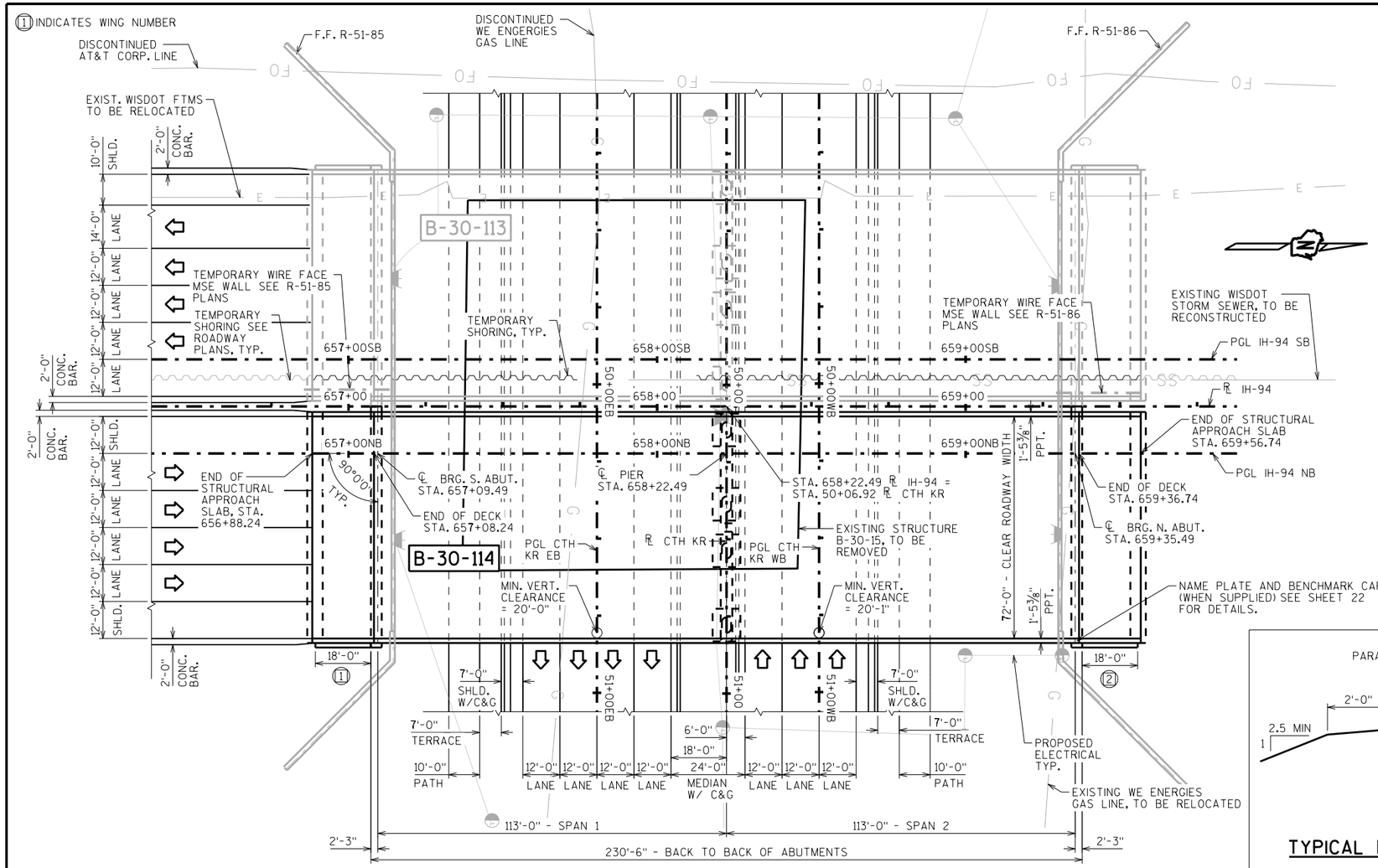
STATE PROJECT NUMBER

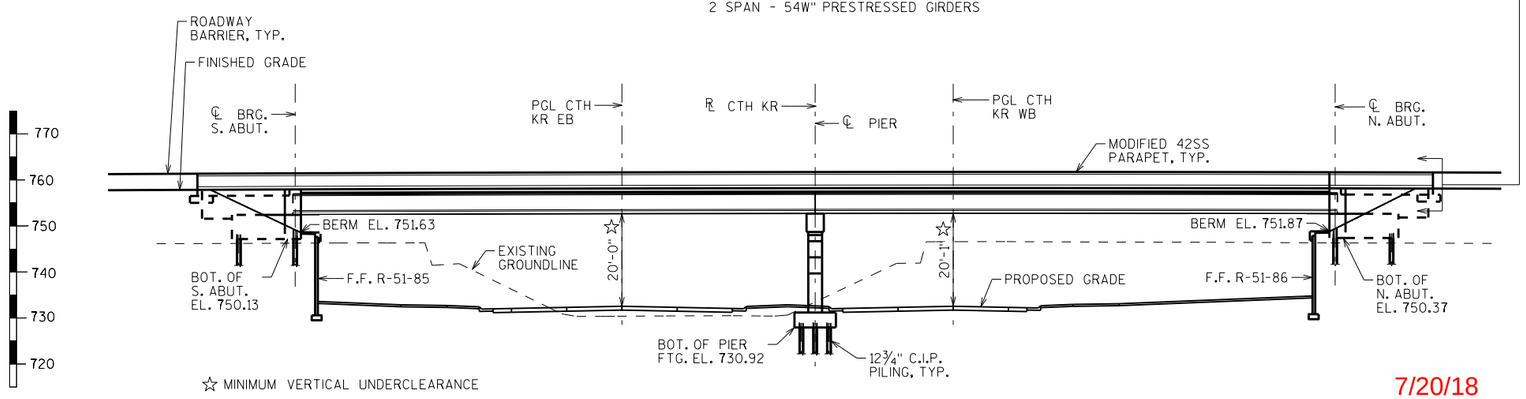
1035-03-72

(1) INDICATES WING NUMBER



PLAN

2 SPAN - 54W" PRESTRESSED GIRDERS



ELEVATION

LOOKING WEST

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.09
OPERATING RATING FACTOR: RF = 1.41
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250(KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
(HPC) DECK, PARAPET, DIAPHRAGMS, APPROACH SLAB — f'c = 4,000 P.S.I.
PIER FOOTING — f'c = 3,500 P.S.I.
ALL OTHER (INCL. APPROACH SLAB FTG.) — f'c = 4,000 P.S.I.

BAR STEEL REINFORCEMENT:
GRADE 60 — fy = 60,000 P.S.I.
STAINLESS, GRADE 60 — fy = 60,000 P.S.I.

54W" PRESTRESSED GIRDERS:
CONCRETE MASONRY — f'c = 8,000 P.S.I.
STRANDS: 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

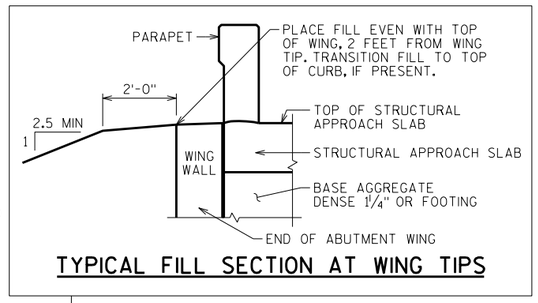
FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON 12¾" DIA. X 0.375" CAST-IN-PLACE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 85 FEET LONG AT THE SOUTH ABUTMENT AND 85 FEET LONG AT THE NORTH ABUTMENT.

PIER TO BE SUPPORTED ON 12¾" DIA. X 0.375" CAST-IN-PLACE ** PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 195 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 70 FEET LONG.

** 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.

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



TYPICAL FILL SECTION AT WING TIPS

TRAFFIC VOLUME

IH-94 SB
ADT = 78,000 (2029)
R.D.S. = 70 M.P.H.

CTH KR
ADT = 9,235 (2029)
R.D.S. = 50 M.P.H.

LIST OF DRAWINGS

STRUCTURE DESIGN CONTACTS:

MAXWELL KULICK (608) 261-6108
AARON BONK (608) 261-0261

7/20/18
Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

NO.	DATE	REVISION	BY
1C	7/20/18	REMOVE PRECAST DECK PANELS	MJK

BUREAU OF STRUCTURES

ACCEPTED William C. Dreher AMB — CHIEF STRUCTURES DESIGN ENGINEER — 4/12/18 DATE

STRUCTURE B-30-114

IH-94 NB OVER CTH KR

COUNTY	VILLAGE
KENOSHA	MOUNT PLEASANT

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
MJK	EMK	MJK	ABS

GENERAL PLAN

SHEET 1 OF 26

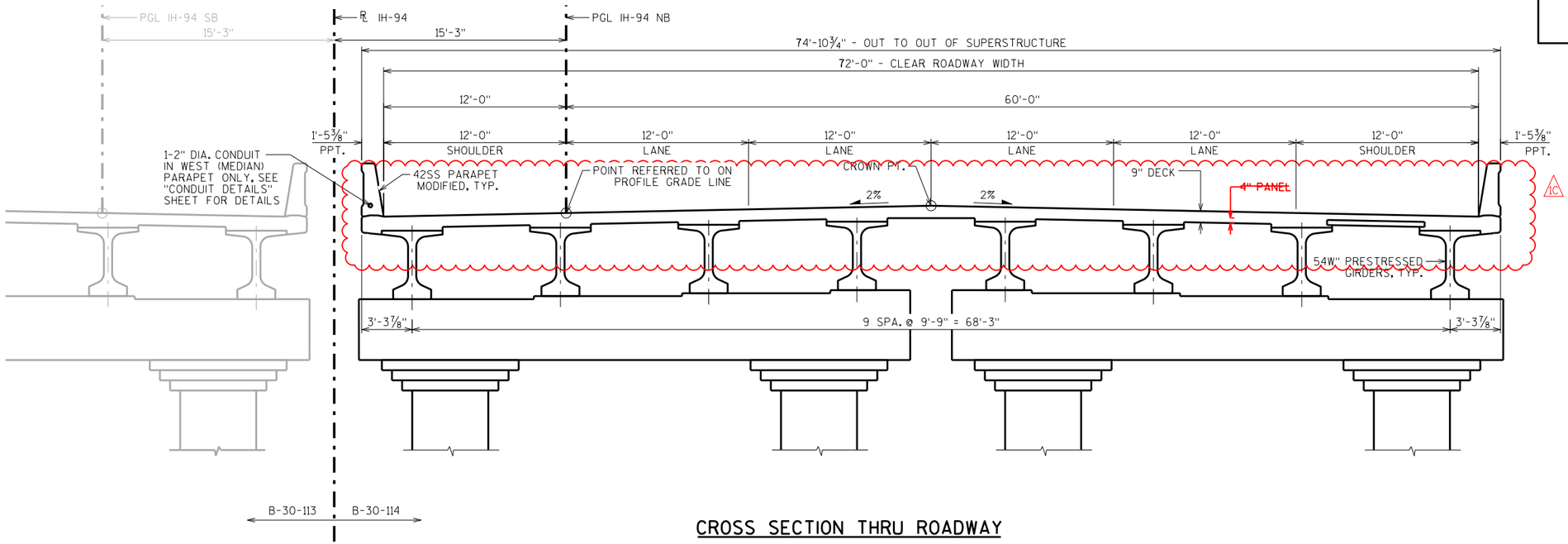
I.D. 1030-20-16B

DATE: APRIL 2018

SCALE = 20.00

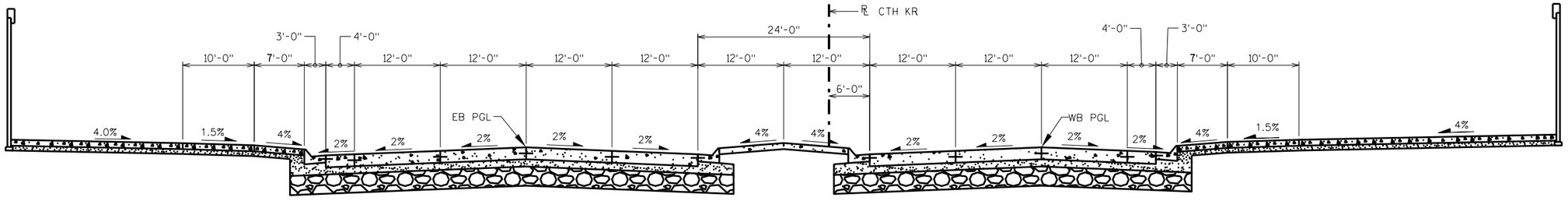
STATE PROJECT NUMBER

1035-03-72



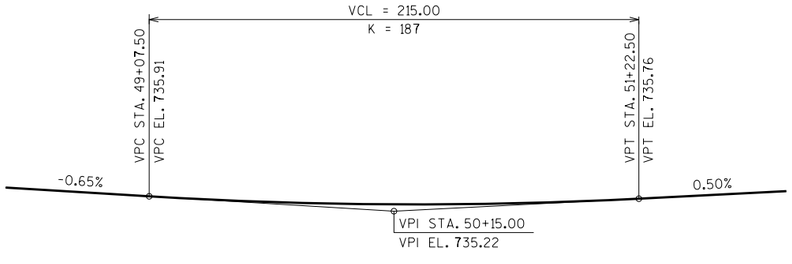
CROSS SECTION THRU ROADWAY

54W PRESTRESSED CONCRETE GIRDERS
(LOOKING NORTH)

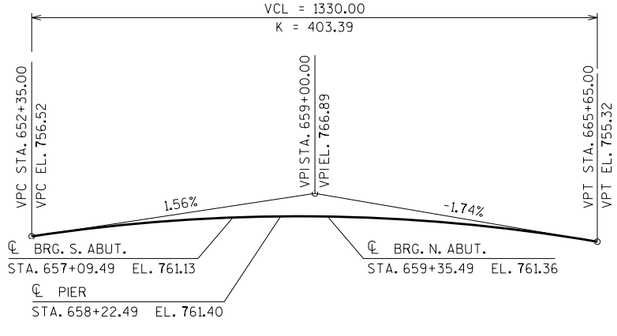


TYPICAL FINISHED SECTION CTH KR

LOOKING WEST



PROFILE GRADE LINE - CTH KR EB/WB



PROFILE GRADE LINE - IH-94 NB

7/20/18

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

NO.	DATE	REVISION	BY
1C	7/20/18	REMOVE PRECAST DECK PANELS	MJK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-30-114

DRAWN BY MJK | PLANS CK'D. ABS

CROSS SECTION & PROFILES

SHEET 2

SCALE = 4.00

8

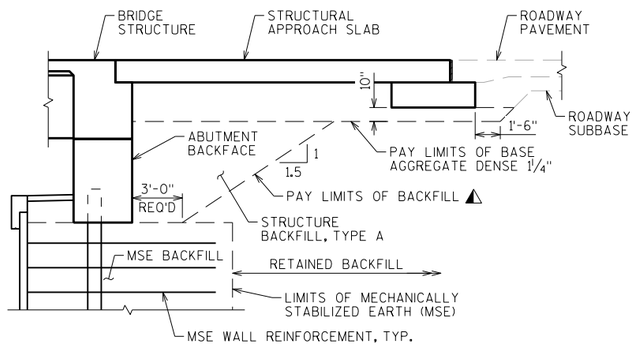
8

STATE PROJECT NUMBER

1035-03-72

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH APPROACH	SOUTH ABUT.	PIER	NORTH ABUT.	NORTH APPROACH	TOTALS
203.0200.054	REMOVING OLD STRUCTURE STA. 658+00	LS	—	—	—	—	—	—	1
203.0210.S.022	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-30-15	LS	—	—	—	—	—	—	1
206.1000.031	EXCAVATION FOR STRUCTURES BRIDGES B-30-114	LS	—	—	—	—	—	—	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	—	—	369	—	369	—	738
305.0125	BASE AGGREGATE DENSE 1 1/4-INCH	CY	—	113	—	—	—	113	226
416.0620	DRILLED DOWEL BARS	EACH	—	—	—	24	—	—	24
501.1000.S	ICE HOT WEATHER CONCRETING	LB	4050	760	550	1215	550	760	7885
501.1000.S	ICE HOT WEATHER CONCRETING ■	LB	1275	—	—	—	—	—	1275
502.0100	CONCRETE MASONRY BRIDGES	CY	—	21	73	162	73	21	350
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1865	160	—	—	—	160	2185
502.3210	PIGMENTED SURFACE SEALER	SY	225	20	—	—	—	20	265
503.0155	PRESTRESSED GIRDER TYPE I 54W-INCH	LF	1814	—	—	—	—	—	1814
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	—	—	—	2810	—	—	2810
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	105,535	16,660	6850	26,740	6850	16,660	179,295
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES ■	LB	42,460	—	—	—	—	—	42,460
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	2550	—	—	—	—	—	2550
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	—	—	8	16	8	—	32
506.4000.051	STEEL DIAPHRAGMS B-30-114	EACH	28	—	—	—	—	—	28
511.1200.015	TEMPORARY SHORING B-30-114	SF	—	—	905	—	1750	—	2655
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2	—	17	—	17	—	36
517.1010.S.459	CONCRETE STAINING B-30-114	SF	6620	145	515	2485	515	145	10,425
517.1050.S.015	ARCHITECTURAL SURFACE TREATMENT B-30-114	SF	—	—	16	—	16	—	32
550.0600	PILE REDRIVING	EACH	—	—	3	3	3	—	9
550.2126	PILING CIP CONCRETE 12 3/4 X 0.375-INCH	LF	—	—	1275	3360	1275	—	5910
604.0400	SLOPE PAVING CONCRETE	SY	—	—	28	—	28	—	56
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	—	23	—	—	—	23	46
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	224	—	—	—	—	—	224
653.0220	JUNCTION BOXES 18X6X6-INCH	EACH	2	—	—	—	—	—	2
SPV.0035.400	HPC MASONRY STRUCTURES	CY	540	80	—	—	—	80	700
SPV.0035.400	HPC MASONRY STRUCTURES ■	CY	170	—	—	—	—	—	170
SPV.0165.401	LONGITUDINAL GROOVING BRIDGE DECK	SF	16,452	1440	—	—	—	1440	19332
~~SPV.0165.466~~	~~PARTIAL DEPTH PRECAST PRESTRESSED CONCRETE DECK PANELS B-30-114~~	~~SF~~	~~9949~~	—	—	—	—	—	~~9949~~
	NON-BID ITEMS								
	FILLER	SIZE	—	—	—	—	—	—	½", ¾", 1½"
	PRECAST PIER COLUMNS								
	PRECAST PIER CAPS								
	GROUTED BAR COUPLERS								



TYPICAL SECTION THRU ABUTMENT

⚠ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

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 3/4" UNLESS OTHERWISE NOTED.

1C ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

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 GROUNDLINE SHALL BE THE UPPER LIMIT OF EXCAVATION AT THE PIERS.

AT THE BACK FACE OF ABUTMENTS ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE OR MSE WALL SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

1C THE EXISTING STRUCTURE, B-30-15, IS A 3-SPAN HAUNCHED SLAB STRUCTURE WITH AN OVERALL WIDTH OF 60'-11" AND AN OVERALL LENGTH OF 110'-8" AND IS TO BE REMOVED. 2-WAY TRAFFIC ON I-94 WILL BE MAINTAINED ON THE EXISTING SOUTHBOUND LANES AND BRIDGE OVER CTH KR DURING REMOVAL OF THE EXISTING I-94 NORTHBOUND STRUCTURE, (B-30-15) AND THE CONSTRUCTION OF THE REPLACEMENT I-94 NORTHBOUND STRUCTURE (B-30-114).

THE CONCRETE QUANTITY FOR PARAPETS, SUPERSTRUCTURE DECK, APPROACH SLABS, AND CONCRETE DIAPHRAGMS, SHALL BE PAID FOR UNDER BID ITEM "HPC CONCRETE MASONRY STRUCTURES".

THE RUSTICATIONS IN THE PIER COLUMNS ARE INCLUDED IN THE BID ITEM "HPC CONCRETE MASONRY STRUCTURES".

THE RUSTICATION IN THE BACK FACES OF THE PARAPET ARE INCLUDED IN THE BID ITEM "HPC CONCRETE MASONRY STRUCTURES."

THE CONTRACTOR SHALL COORDINATE THE CONSTRUCTION OF BRIDGE B-30-114 WITH THE CONSTRUCTION OF RETAINING WALLS R-51-85 AND R-51-86.

APPLY PIGMENTED SURFACE SEALER TO THE TOP AND INSIDE FACE OF PARAPETS ON THE BRIDGE AND STRUCTURAL APPROACH SLABS.

APPLY PROTECTIVE SURFACE TREATMENT TO THE BRIDGE DECK, PAVING NOTCH AND STRUCTURAL APPROACH SLABS.

1C SEE RETAINING WALLS R-51-85 AND R-51-86 FOR TEMPORARY WIRE FACED MSE WALLS.

PRECAST PIER NON-BID ITEMS (PRECAST PIER COLUMNS, PRECAST PIER CAPS, 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 PIER SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES FOR THE CAST-IN-PLACE PIER.

1C ~~THE HAUNCH GROUT QUANTITY SHALL BE INCIDENTAL TO THE PARTIAL DEPTH PRECAST PRESTRESSED CONCRETE DECK PANELS.~~ 1C

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON THE ABUTMENT SHEETS.

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

THE EXISTING SOILS SURROUNDING B-30-15 PILING MAY BE CONTAMINATED. SEE SPECIAL PROVISION "EXCAVATION, HAULING, AND DISPOSAL OF CREOSOTE CONTAMINATED SOIL". REMOVAL OF CONTAMINATED SOILS IS PAID FOR UNDER ROADWAY BID ITEMS.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE "54W PRESTRESSED GIRDER DETAILS 2" SHEET. 1C

■ REVISION QUANTITIES FOR INFORMATIONAL PURPOSES ONLY. 1C

7/20/18

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

NO.	DATE	REVISION	BY
1C	7/20/18	REMOVE PRECAST DECK PANELS	MJK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-30-114

DRAWN BY WWR | PLANS CK'D. ABS

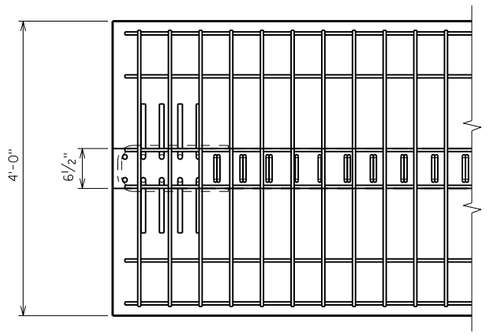
QUANTITIES & GENERAL NOTES

SHEET 3

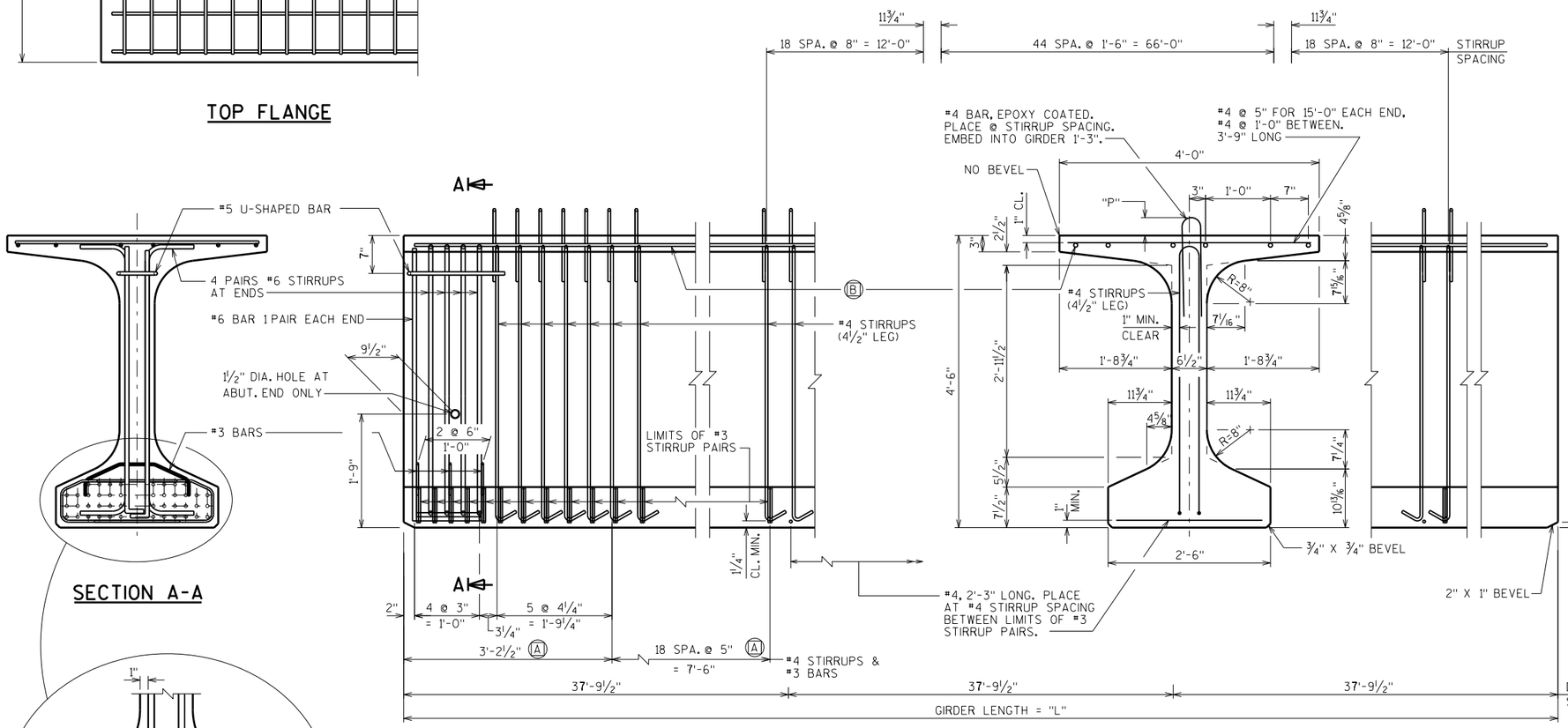
SCALE = 1.00

8

8



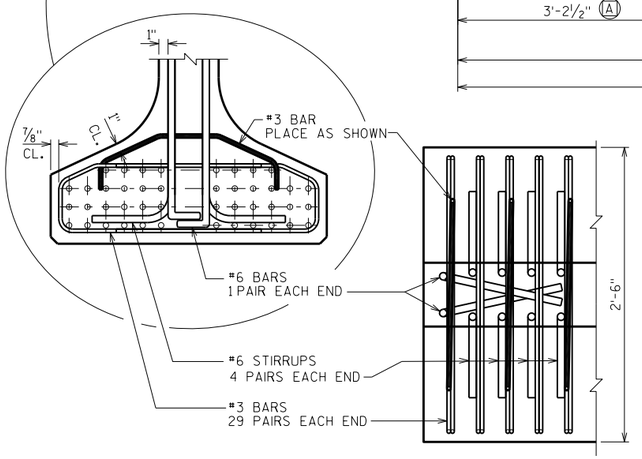
TOP FLANGE



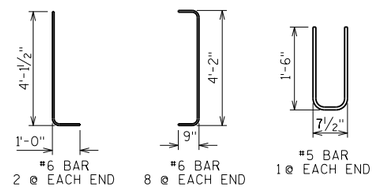
SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

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



BOTTOM FLANGE



GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L" (FEET)	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" (IN.) 1ST 1/3 OF GIRDER	MID 1/3 OF GIRDER	END 1/3 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	2-7	113.375	0.7	1.3	1.8	2.1	2.2	2.1	1.8	1.3	0.7	8,000	8	8	8	0.6	38	6,800	49	16	19	5		
1	1,8	113.375	0.6	1.2	1.6	1.9	1.9	1.8	1.6	1.1	0.6	8,000	8	8	8	0.6	38	6,800	49	16	19	5		
2	2-7	113.375	0.7	1.3	1.8	2.1	2.2	2.1	1.8	1.3	0.7	8,000	8	8	8	0.6	38	6,800	49	16	19	5		
2	1,8	113.375	0.6	1.1	1.6	1.8	1.9	1.9	1.6	1.2	0.6	8,000	8	8	8	0.6	38	6,800	49	16	19	5		

SPAN	GIRDER	GIRDER LENGTH "L" (FEET)	PRECAST PANEL DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10
1	2-7	113.375	0.3	0.7	0.9	1.1	1.1	1.1	0.9	0.7	0.3
1	1,8	113.375	0.3	0.6	0.8	0.9	1.0	0.9	0.8	0.6	0.3
2	2-7	113.375	0.3	0.7	0.9	1.1	1.1	1.1	0.9	0.7	0.3
2	1,8	113.375	0.3	0.6	0.8	0.9	1.0	0.9	0.8	0.6	0.3

1C

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

7/20/18

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

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. SEE SECT. 503.3.3 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

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

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.

STATE PROJECT NUMBER

1035-03-72

NO.	DATE	REVISION	BY
1C	7/20/18	REMOVE PRECAST DECK PANELS	MJK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-30-114

DRAWN BY ABS/WWR | PLANS CK'D. ABS

54W" PRESTRESSED GIRDER DETAILS 1

SHEET 13

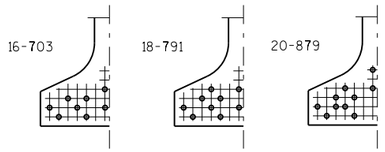
SCALE = 1.00

8

8

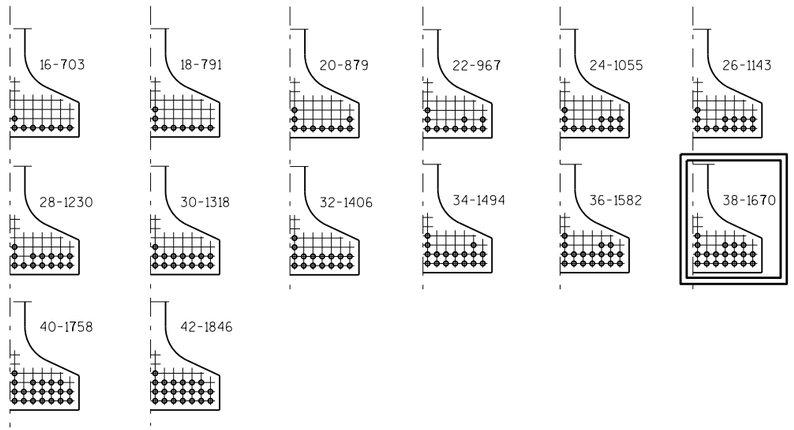
STATE PROJECT NUMBER

1035-03-72



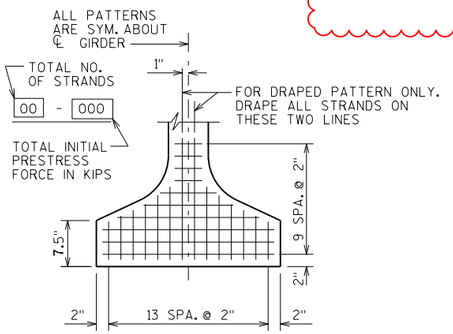
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS



ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



TYP. STRAND PATTERN

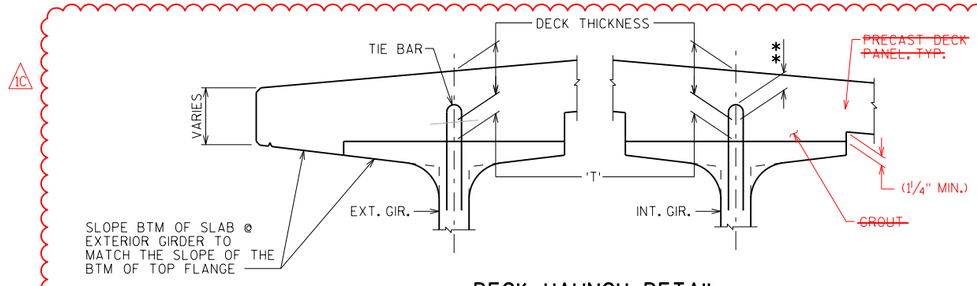
DRAPED STRAND PROFILE

*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	CAMBER (IN.) *
1	3.75
2	3.75

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

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DECK HAUNCH DETAIL

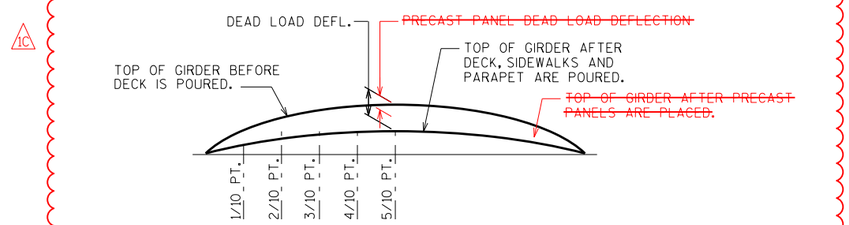
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** 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 2.3" WAS USED IN THE QUANTITY "HPC MASONRY STRUCTURES".



DEAD LOAD DEFLECTION DIAGRAM

7/20/18

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

NO.	DATE	REVISION	BY
1C	7/20/18	REMOVE PRECAST DECK PANELS	MJK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-30-114

DRAWN BY WWR | PLANS CK'D. ABS

54W" PRESTRESSED GIRDER DETAILS 2

SHEET 14

8

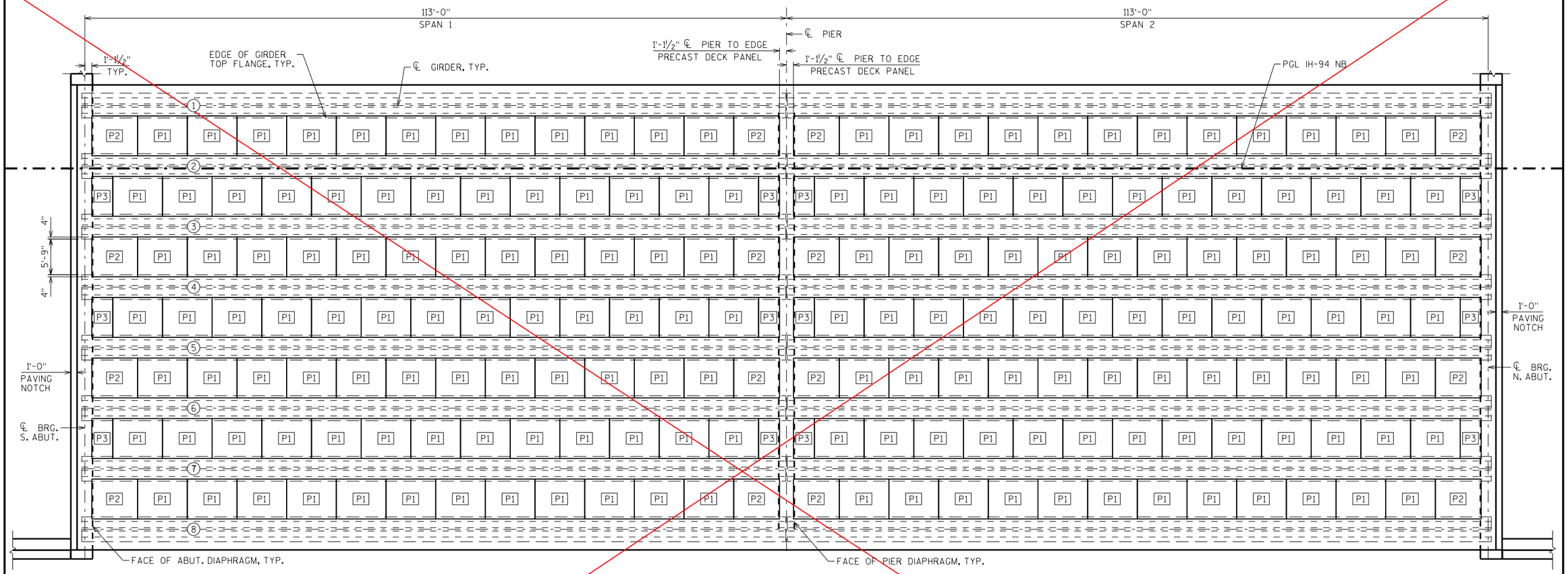
8

SCALE = 1.00

STATE PROJECT NUMBER

1035-03-72

1C



DECK PANEL PLAN

(PARAPET NOT SHOWN FOR CLARITY)

LEGEND

P1 PRECAST DECK PANEL SIZE = 8'-0" X 6'-5" X 4"
IN SPAN WITH NOTCH ON BOTH SIDES.
NUMBER OF PANELS REQUIRED = 174

P2 PRECAST DECK PANEL SIZE = 7'-4½" X 6'-5" X 4"
AT SUBSTRUCTURES WITH NOTCH ON ONE SIDE.
NUMBER OF PANELS REQUIRED = 16

P3 PRECAST DECK PANEL SIZE = 3'-4½" X 6'-5" X 4"
AT SUBSTRUCTURES WITH NOTCH ON ONE SIDE.
NUMBER OF PANELS REQUIRED = 12

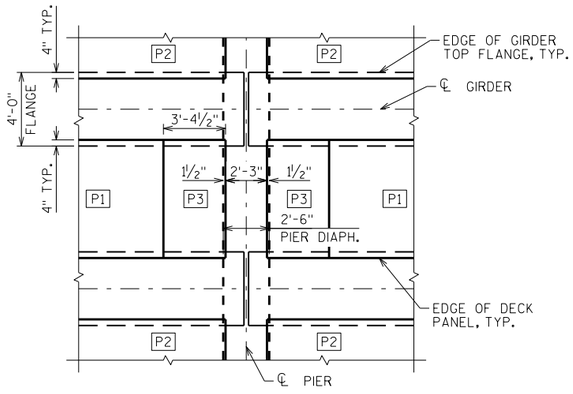
① GIRDER NUMBER

NOTE:

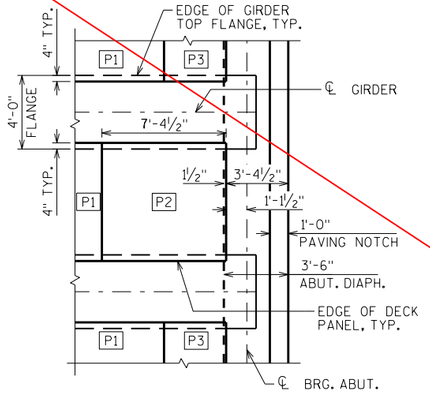
DECK PANELS TO BE STAGGERED AS SHOWN IN PLAN. PANEL ORIENTATION SHOWN IS PARALLEL TO ROADWAY.

LONGITUDINAL REINFORCEMENT OF PANELS ALONG ABUTMENT AND PIER DIAPHRAGMS SHALL EXTEND 1'-0" INTO DIAPHRAGMS.

ALL PANEL ENDS AT DIAPHRAGMS SHALL EXTEND A MINIMUM OF 1½" IN DIAPHRAGM FACE.



PIER PARTIAL PLAN



ABUTMENT PARTIAL PLAN

7/20/18

Plan Sheet Accepted By WISDOT
BUREAU OF STRUCTURES

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-30-114

DRAWN BY ABS/WWR | PLANS CK'D. ABS

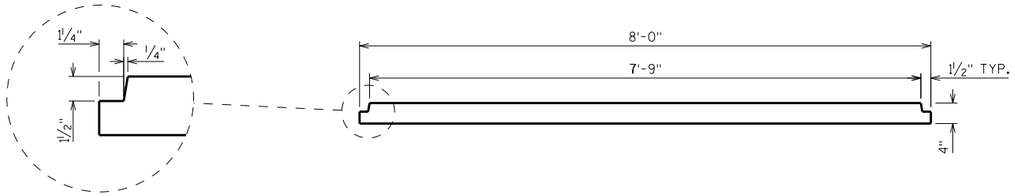
PRECAST DECK PANEL PLAN

SHEET 17

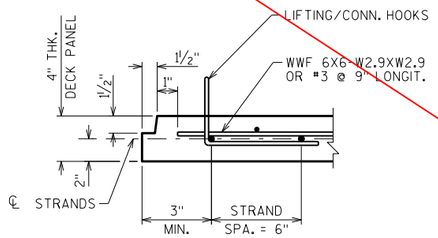
SCALE = 8.00

STATE PROJECT NUMBER

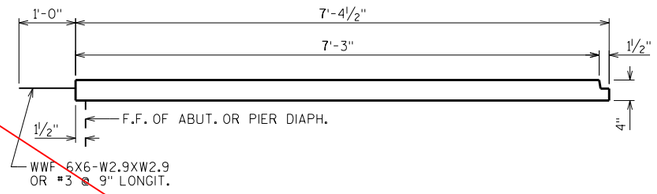
1035-03-72



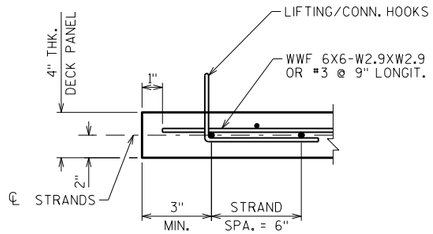
DECK PANEL ELEVATION P1



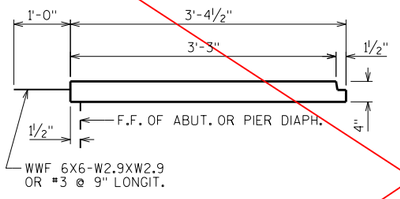
PART SECTION - IN SPAN



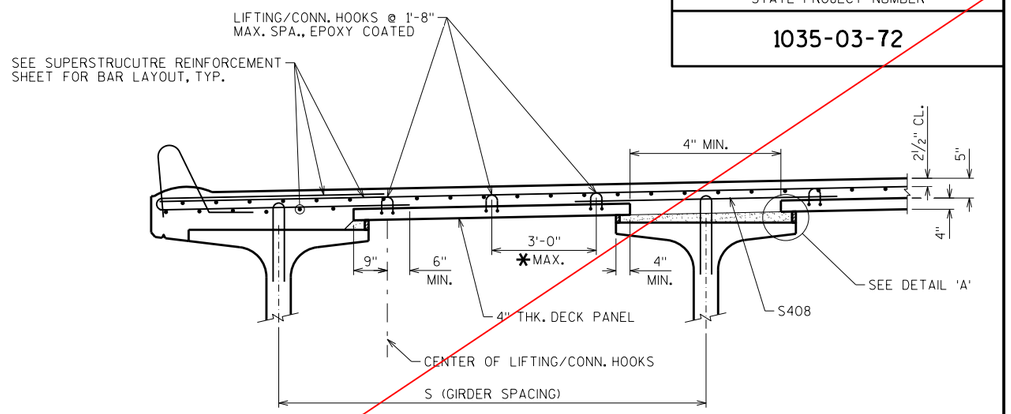
DECK PANEL ELEVATION P2



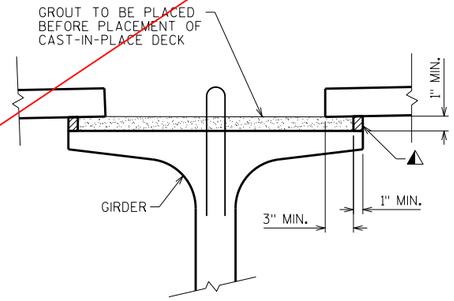
PART SECTION - AT SUBSTRUCTURES



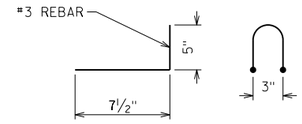
DECK PANEL ELEVATION P3



TRANSVERSE SECTION THRU GIRDERS AND DECK PANELS



DETAIL A - PANEL PLACEMENT



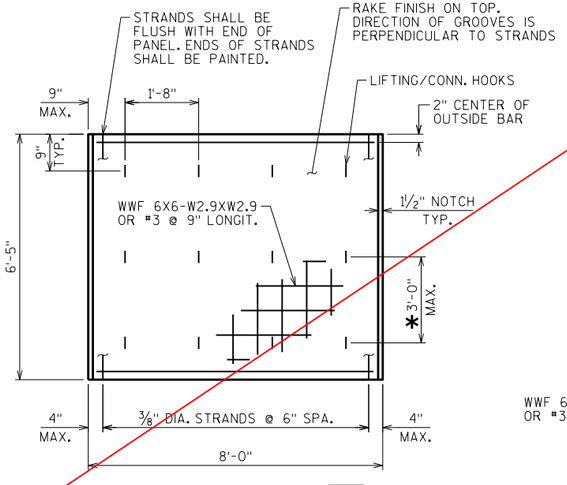
LIFTING/CONN. HOOK DETAILS

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

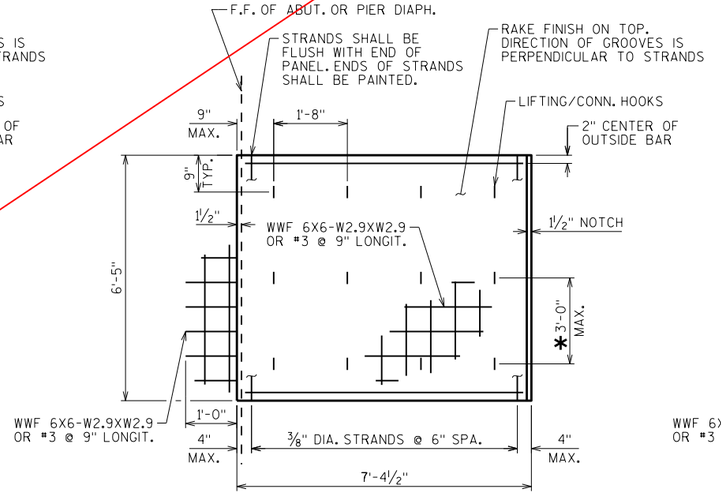
* 3'-0" MAX SPACING BETWEEN ADJACENT ROWS

** LONGITUDINAL REINFORCING AT PANELS ALONG SUBSTRUCTURES TO EXTEND 1'-0" BEYOND TRANSVERSE END OF PANELS INTO SUBSTRUCTURE DIAPHRAGMS.

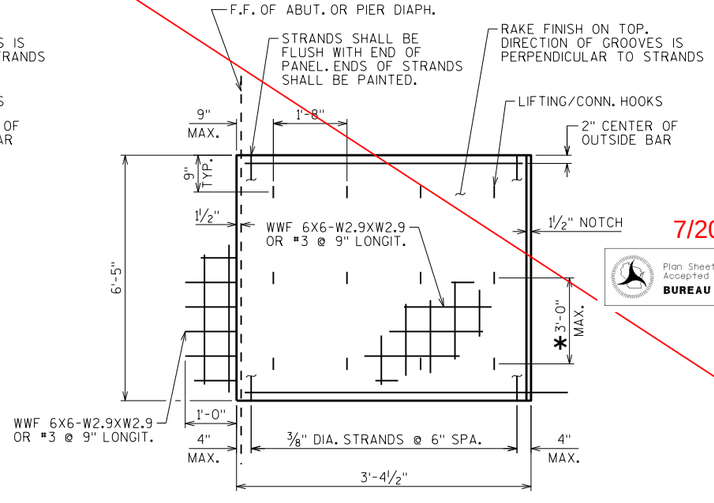
◭ HIGH-DENSITY EXPANDED POLYSTYRENE ADHERED TO TOP OF GIRDER FLUSH WITH EDGE OF FLANGE.



DECK PANEL PLAN P1



DECK PANEL PLAN P2



DECK PANEL PLAN P3

DESIGN DATA

INITIAL PRESTRESSED
FORCE / STRAND = 14.37 KIPS

CONCRETE FOR DECK PANELS
f'c = 6,000 PSI
f'ci = 4,400 PSI

7/20/18

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

NO.	DATE	REVISION	BY
1	7/20/18	REMOVE PRECAST DECK PANELS	MJK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-30-114

DRAWN BY ABS | PLANS CK'D. ABS

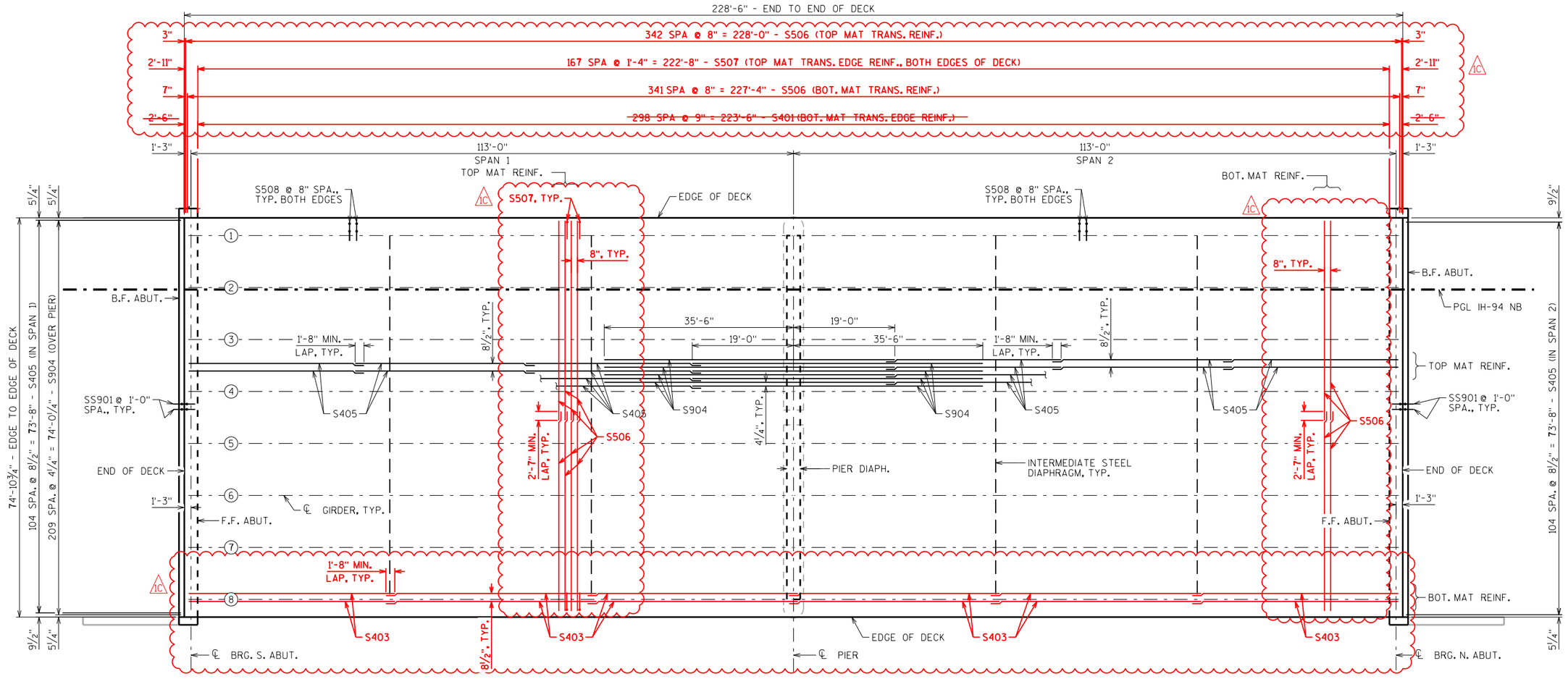
PRECAST DECK PANEL DETAILS

SHEET 18

SCALE - 2.00

STATE PROJECT NUMBER

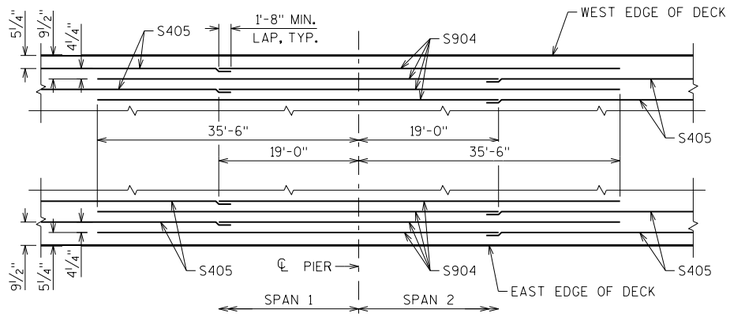
1035-03-72



DECK REINFORCEMENT PLAN

(PARAPET NOT SHOWN FOR CLARITY)

(#) INDICATES GIRDER NUMBER



CONTINUITY REINF. PLACMENT DETAIL

(PARAPET NOT SHOWN FOR CLARITY)

7/20/18

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

NO.	DATE	REVISION	BY
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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-30-114

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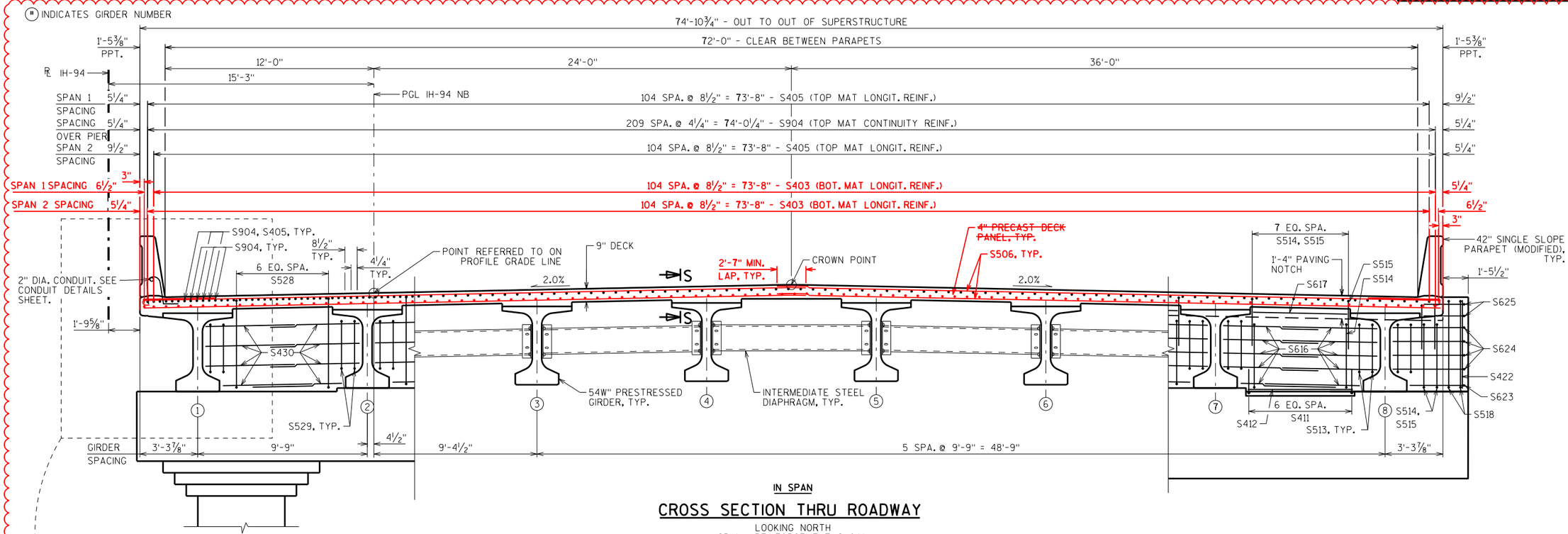
SUPERSTRUCTURE PLAN

SHEET 19

SCALE = 10.00

STATE PROJECT NUMBER

1035-03-72



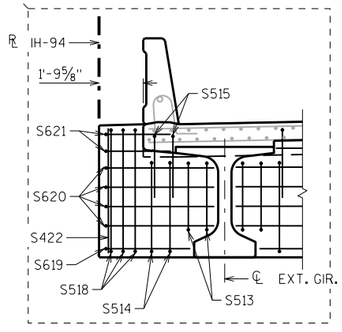
CONC. DIAPH. @ PIER

CONC. DIAPH. @ ABUT.

IN SPAN

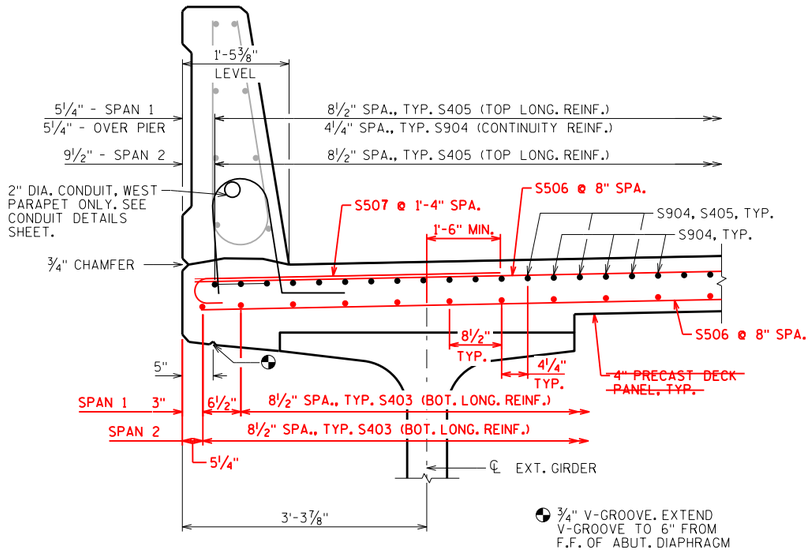
CROSS SECTION THRU ROADWAY

LOOKING NORTH
SPAN 1 REINFORCEMENT SHOWN



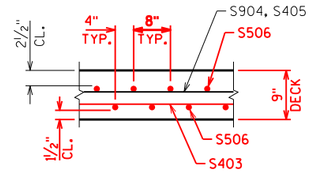
ABUTMENT DIAPHRAGM DETAIL @ WEST EDGE

NORTH DIAPH. SHOWN
SOUTH DIAPH. SIMILAR



SECTION THRU EDGE OF DECK

WEST EDGE SHOWN, EAST EDGE SIMILAR
SPAN 1 REINFORCEMENT SHOWN



SECTION S-S

1C

NO.	DATE	REVISION	BY
1C	7/20/18	REMOVE PRECAST DECK PANELS	MJK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-30-114

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SUPERSTRUCTURE CROSS SECTION

SHEET 20

7/20/18

Plan Sheet Accepted By WISDOT BUREAU OF STRUCTURES

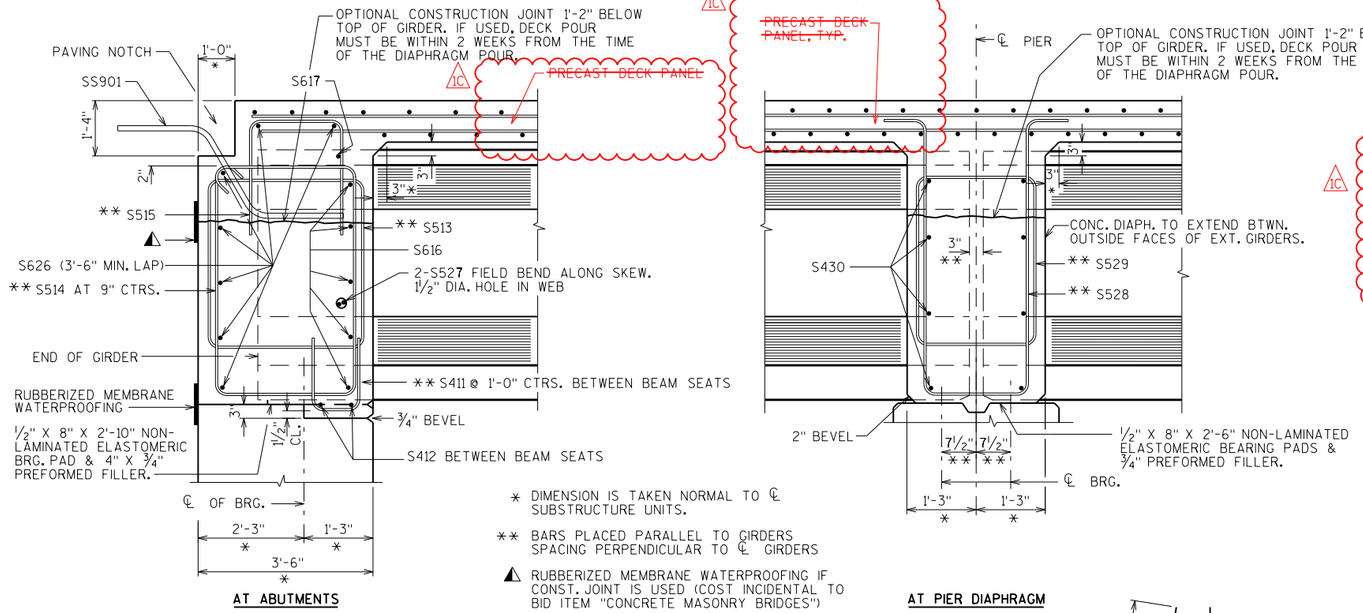
SCALE = 3.00

8

8

STATE PROJECT NUMBER

1035-03-72

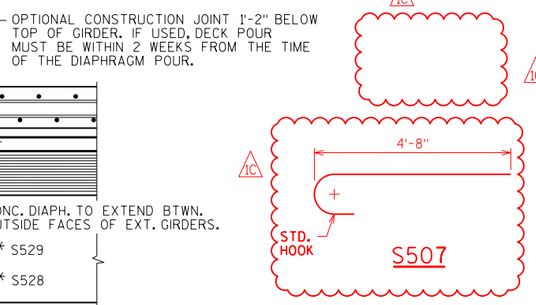


* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

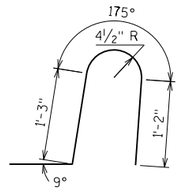
** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

⚠ RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JOINT IS USED (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES")

PART LONGIT. SECTION



S507



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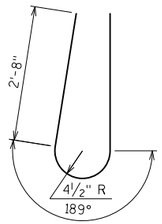

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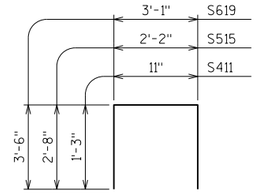
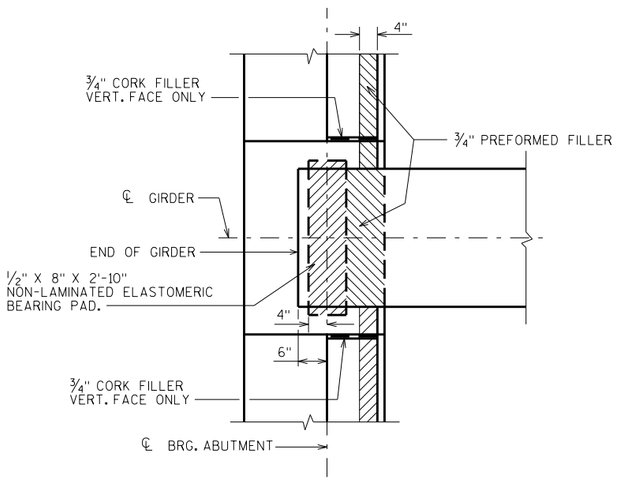


S411, S515, S619

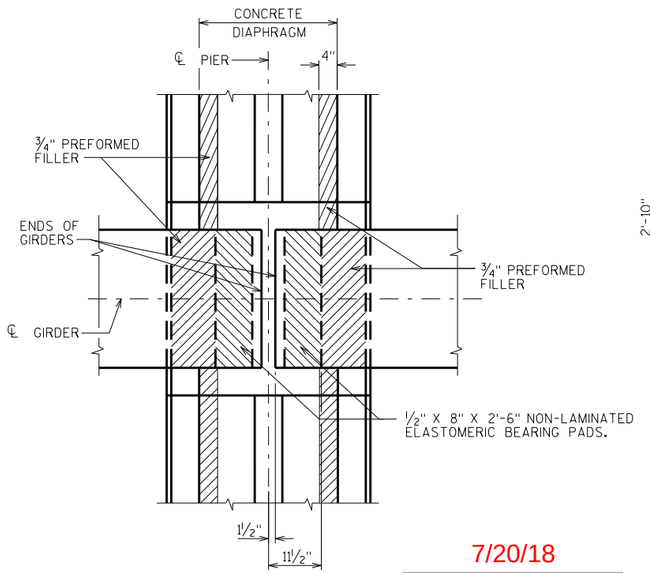
BILL OF BARS

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
~~S401~~	~~X~~	~~598~~	~~6'-2"~~	~~X~~		~~DECK - TRANS. - BOT. - EDGES~~
~~S402~~	~~X~~	~~1152~~	~~5'-10"~~			~~DECK - TRANS. - BOT. - OVER GIRDERS~~
S403	X	636	39'-5"			DECK - LONG. - BOTTOM
S904	X	210	54'-6"			DECK - LONG. - TOP - CONTINUITY
S405	X	630	33'-5"			DECK - LONG. - TOP
S506	X	1,370	38'-10"			DECK -TRANS. - TOP & BOTTOM
S507	X	336	5'-3"	X		DECK -TRANS. - TOP - BOTH EDGES
S508	X	692	4'-5"	X		42SS PARAPET - VERT.
S509	X	688	6'-8"	X		42SS PARAPET - VERT.
S510	X	64	58'-5"			42SS PARAPET - HORIZ.
S411	X	98	3'-3"	X		DIAPH. - VERT. - BOTTOM
S412	X	28	5'-11"			DIAPH. - HORIZ. - BOTTOM
S513	X	64	12'-8"	X		DIAPH. - VERT. - AT GIRS.
S514	X	120	14'-6"	X		DIAPH. - VERT. - BTWN. GIRS.
S515	X	120	7'-3"	X		DIAPH. - VERT. - BTWN. GIRS.
S616	X	140	5'-7"			DIAPH. - HORIZ. - BTWN. GIRS.
S617	X	14	5'-5"			DIAPH. - HORIZ. - BTWN. GIRS.
S518	X	10	17'-2"	X		DIAPH. - VERT. - BTWN. GIRS.
S619	X	2	9'-9"	X		DIAPH. - HORIZ. - W. END - BOT.
S620	X	8	10'-7"	X		DIAPH. - HORIZ. - W. END
S621	X	4	6'-11"	X		DIAPH. - HORIZ. - W. END - TOP
S422	X	8	5'-1"			DIAPH. - VERT. - ENDS
S623	X	2	9'-5"	X		DIAPH. - HORIZ. - E. END - BOT.
S624	X	8	10'-3"	X		DIAPH. - HORIZ. - E. END
S625	X	4	6'-3"	X		DIAPH. - HORIZ. - E. END - TOP
S626	X	28	40'-8"			DIAPH. - HORIZ. - B.F. & TOP
S527	X	32	6'-0"			DIAPH. - HORIZ. - THRU. GIRS.
S528	X	49	13'-6"	X		PIER DIAPH. - VERT.
S529	X	28	10'-8"	X		PIER DIAPH. - VERT. - AT GIRS.
S430	X	112	5'-2"			PIER DIAPH. - HORIZ. - BTWN. GIRS.
SS901	X	150	5'-0"	X		CONC. ABUT. DIAPH. TO APPROACH SLAB



AT ABUTMENTS



AT PIER

BEARING PAD DETAIL

7/20/18

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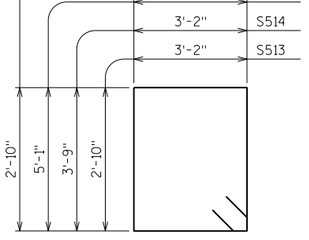
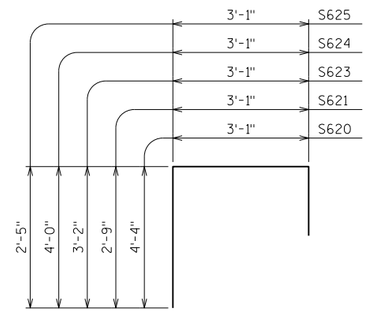
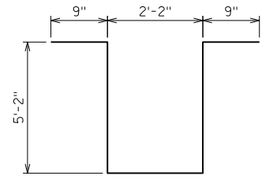


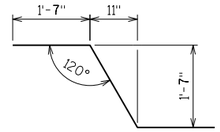
S513, S514, S518, S529



S620, S621, S623, S624, S625



S528



SS901

NO.	DATE	REVISION	BY
1C	7/20/18	REMOVE PRECAST DECK PANELS	MJK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-30-114

DRAWN BY ABS | PLANS CK'D. ABS

SUPERSTRUCTURE DETAILS

SHEET 21

SCALE = 1.33

8

8