"~~			~~DECK TRANSVERSE BOTTOM OVERHANGS~~
S540	X	594	4'-5"	X		PARAPET DOWELS
S541	X	594	6'-8"	X		PARAPET VERT
S542	X	80	40'-0"			PARAPET HORIZ
S543	X	16	7'-6"			PARAPET HORIZ
S444	X	8	4'-5"			ABUTMENT DIAPHRAGM ENDS & MEDIAN VERTICAL
S445	X	16	5'-8"			ABUTMENT DIAPHRAGM BOTTOM BETWEEN GIRDERS

ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT

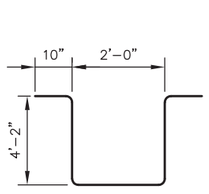


AT ABUTMENTS

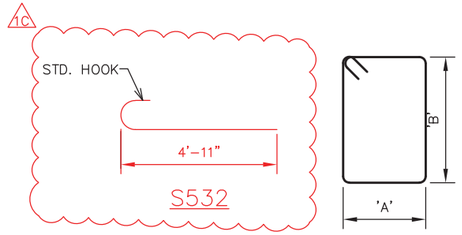


AT PIER

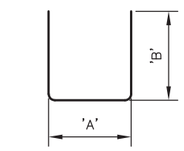
BEARING PAD DETAIL



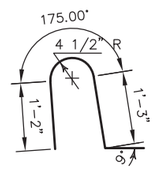
S515



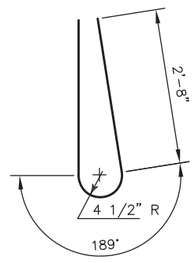
BAR MARK	DIM 'A'	DIM 'B'
S501	3'-2"	2'-11"
S503	3'-0"	2'-2"
S511	3'-2"	4'-5"
S516	2'-2"	2'-2"



BAR MARK	DIM 'A'	DIM 'B'
S502	2'-2"	2'-2"
S404	11"	1'-3"
S609	3'-0"	4'-2"
S612	3'-0"	4'-6"



S540



S541

THE PE STAMP IN THIS PLAN SET COVERS ONLY THE MODIFICATIONS SHOWN CLOUDED IN RED AND SIGNIFIED BY 1C, WHICH MODIFY THE ORIGINAL BRIDGE PLANS TO UTILIZE A TRADITIONAL FULL-DEPTH, CAST-IN-PLACE CONCRETE DECK. THE DECK REINFORCEMENT IS DESIGNED PER CURRENT WISCONSIN DOT BRIDGE MANUAL.

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

8/6/18

NO.	DATE	REVISION	BY
1C	8/3/18	REMOVE PRECAST PANELS	PMF

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-30-112

DRAWN BY RBH | PLANS CK'D JZ

SUPERSTRUCTURE DETAILS-2

SHEET 19 OF 23

PLOT DATE: Aug 03, 2018

PLOT SCALE: