

2788-00-71

LIVE LOAD:

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

CONCRETE MASONRY: SUPERSTRUCTURE— $f'_c=4,000$ P.S.I. ALL OTHER— $f'_c = 3,500$ P.S.I.
 BAR STEEL REINFORCEMENT, GRADE 60 ————— $f_y = 60,000$ P.S.I.
 36W" 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.

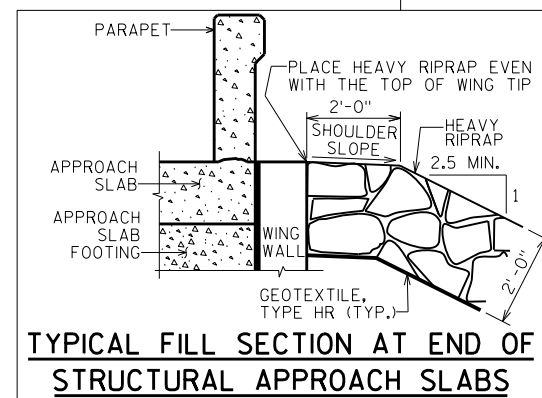
ABUTMENTS TO BE SUPPORTED ON HP 12-INCH X 53 LB STEEL PILING
DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 220 TONS** PER PILE
AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.
ESTIMATED 35'-0" LONG PILES AT THE SOUTH ABUTMENT WITH PILE POINTS REQUIRED.
ESTIMATED 40'-0" LONG PILES AT THE NORTH ABUTMENT WITH PILE POINTS REQUIRED.

** 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.


USH 18

R USH 18

P.I. = 125+62.72
 Δ = 21°-44'-49" RT
D = 1°-08'-45"
T = 960.45
L = 1897.77
R = 5000
S.E. = 2.0%
P.C. = 116+02.27
P.T. = 135+00.04

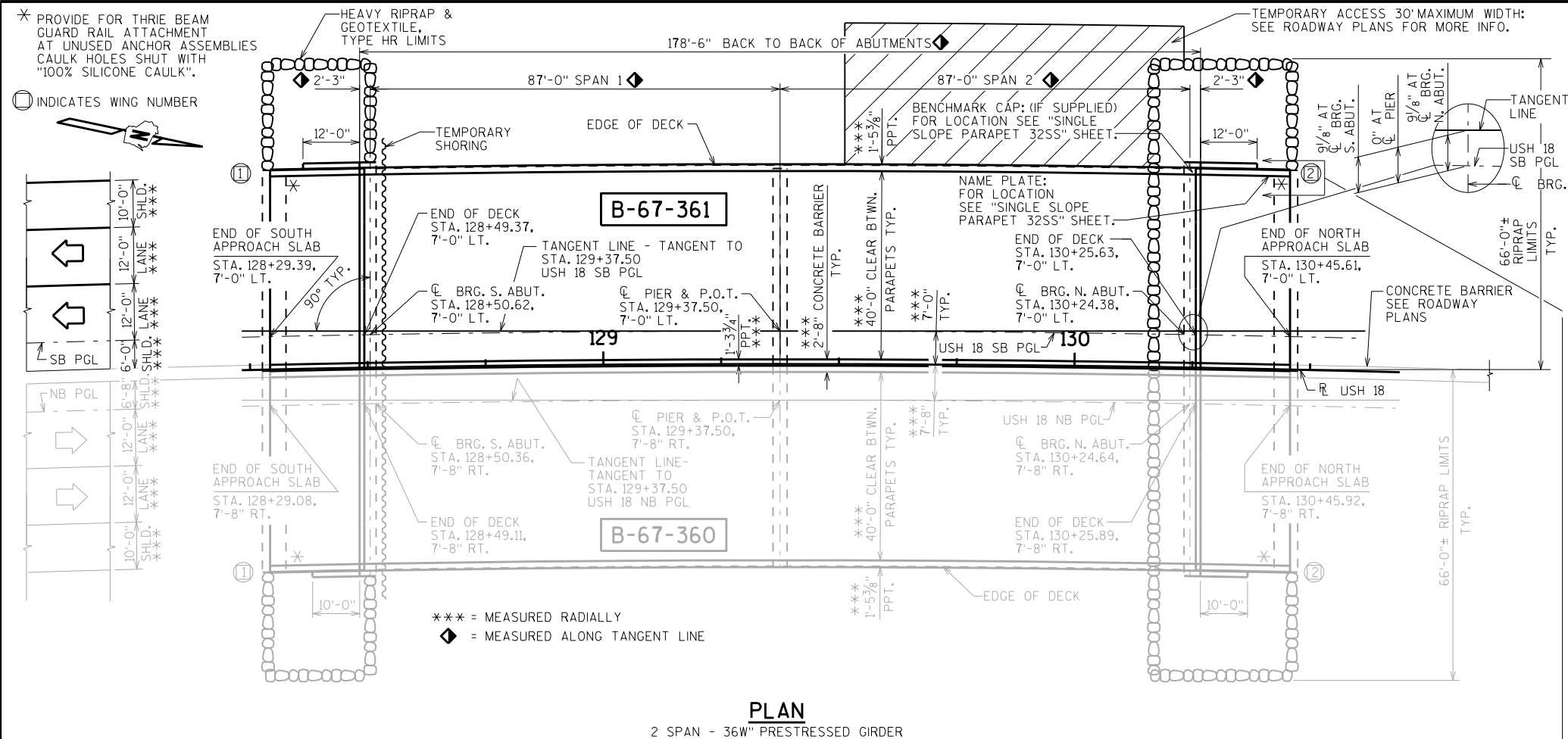


1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT DETAILS
8. PIER
9. 36" PRESTRESSED GIRDER DETAILS 1
10. 36" PRESTRESSED GIRDER DETAILS 2
11. STEEL DIAPHRAGM
12. SUPERSTRUCTURE CROSS SECTIONS
13. ABUTMENT DIAPHRAGMS
14. PIER DIAPHRAGM
15. SUPERSTRUCTURE PLAN
16. DECK LAYOUT
17. STRUCTURAL APPROACH SLAB
18. STRUCTURAL APPROACH SLAB & BAR DETAILS
19. SINGLE SLOPE PARAPET 32SS (WEST)
20. MODIFIED SINGLE SLOPE PARAPET 32SS (EAST)
21. SUPERSTRUCTURE BAR DETAILS

NO.	DATE	REVISION			BY
 <div style="display: inline-block; vertical-align: middle; margin-left: 20px;"> Plans Prepared By WISDOT BUREAU OF STRUCTURES </div>					
ACCEPTED		<i>William C. Decker</i> <small>AND</small>		6/23/17	
		CHIEF STRUCTURES DESIGN ENGINEER			DATE
STRUCTURE			B-67-361		
USH 18 SOUTHBOUND LANES OVER WETLANDS					
COUNTY		WAUKESHA		TOWN WAUKESHA	
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS					
DESIGNED BY	MSC	DESIGN CK'D.	NAR	DRAWN BY	JPH PLANS CK'D. SEW
GENERAL PLAN				SHEET 1 OF 21	

SCALE = 15

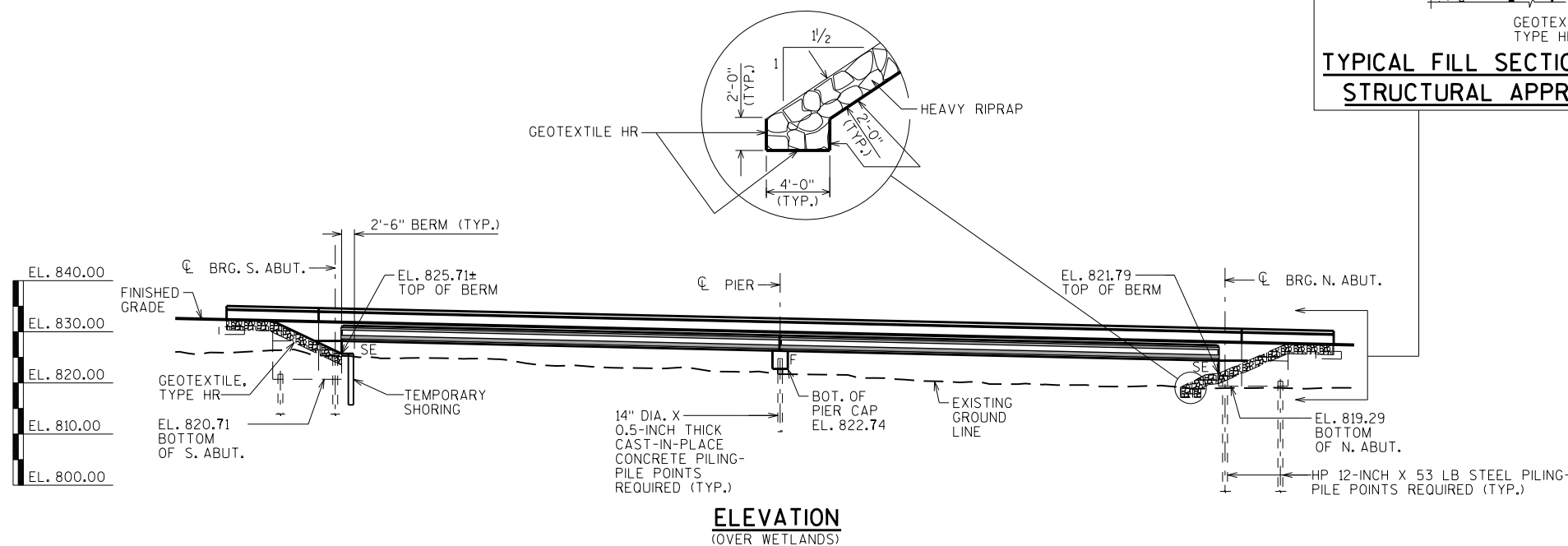
DATE: APRIL 2017



*** = MEASURED RADIALLY
 = MEASURED ALONG TANGENT LINE

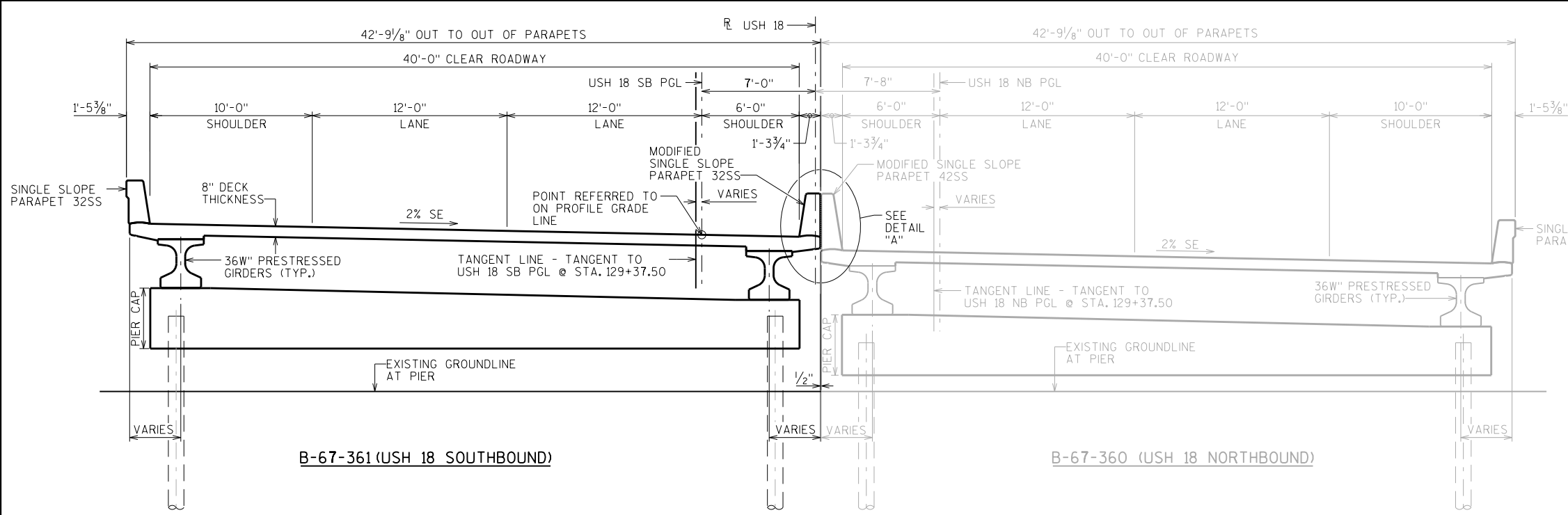
PLAN

2 SPAN - 36W" PRESTRESSED GIRDER



ELEVATION
(OVER WETLANDS)

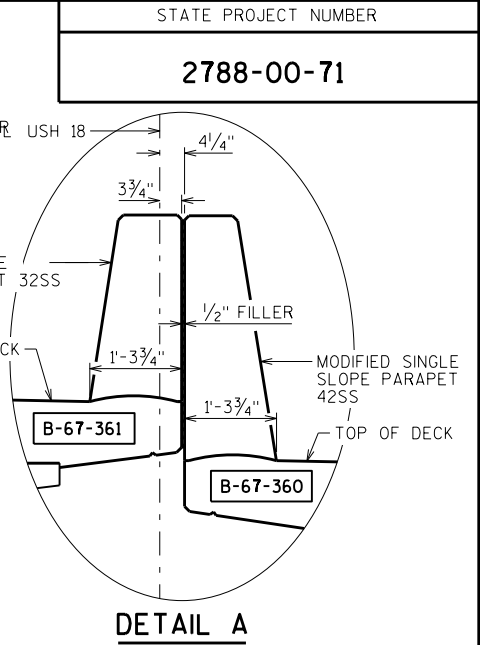
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B-67-361 (USH 18 SOUTHBOUND)

B-67-360 (USH 18 NORTHBOUND)

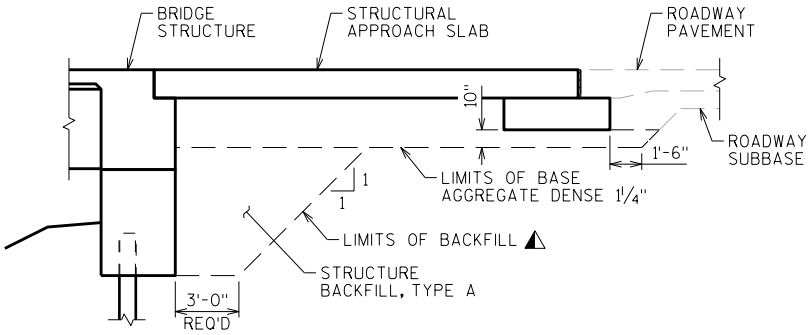
CROSS SECTION THRU ROADWAY LOOKING NORTH (UPSTATION)
(ALL HORIZONTAL DIMENSIONS ARE MEASURED RADIALLY - NORMAL TO THE CURVED "R USH 18")



- GENERAL NOTES**
- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
- THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- AT THE BACK FACE 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. ALSO EXCLUDED IS THE "BASE AGGREGATE DENSE 1 1/4-INCH" AS DETAILED ON THE STRUCTURAL APPROACH SLAB SHEETS.
- THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.
- ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.
- PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK & APPROACH SLAB SURFACES AND TO THE VERTICAL AND HORIZONTAL SURFACES OF THE PAVING NOTCHES AT ABUTMENT DIAPHRAGMS.
- PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND THE TOP OF PARAPETS, INCLUDING PARAPETS ON APPROACH SLABS.
- THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIER.
- THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND "GEOTEXTILE TYPE HR" TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.
- BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.
- ★ TEMPORARY SHORING TO BE INSTALLED NO MORE THAN 1 FOOT IN FRONT OF FRONT FACE OF FINISHED SOUTH ABUTMENT. IF ADDITIONAL CLEARANCE IS NEEDED, COORDINATE THE SHORING LOCATION WITH THE FIELD ENGINEER PRIOR TO INSTALLATION.

TOTAL ESTIMATED QUANTITIES

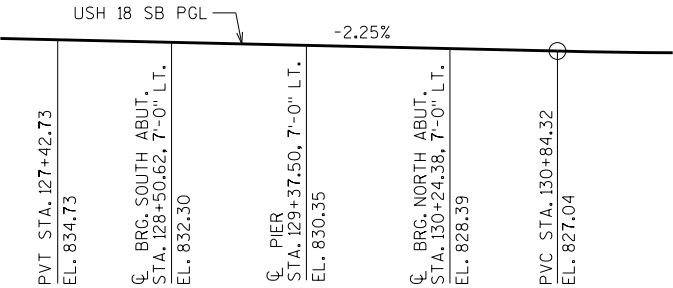
BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH APPROACH SLAB	SOUTH ABUT.	PIER	NORTH ABUT.	NORTH APPROACH SLAB	TOTALS
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-67-361	LS	—	—	—	—	—	—	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	—	—	190	—	110	—	300
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	—	134	—	—	—	134	268
501.1000.S	ICE HOT WEATHER CONCRETING	LB	2,228	442	438	127	308	442	3,985
502.0100	CONCRETE MASONRY BRIDGES	CY	297	59	59	17	41	59	532
502.3200	PROTECTIVE SURFACE TREATMENT	SY	810	90	—	—	—	90	990
502.3210	PIGMENTED SURFACE SEALER	SY	145	17	—	—	—	17	179
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	1,049	—	—	—	—	—	1,049
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	—	—	3,050	—	2,620	—	5,670
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	62,875	9,870	965	5,460	810	9,870	89,850
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB	1,430	—	—	—	—	—	1,430
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	24	—	—	—	—	—	24
506.4000	STEEL DIAPHRAGMS B-67-361	EACH	20	—	—	—	—	—	20
511.1200	TEMPORARY SHORING B-67-361	SF	—	—	125	—	—	—	125
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	—	—	11	—	11	—	22
550.0500	PILE POINTS	EACH	—	—	8	13	8	—	29
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	—	—	280	—	320	—	600
550.2148	PILING CIP CONCRETE 14 X 0.50-INCH	LF	—	—	—	585	—	—	585
606.0300	RIPRAP HEAVY	CY	—	—	45	—	90	—	135
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	—	—	73	—	73	—	146
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	—	—	—	—	—	2
645.0120	GEOTEXTILE TYPE HR	SY	—	—	70	—	150	—	220
NON-BID ITEMS									
	FILLER	SIZE	—	—	—	—	—	—	1/2", 3/4", 1 1/2"



TYPICAL SECTION THRU ABUTMENT

(A1 ABUTMENT WITH STRUCTURAL APPROACH)

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



PROFILE GRADE LINE - USH 18 SB

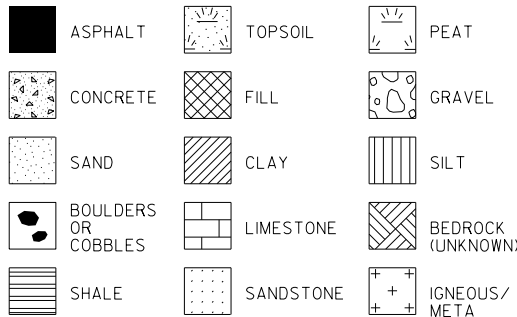
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
DRAWN BY JPH		PLANS CKD. SEW	
CROSS SECTION & QUANTITIES			SHEET 2

INDICATES WING NUMBER

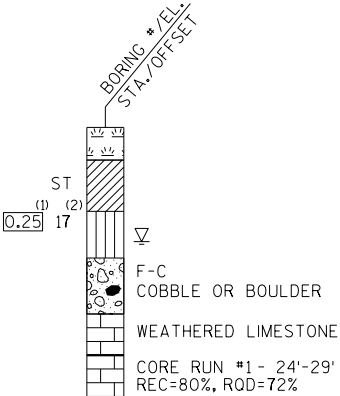
STATE PROJECT NUMBER

2788-00-71

MATERIAL SYMBOLS



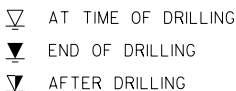
LEGEND OF BORING



(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



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-67-361			
DRAWN BY JPH		PLANS CKD. SEW	
SUBSURFACE EXPLORATION		SHEET 3	

* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

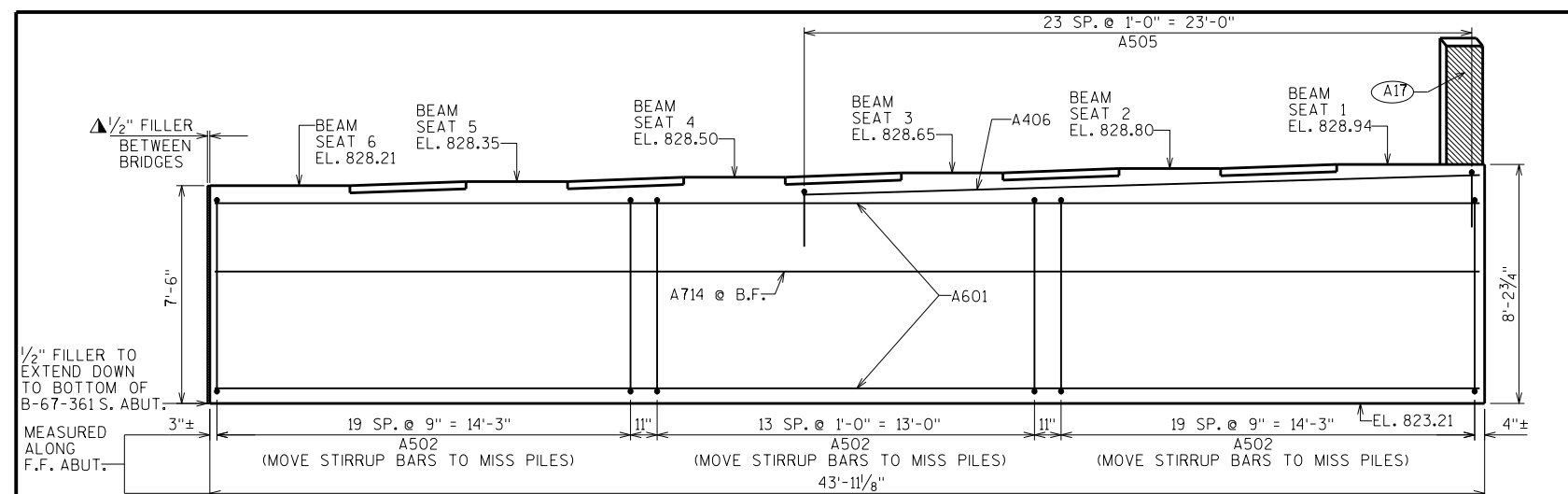
PLAN

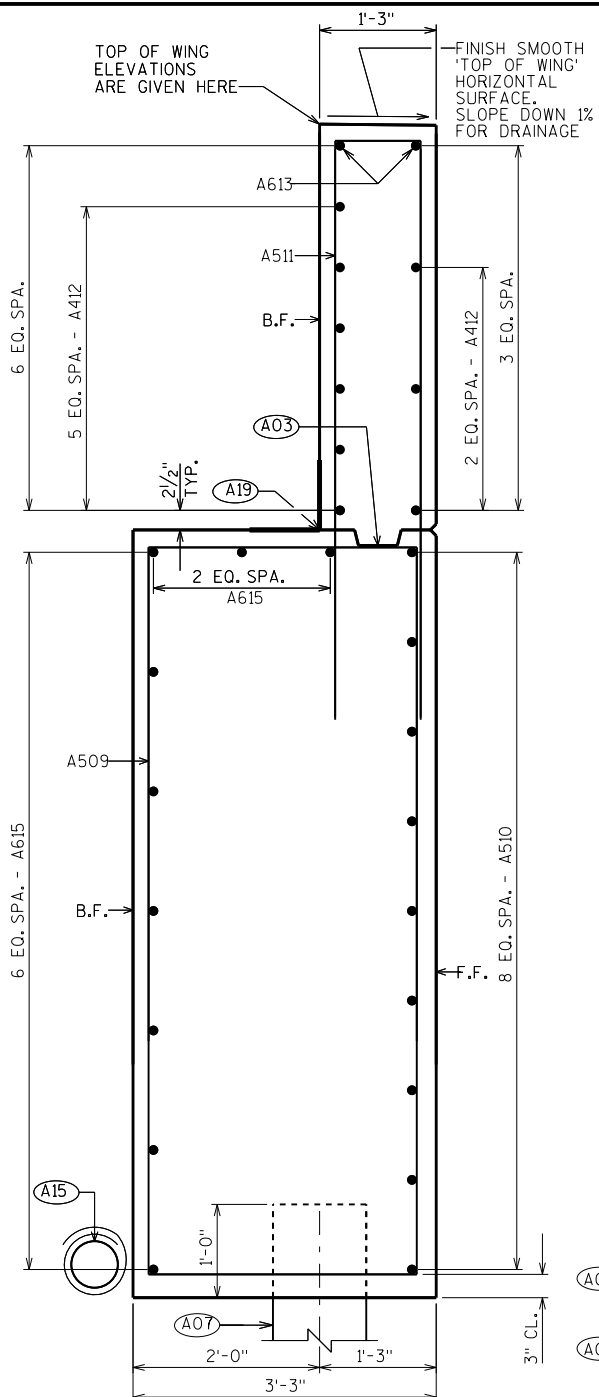
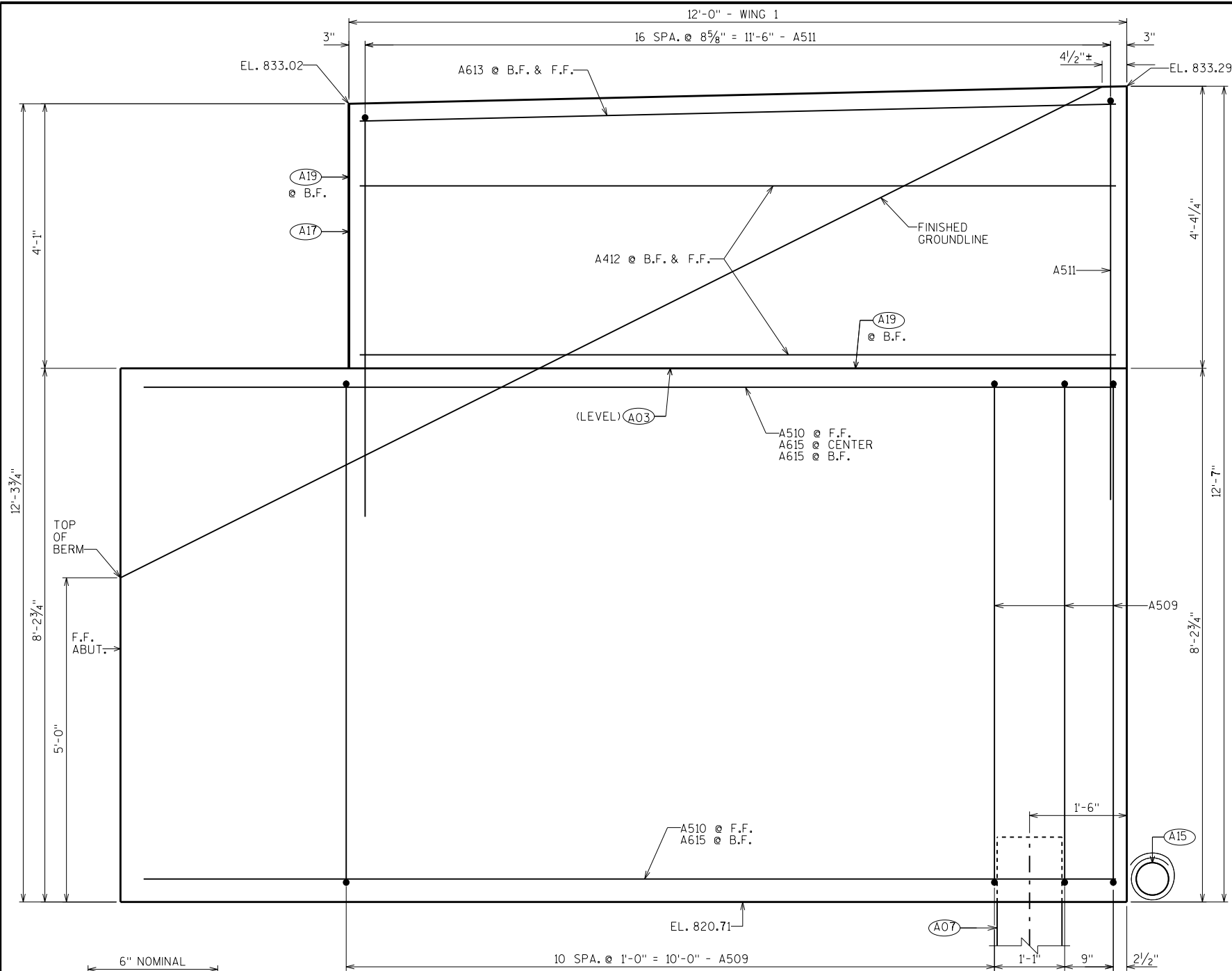
BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	9/13/2016	150854.2197	670605.2228
2	9/19/2016	150908.0028	670665.4867
3	9/22/2016	150981.1957	670588.148
4	9/26/2016	151050.5727	670557.3566
5	9/27/2016	150996.7965	670482.3018
BORINGS COMPLETED BY: WISDOT			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) WAUKESHA COUNTY			

8

8

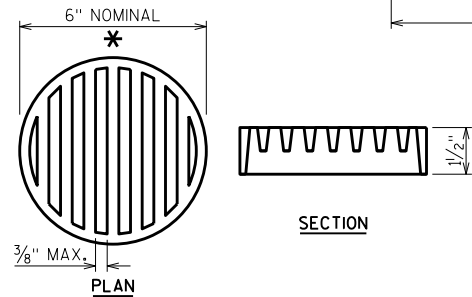
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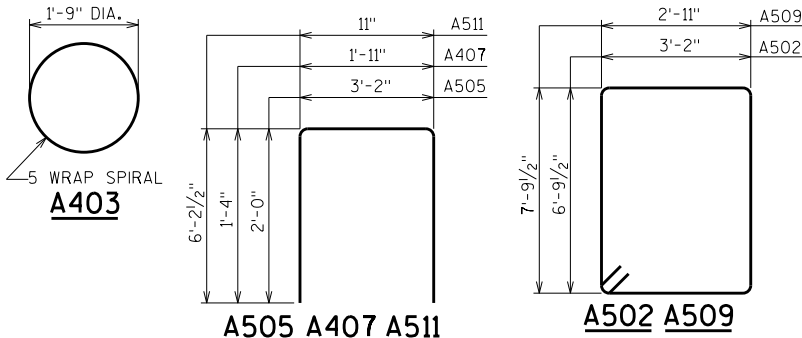


WING 1 ELEVATION LOOKING @ F.F. WING

WING 1 SECTION



RODENT SHIELD DETAIL



A403

A505 A407 A511

A502 A509

BILL OF BARS

BAR MARK	COMT	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A601		12	43'-6"			BODY-HORIZONTAL-TOP & BOT.-F.F. & B.F.
A502		54	20'-7"	X		BODY-STIRRUPS-VERT.
A403		7	28'-0"	X		BODY-VERT.-BOT.-SPIRAL-1 PER PILE
A404		14	2'-3"			BODY-BOT.-2 PER BODY PILE-VERT.
A505		24	6'-11"	X		BODY-TOP-VERT.-AT WEST END ONLY
A406		4	23'-4"			BODY-TOP-HORIZ.-AT WEST END ONLY
A407		20	4'-5"	X		BODY-VERT.-TOP-BETWEEN BEAM SEATS
A408		10	6'-0"			BODY-HORIZ.-TOP-BETWEEN BEAM SEATS
A509	X	13	22'-1"	X		WING 1-BOT.-VERT.-STIRRUP
A510	X	9	15'-0"			WING 1-BOT.-HORIZONTAL-F.F.
A511	X	17	13'-1"	X		WING 1-TOP-VERT.
A412	X	9	11'-8"			WING 1-TOP-HORIZONTAL-B.F. & F.F.
A613	X	2	11'-8"			WING 1-TOP-HORIZONTAL-B.F. & F.F.
A714		7	43'-6"			BODY-HORIZONTAL-B.F.
A615	X	9	14'-0"			WING 1-BOT.-HORIZONTAL-B.F.

NOTE:
THE FIRST OR FIRST TWO DIGITS OF
THE BAR MARK SIGNIFIES THE BAR SIZE.

- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2" x 6". (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A07) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 35 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. PILE POINTS REQUIRED AT ALL PILES.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING, GRAY & NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

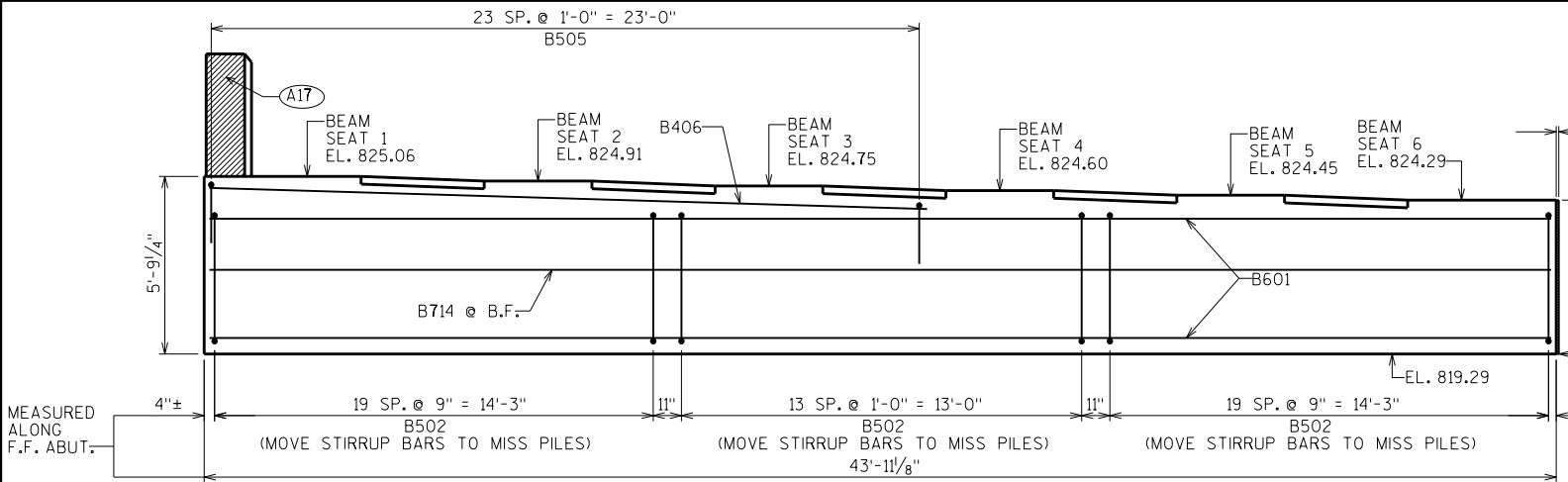
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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

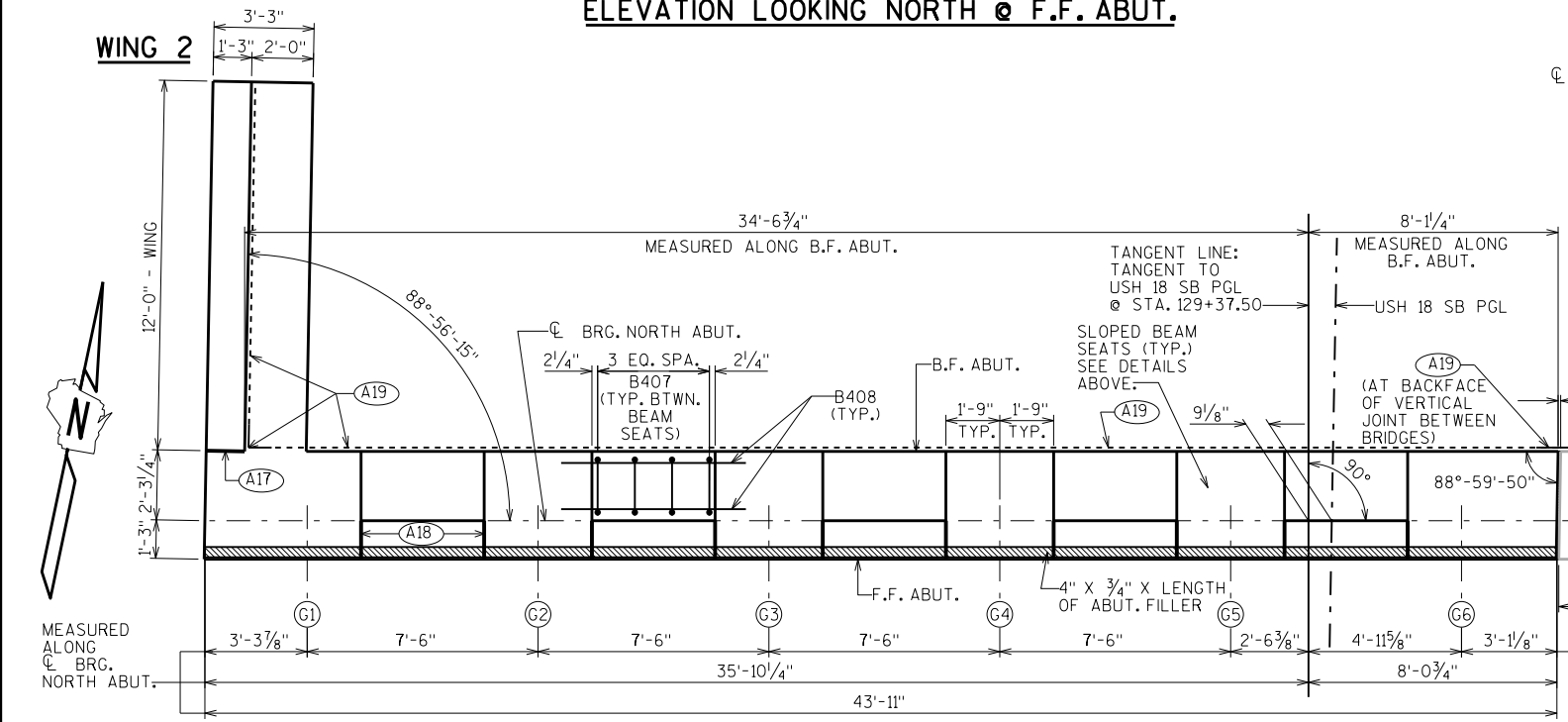
THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
DRAWN BY JPH		PLANS CKD. SEW	
SOUTH ABUTMENT DETAILS		SHEET 5	

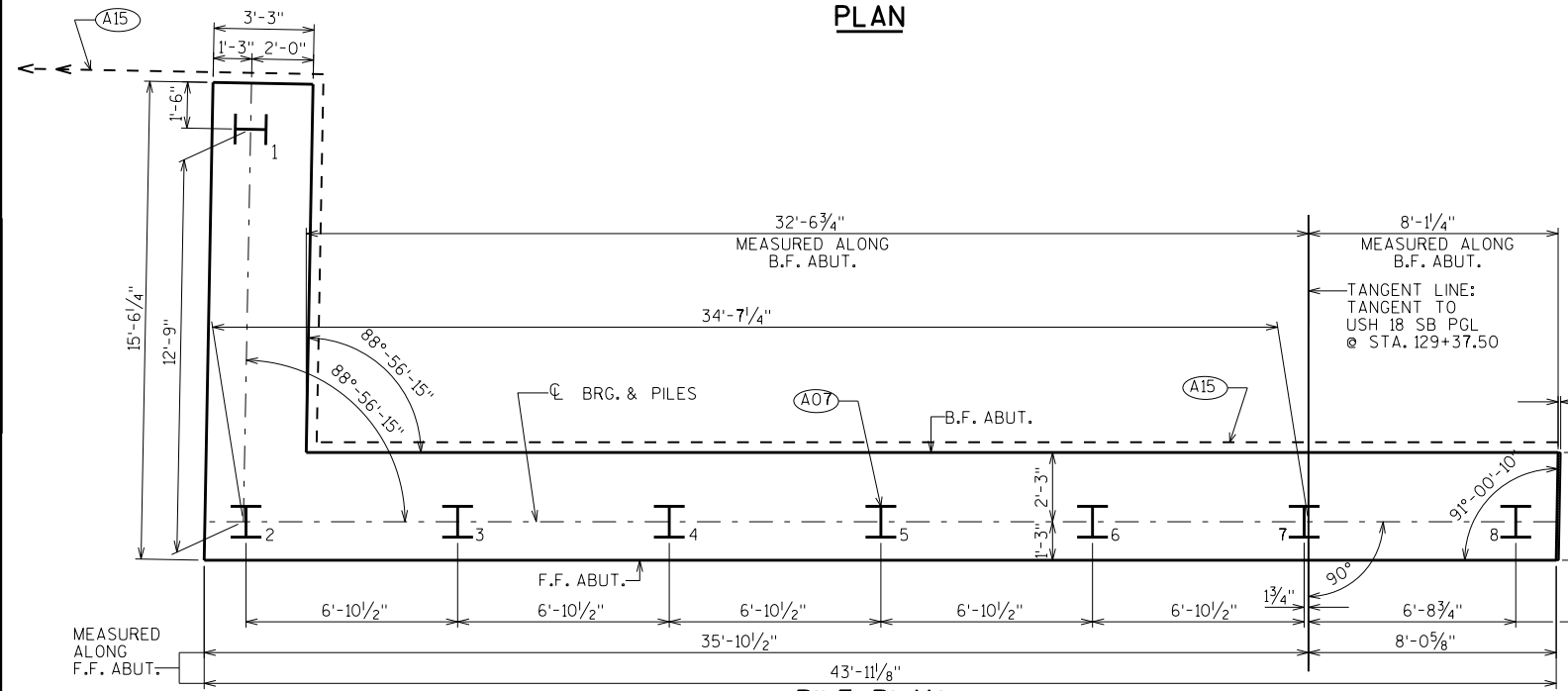
STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS. TOTAL THICKNESS OF SHEETS SHALL BE 0.03" MIN.



ELEVATION LOOKING NORTH @ F.F. ABUT.

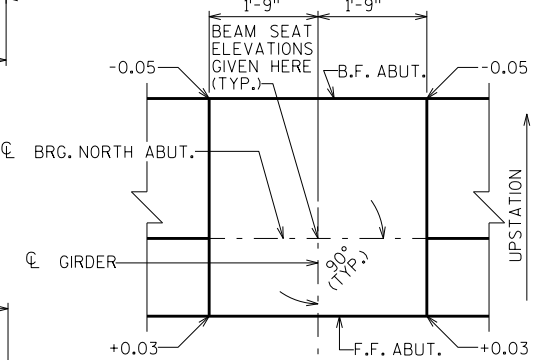


PLAN

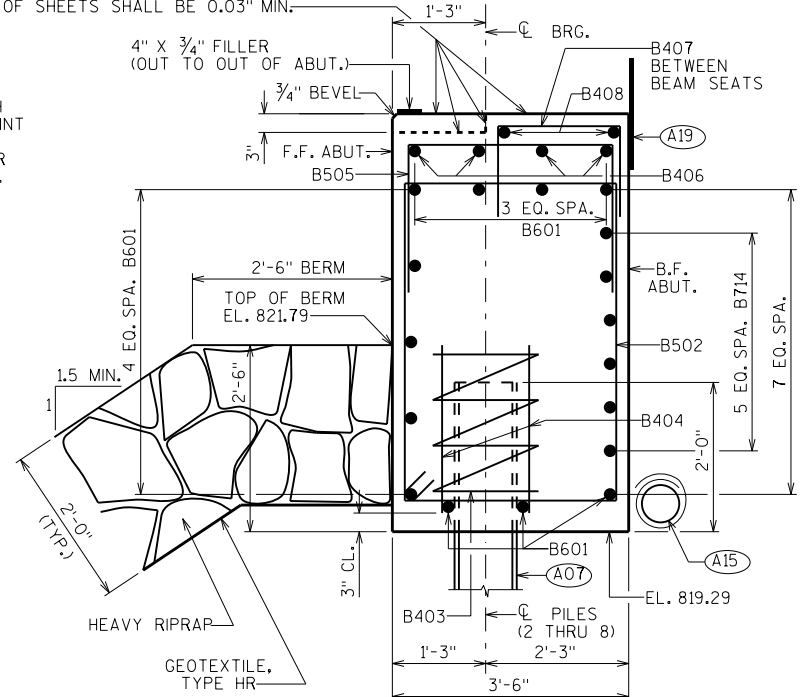


PILE PLAN

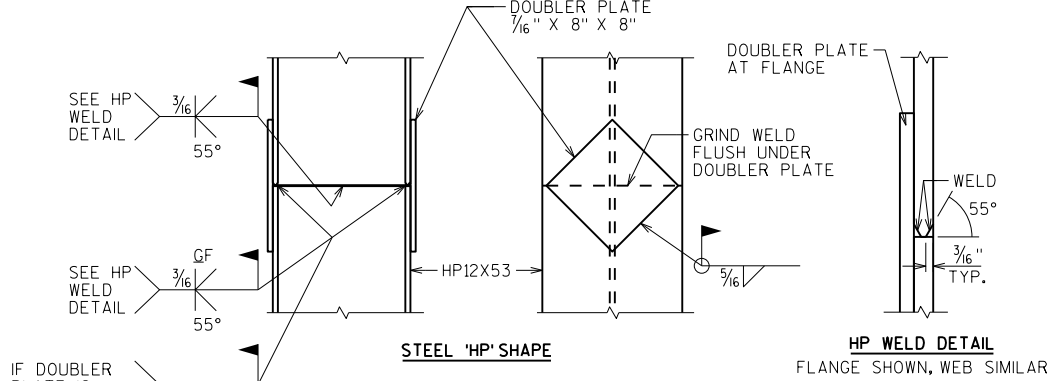
SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.



TYPICAL SLOPED BEAM SEAT DETAIL

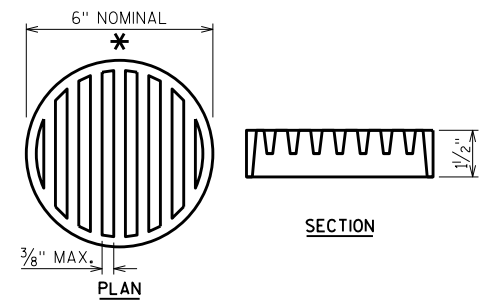


SECTION THRU BODY



PILE DETAILS

- A07 SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 40 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. PILE POINTS REQUIRED AT ALL PILES.
- A15 PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- A17 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- A18 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



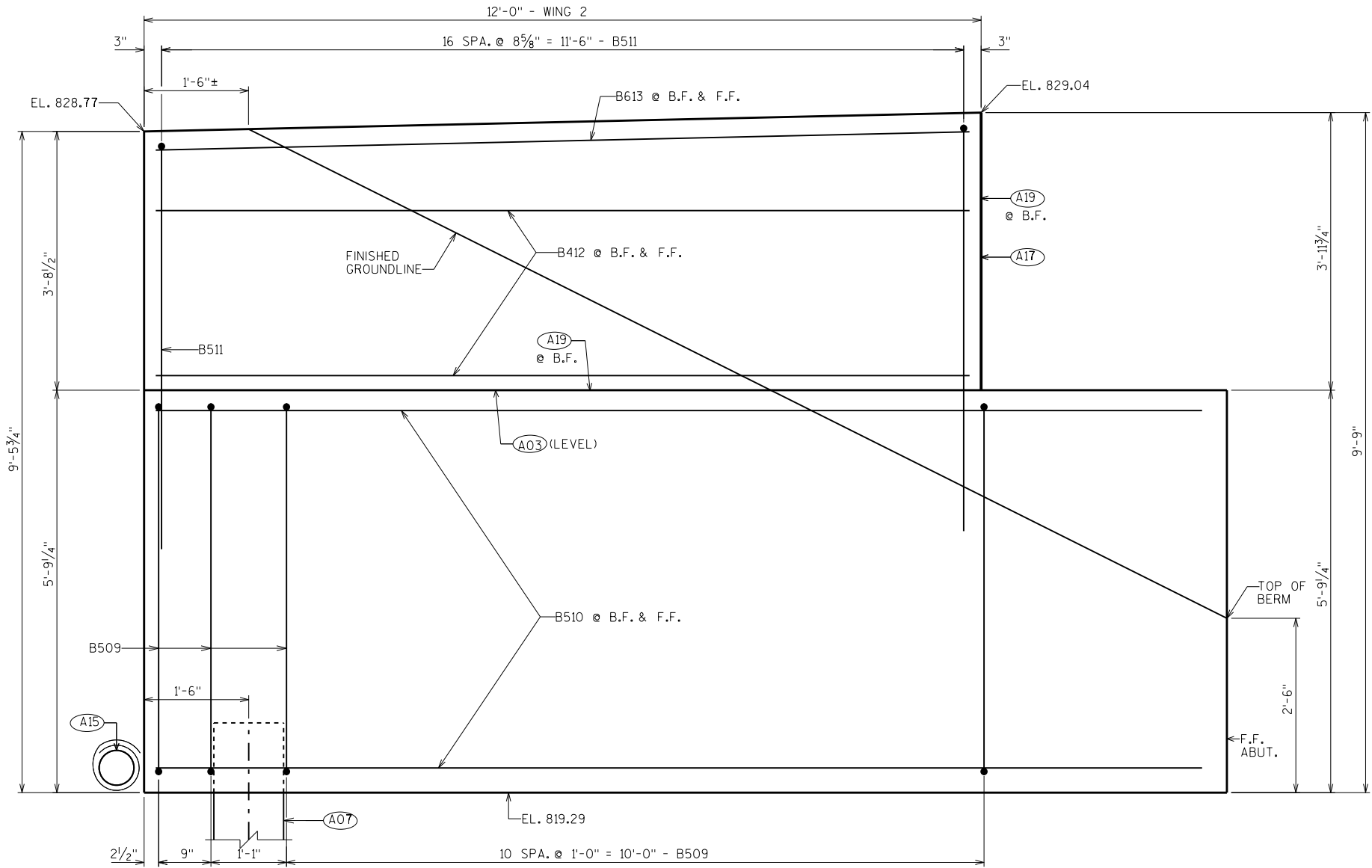
RODENT SHIELD DETAIL

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

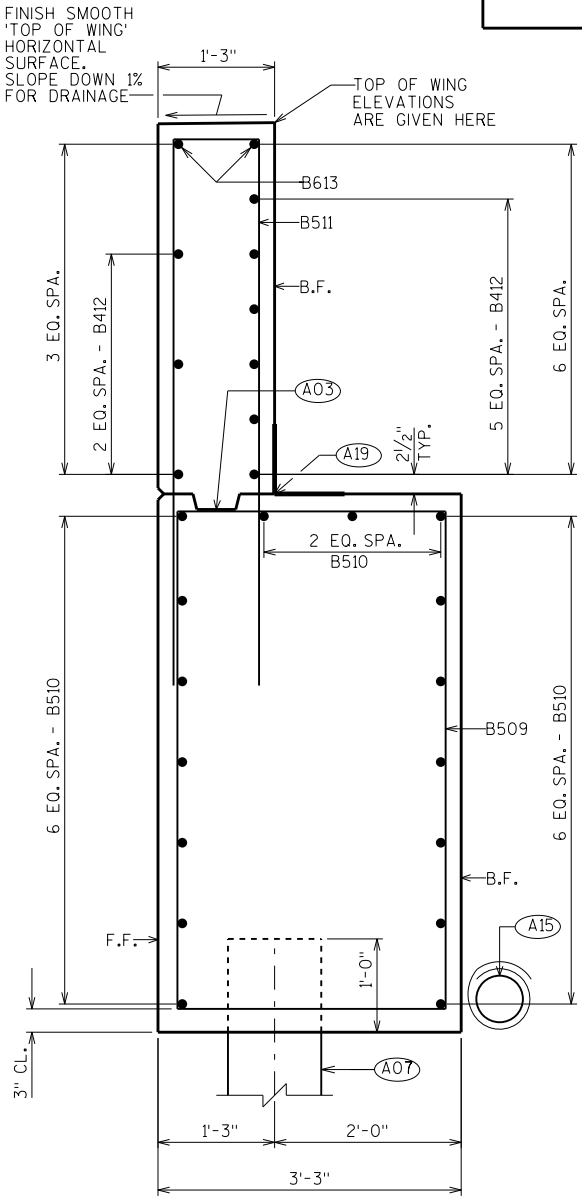
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
DRAWN BY JPH		PLANS CKD. SEW	
NORTH ABUTMENT		SHEET 6	



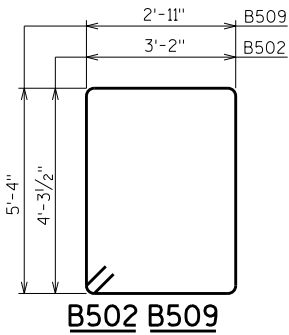
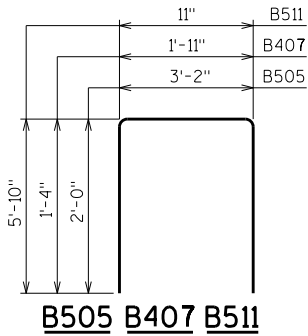
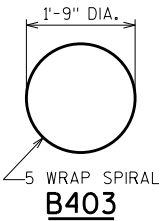
WING 2 ELEVATION LOOKING @ F.F. WING



WING 2 SECTION

8

- (A03) OPTIONAL CONST. JOINT: KEYWAY FORMED BY BEVELED 2" x 6". (18" R.M.W. @ B.F. & 3/4" "V" GROOVE @ F.F. IF JOINT IS USED).
- (A07) SUPPORT ABUTMENT ON HP 12 x 53 STEEL PILING, ESTIMATED 40 FEET LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. PILE POINTS REQUIRED AT ALL PILES.
- (A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.
- (A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING, GRAY & NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.



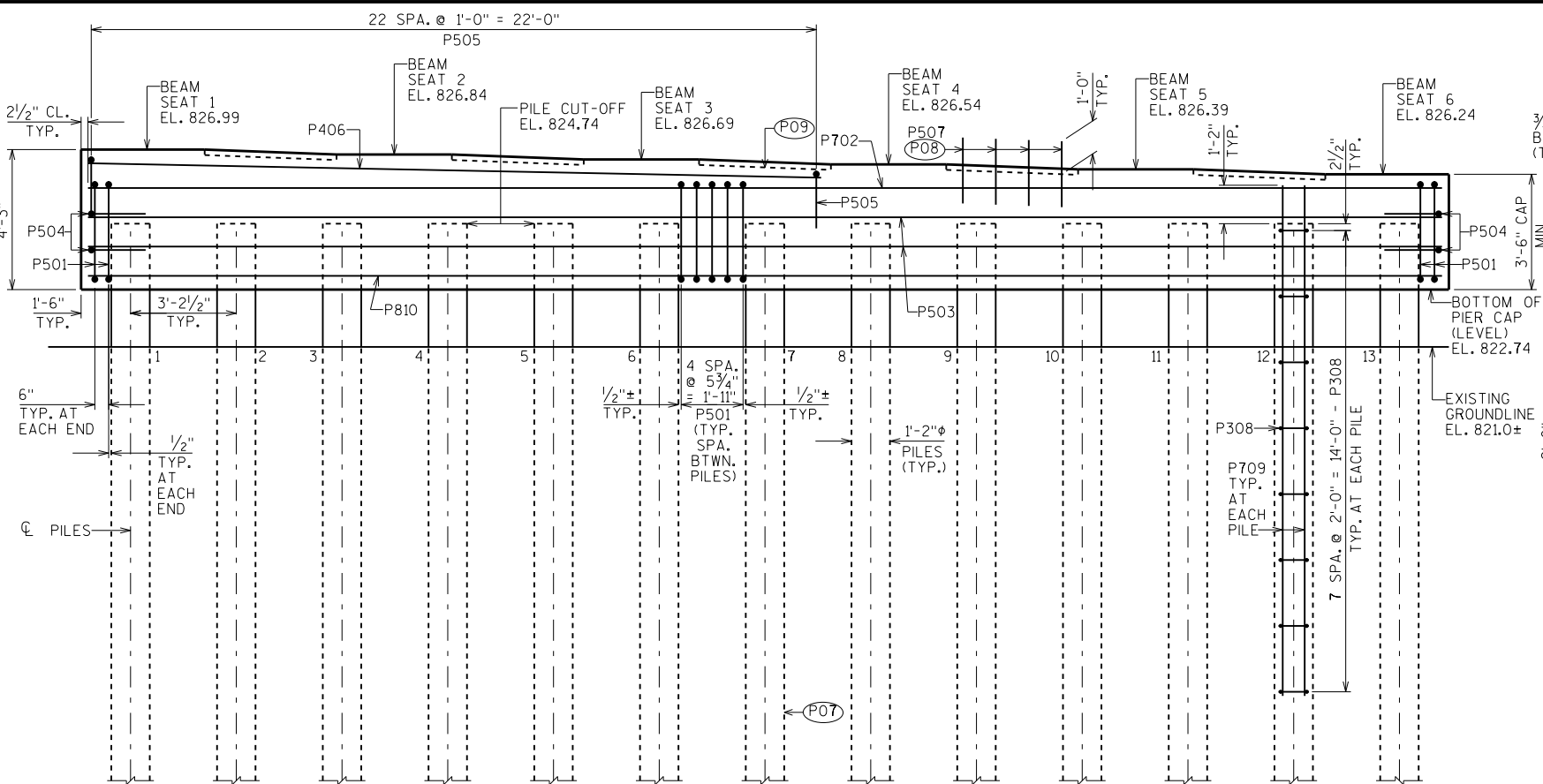
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B601		11	43'-6"			BODY-HORIZONTAL-TOP & BOT.-F.F. & B.F.
B502		54	15'-7"	X		BODY-STIRRUPS-VERT.
B403		7	28'-0"	X		BODY-VERT.-BOT.-SPIRAL-1 PER PILE
B404		14	2'-3"			BODY-BOT.-2 PER BODY PILE-VERT.
B505		24	6'-11"	X		BODY-TOP-VERT.-AT WEST END ONLY
B406		4	23'-4"			BODY-TOP-HORIZ.-AT WEST END ONLY
B407		20	4'-5"	X		BODY-VERT.-TOP-BETWEEN BEAM SEATS
B408		10	6'-0"			BODY-HORIZ.-TOP-BETWEEN BEAM SEATS
B509	X	13	17'-2"	X		WING 2-BOT.-VERT.-STIRRUP
B510	X	16	15'-0"			WING 2-BOT.-HORIZONTAL
B511	X	17	12'-4"	X		WING 2-TOP-VERT.
B412	X	9	11'-8"			WING 2-TOP-HORIZONTAL-B.F. & F.F.
B613	X	2	11'-8"			WING 2-TOP-HORIZONTAL-B.F. & F.F.
B714		6	43'-6"			BODY-HORIZONTAL-B.F.

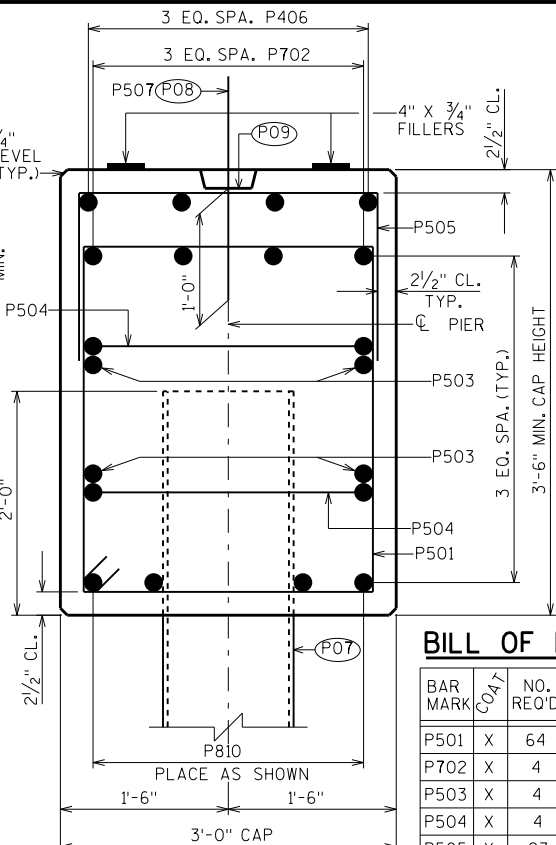
NOTE:
THE FIRST OR FIRST TWO DIGITS OF
THE BAR MARK SIGNIFIES THE BAR SIZE.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
DRAWN BY JPH		PLANS CK'D. SEW	
NORTH ABUTMENT DETAILS		SHEET 7	

8



ELEVATION LOOKING NORTH

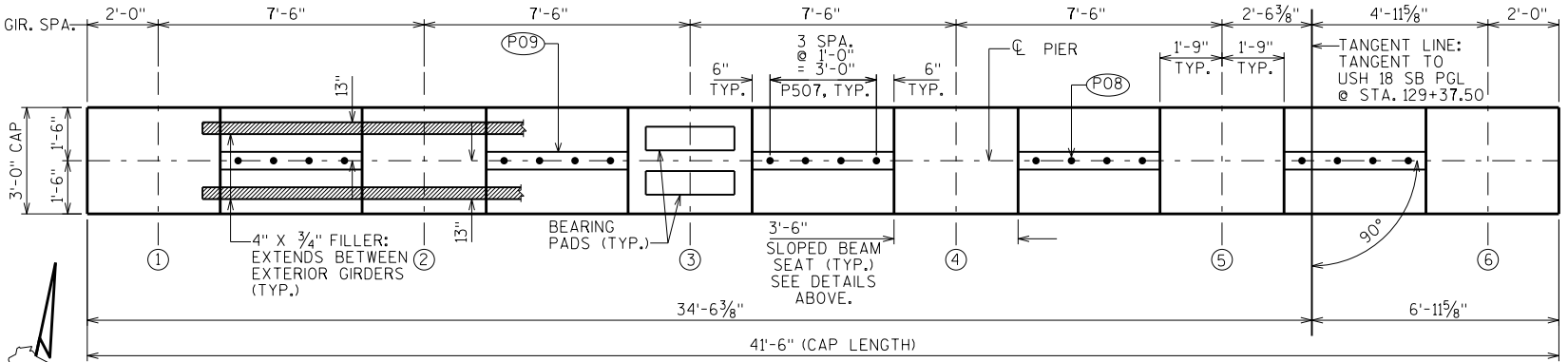


SECTION THRU CAP

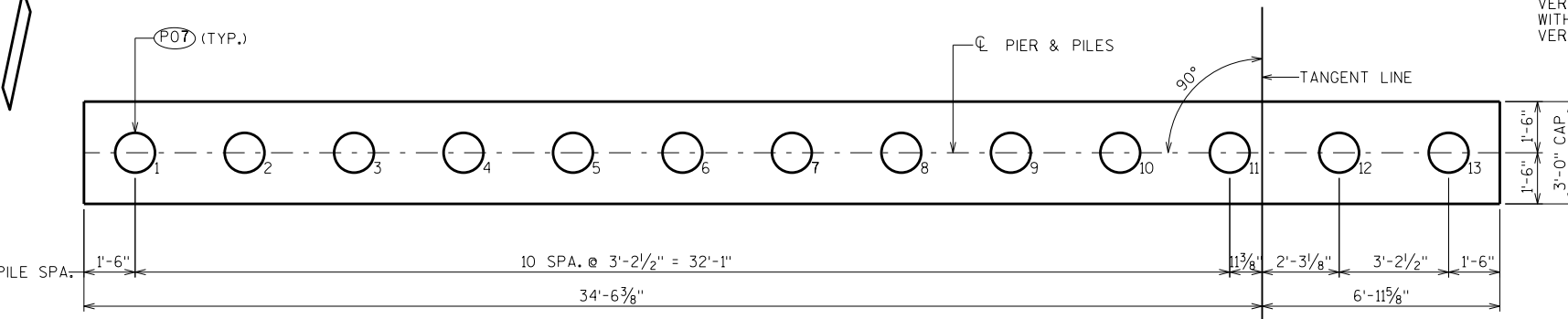
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
P501	X	64	12'-0"	X	PIER CAP-VERT.-STIRRUP
P702	X	4	41'-1"		PIER CAP-HORIZ.-TOP
P503	X	4	41'-1"		PIER CAP-HORIZ.-BOTH SIDES
P504	X	4	5'-9"	X	PIER CAP-HORIZ.-BOTH ENDS
P505	X	23	5'-10"	X	PIER CAP-VERT.-TOP-AT WEST HALF ONLY
P406	X	4	22'-3"		PIER CAP-HORIZ.-TOP-AT WEST END ONLY
P507	X	20	2'-0"		PIER CAP-VERT.-TOP-DOWEL BARS-BTWN. BEAM SEATS
P308	X	104	3'-11"	X	PILES-HORIZ.-8 PER PILE AT TOP-SPIRAL BAR
P709	X	104	15'-6"		PILES-VERTICAL-8 PER PILE AT TOP
P810	X	4	41'-1"		PIER CAP-HORIZ.-BOTTOM

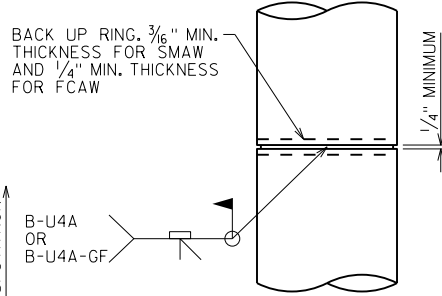
NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.



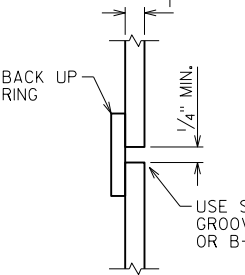
PLAN



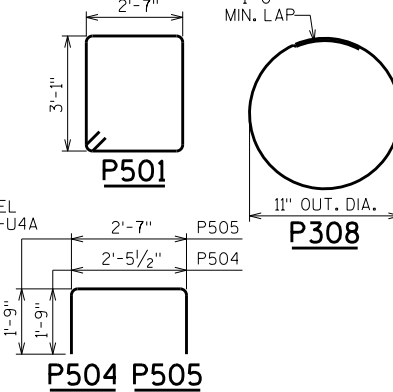
PILE PLAN



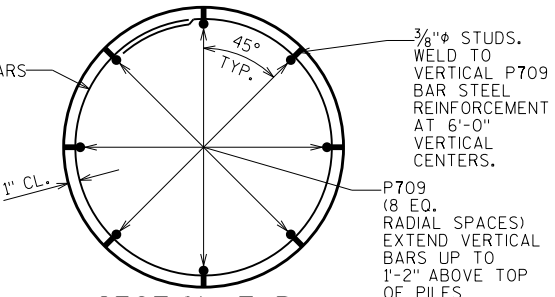
CAST-IN-PLACE 'PIPE PILE'



C.I.P. PILE WELD DETAIL



PILE DETAILS



**SECTION THRU
CONCRETE
CAST-IN-PLACE
PILING**

- (P07) SUPPORT PIER ON 14" DIA. X 0.5-INCH THICK CAST-IN-PLACE CONCRETE PILING, ESTIMATED 45'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 240 TONS PER PILE. PILE POINTS REQUIRED AT ALL PILES.
- (P08) P507 BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)
- (P09) KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2" X 6" BETWEEN BEAM SEATS.

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PIER		SHEET 8	

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED
TRANSVERSELY, EXCEPT THE 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.

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.

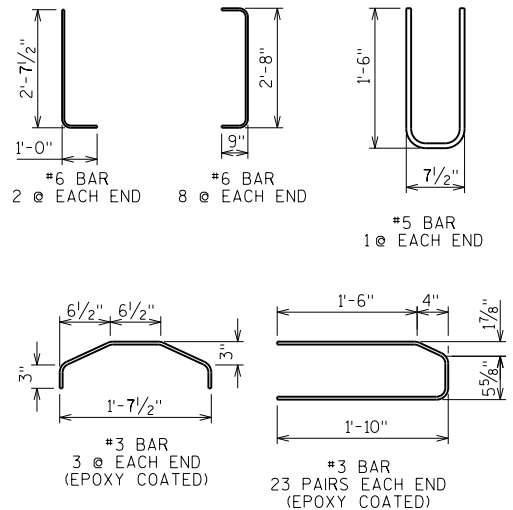
STRANDS SHALL BE FLUSH WITH END OF GIRDER, FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS 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.

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

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF)
ASTM A497 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.

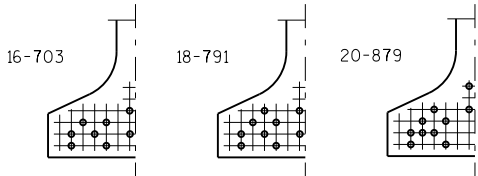
FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE
"STEEL DIAPHRAGM" SHEET.



GIRDER DATA

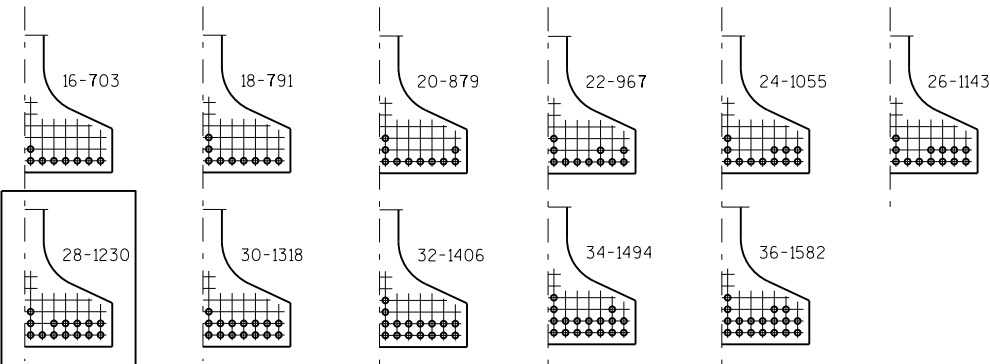
[illegible]

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
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36W" PRESTRESSED GIRDER DETAILS 1		SHEET 9	



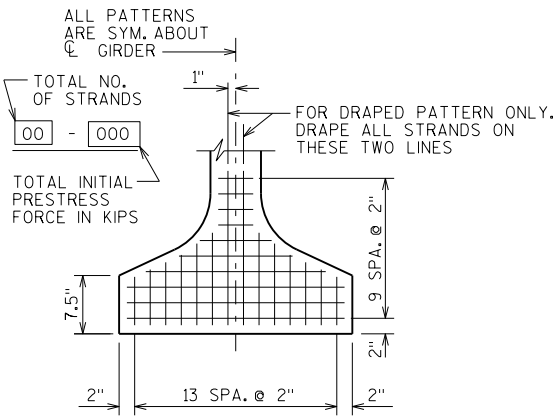
**STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY
TO AVOID DRAPING OF STRANDS**

0.6"φ STRANDS

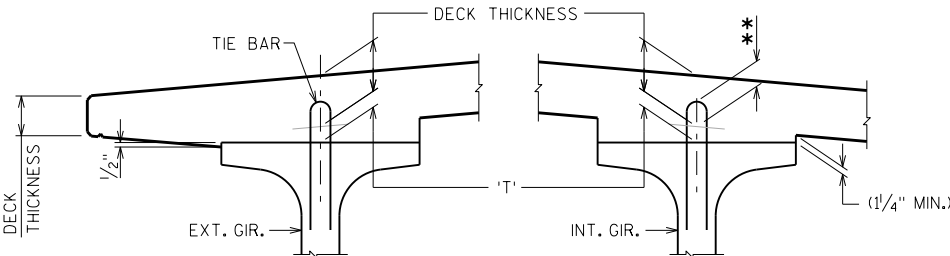


ARRANGEMENT AT CL SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"φ STRANDS



TYP. STRAND PATTERN



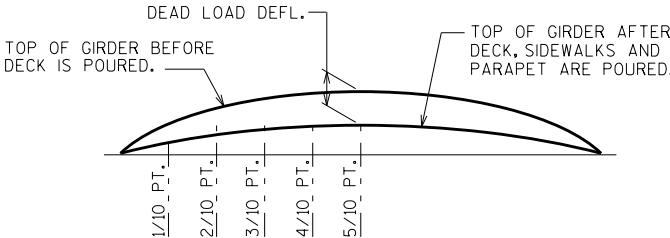
DECK HAUNCH DETAIL

IF 1/4" 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 1/2" OR, ** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

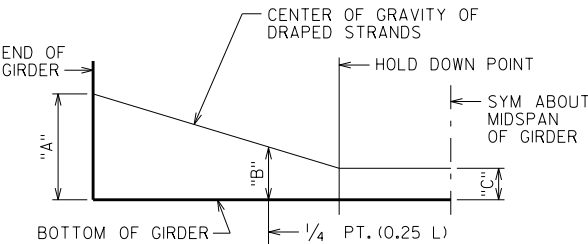
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT CL OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

- 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 3" WAS USED FOR COMPUTING THE SUPERSTRUCTURE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



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	3.1
2	3.1

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'.
USE ACTUAL GIRDER SHOTS.
THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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36W" PRESTRESSED GIRDER DETAILS 2			SHEET 10

NOTES

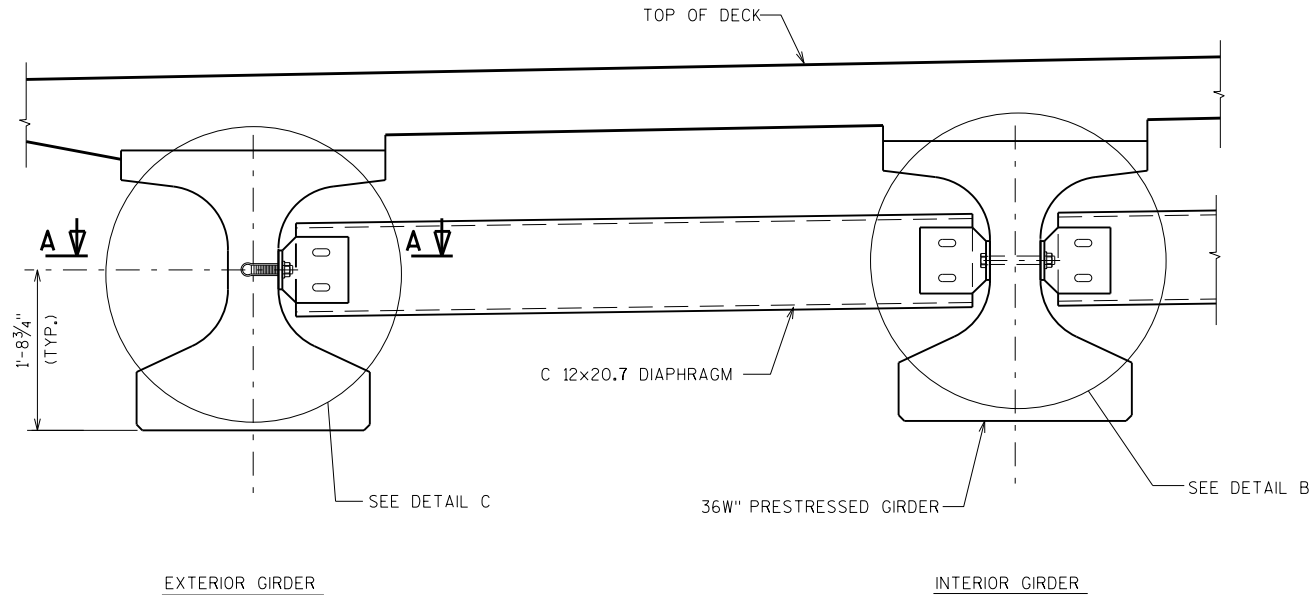
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-67-361", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

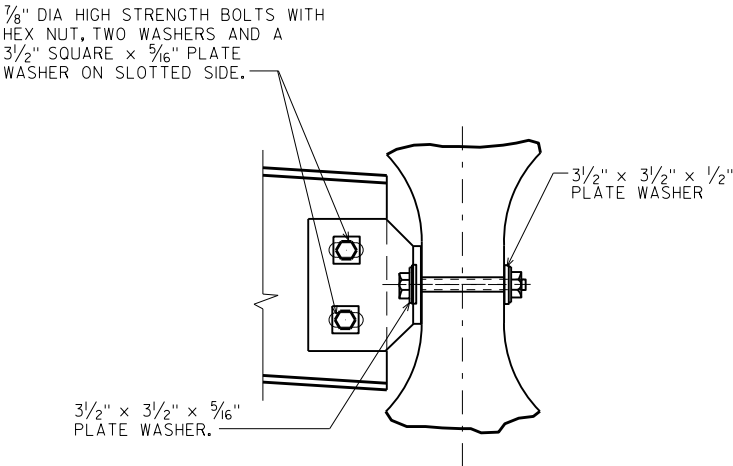
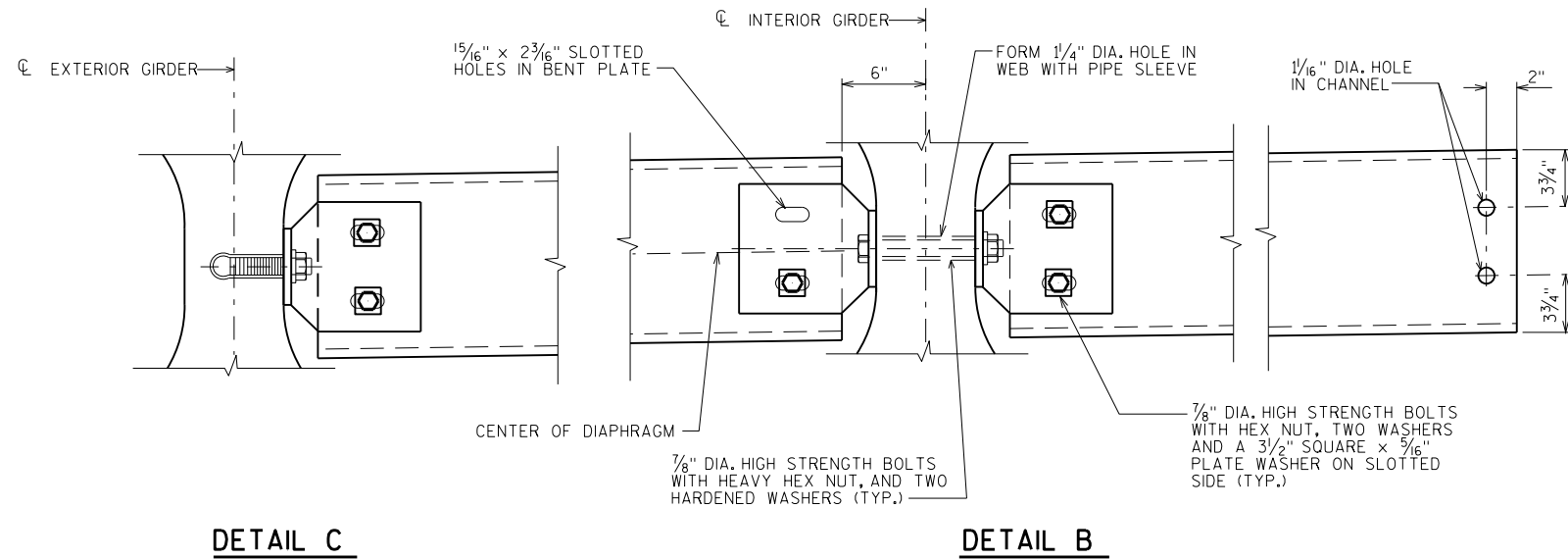
ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

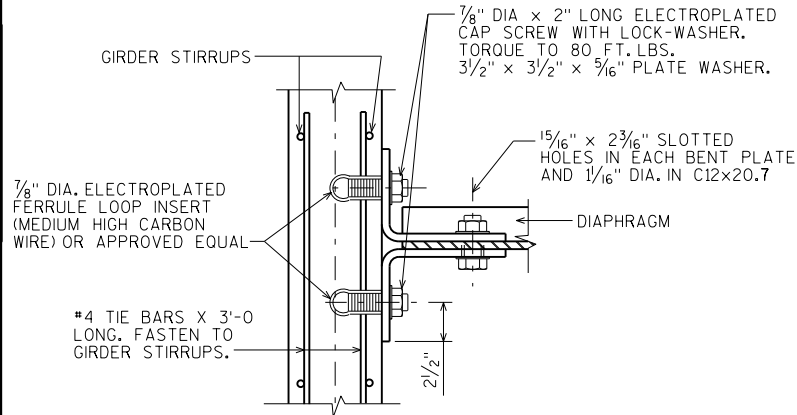
STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.



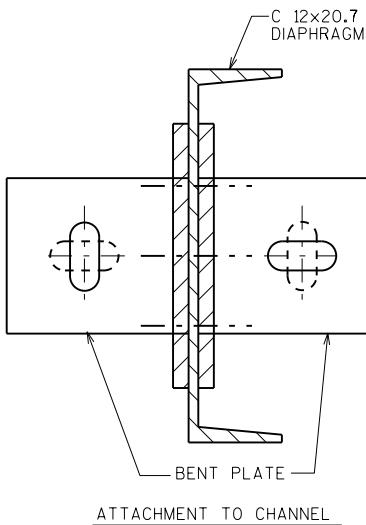
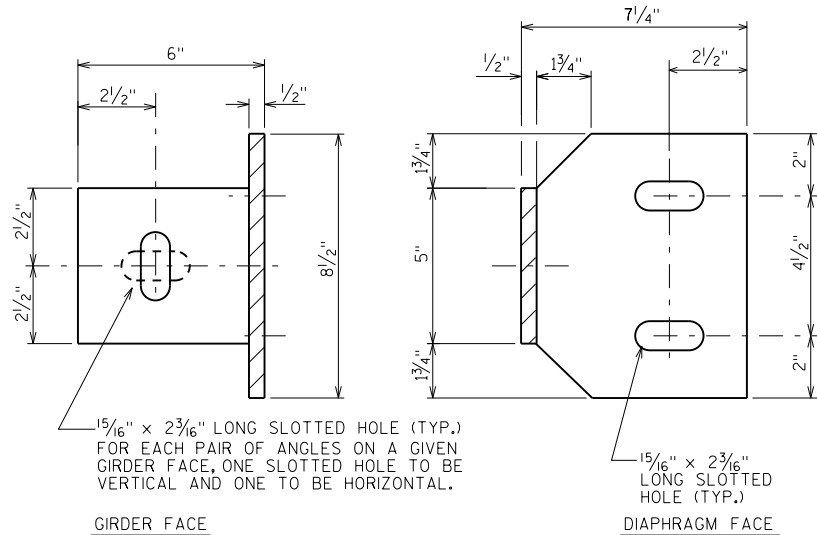
PART TRANSVERSE SECTION AT DIAPHRAGM



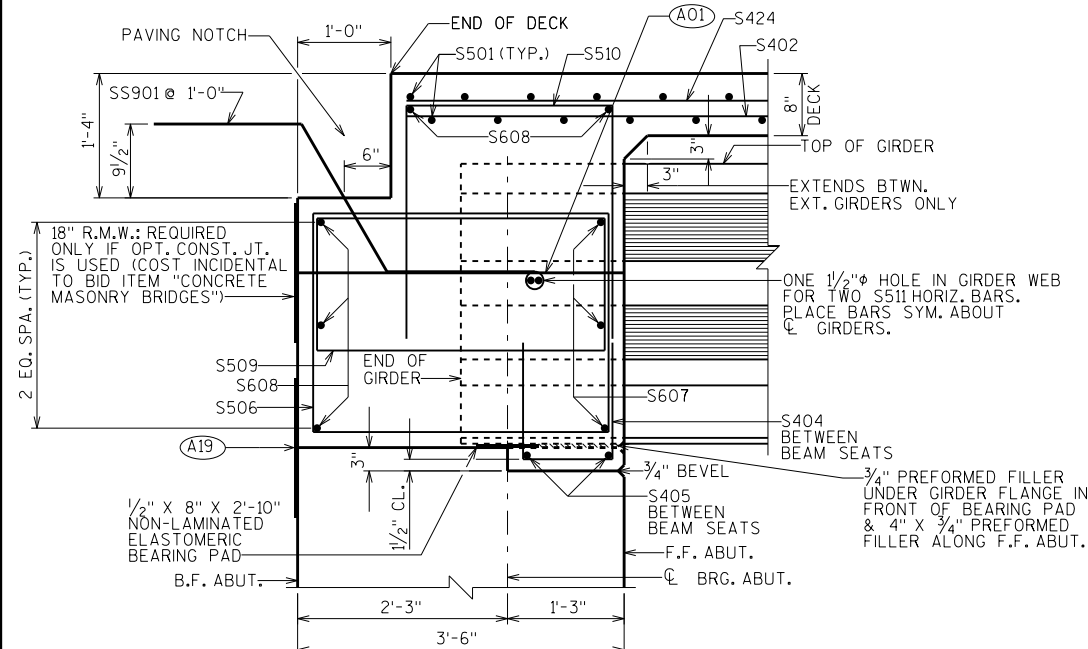
SECTION AT INTERIOR GIRDERS THRU DIAPHRAGM FOR SKEW ANGLES > 10°



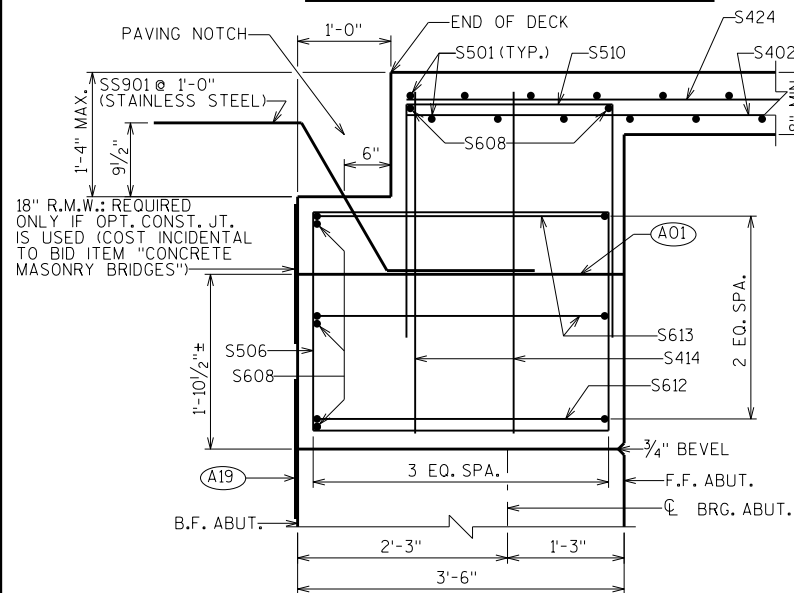
SECTION A-A (FOR EXTERIOR ATTACHMENT)



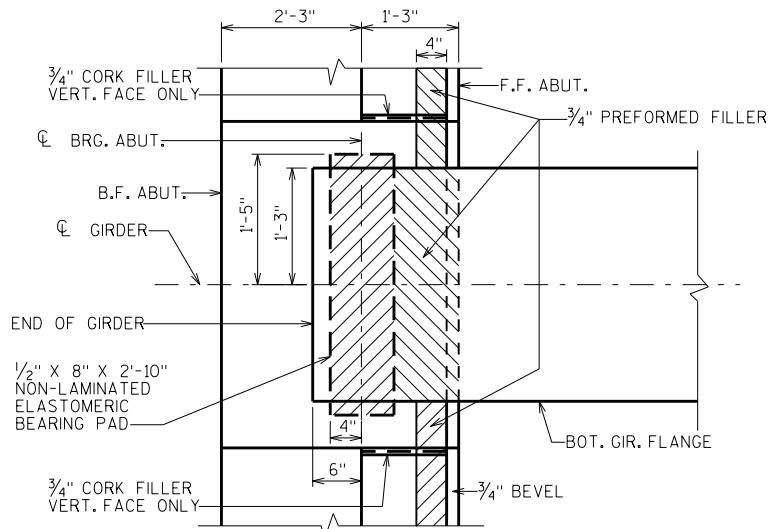
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
DRAWN BY JPH		PLANS CKD. SEW	
STEEL DIAPHRAGM			SHEET 11



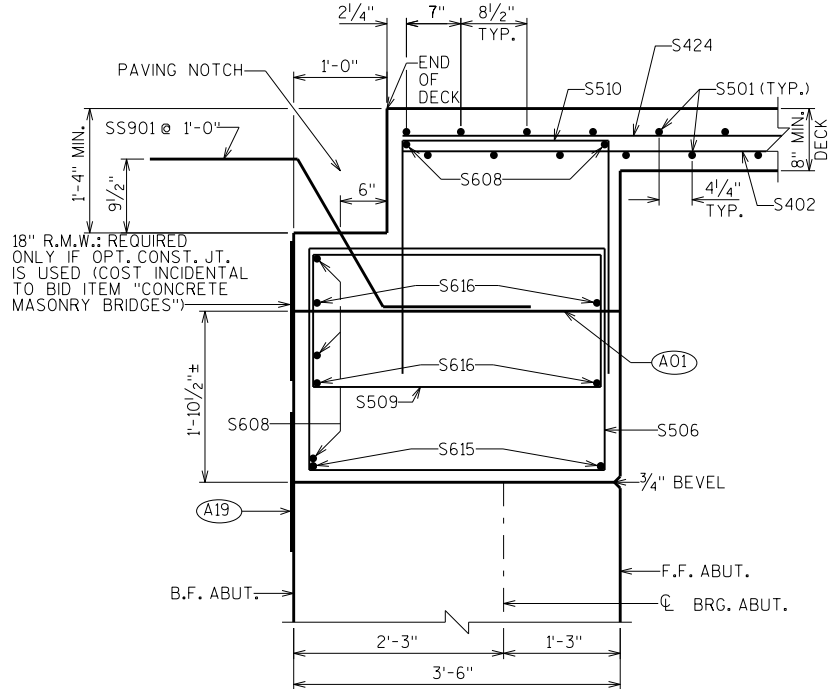
CROSS SECTION THRU ABUTMENT DIAPHRAGMS
BETWEEN EXTERIOR GIRDERS



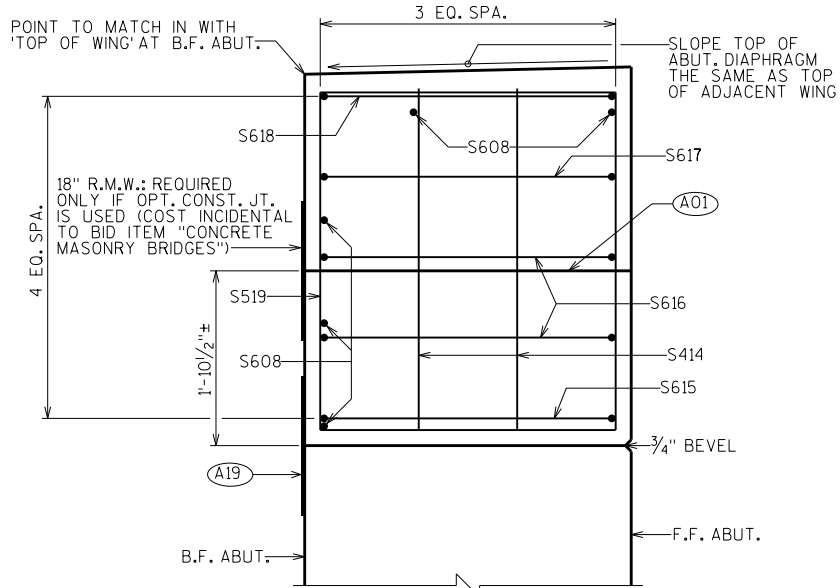
SECTION A-A
SECTION THRU ABUTMENT DIAPHRAGMS AT GIRDER 6 EXTERIOR



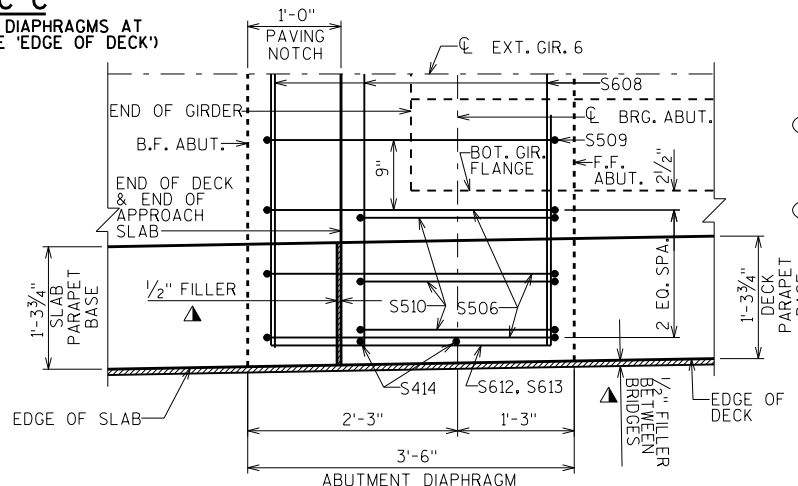
PLAN VIEW AT ABUTMENTS



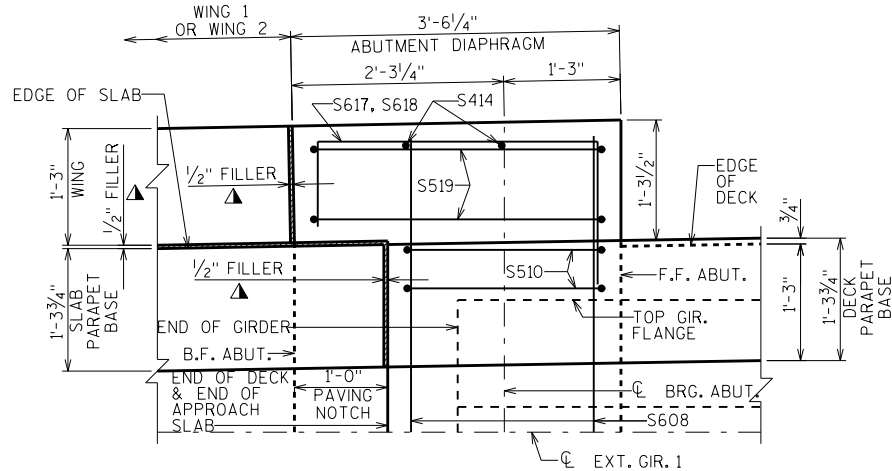
SECTION B-B
SECTION THRU ABUTMENT DIAPHRAGMS
AT GIRDER 1 EXTERIOR (UNDER DECK)



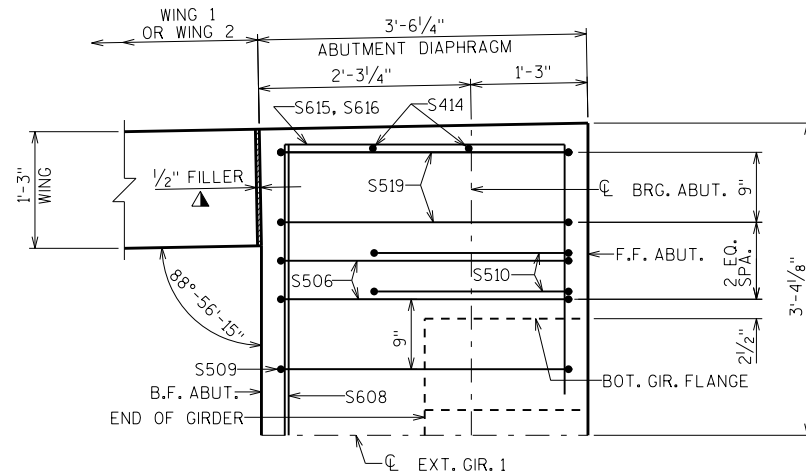
SECTION C-C
SECTION THRU ABUTMENT DIAPHRAGMS AT
GIRDER 1 EXTERIOR (OUTSIDE EDGE OF DECK)



TYPICAL DIAPHRAGM CORNER DETAIL
AT EAST SIDE - BOTH ENDS (PLAN VIEW)



TYPICAL DIAPHRAGM CORNER DETAIL
AT WINGS 1&2 (PLAN VIEW)



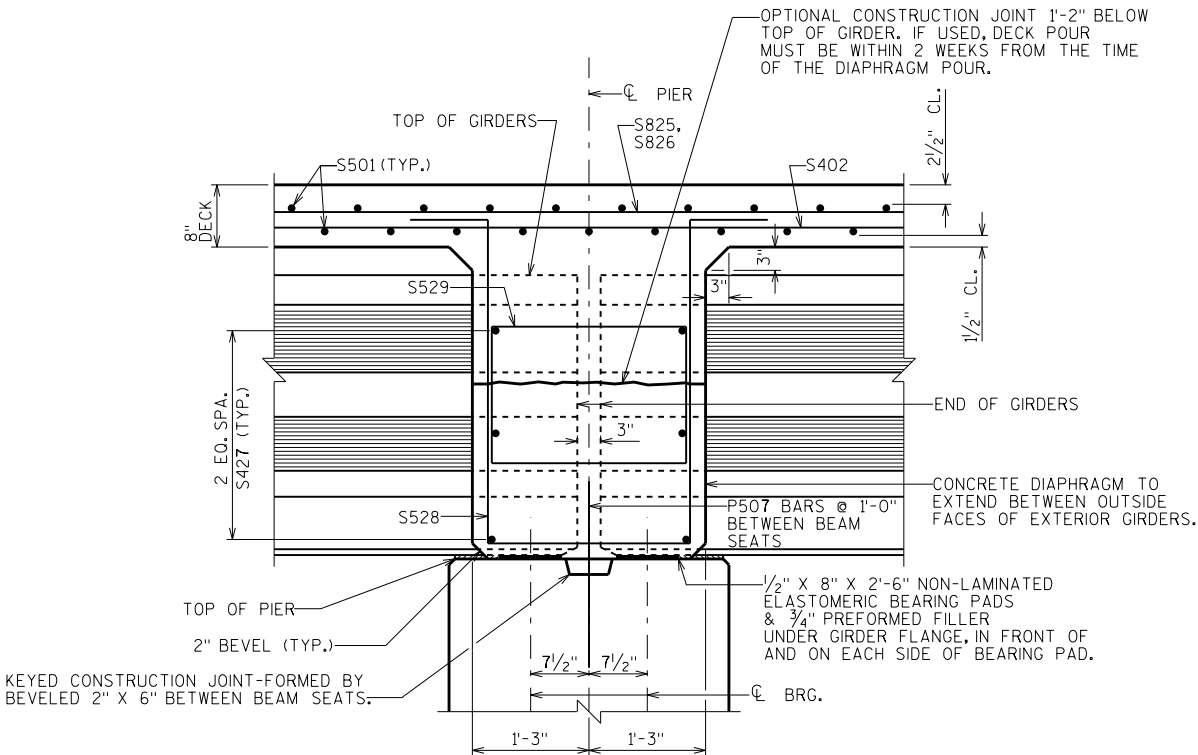
SECTION D-D
TYPICAL DIAPHRAGM CORNER DETAIL AT
WINGS 1&2 (SECTION BELOW PAVING NOTCH)

NOTE:
SEE "SUPERSTRUCTURE BAR DETAILS" SHEET
FOR THE 'BILL OF BARS' AND BAR DETAILS.

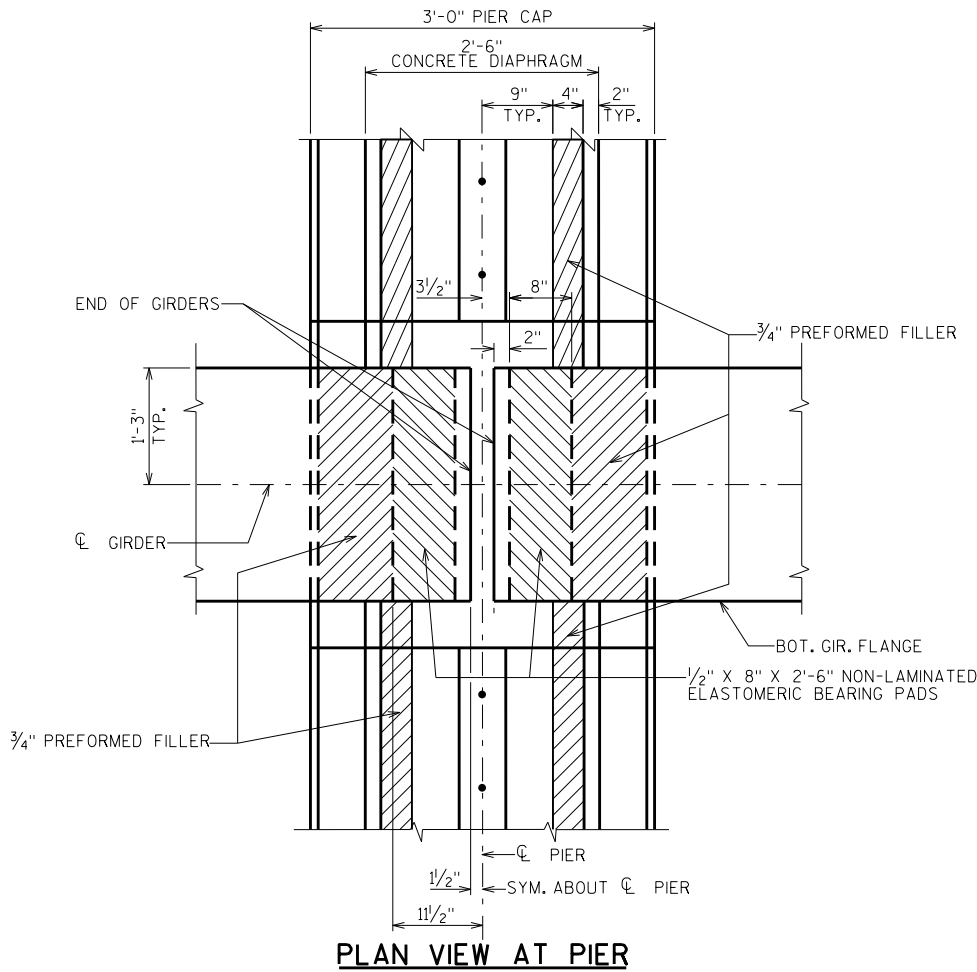
▲ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER
WITH NON-STAINING, GRAY AND NON-BITUMINOUS JOINT SEALER.
(1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).

- (A01) 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.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

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STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
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ABUTMENT DIAPHRAGMS		SHEET 13	

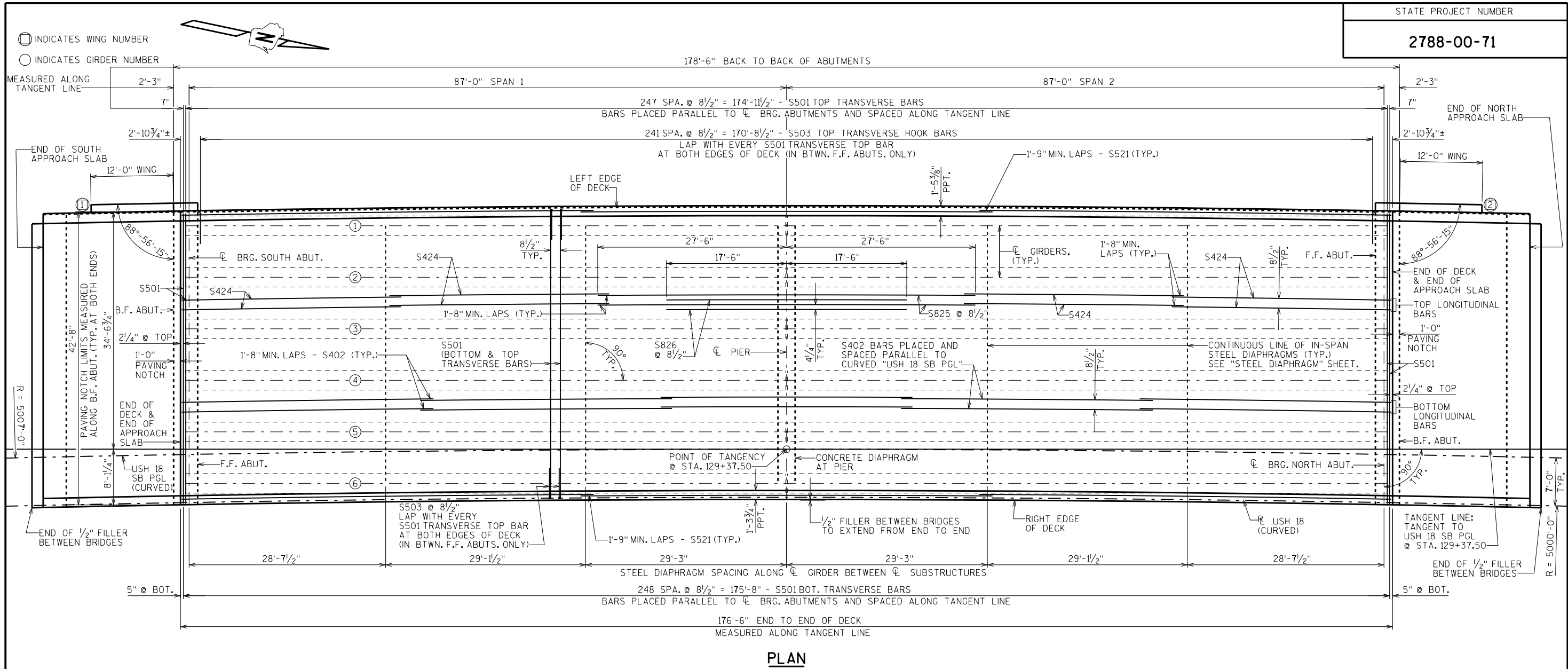


CROSS SECTION THRU PIER DIAPHRAGM



PLAN VIEW AT PIER

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PIER DIAPHRAGM		SHEET 14	



TOP OF DECK ELEVATIONS EOD = EDGE OF DECK

	CL BRG. S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CL PIER	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CL BRG. N. ABUT.	
LEFT EOD	832.97	832.78	832.58	832.39	832.19	832.00	831.80	831.61	831.42	831.22	831.03	830.83	830.64	830.45	830.25	830.06	829.86	829.67	829.48	829.28	829.09	LEFT EOD
CL GIRDER 1	832.96	832.76	832.56	832.37	832.17	831.97	831.78	831.58	831.39	831.19	831.00	830.80	830.61	830.42	830.22	830.03	829.84	829.65	829.45	829.26	829.07	CL GIRDER 1
CL GIRDER 2	832.81	832.61	832.41	832.22	832.02	831.82	831.63	831.43	831.24	831.04	830.85	830.65	830.46	830.27	830.07	829.88	829.69	829.49	829.30	829.11	828.92	CL GIRDER 2
CL GIRDER 3	832.66	832.46	832.27	832.07	831.87	831.68	831.48	831.28	831.09	830.89	830.70	830.50	830.31	830.12	829.92	829.73	829.54	829.34	829.15	828.96	828.77	CL GIRDER 3
CL GIRDER 4	832.51	832.32	832.12	831.92	831.72	831.53	831.33	831.14	830.94	830.74	830.55	830.35	830.16	829.96	829.77	829.58	829.38	829.19	829.00	828.81	828.61	CL GIRDER 4
CL GIRDER 5	832.37	832.17	831.97	831.77	831.58	831.38	831.18	830.99	830.79	830.59	830.40	830.20	830.01	829.81	829.62	829.43	829.23	829.04	828.85	828.65	828.46	CL GIRDER 5
CL GIRDER 6	832.22	832.02	831.82	831.63	831.43	831.23	831.03	830.84	830.64	830.44	830.25	830.05	829.86	829.66	829.47	829.27	829.08	828.89	828.69	828.50	828.31	CL GIRDER 6
RIGHT EOD	832.19	831.99	831.79	831.60	831.40	831.21	831.01	830.82	830.62	830.42	830.23	830.03	829.84	829.64	829.45	829.25	829.05	828.86	828.66	828.47	828.27	RIGHT EOD

NO.	DATE	REVISION	BY
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STRUCTURE B-67-361			
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SUPERSTRUCTURE PLAN		SHEET 15	

SCALE = 7.25



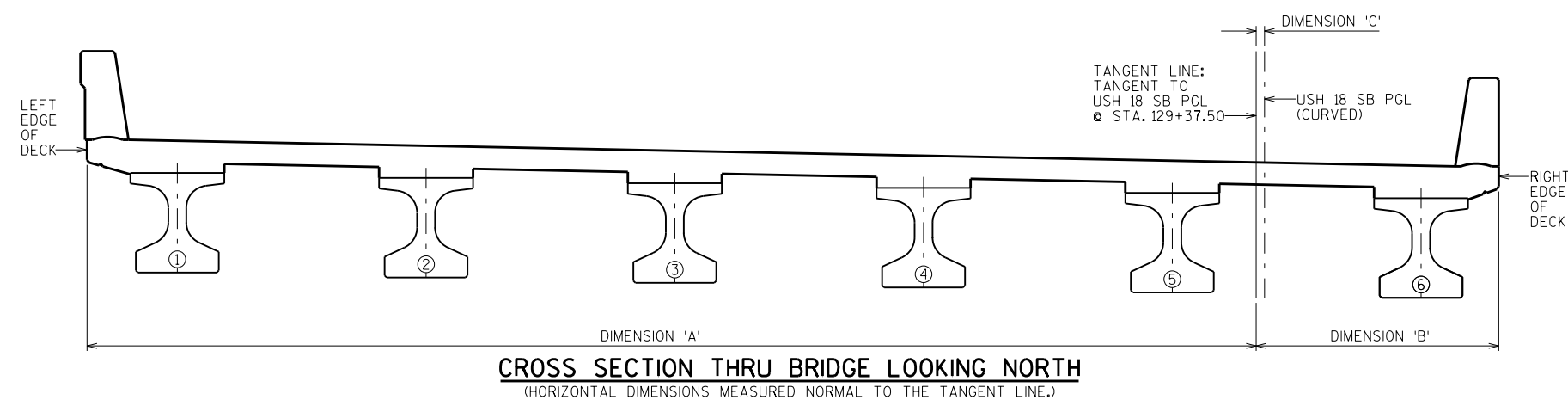
Q BRG. ABUT.

NOTES:

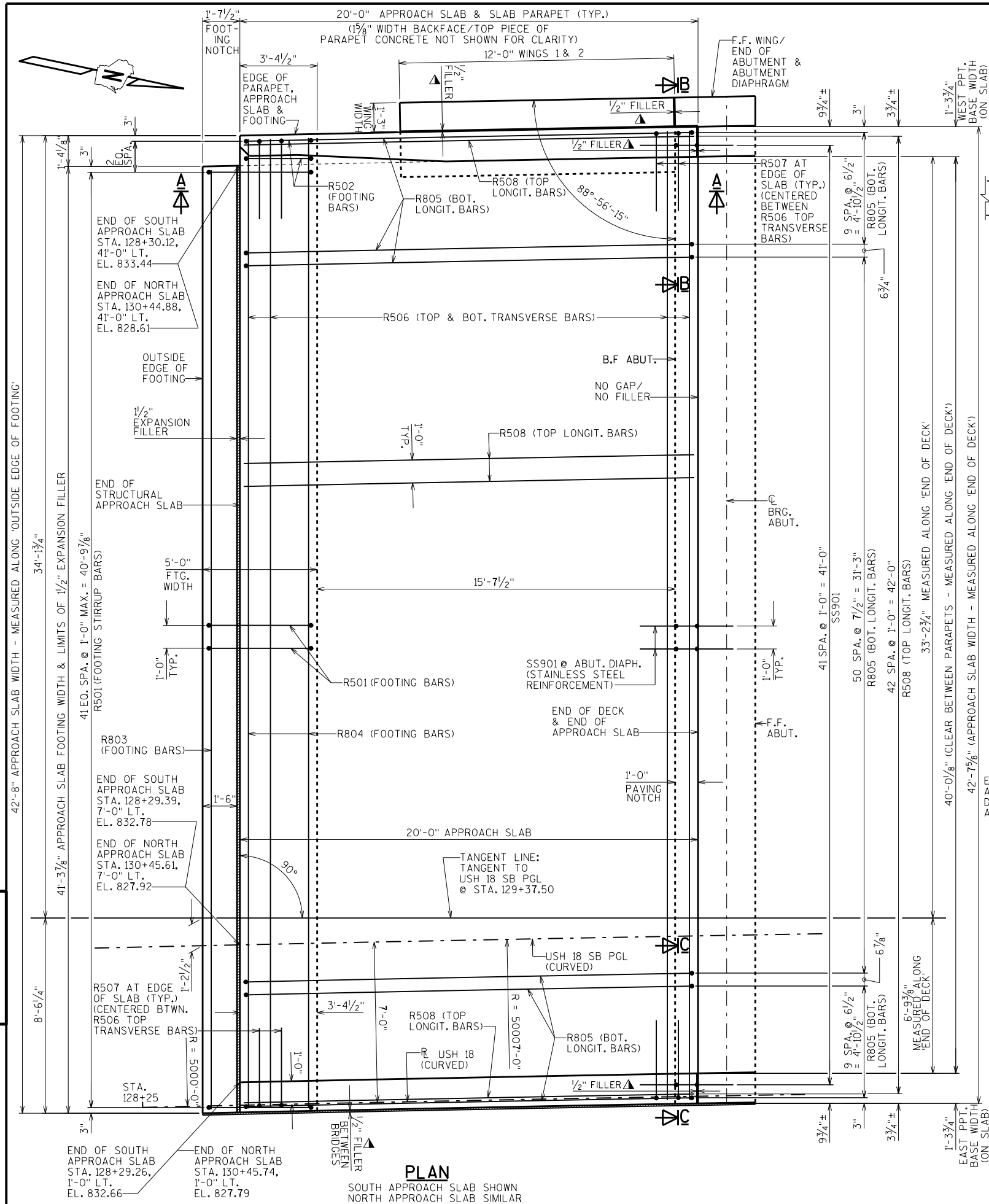
DIMENSION 'A' = DISTANCE BETWEEN THE 'TANGENT LINE' AND THE LEFT 'EDGE OF DECK'.

DIMENSION 'B' = DISTANCE BETWEEN THE 'TANGENT LINE'
AND THE RIGHT 'EDGE OF DECK'.

DIMENSION 'C' = DISTANCE BETWEEN THE 'TANGENT LINE' AND 'USH 18 SB PGL'.

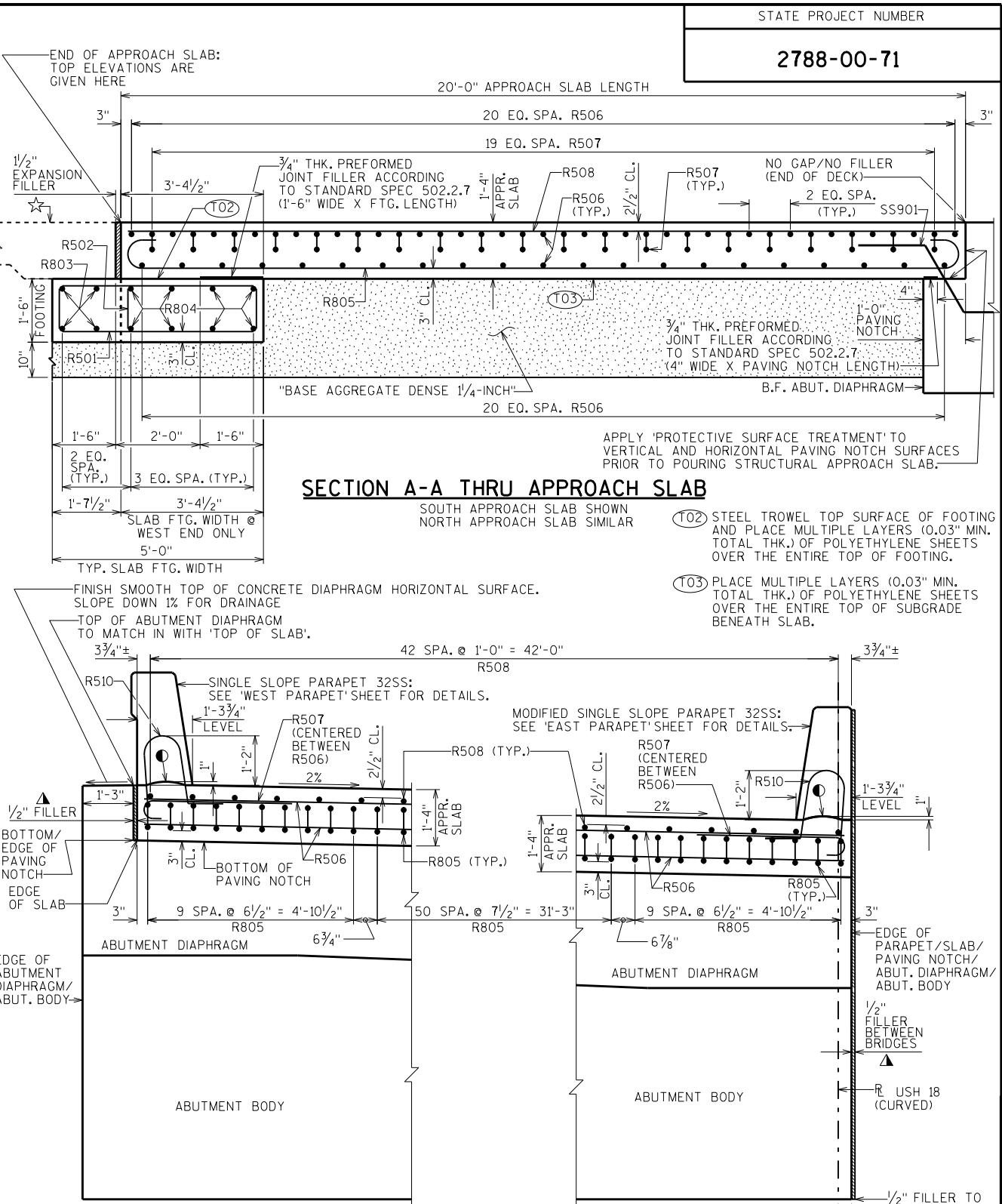


○ INDICATES GIRDER NUMBER



PLAN

SOUTH APPROACH SLAB SHOWN
NORTH APPROACH SLAB SIMILAR



SECTION A-A THRU APPROACH SLAB

SECTION B-B

SECTION C-C

DESIGN DATA

ALLOWABLE SOIL BEARING PRESSURE: 2,000 P.S.F.
CONCRETE STRENGTH f'_c : 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60, f_y : 60,000 P.S.I.

★ FOLLOW FDM 14-10-15 REQUIREMENTS
FOR ROADWAY APPROACH PAVEMENT.

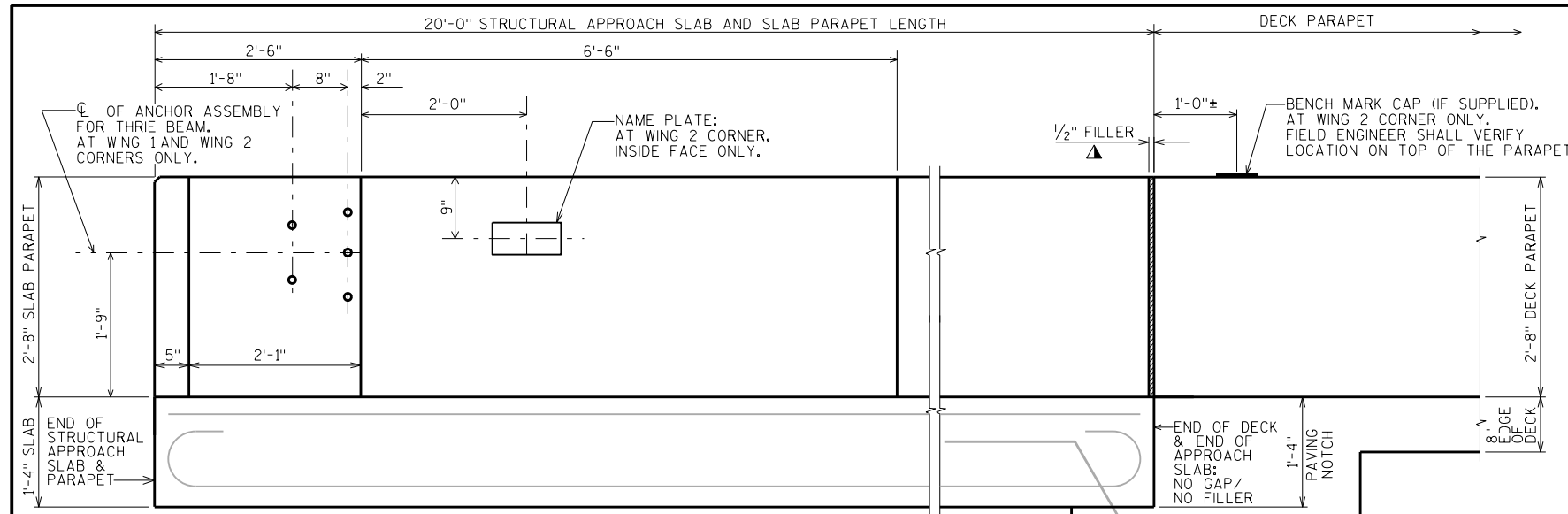
● HORIZ. CONST. JOINT: STRIKE OFF AND LEAVE ROUGH AS SHOWN

▲ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES
OF $1/2$ " FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT
SEALER. (1" DEEP AND HOLD $1/8$ " BELOW SURFACE OF CONCRETE).
EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

NO.	DATE	REVISION	BY
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STRUCTURE B-67-361			
DRAWN BY JPH		PLANS CKD. SEW	
STRUCTURAL APPROACH SLAB		SHEET 17	

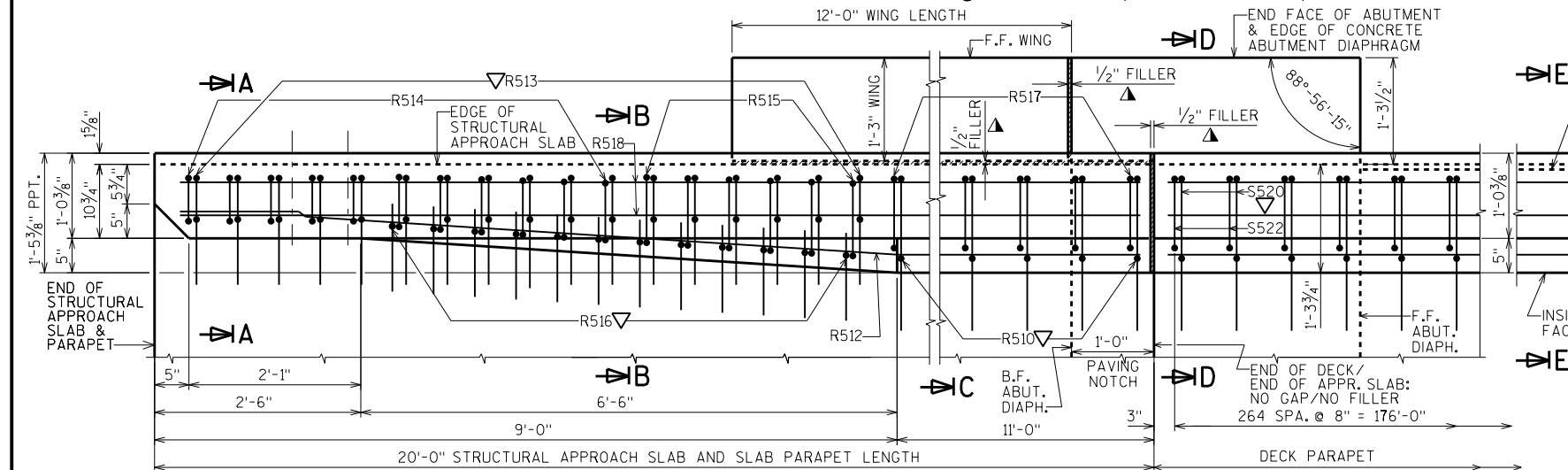
STATE PROJECT NUMBER

2788-00-71



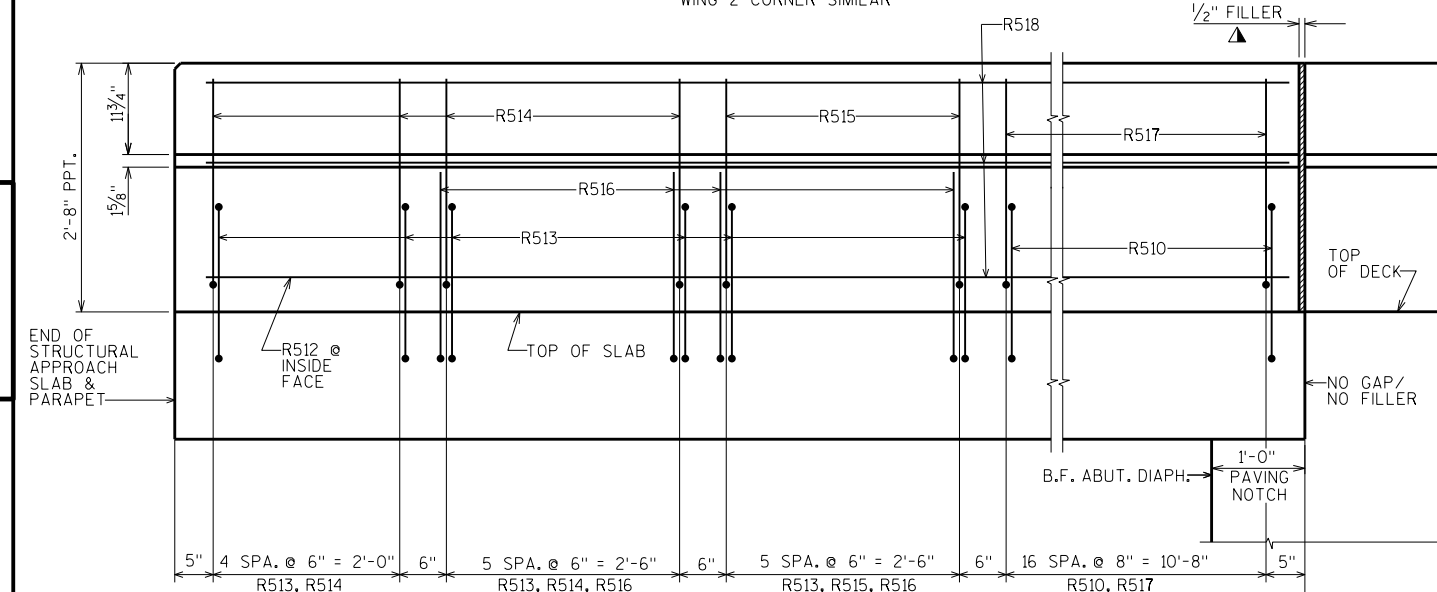
INSIDE ELEVATION

WING 1 CORNER SHOWN
WING 2 CORNER SIMILAR



PLAN

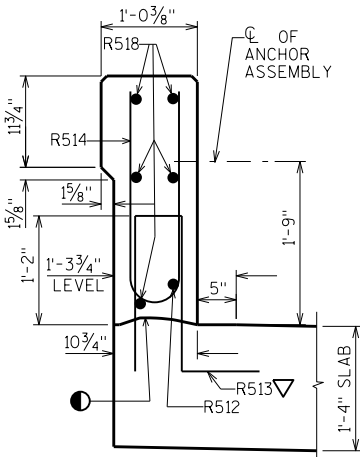
WING 1 CORNER SHOWN
WING 2 CORNER SIMILAR



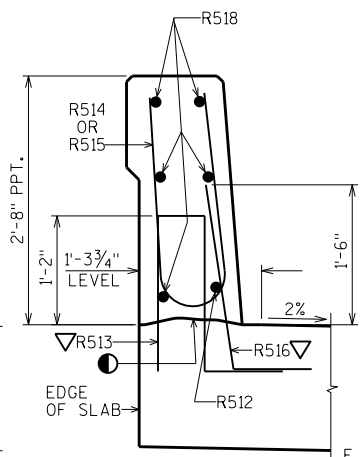
OUTSIDE ELEVATION

(WING NOT SHOWN FOR CLARITY)
WING 2 CORNER SHOWN
WING 1 CORNER SIMILAR

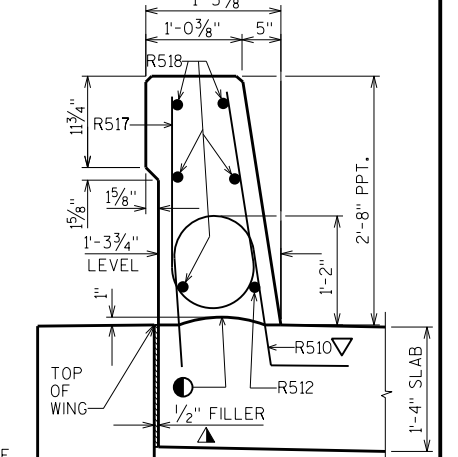
NOTES:
SEE THE 'SLAB & BAR DETAILS' SHEET FOR THE BILL OF BARS
AND BAR DETAILS FOR THE SLAB PARAPET R-BARS.
SEE THE 'SUPERSTRUCTURE BAR DETAILS' SHEET FOR THE BILL OF BARS
AND BAR DETAILS FOR THE DECK PARAPET S-BARS.



