

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	PROPERTY LINE	PL
ACCESS RIGHTS	AR	RECORDED AS	(100')
ACRES	AC.	REFERENCE LINE	R/L
AND OTHERS	ET.AL.	RELEASE OF RIGHTS	ROR
BARN	B.	REMAINING	REM.
CENTERLINE	C/L	RIGHT-OF-WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CORNER	COR.	SHED	S.
CONVEYANCE OF RIGHTS	CR	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
GARAGE	G.	CURVE DATA	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
HOUSE	H.	LONG CHORD BEARING	LCB
HOUSE TRAILER	H.T.	RADIUS	R
LAND CONTRACT	LC	DEGREE OF CURVE	D
MONUMENT	MON.	CENTRAL ANGLE OR DELTA	DELTA
PAGE	P.	LENGTH OF CURVE	L
PERMANENT LIMITED EASEMENT	PLE	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND SURVEY MONUMENT (WITH POINT NUMBER)	1040	PROPOSED R/W LINE	
R/W MONUMENT	• (SET)	EXISTING H.E. LINE	
R/W STANDARD	▲ (SET)	PROPERTY LINE	
SIGN	ISIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT	⊕	SLOPE INTERCEPTS	
SECTION CORNER SYMBOL	⊕	CORPORATE LIMITS	
FEE (HATCH VARIES)	///	NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY ACQUISITION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W BOUNDARY POINT	RWB20	SECTION LINE	
PARCEL NUMBER	8	QUARTER LINE	
UTILITY PARCEL NUMBER	92	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	21-1	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	
		ENCROACHMENT	

CONVENTIONAL UTILITY SYMBOLS

WATER	W	SANITARY SEWER	SAN
GAS	G	STORM SEWER	SS
TELEPHONE	T		
OVERHEAD	OH	NON	COMPENSABLE
TRANSMISSION LINES		POWER POLE	COMPENSABLE
ELECTRIC	E	TELEPHONE POLE	
CABLE TELEVISION	TV	TELEPHONE PEDESTAL	
FIBER OPTIC	FO	ELECTRIC TOWER	

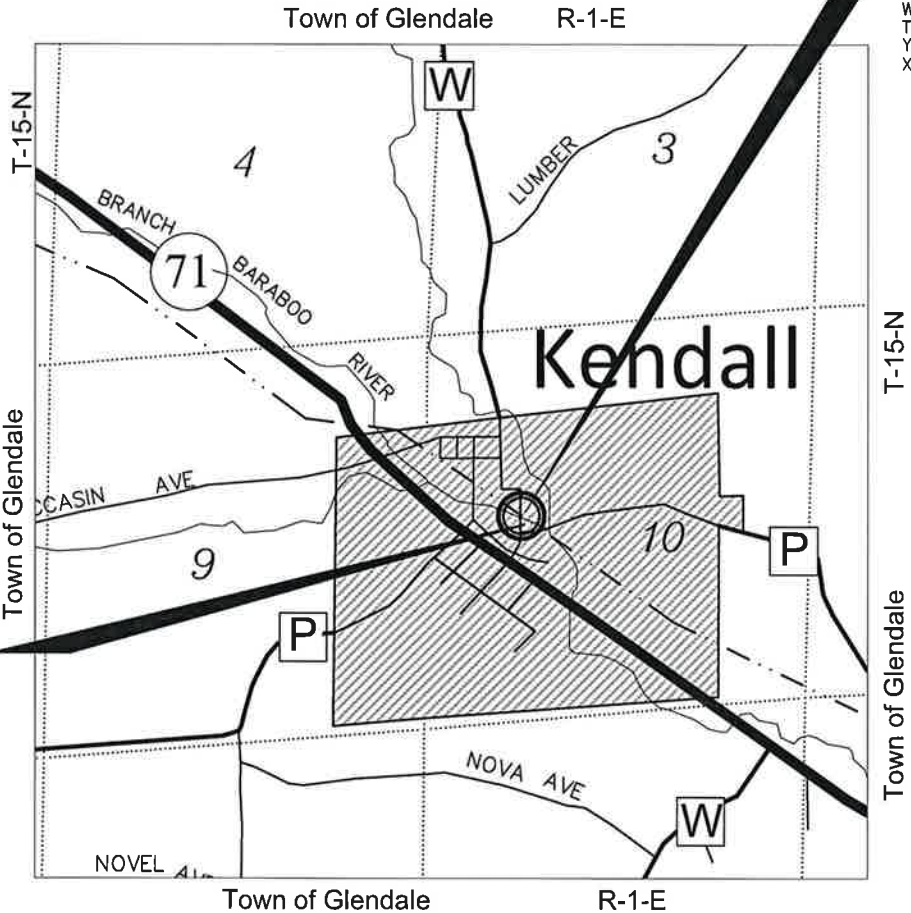
R/W PROJECT NUMBER 5516-00-00	SHEET NUMBER	TOTAL SHEETS
FEDERAL PROJECT NUMBER	4.01	2
PLAT OF RIGHT-OF-WAY REQUIRED FOR VILLAGE OF KENDALL, WHITE STREET (BRANCH OF BARABOO RIVER BRIDGE B-41-0306)		
CTH W		MONROE COUNTY
CONSTRUCTION PROJECT NUMBER 5516-00-70		

END RELOCATION ORDER

STA. 14+50
159.61' NORTH AND 1326.98' EAST OF THE
WEST ¼ CORNER OF SECTION 10, T15N, R1E,
TOWN OF GLENDALE, MONROE COUNTY, WI
Y= 325,235.29
X= 743,369.96

BEGIN RELOCATION ORDER

STA. 12+00
90.02' SOUTH AND 1313.34' EAST OF THE
WEST ¼ CORNER OF SECTION 10, T15N, R1E,
TOWN OF GLENDALE, MONROE COUNTY, WI
Y= 324,985.66
X= 743,356.32



NOTES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WICRS) COORDINATES, MONROE COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD."

JEWELL
associates engineers, inc.

Engineers - Architects - Surveyors

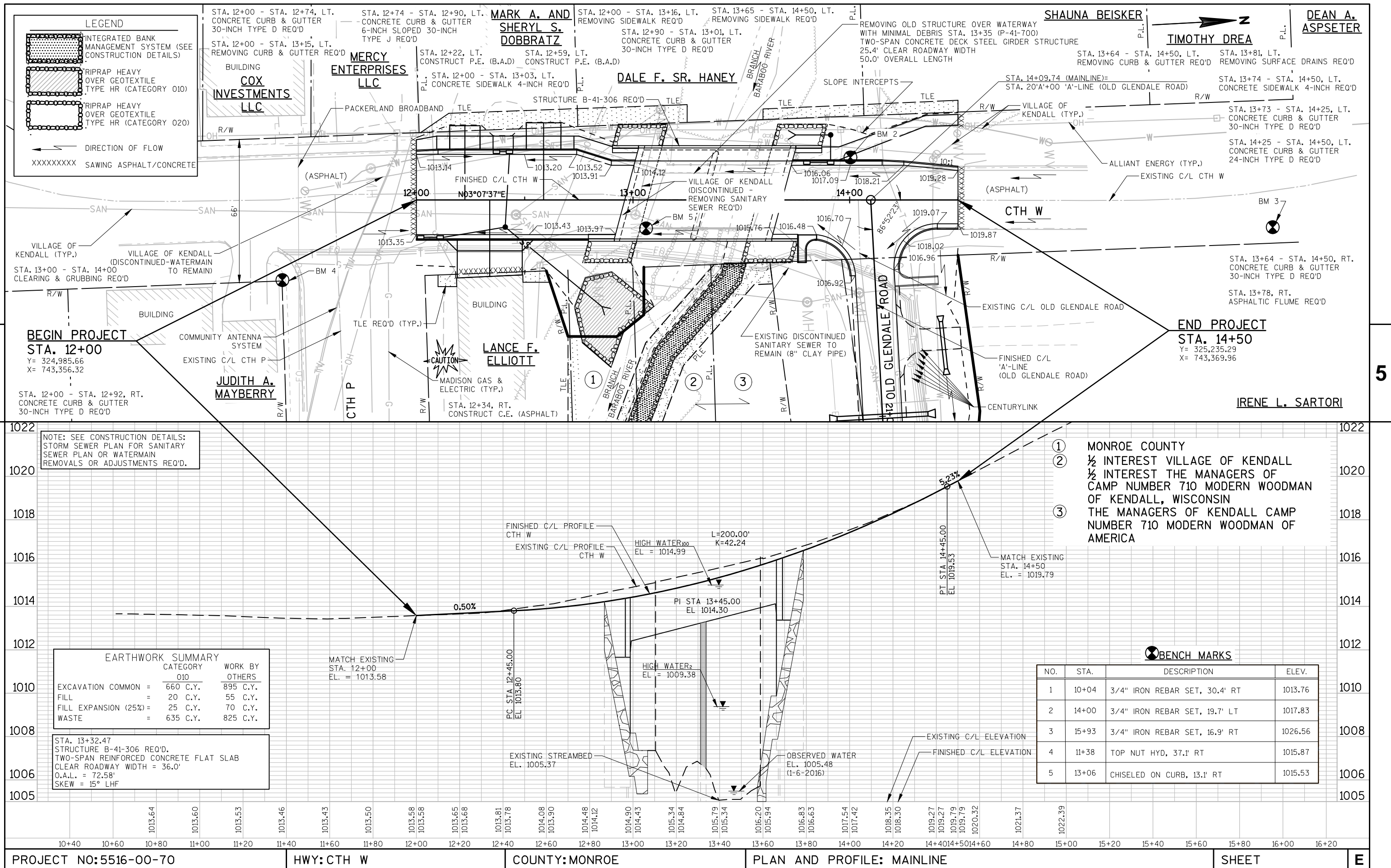
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE : 608.588.7484
www.jewellassoc.com

I HEREBY CERTIFY THAT THIS PLAT WAS
MADE FOR THE VILLAGE OF KENDALL, MONROE
COUNTY, WISCONSIN AND IS CORRECT TO THE
BEST OF MY KNOWLEDGE AND BELIEF.



APPROVED FOR MONROE COUNTY

DATE: 09/13/18
(NAME/TITLE)
Harry Commis...



DESIGN DATA

LIVE LOAD:

DESIGN LOADING _____ HL-93
INVENTORY RATING FACTOR _____ RF=1.42
OPERATING RATING FACTOR _____ RF=1.83
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) _____ 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY, SUPERSTRUCTURE _____ f'c = 4,000 P.S.I.
ALL OTHER _____ f'c = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL _____
REINFORCEMENT, GRADE 60 _____ fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 140 TONS** PER PILE AND PIER TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS** PER PILE AS AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 15 FT PILE LENGTHS AT SOUTH ABUTMENT, 20 FT PILE LENGTHS AT PIER, AND 15 FT PILE LENGTHS AT NORTH ABUTMENT. PILE POINTS ARE REQUIRED AT BOTH ABUTMENTS AND PRE-BORING IS REQUIRED AT THE PIER.

**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

A.D.T. (2019) _____ 650
A.D.T. (2039) _____ 710
DESIGN SPEED _____ 30 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY _____
DRAINAGE AREA _____ 8.5 SQ. MI.
Q₁₀₀ TOTAL _____ 2,200 C.F.S.
THROUGH STRUCTURE _____ 1,965 C.F.S.
OVERTOPPING ROADWAY _____ 235 C.F.S.
VELOCITY - THROUGH STRUCTURE _____ 4.7 F.P.S.
WATERWAY AREA - THROUGH STRUCTURE _____ 421.8 SQ. FT.
HIGH WATER₁₀₀ ELEVATION _____ 1014.99
SCOUR CRITICAL CODE _____ 5

DESIGN ROADWAY OVERFLOW FREQUENCY _____
ROADWAY OVERFLOW FREQUENCY _____ 38 YEARS
Q_{OVERTOPPING} _____ 1,850 C.F.S.
OVERTOPPING ELEVATION _____ 1013.78

EROSION CONTROL _____
Q₂ _____ 580 C.F.S.
VELOCITY₂ _____ 3.3 F.P.S.
HIGH WATER₂ ELEVATION _____ 1009.38

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
1	10+04	3/4" IRON REBAR SET, 30.4' RT	1013.76
2	14+00	1/2" IRON REBAR SET, 19.7' LT	1017.83
3	15+93	3/4" IRON REBAR SET, 16.8' RT	1026.56
4	11+38	TOP NUT HYD, 37.1' RT	1015.87
5	13+06	CHISELED ON CURB, 13.1' RT	1015.53

LIST OF DRAWINGS

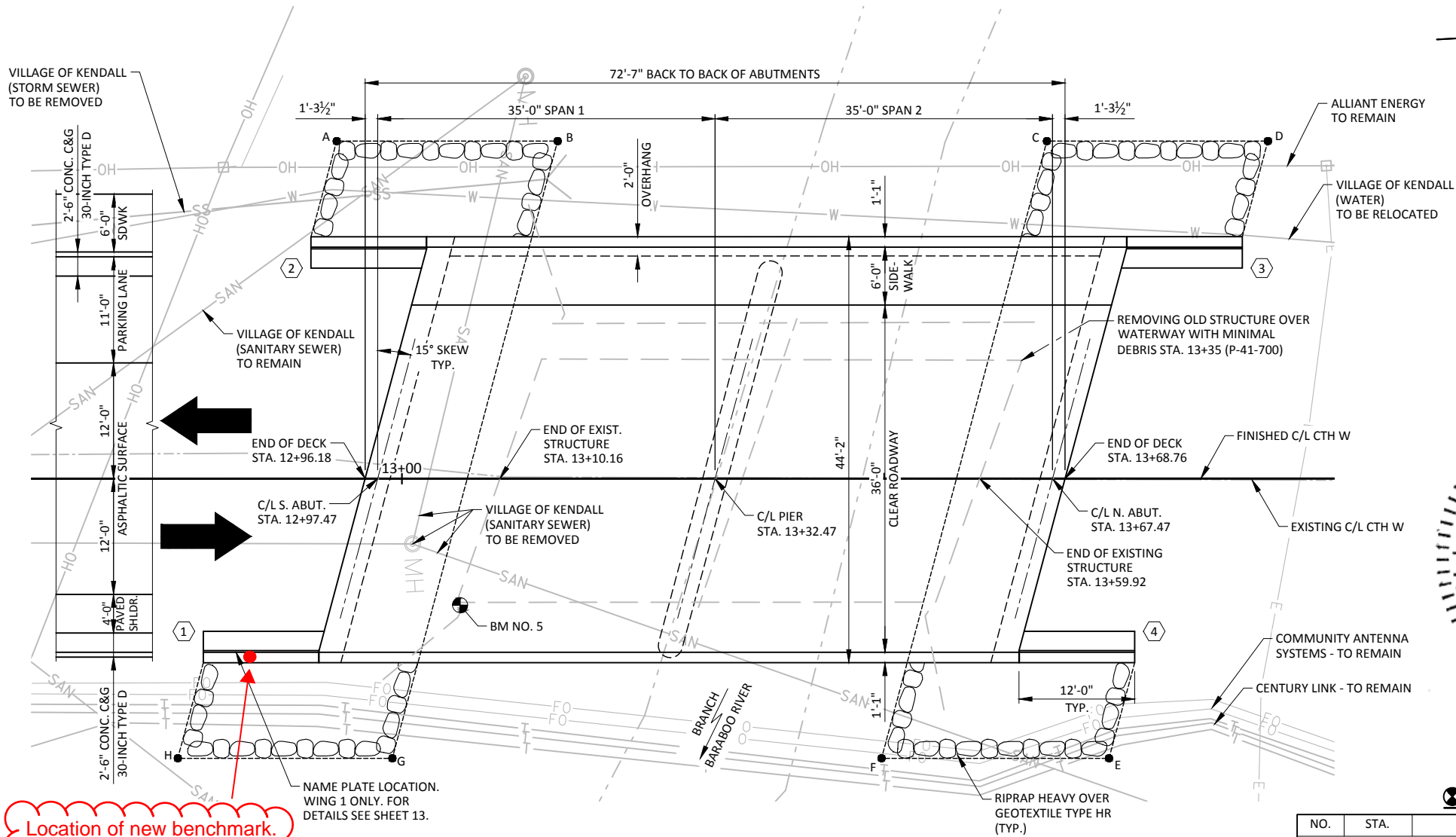
- GENERAL PLAN
- CROSS SECTION AND QUANTITIES
- SUBSURFACE EXPLORATION
- SOUTH ABUTMENT
- SOUTH ABUTMENT DETAILS
- NORTH ABUTMENT
- NORTH ABUTMENT DETAILS
- PIER
- SUPERSTRUCTURE
- SUPERSTRUCTURE DETAILS (1 OF 2)
- SUPERSTRUCTURE DETAILS 2 (2 OF 2)
- PARAPET DETAILS
- STEEL RAILING TYPE C3
- STEEL RAILING TYPE C3 DETAILS

DESIGN CONSULTANT

PATRICK BOLAND, PE
(608) 588-7484

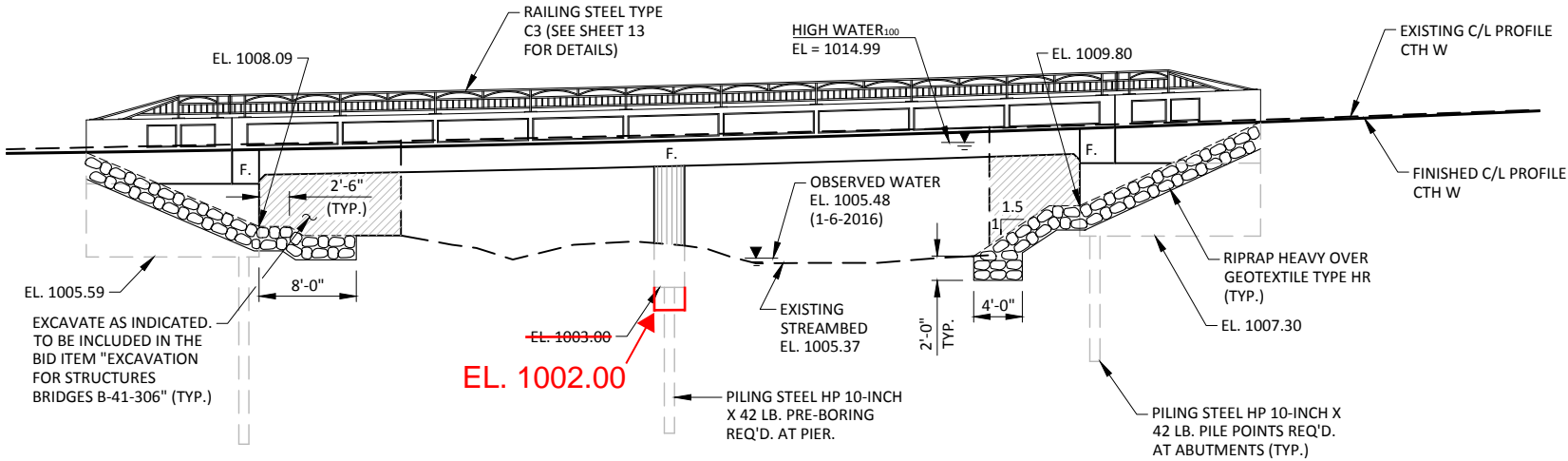
BRIDGE OFFICE CONTACT

WILLIAM DREHER, PE
(608) 266-8489



PLAN B-41-306

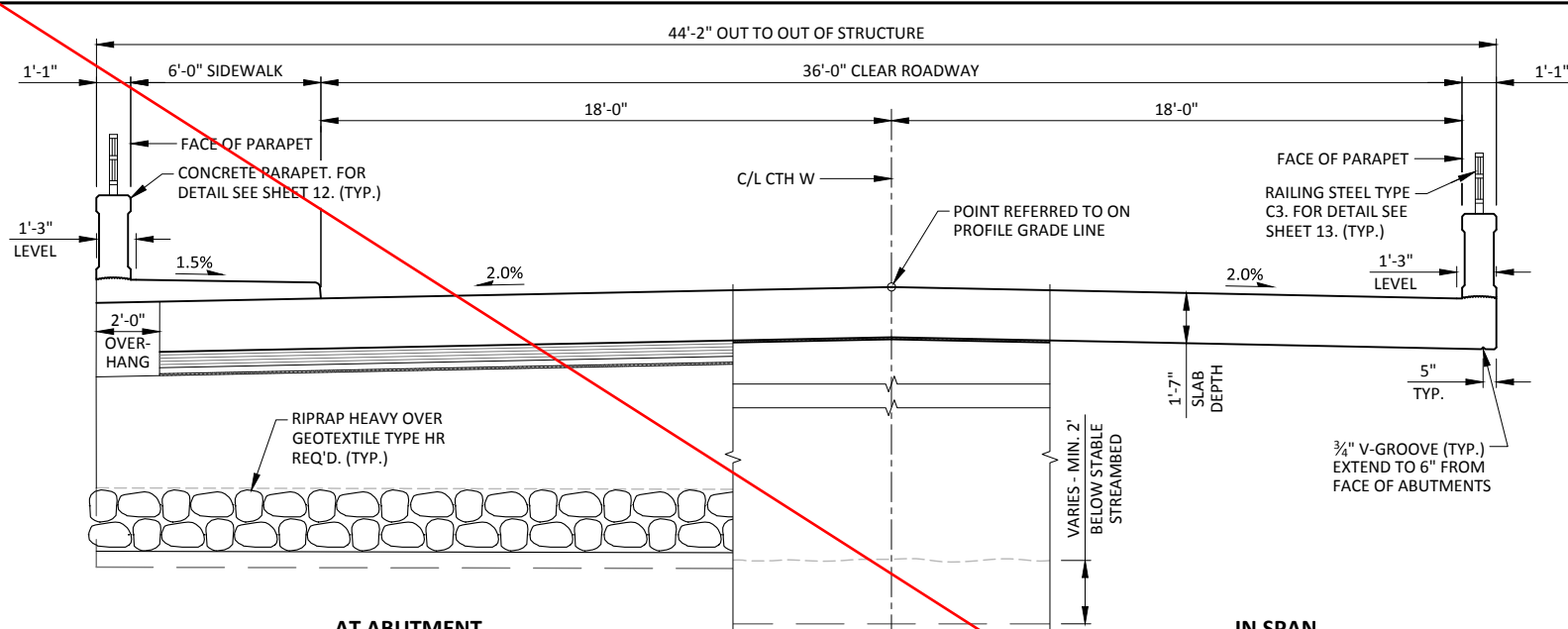
(TWO-SPAN REINFORCED CONCRETE FLAT SLAB)



ELEVATION

(NORMAL TO BRANCH OF BARABOO RIVER)

NO.	DATE	REVISION	BY
JEWELL associates engineers, inc. Engineers - Architects - Surveyors			
560 SUNRISE DRIVE SPRING GREEN, WI 53588 PHONE: (608) 588-7484 FAX: (608) 588-9322			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> SDR 11/07/18 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-41-306			
CTH W OVER BRANCH BARABOO RIVER			
COUNTY	MONROE	TOWNSHIP/VILLAGE	KENDALL
DESIGN SPEC.	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS		
DESIGNED BY	JZ	DESIGN CK'D.	PTB
DRAWN BY	JZ	PLANS CK'D.	PTB
GENERAL PLAN			SHEET 1 OF 14

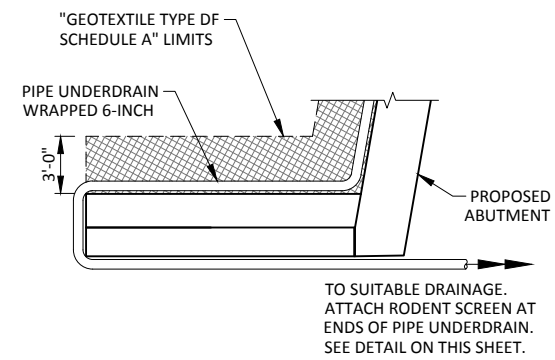


AT ABUTMENT

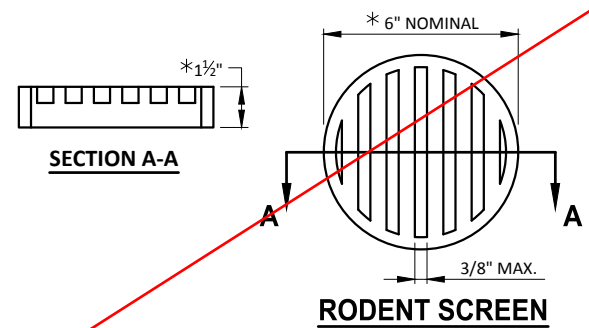
AT PIER

IN SPAN

PROPOSED CROSS-SECTION THROUGH ROADWAY
(LOOKING NORTH)



PIPE UNDERDRAIN DETAIL

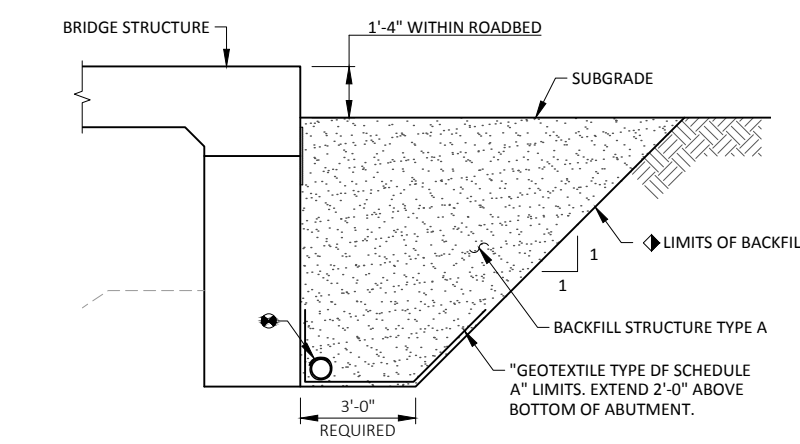


RODENT SCREEN

NOTES:
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.
ORIENT SCREEN SO SLOTS ARE VERTICAL.
THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".
THE RODENT SCREEN 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 SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION MI53, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.
THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.
AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A. SEE THIS SHEET FOR DETAIL.
ANY EXCAVATION BELOW THE ABUTMENT AND ASSOCIATED ABUTMENT BEDDING MATERIALS REQUIRE THE APPROVAL OF THE ENGINEER IN THE FIELD.
APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK, TO THE CURB FACE AND TO THE TOP OF THE RAISED SIDEWALK (FINISHED AREAS ONLY) INCLUDING SIDEWALK AREAS ADJACENT TO WING WALLS.
APPLY PIGMENTED SURFACE SEALER TO THE INSIDE AND TOP FACES OF PARAPETS (CONCRETE MATERIAL ONLY), INCLUDING PARAPETS ON ABUTMENT WINGS.
THE EXISTING STRUCTURE (P-41-700) IS A TWO-SPAN STEEL DECK GIRDER STRUCTURE WITH A CONCRETE DECK SUPPORTED ON FULL RETAINING CONCRETE ABUTMENTS. THE STRUCTURE IS 30.1' WIDE BY 50.0' LONG AND SHALL BE REMOVED.
ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.
THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-41-306" SHALL BE THE EXISTING GROUNDLINE.
SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER IN THE FIELD.

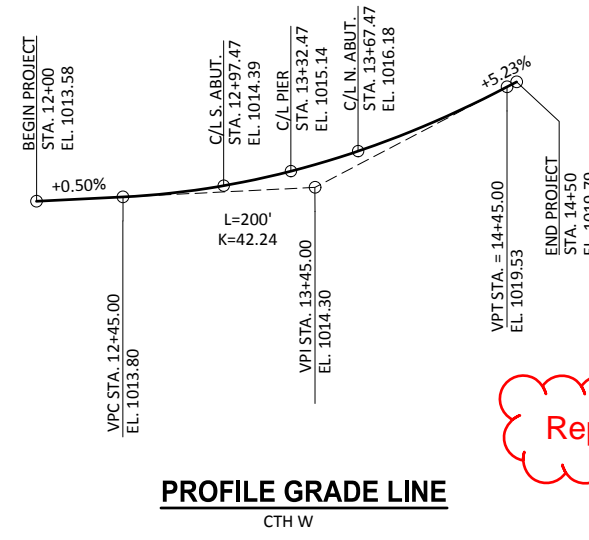


BACKFILL STRUCTURE DETAIL
(TYPICAL AT BOTH ABUTMENTS)

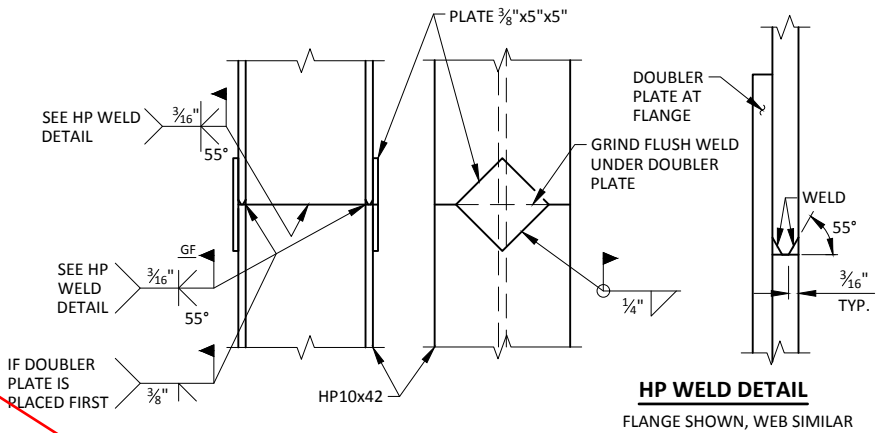
- "BACKFILL STRUCTURE TYPE A" PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-41-306". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED 6-INCH, SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	S. ABUT.	PIER	N. ABUT.	SUPER.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MIN. DEBRIS STA. 13+35	LS	--	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-41-306	LS	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	170	--	175	--	345
502.0100	CONCRETE MASONRY BRIDGES	CY	47	40	48	217	352
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	375	375
502.3210	PIGMENTED SURFACE SEALER	SY	--	--	--	82	82
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,470	1,760	2,550	--	6,780
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,630	80	1,700	40,660	44,070
513.7016	RAILING STEEL TYPE C3	LF	--	--	--	190	190
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	--	8	--	16
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	--	96	--	--	96
550.0500	PILE POINTS	EACH	6	--	6	--	12
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	90	160	90	--	340
606.0300	RIPRAP HEAVY	CY	65	--	85	--	150
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	100	--	100	--	200
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	55	--	55	--	110
645.0120	GEOTEXTILE TYPE HR	SY	130	--	140	--	270
NON-BID ITEMS							
	FILLER	SIZE	--	--	--	--	1/2" & 3/4"
	NAME PLATE						



PROFILE GRADE LINE
CTH W



PILE SPLICE DETAIL

STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.

Replaced by page "Revised 56"

STATE PROJECT NUMBER
5516-00-70

NO. DATE REVISION BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

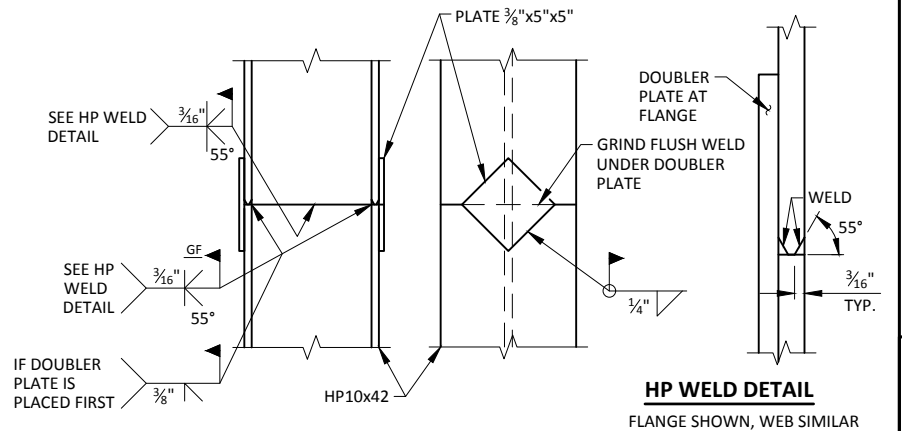
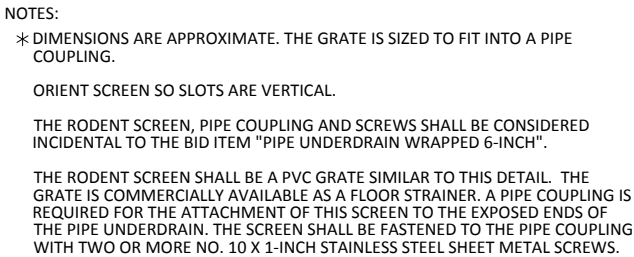
STRUCTURE B-41-306

DRAWN BY JZ PLANS CK'D. PTB

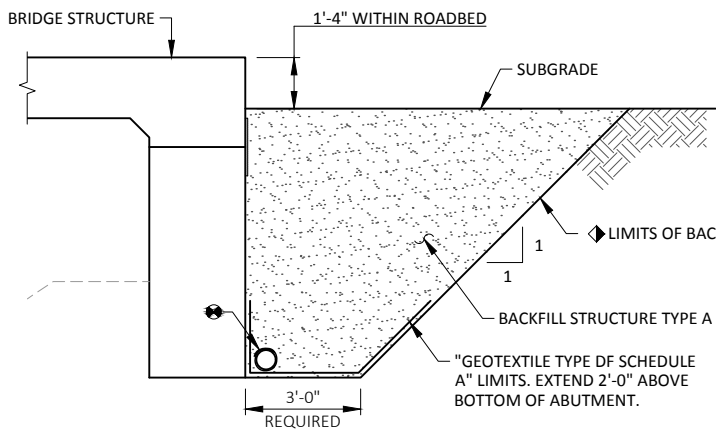
CROSS SECTION AND QUANTITIES

SHEET 2 OF 14

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER IN THE FIELD.

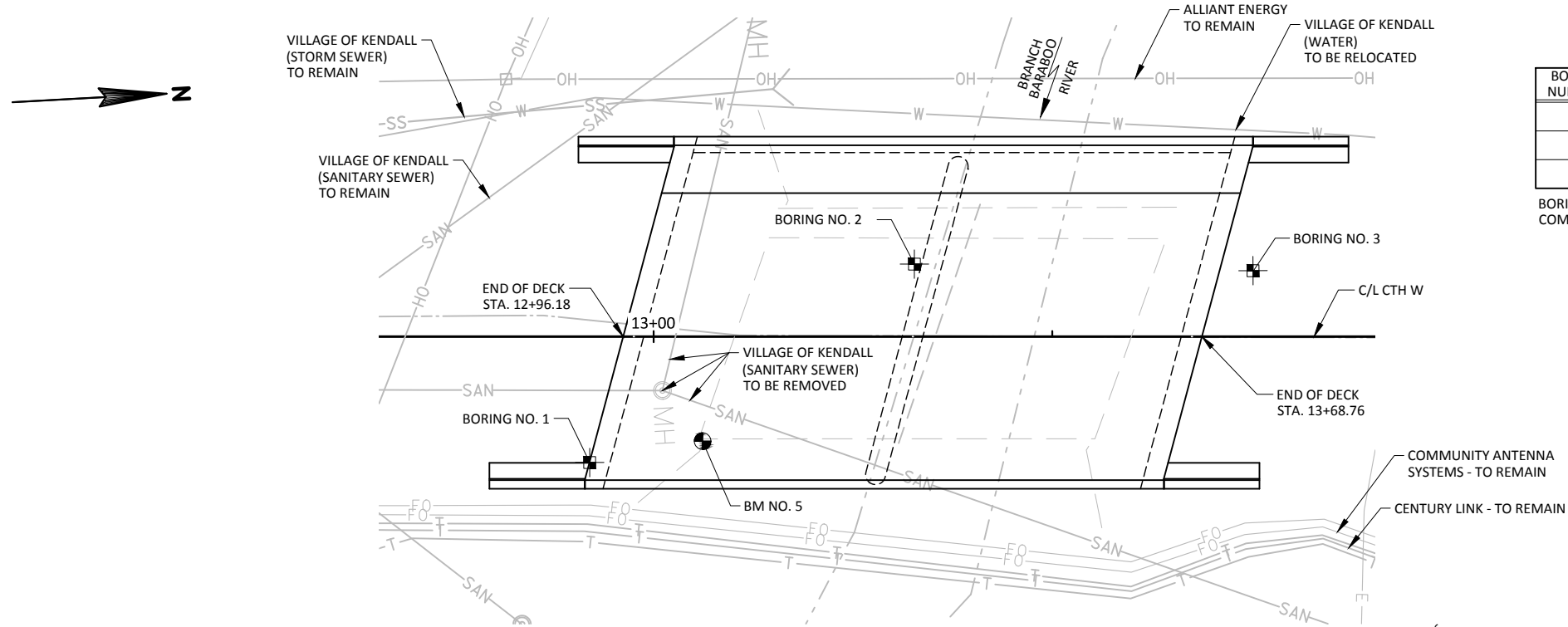


STEEL "HP" PILE MATERIAL SHALL BE ASTM A 572 GRADE 50.



(TYPICAL AT BOTH ABUTMENTS)

ITEM NUMBER	ITEM DESCRIPTION	UNIT	S. ABUT.	PIER	N. ABUT.	SUPER.	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MIN. DEBRIS STA. 13+35	LS	--	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-41-306	LS	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	170	--	175	--	345
502.0100	CONCRETE MASONRY BRIDGES	CY	47	40	48	217	352
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	375	375
502.3210	PIGMENTED SURFACE SEALER	SY	2,690	--	2,770	82	82
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,470	1,760	2,550	--	6,780
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,630	80	1,700	40,660	44,070
513.7016	RAILING STEEL TYPE C3	LF	--	--	--	190	190
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	8	--	8	--	16
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	--	96	--	--	96
550.0500	PILE POINTS	EACH	6	--	6	--	12
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	90	160	90	--	340
606.0300	RIPRAP HEAVY	CY	65	--	85	--	150
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	100	--	100	--	200
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	55	--	55	--	110
645.0120	GEOTEXTILE TYPE HR	SY	130	--	140	--	270
	NON-BID ITEMS						
	FILLER	SIZE	--	--	--	--	½" & ¾"
	NAME PLATE						



PLAN B-41-306

SOIL BORINGS			
BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	03/21/17	325,076.62	743,377.06
2	03/20/17	325,118.59	743,354.55
3	03/21/17	325,161.00	743,357.62

BORINGS & REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC. 4203 SCHOFIELD AVE. SCHOFIELD, WI 54476

STATE PROJECT NUMBER

5516-00-70

MATERIAL SYMBOLS

Asphalt

Concrete

Sand

Boulders or Cobbles

Shale

Topsoil

Fill

Clay

Limestone

Sandstone

Peat

Gravel

Silt

Bedrock (unknown)

Igneous/meta

LEGEND OF BORING

BORING/EL STA./OFFSET

ST

0.25

17

F-C COBBLE OR BOULDER

WEATHERED LIMESTONE

CORE RUN #1 - 24'-29' REC=80%, RQD=72%

(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 ELEVATIONS

AT TIME OF DRILLING

END OF DRILLING

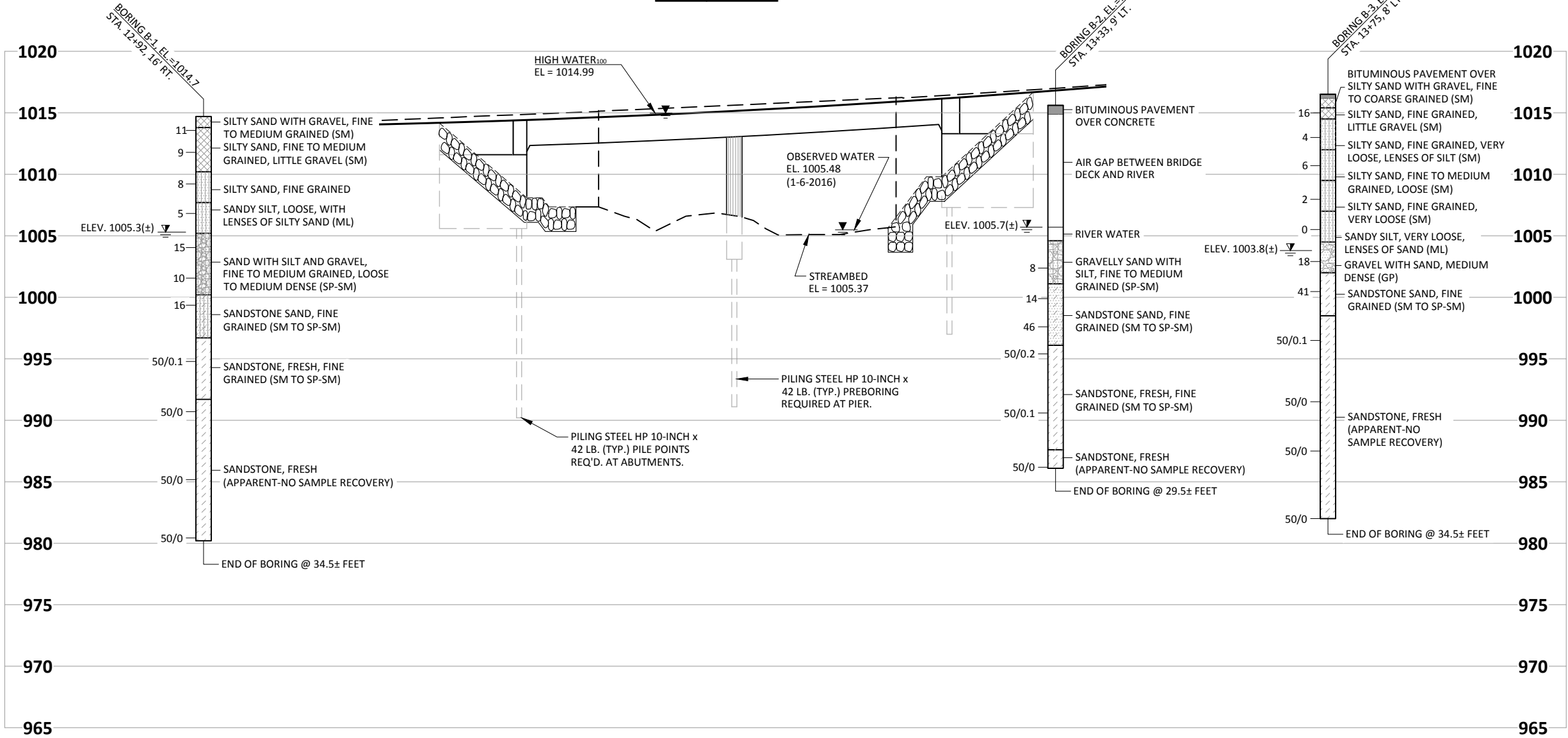
AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COURSE 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			
STRUCTURE B-41-306			
DRAWN BY		TMS	PLANS CK'D. PTB
SUBSURFACE EXPLORATION		SHEET 3 OF 14	

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

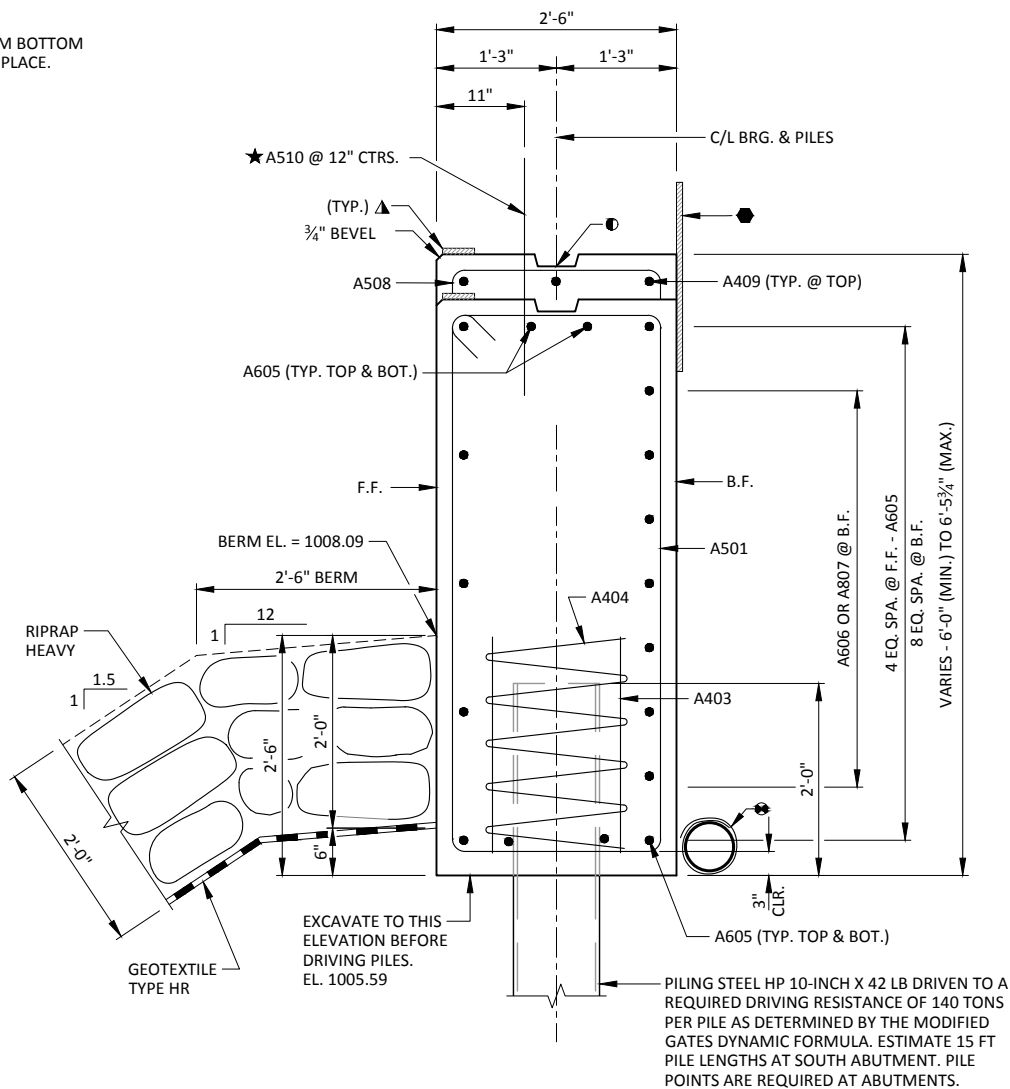
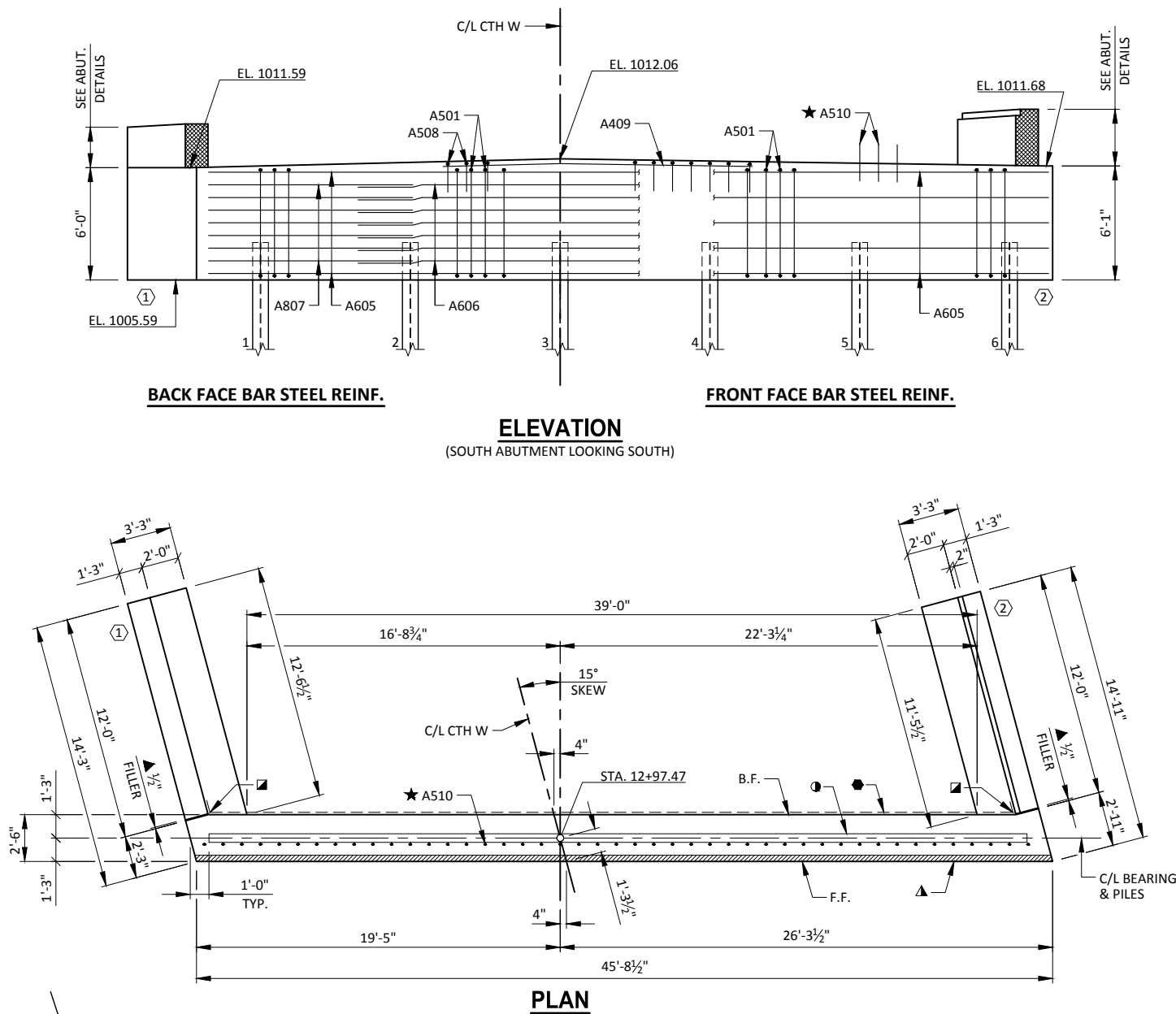
SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING (NEGLECTING THE KEYED CONSTRUCTION JOINT).

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE



LEGEND

KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.

VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.

18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)

½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ½" BELOW SURFACE OF CONCRETE)

¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.

A510 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".

PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.

PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-41-306			
DRAWN BY		JZ	PLANS CK'D. PTB
SOUTH ABUTMENT			SHEET 4 OF 14

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY.
SEE THIS SHEET FOR BILL OF BARS.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE

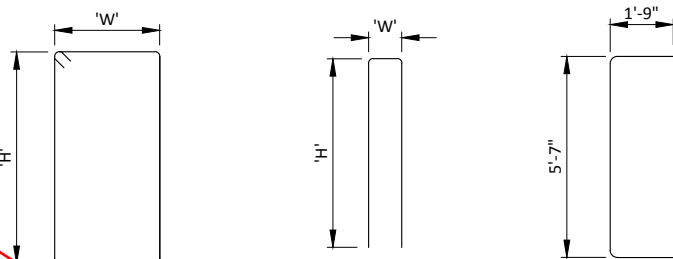
**BILL OF BARS
SOUTH ABUTMENT****1,630 LB (COATED)
2,470 LB (UNCOATED)**

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
A501	55	16-0	X		BODY - VERT. - STIRRUP
A502	4	8-10	X		BODY - VERT. - STIRRUP AT ENDS
A403	12	2-3			BODY - VERT. - 2 PER PILE
A404	6	28-0	X		BODY - SPIRAL - 1 PER PILE
A605	11	45-3			BODY - HORIZ. - F.F. & TOP
A606	7	27-3			BODY - HORIZ. - B.F.
A807	7	12-0			BODY - HORIZ. - B.F.
A508	17	5-3	X		BODY - VERT. - TOP
A409	3	16-6			BODY - HORIZ. - TOP
A510	45	2-0		X	BODY - VERT. - DOWELS
A511	12	17-6	X	X	WING 1 - VERT. - STIRRUP
A512	7	13-11		X	WING 1 - HORIZ. - F.F.
A613	7	14-5		X	WING 1 - HORIZ. - B.F.
A614	2	14-2		X	WING 1 - HORIZ. - TOP
A515	16	9-0	X	X	WING 1 - VERT. - TOP
A416	5	11-7		X	WING 1 - HORIZ. - F.F. & B.F.
A617	2	11-7		X	WING 1 - HORIZ. - TOP
A518	12	17-8	X	X	WING 2 - VERT. - STIRRUP
A519	7	14-6		X	WING 2 - HORIZ. - F.F.
A620	7	13-6		X	WING 2 - HORIZ. - B.F.
A621	2	14-0		X	WING 2 - HORIZ. - TOP
A522	16	9-0	X	X	WING 2 - VERT. - TOP
A423	7	11-7		X	WING 2 - HORIZ. - F.F. & B.F.
A424	16	4-9	X	X	WING 2 - VERT. - SIDEWALK NOTCH
A625	2	11-7		X	WING 2 - HORIZ. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

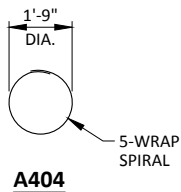
Replaced by page "Revised 59"

**A501, A511, A518**

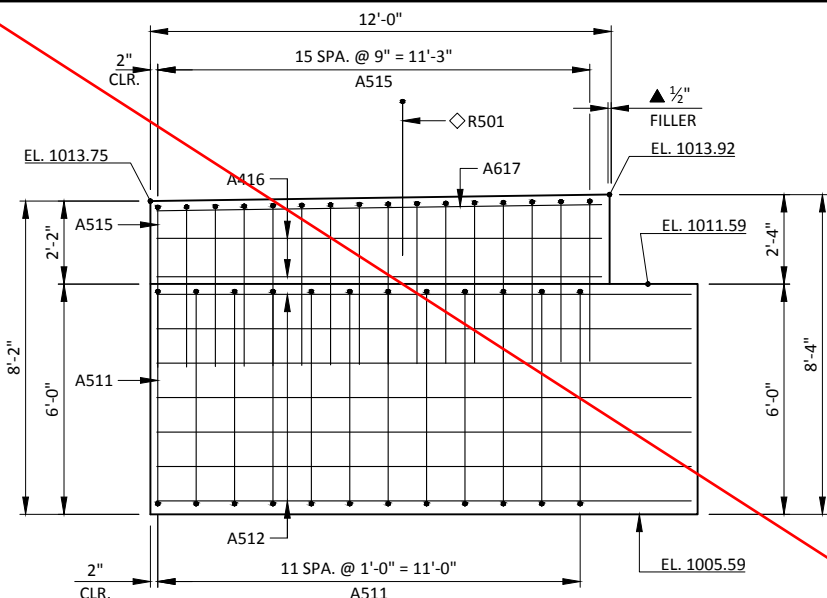
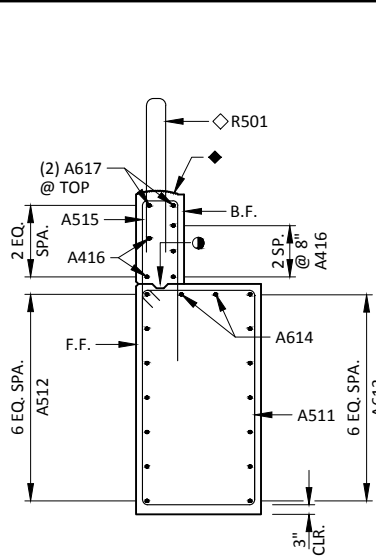
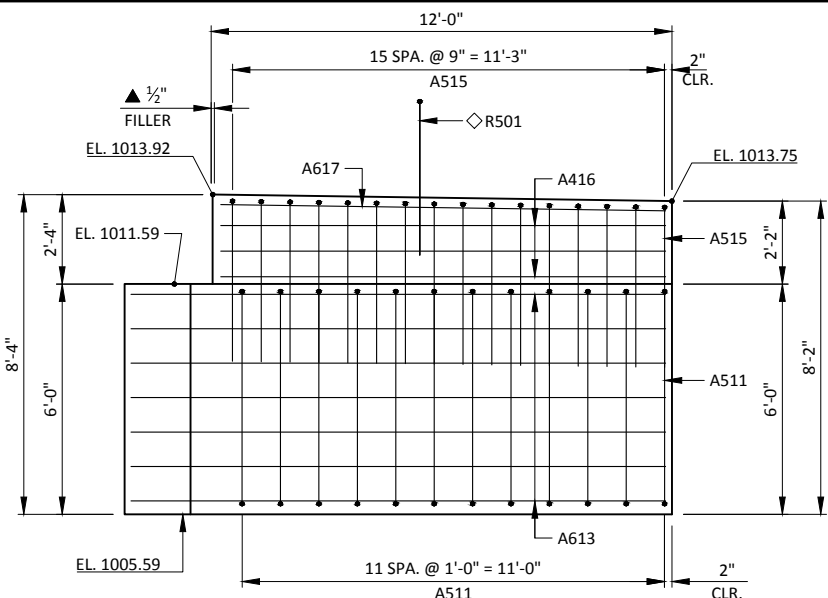
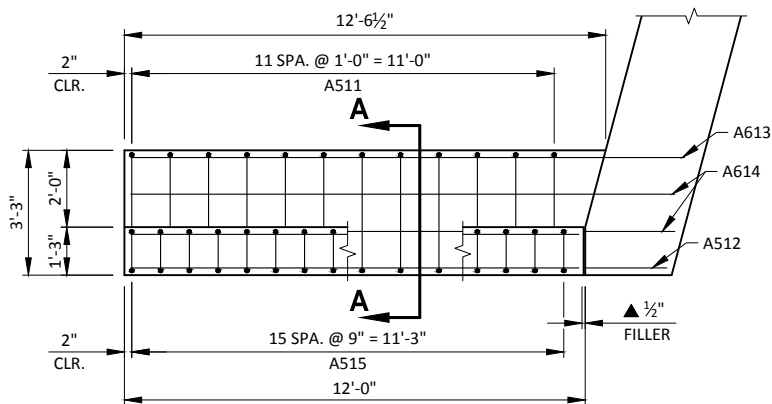
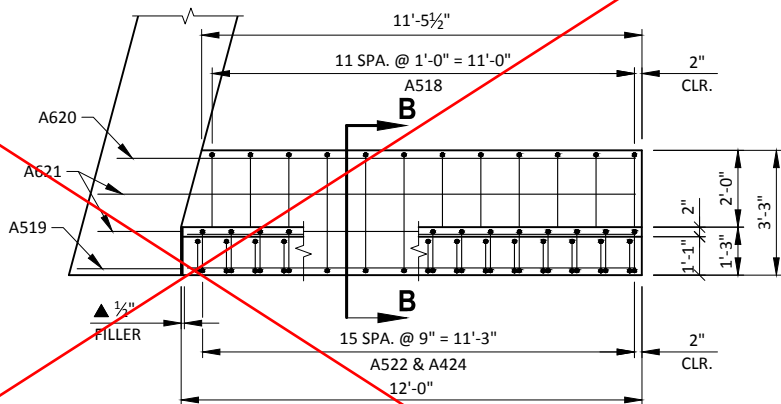
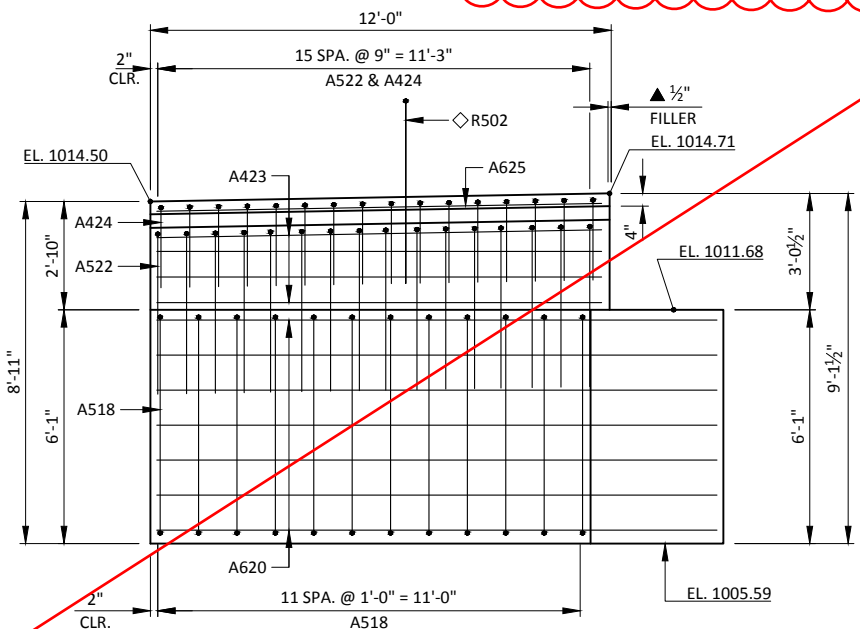
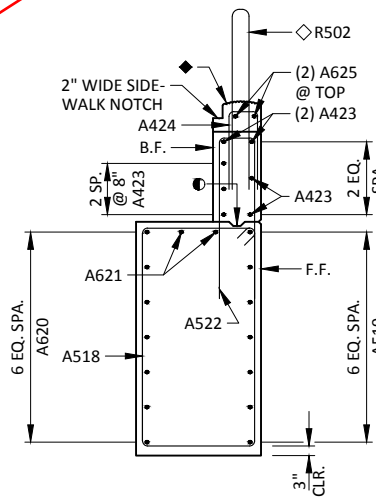
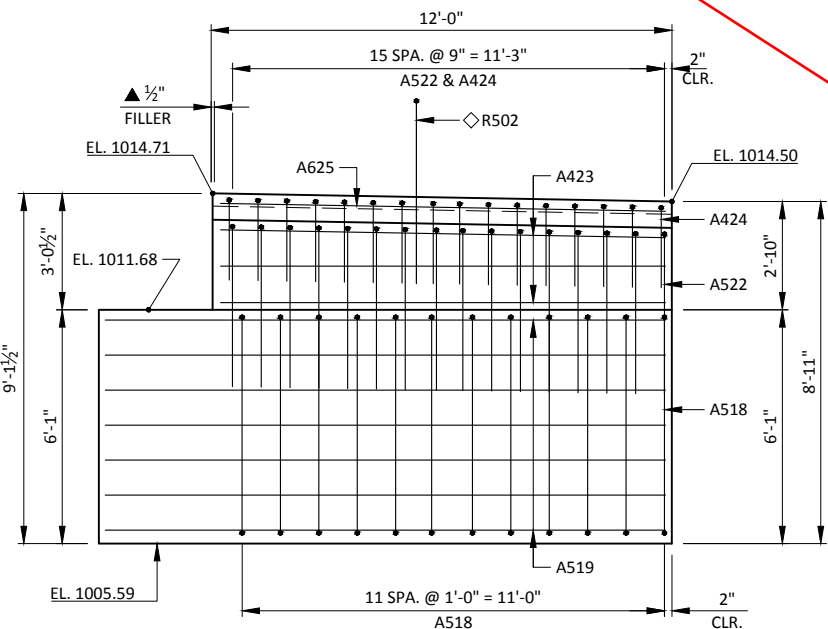
BAR MARK	'W'	'H'
A501	2-2	5-7
A511	2-11	5-7
A518	2-11	5-8

A508, A515, A522, A424

BAR MARK	'W'	'H'
A508	2-2	1-8
A515	0-11	4-2
A522	0-11	4-2
A424	0-9	2-1

A502**A404**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-41-306			
DRAWN BY		PLANS CK'D.	PTB
SOUTH ABUTMENT DETAILS			SHEET 5 OF 14

**F.F. ELEVATION - WING 1****SECTION A-A****B.F. ELEVATION - WING 1****PLAN VIEW - WING 1****PLAN VIEW - WING 2****B.F. ELEVATION - WING 2****SECTION B-B****F.F. ELEVATION - WING 2**

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY.
SEE THIS SHEET FOR BILL OF BARS.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE

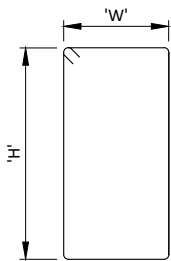
**BILL OF BARS
SOUTH ABUTMENT**

**1,630 LB (COATED)
2,690 2,470-LB (UNCOATED)**

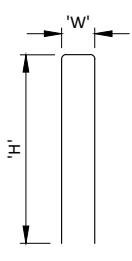
BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
A501	55	16-0	X		BODY - VERT. - STIRRUP
A502	4	8-10	X		BODY - VERT. - STIRRUP AT ENDS
A403	12	2-3			BODY - VERT. - 2 PER PILE
A404	6	28-0	X		BODY - SPIRAL - 1 PER PILE
A605	11	45-3			BODY - HORIZ. - F.F. & TOP
A606	7	27-3			BODY - HORIZ. - B.F.
A807	14 7	12-0			BODY - HORIZ. - B.F.
A508	17	5-3	X		BODY - VERT. - TOP
A409	3	16-6			BODY - HORIZ. - TOP
A510	45	2-0		X	BODY - VERT. - DOWELS
A511	12	17-6	X	X	WING 1 - VERT. - STIRRUP
A512	7	13-11		X	WING 1 - HORIZ. - F.F.
A613	7	14-5		X	WING 1 - HORIZ. - B.F.
A614	2	14-2		X	WING 1 - HORIZ. - TOP
A515	16	9-0	X	X	WING 1 - VERT. - TOP
A416	5	11-7		X	WING 1 - HORIZ. - F.F. & B.F.
A617	2	11-7		X	WING 1 - HORIZ. - TOP
A518	12	17-8	X	X	WING 2 - VERT. - STIRRUP
A519	7	14-6		X	WING 2 - HORIZ. - F.F.
A620	7	13-6		X	WING 2 - HORIZ. - B.F.
A621	2	14-0		X	WING 2 - HORIZ. - TOP
A522	16	9-0	X	X	WING 2 - VERT. - TOP
A423	7	11-7		X	WING 2 - HORIZ. - F.F. & B.F.
A424	16	4-9	X	X	WING 2 - VERT. - SIDEWALK NOTCH
A625	2	11-7		X	WING 2 - HORIZ. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

**A501, A511, A518**

BAR MARK	'W'	'H'
A501	2-2	5-7
A511	2-11	5-7
A518	2-11	5-8

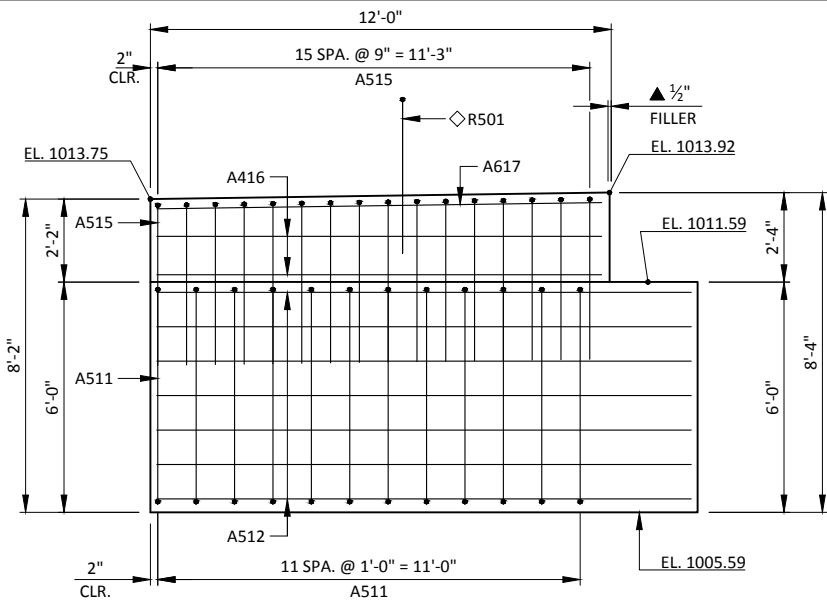
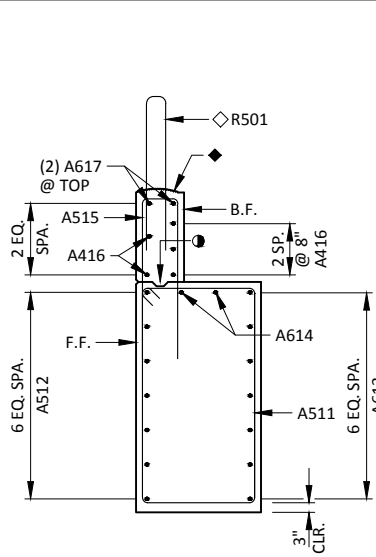
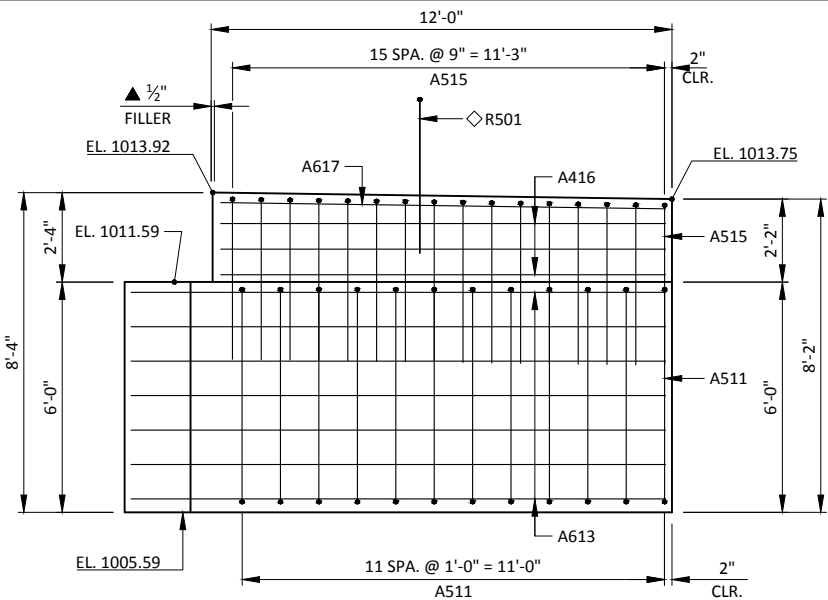
**A508, A515, A522, A424**

BAR MARK	'W'	'H'
A508	2-2	1-8
A515	0-11	4-2
A522	0-11	4-2
A424	0-9	2-1

**A502****A404**

5-WRAP
SPIRAL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-41-306			
DRAWN BY		JZ	PTB
SOUTH ABUTMENT DETAILS		Revised 59	

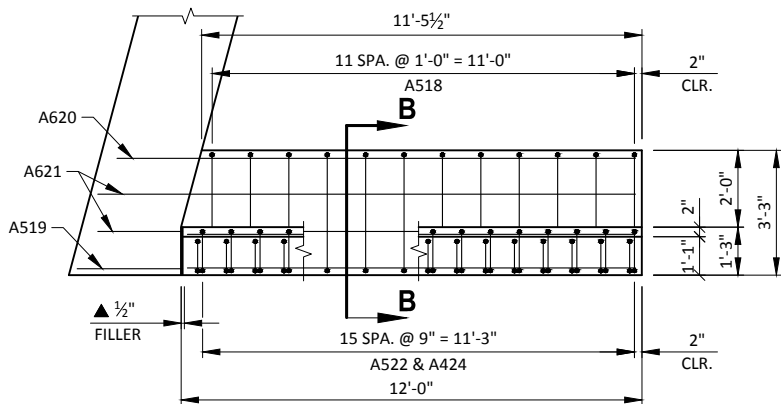
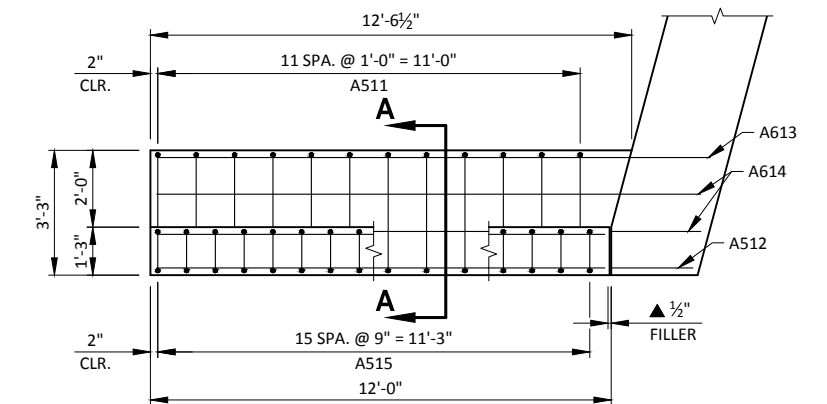
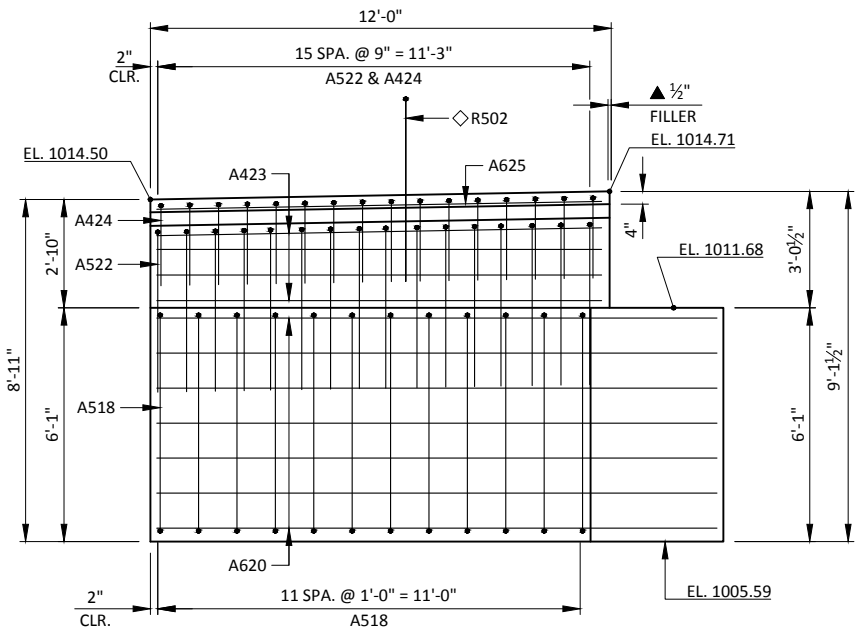
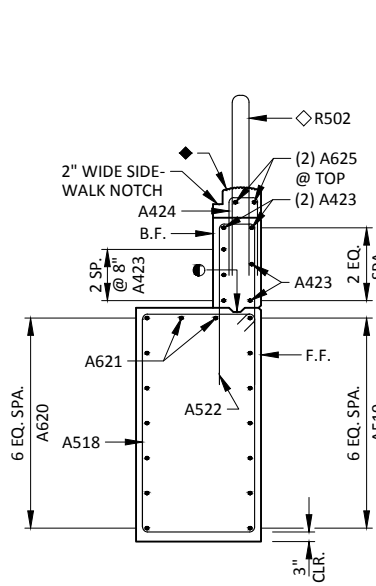
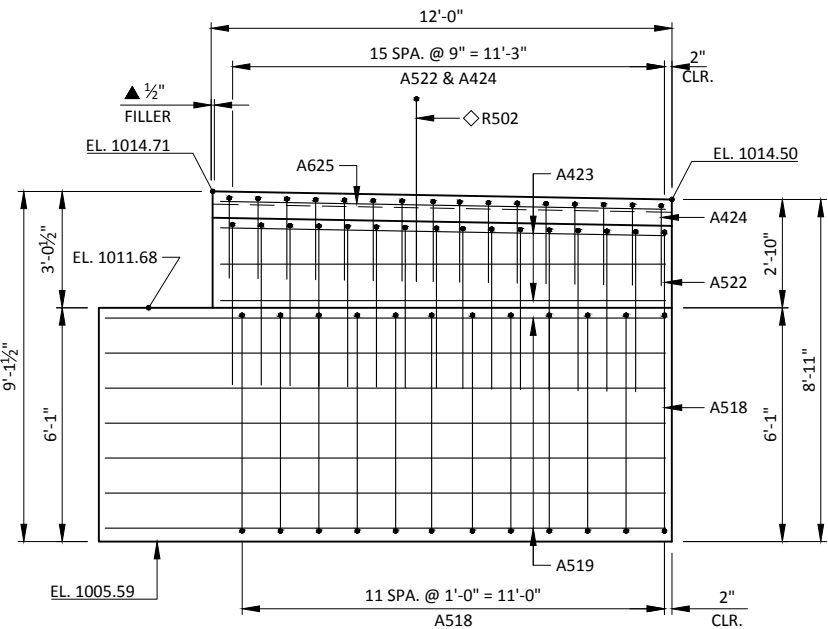
**F.F. ELEVATION - WING 1****SECTION A-A****B.F. ELEVATION - WING 1****LEGEND**

OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6. 3/4-INCH "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

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

R501 AND R502 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED. SEE SHEET 12 OF 14 FOR PLACEMENT.

SEE SHEET 12 OF 14 FOR TOP OF WING DETAILS.

**PLAN VIEW - WING 2****PLAN VIEW - WING 1****B.F. ELEVATION - WING 2****SECTION B-B****F.F. ELEVATION - WING 2**

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 7 FOR BILL OF BARS.

SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING (NEGLECTING THE KEYED CONSTRUCTION JOINT).

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM
OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

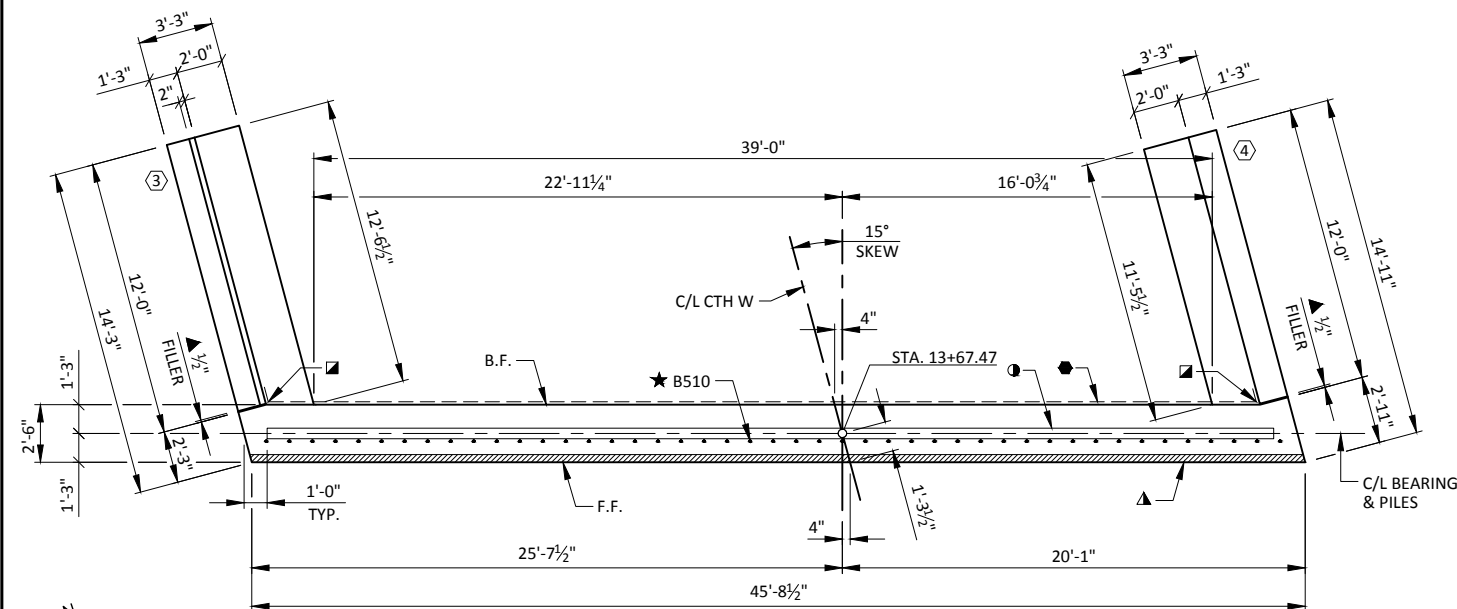
F.F. - FRONT FACE

B.F. - BACK FACE



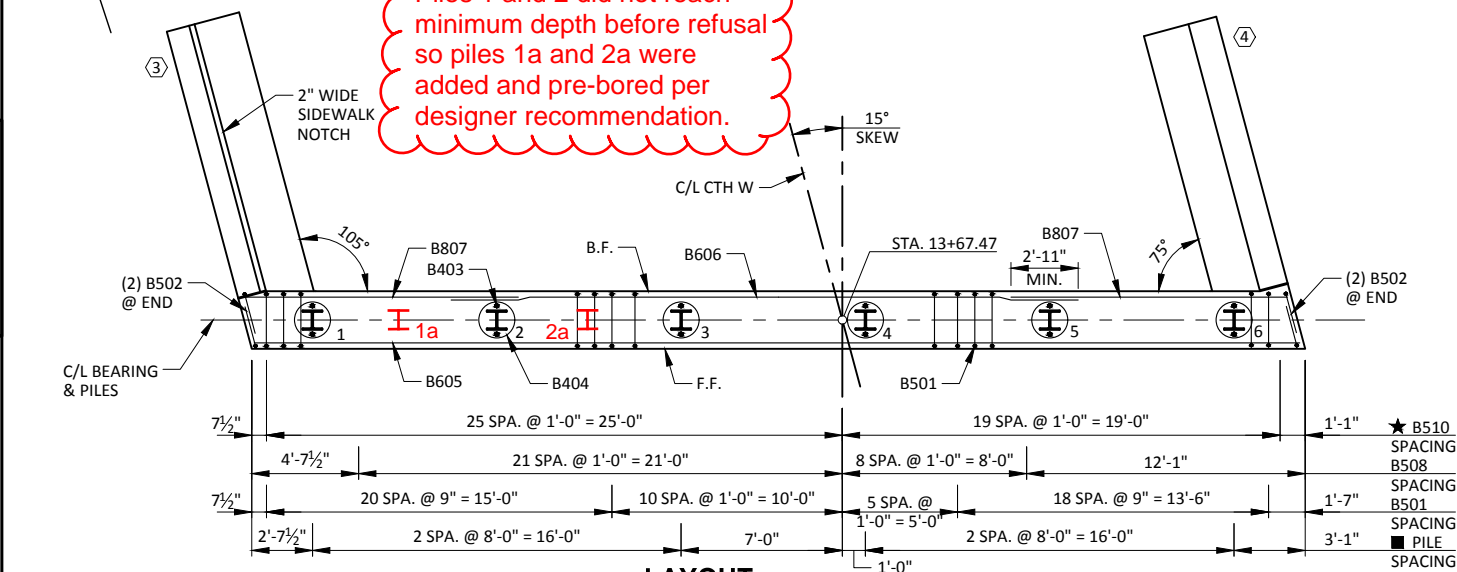
ELEVATION

(NORTH ABUTMENT LOOKING NORTH)

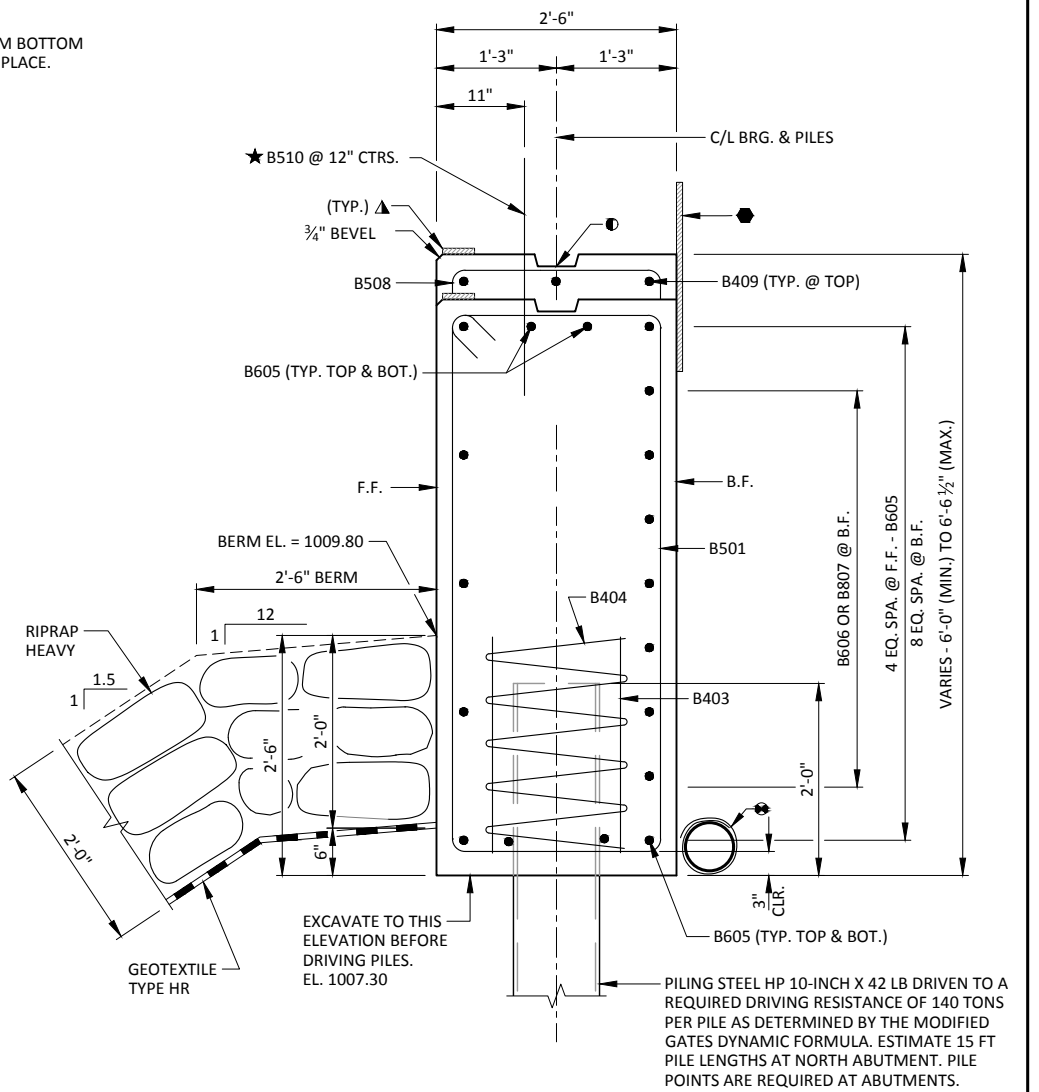


PLAN

Piles 1 and 2 did not reach minimum depth before refusal so piles 1a and 2a were added and pre-bored per designer recommendation.



LAYOUT



TYPICAL SECTION THROUGH ABUTMENT BODY

① KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.

- VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.

- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)

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

- ▲ 3/4" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.

- ★ B510 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".

- PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.

- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-41-306			
		DRAWN BY	JZ PLANS CK'D. PTB
NORTH ABUTMENT		SHEET 6 OF 14	

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY.
SEE THIS SHEET FOR BILL OF BARS.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE

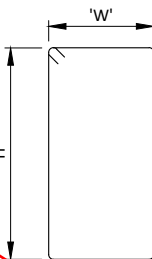
**BILL OF BARS
NORTH ABUTMENT****1,700 LB (COATED)
2,550 LB (UNCOATED)**

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
B501	54	16-0	X		BODY - VERT. - STIRRUP
B502	4	8-10	X		BODY - VERT. - STIRRUP AT ENDS
B403	12	2-3			BODY - VERT. - 4 PER PILE
B404	6	28-0	X		BODY - SPIRAL - 3 PER PILE
B605	11	45-3			BODY - HORIZ. - F.F. & TOP
B606	7	27-3			BODY - HORIZ. - B.F.
B807	7	12-0			BODY - HORIZ. - B.F.
B508	30	5-3	X		BODY - VERT. - TOP
B409	3	29-6			BODY - HORIZ. - TOP
B510	45	2-0		X	BODY - VERT. - DOWELS
B511	12	18-0	X	X	WING 3 - VERT. - STIRRUP
B512	7	13-11		X	WING 3 - HORIZ. - F.F.
B613	7	14-5		X	WING 3 - HORIZ. - B.F.
B614	2	14-2		X	WING 3 - HORIZ. - TOP
B515	16	10-4	X	X	WING 3 - VERT. - TOP
B416	5	11-7		X	WING 3 - HORIZ. - F.F. & B.F.
B417	16	4-9	X	X	WING 3 - VERT. - SIDEWALK NOTCH
B618	8	11-7		X	WING 3 - HORIZ. - TOP
B519	12	17-6	X	X	WING 4 - VERT. - STIRRUP
B520	7	14-6		X	WING 4 - HORIZ. - F.F.
B621	7	13-6		X	WING 4 - HORIZ. - B.F.
B622	2	14-0			WING 4 - HORIZ. - TOP
B523	16	11-2	X	X	WING 4 - VERT. - TOP
B424	5	11-7		X	WING 4 - HORIZ. - F.F. & B.F.
B625	2	4-9		X	WING 4 - HORIZ. - TOP

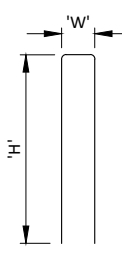
NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

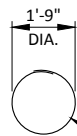
Replaced by page "Revised 61"

**B501, B511, B519**

BAR MARK	'W'	'H'
B501	2-2	5-7
B511	2-11	5-10
B519	2-11	5-7

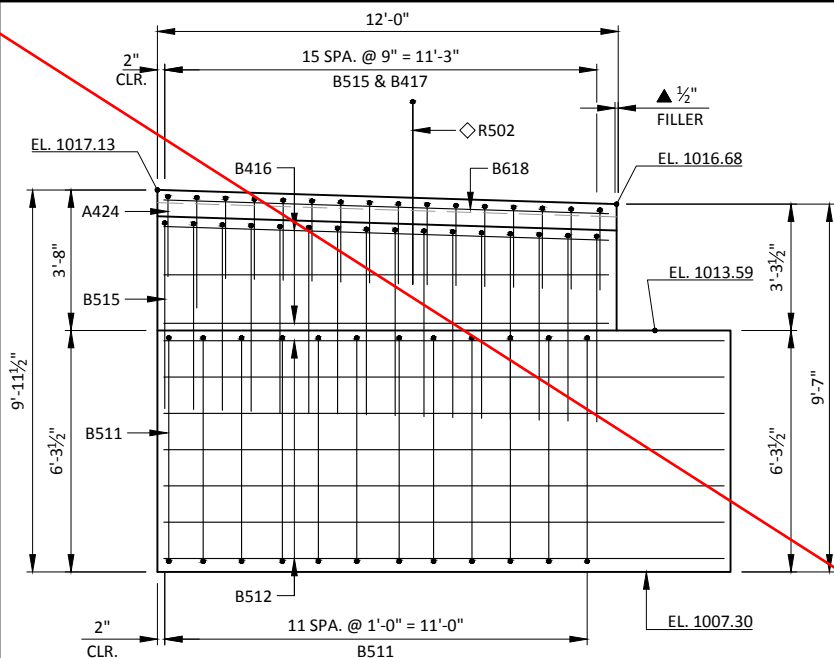
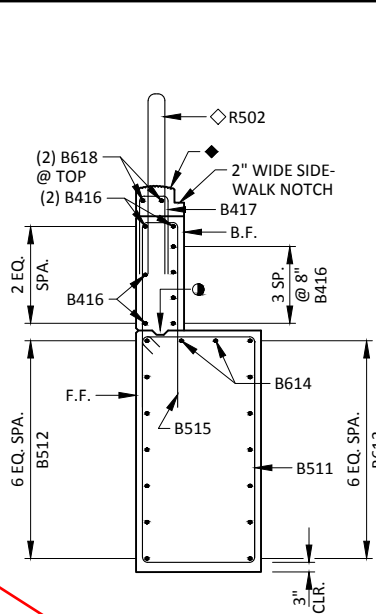
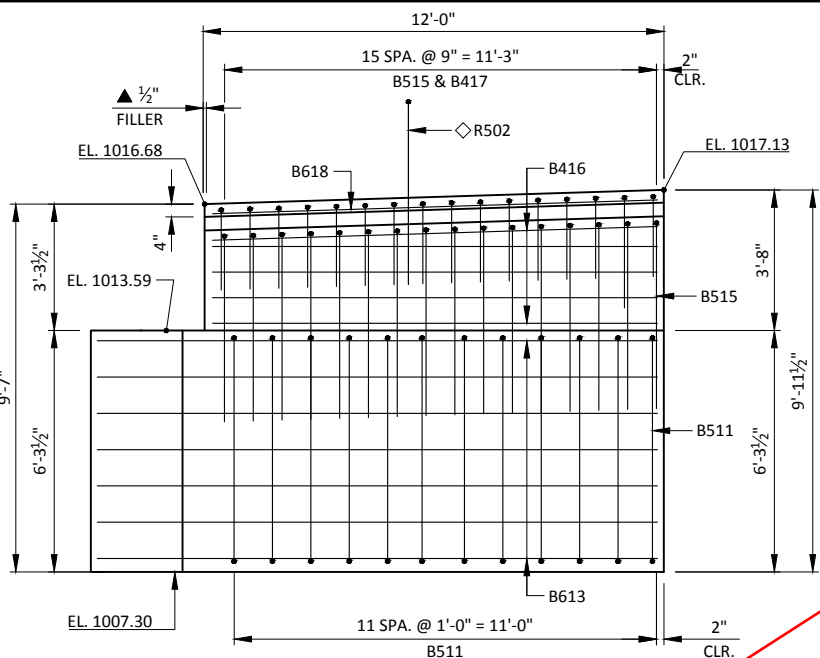
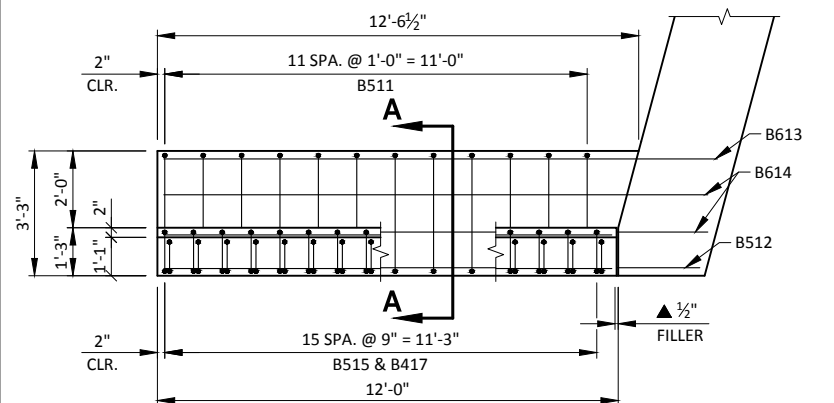
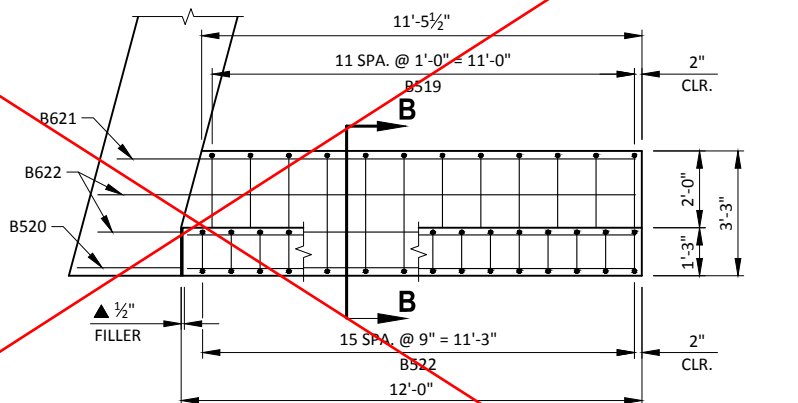
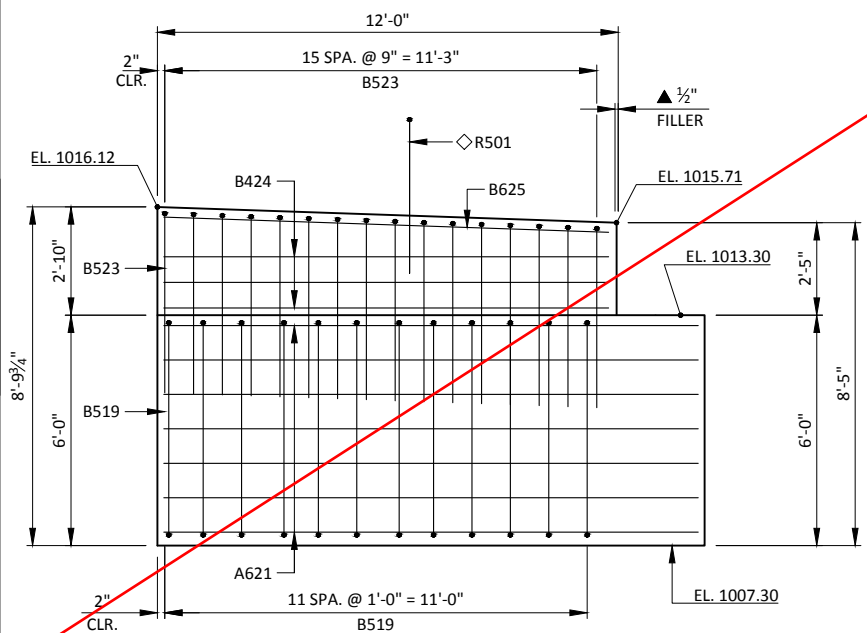
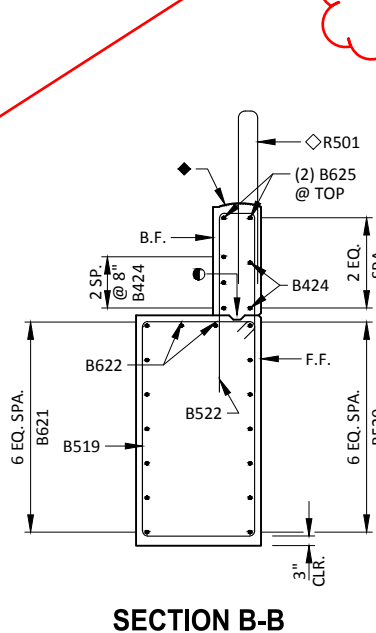
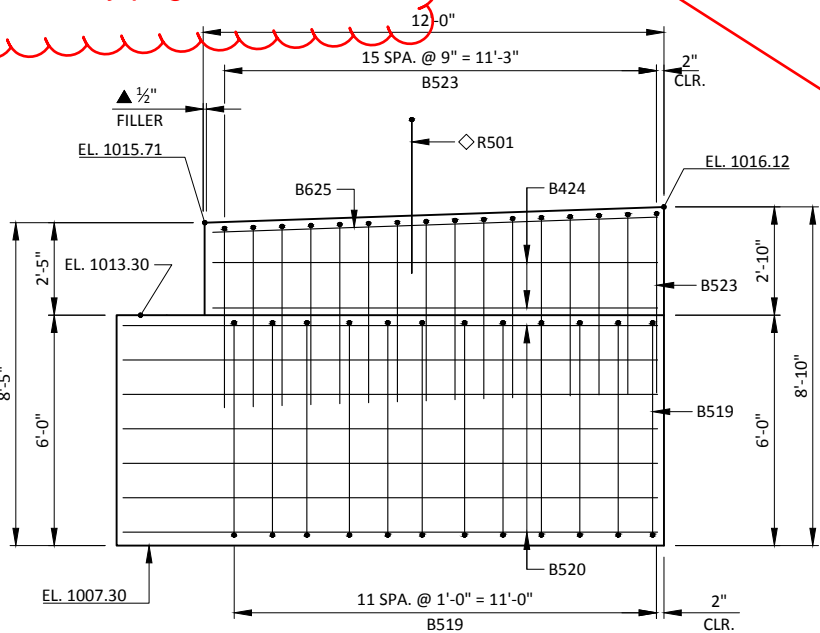
**B508, B515, B417, B523**

BAR MARK	'W'	'H'
B508	2-2	1-8
B515	0-11	4-10
B417	0-9	2-1
B523	0-11	5-3

**B502****B404**

5-WRAP SPIRAL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-41-306			
DRAWN BY		PLANS CK'D.	PTB
NORTH ABUTMENT DETAILS			SHEET 7 OF 14

**F.F. ELEVATION - WING 3****SECTION A-A****B.F. ELEVATION - WING 3****PLAN VIEW - WING 3****PLAN VIEW - WING 4****B.F. ELEVATION - WING 4****SECTION B-B****F.F. ELEVATION - WING 4**

SOME BARS HAVE BEEN OMITTED FOR CLARITY.
SEE THIS SHEET FOR BILL OF BARS.