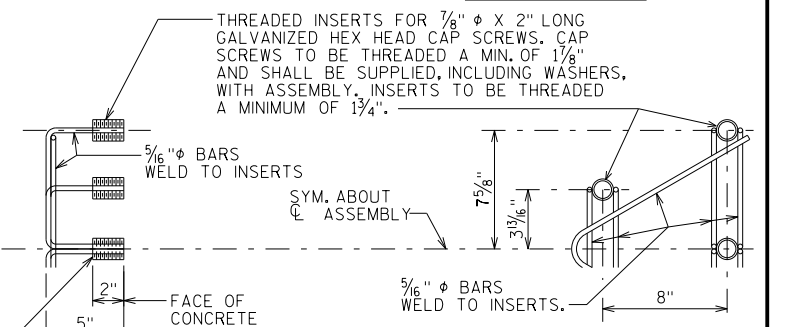
SECTION A-A



SECTION B-B



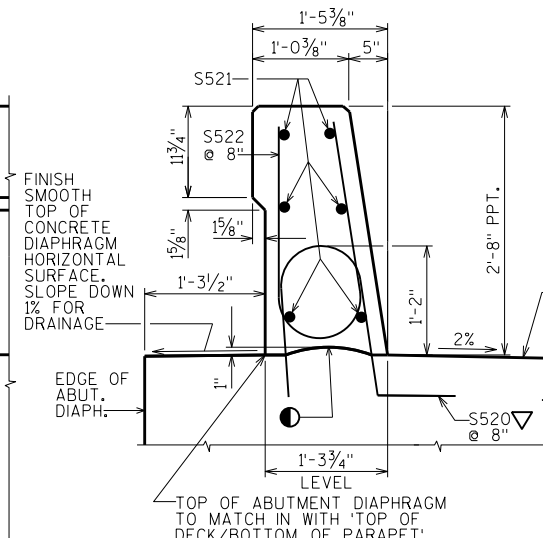
SECTION C-C



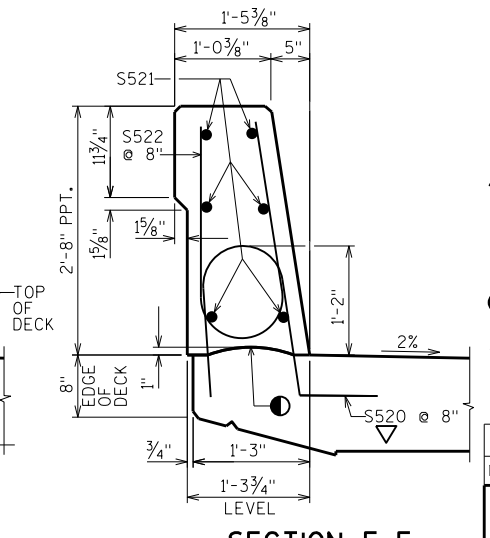
DETAIL OF ANCHOR ASSEMBLY

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

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



SECTION D-D (OVER ABUT. DIAPHRAGM)



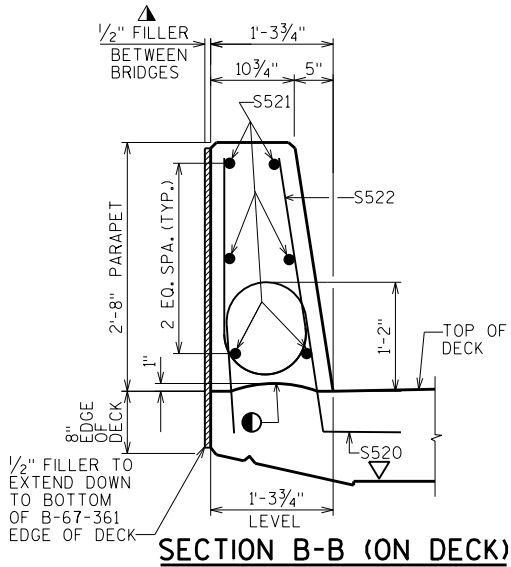
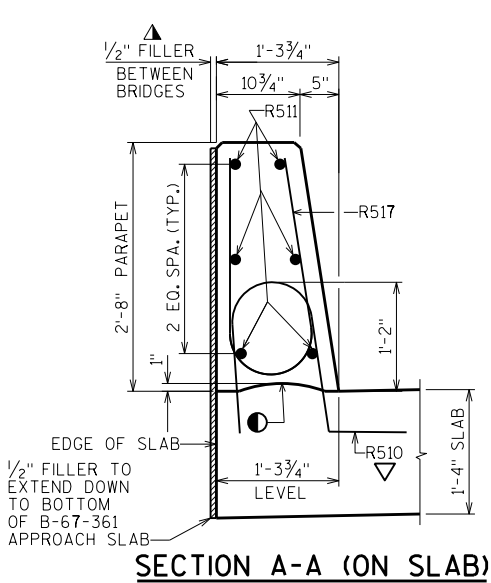
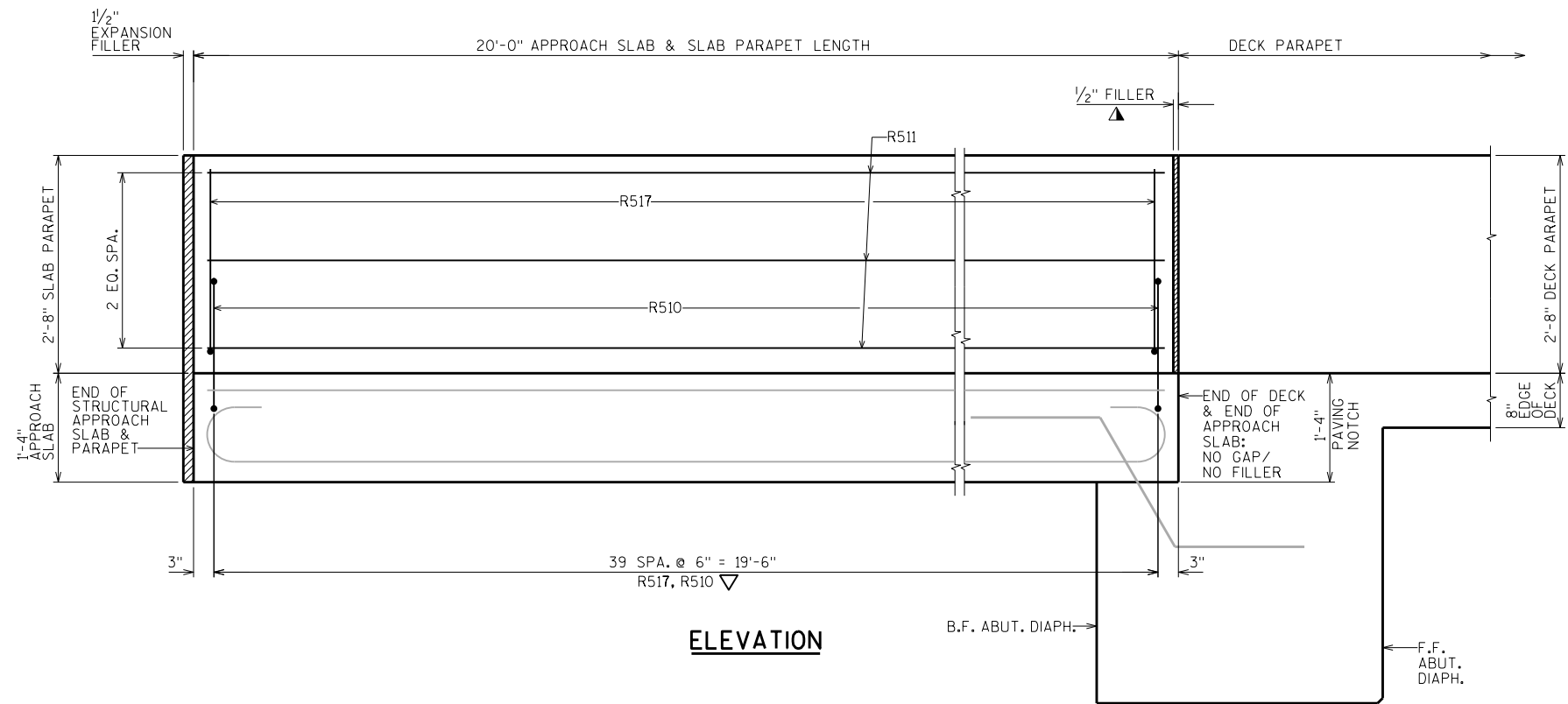
SECTION E-E (AT DECK)

▲ SEAL ALL EXPOSED HORIZONTAL AND
VERTICAL SURFACES OF 1/2" FILLER WITH
NON-STAINING, GRAY, NON-BITUMINOUS JOINT
SEALER. (1" DEEP AND HOLD 1/8" BELOW
SURFACE OF CONCRETE). EXTEND SEALER
3" BELOW GUTTER LINE AT INSIDE FACE.

● HORIZ. CONST. JOINT - STRIKE OFF
AS SHOWN AND LEAVE ROUGH.

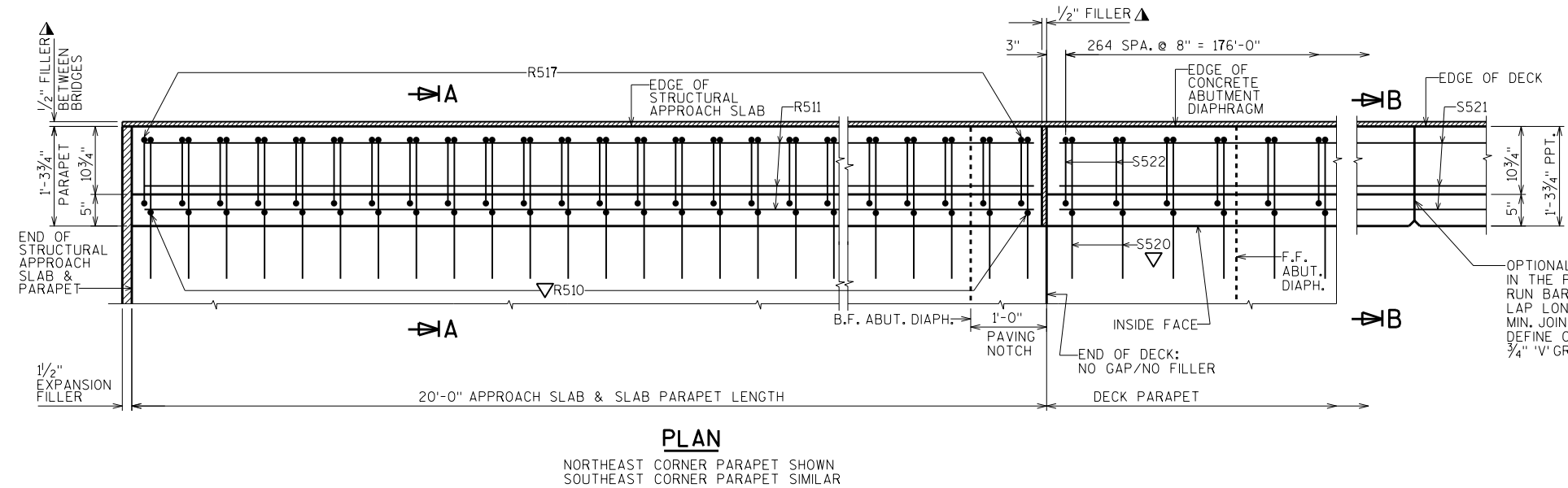
▽ R510, R513, R516 & S520 PARAPET BARS TO BE
TIED TO SLAB OR DECK STEEL BEFORE SLAB OR
DECK IS POURED. USE CARE TO PLACE R516 BARS
CORRECTLY ALONG TRANSITION OF PARAPET.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
DRAWN BY JPH		PLANS CKD. SEW	
SINGLE SLOPE PARAPET 32SS (WEST)		SHEET 19	



NOTES:
SEE THE 'SLAB & BAR DETAILS' SHEET FOR THE BILL OF BARS
AND BAR DETAILS FOR THE SLAB PARAPET R-BARS.

SEE THE "SUPERSTRUCTURE BAR DETAILS" 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 REINF. THRU THE JOINT.
LAP LONGIT. BARS A MIN. OF 1'-9".
MIN. JOINT SPACING OF 80'-0".
DEFINE CONST. JOINT WITH A
3/4" 'V' GROOVE.

● HORIZ. CONST. JOINT - STRIKE OFF
AS SHOWN AND LEAVE ROUGH.

▽ R510 & S520 PARAPET BARS TO BE
TIED TO SLAB OR DECK STEEL BEFORE
THE SLAB OR DECK IS POURED.

▲ SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES
OF 1/2" FILLER WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT
SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE).
EXTEND SEALER 3" BELOW GUTTER LINE AT INSIDE FACE.

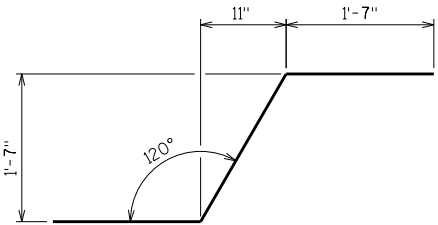
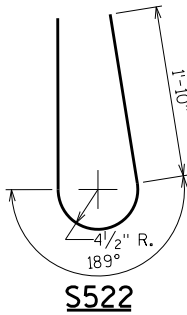
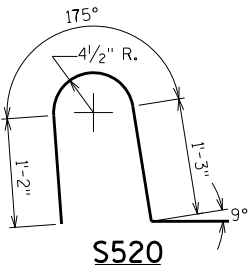
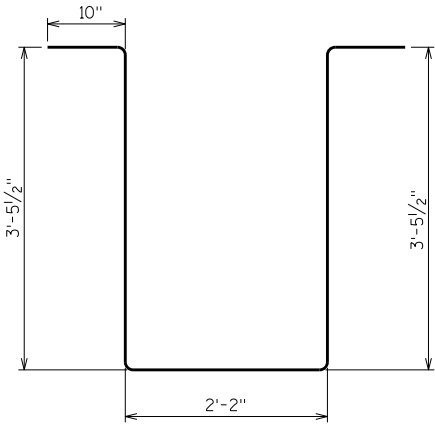
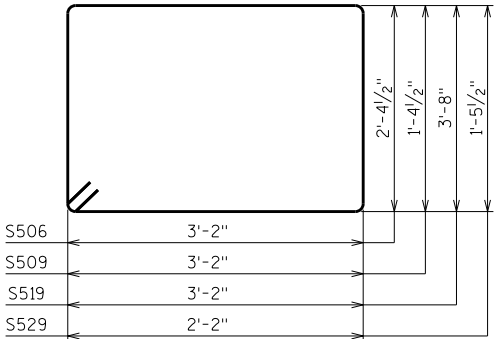
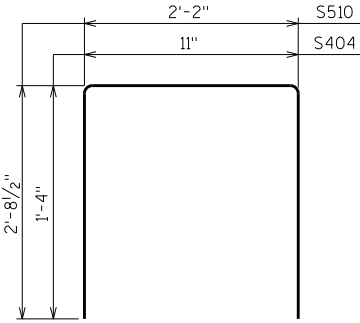
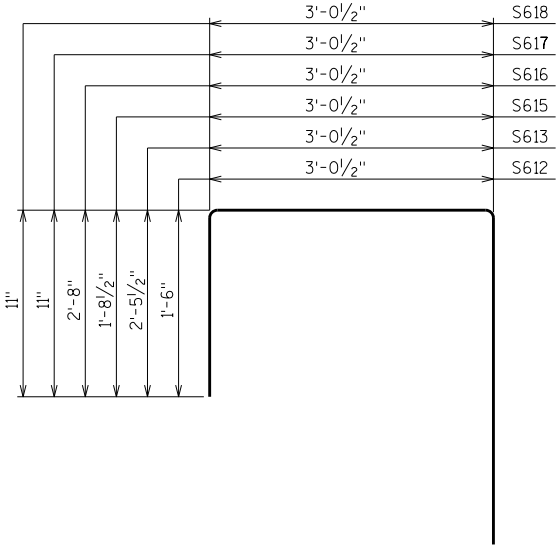
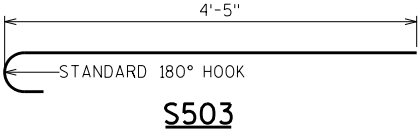
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
DRAWN BY JPH		PLANS CKD. SEW	
MODIFIED SINGLE SLOPE PARAPET 32SS (EAST)		SHEET 20	

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE
BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
S501	X	499	42'-3"		DECK-TOP & BOTTOM-HORIZONTAL-TRANSVERSE
S402	X	305	36'-8"		DECK-BOTTOM-HORIZONTAL-LONGITUDINAL
S503	X	484	5'-0"	X	DECK-TOP-VERTICAL-TRANSVERSE-AT BOTH EDGES OF DECK
S404	X	50	3'-5"	X	ABUT. DIAPHS.-F.F.-BOT.-VERT.-BTWN. BEAM SEATS
S405	X	20	3'-8"		ABUT. DIAPHS.-F.F.-BOT.-HORIZ.-BTWN. BEAM SEATS
S506	X	80	11'-9"	X	ABUT. DIAPHS.-VERTICAL-UNDER PAVING NOTCHES
S607	X	50	4'-8"		ABUT. DIAPHS.-F.F.-HORIZ.-BTWN. GIRS ONLY
S608	X	10	43'-7"		ABUT. DIAPHS. B.F. & DECK-HORIZ.
S509	X	24	9'-9"	X	ABUT. DIAPHS.-VERT.-UNDER GIR. TOP FLANGES
S510	X	80	7'-4"	X	ABUT. DIAPHS./DECK-VERT.-BETWEEN EDGES OF DECKS
S511	X	24	6'-0"		ABUT. DIAPHS.-HORIZ.-THRU GIRDERS
S612	X	2	7'-9"	X	ABUT. DIAPHS.-BOT.-HORIZ.-AT GIR. 6 EXTERIORS ONLY
S613	X	4	8'-9"	X	ABUT. DIAPHS.-HORIZ.-AT GIR. 6 EXTERIORS ONLY
S414	X	8	3'-8"		ABUT. DIAPH.-VERT.-AT ALL FOUR GIR. EXTERIORS
S615	X	2	8'-0"	X	ABUT. DIAPHS.-BOT.-HORIZ.-AT GIR. 1 EXTERIORS ONLY
S616	X	4	8'-11"	X	ABUT. DIAPHS.-HORIZ.-AT GIR. 1 EXTERIORS ONLY
S617	X	2	5'-2"	X	ABUT. DIAPHS.-HORIZ.-AT GIR. 1 EXTERIORS ONLY
S618	X	2	4'-11"	X	ABUT. DIAPHS.-TOP-HORIZ.-AT GIR. 1 EXTERIORS ONLY
S519	X	4	14'-4"	X	ABUT. DIAPHS.-VERTICAL-AT GIR. 1 EXTERIORS ONLY
S520	X	530	4'-5"	X	PARAPETS/DECK-VERTICAL-TRANSVERSE-AT BOTH SIDES
S521	X	36	60'-0"		PARAPETS-BOTH FACES-HORIZ.-LONGIT.-AT BOTH SIDES
S522	X	530	5'-0"	X	PARAPETS-VERTICAL-TRANSVERSE-AT BOTH SIDES
S523		--	--		NOT USED
S424	X	240	32'-0"		DECK-TOP-HORIZONTAL-LONGITUDINAL-AT SPANS 1&2
S825	X	60	55'-0"		DECK-TOP-HORIZONTAL-LONGITUDINAL-OVER PIER ONLY
S826	X	59	35'-0"		DECK-TOP-HORIZONTAL-LONGITUDINAL-OVER PIER ONLY
S427	X	50	4'-8"		PIER, DIAPH.-BOTH FACES-HORIZ.-BTWN. GIRS ONLY
S528	X	30	10'-3"	X	PIER DIAPH./DECK-VERTICAL-BTWN. GIRS ONLY
S529	X	10	7'-11"	X	PIER DIAPH.-VERT.-UNDER GIR. TOP FLANGES-BTWN. GIRS ONLY

SS901		84	5'-0"	X	APPROACH SLAB/ABUT. DIAPH.-VERT.-AT PAVING NOTCHES
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STAINLESS STEEL REINFORCEMENT



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-67-361			
DRAWN BY JPH		PLANS CK'D. SEW	
SUPERSTRUCTURE BAR DETAILS		SHEET 21	