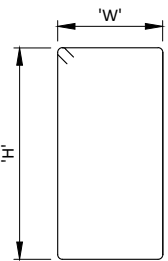
F.F. - FRONT FACE

B.F. - BACK FACE

1,700 LB (COATED)
2,550 LB (UNCOATED)

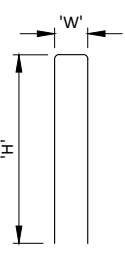
BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
B501	54	16-0	X		BODY -VERT. - STIRRUP
B502	4	8-10	X		BODY - VERT. - STIRRUP AT ENDS
B403	12	2-3			BODY - VERT. - 4 PER PILE
B404	6	28-0	X		BODY - SPIRAL - 3 PER PILE
B605	11	45-3			BODY - HORIZ. - F.F. & TOP
B606	7	27-3			BODY - HORIZ. - B.F.
B807	14 7	12-0			BODY - HORIZ. - B.F.
B508	30	5-3	X		BODY - VERT. - TOP
B409	3	29-6			BODY - HORIZ. - TOP
B510	45	2-0		X	BODY - VERT. - DOWELS
B511	12	18-0	X	X	WING 3 - VERT. - STIRRUP
B512	7	13-11		X	WING 3- HORIZ. - F.F.
B613	7	14-5		X	WING 3 - HORIZ. - B.F.
B614	2	14-2		X	WING 3 - HORIZ. - TOP
B515	16	10-4	X	X	WING 3 - VERT. - TOP
B416	8 5	11-7		X	WING 3 - HORIZ. - F.F. & B.F.
B417	16	4-9	X	X	WING 3 - VERT. - SIDEWALK NOTCH
B618	2 8	11-7		X	WING 3 - HORIZ. - TOP
B519	12	17-6	X	X	WING 4 - VERT. - STIRRUP
B520	7	14-6		X	WING 4 - HORIZ. - F.F.
B621	7	13-6		X	WING 4 - HORIZ. - B.F.
B622	2	14-0		X	WING 4 - HORIZ. - TOP
B523	16	11-2	X	X	WING 4 - VERT. - TOP
B424	5	11-7		X	WING 4 - HORIZ. - F.F. & B.F.
B625	2	4-9		X	WING 4 - HORIZ. - TOP

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



B501, B511, B519

BAR MARK	'W'	'H'
B501	2-2	5-7
B511	2-11	5-10
B519	2-11	5-7

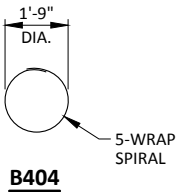


B508, B515, B417, B523

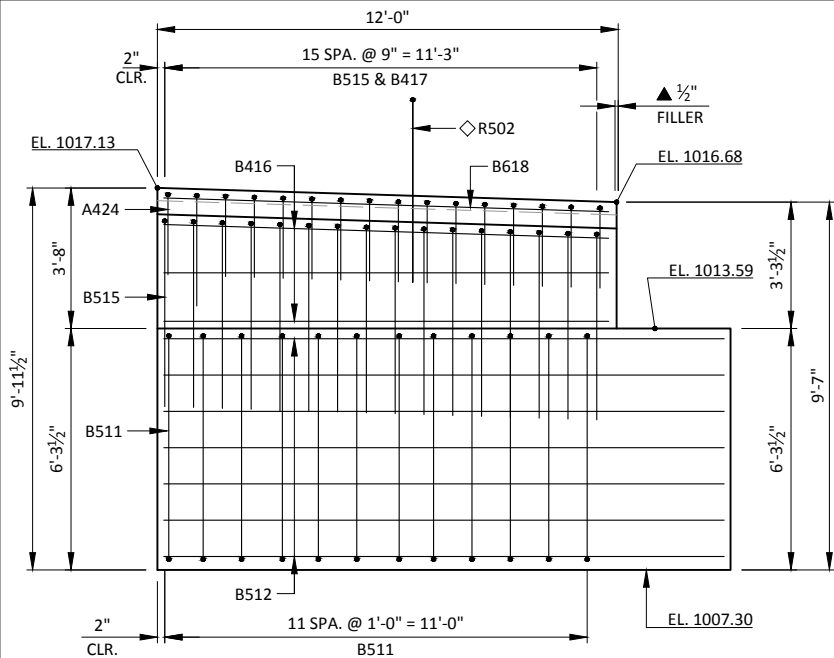
BAR MARK	'W'	'H'
B508	2-2	1-8
B515	0-11	4-10
B417	0-9	2-1
B523	0-11	5-3



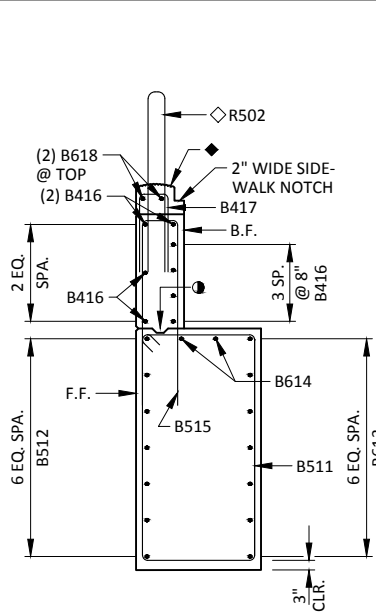
B502



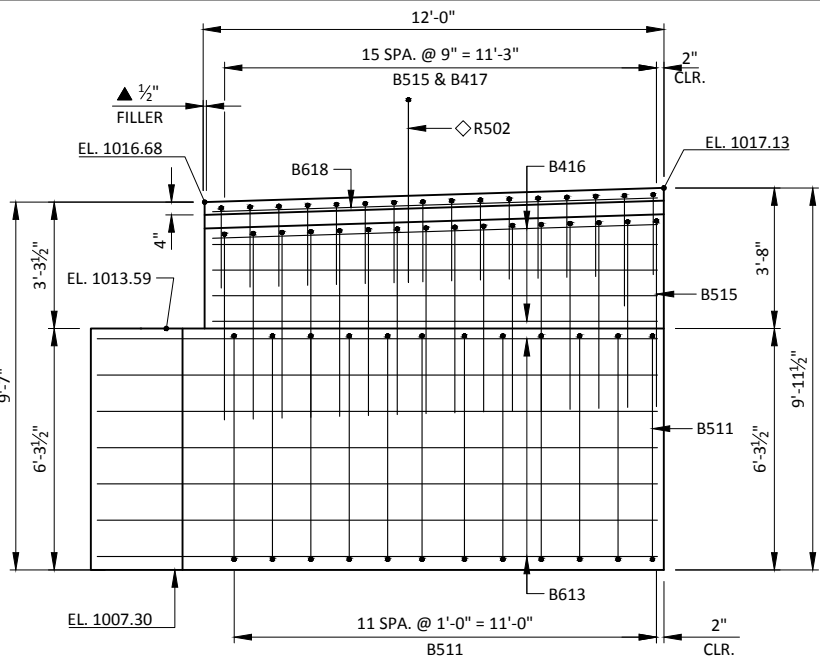
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-41-306			
		DRAWN BY	JZ PLANS CK'D. PTB
NORTH ABUTMENT DETAILS		SHEET 7 OF 14	
		Revised 61	



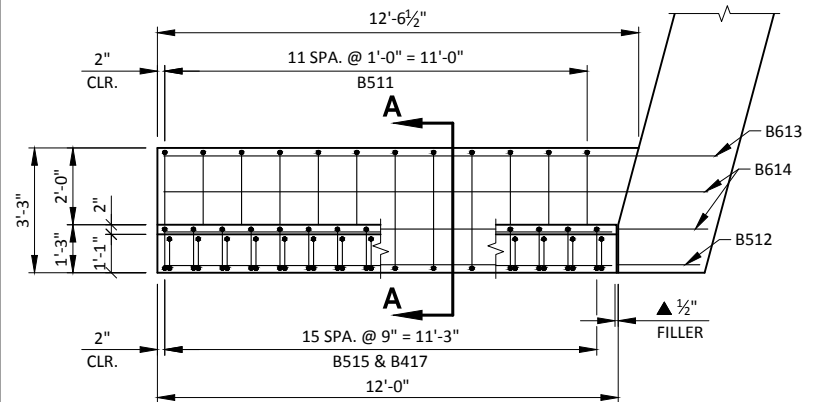
F.F. ELEVATION - WING 3



SECTION A-A



B.F. ELEVATION - WING 3



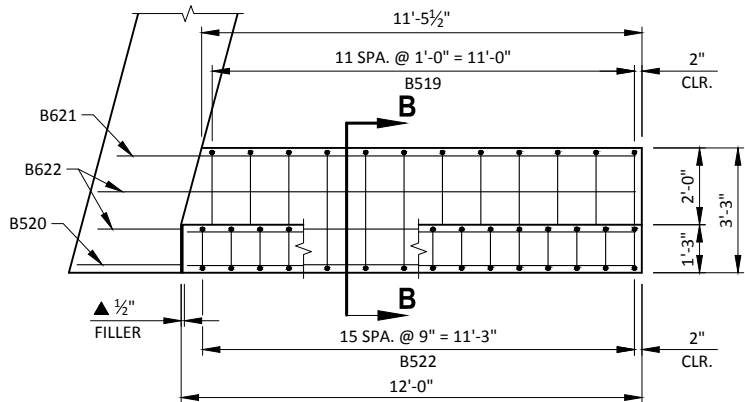
PLAN VIEW - WING 3

OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6 3/4-INCH "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

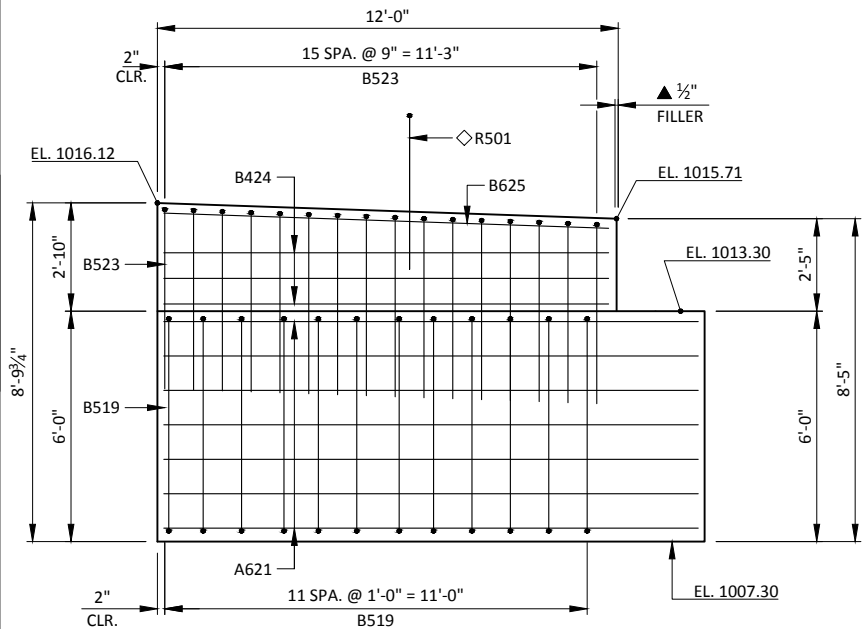
▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOUS JOINT SEALER. (1" DEEP & HOLD ⅜" BELOW SURFACE OF CONCRETE)

◇ R501 AND R502 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED. SEE SHEET 12 OF 14 FOR PLACEMENT.

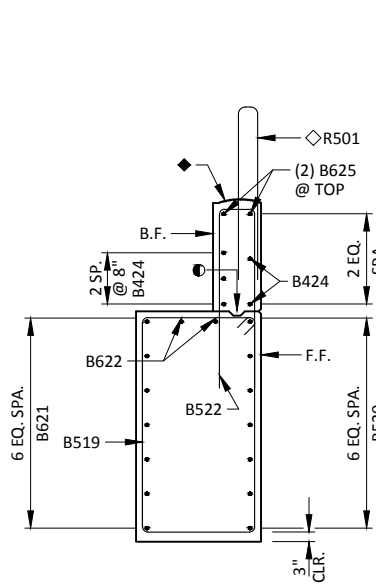
◆ SEE SHEET 12 OF 14 FOR TOP OF WING DETAILS.



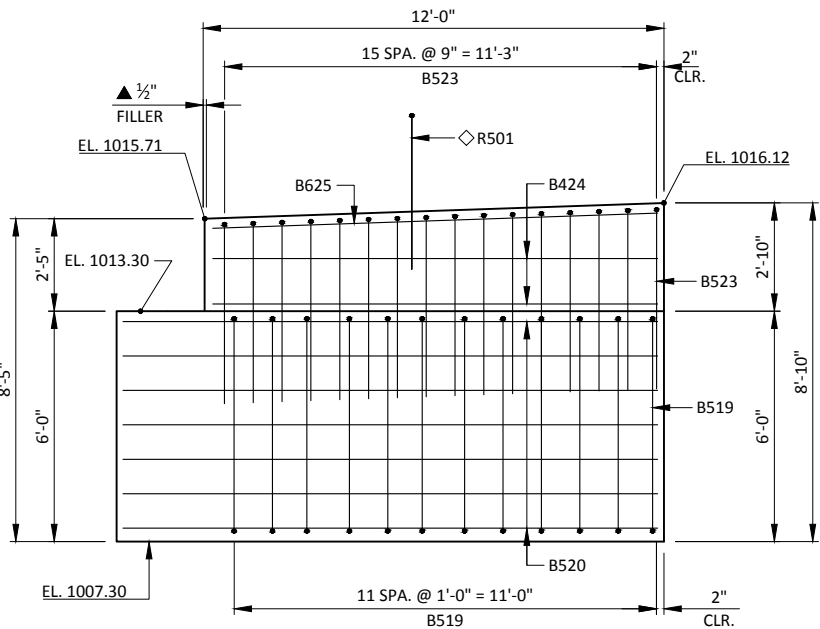
PLAN VIEW - WING 4



B.F. ELEVATION - WING 4



SECTION B-B



F.F. ELEVATION - WING 4

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING (NEGLECTING THE KEYED CONSTRUCTION JOINT).

TOP OF PIER ELEVATIONS ARE ¾" BELOW BOTTOM OF DECK TO ALLOW FOR FILLER.

E.F. - EACH FACE

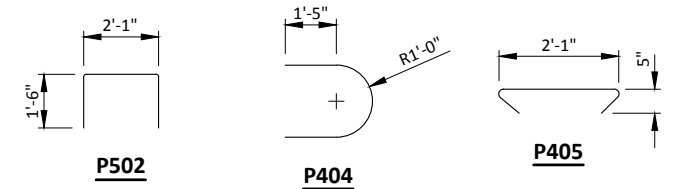
BILL OF BARS
PIER

80 LB (COATED)
1,760 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
P501	88	9-4			BODY - VERT. - E.F.
P502	21	4-10	X		BODY - VERT. - TOP
P403	22	40-0			BODY - HORIZ. - E.F.
P404	22	6-0	X		BODY - HORIZ. - ENDS
P405	64	2-10	X		BODY - TIES
P506	40	2-0		X	BODY - VERT. - DOWELS

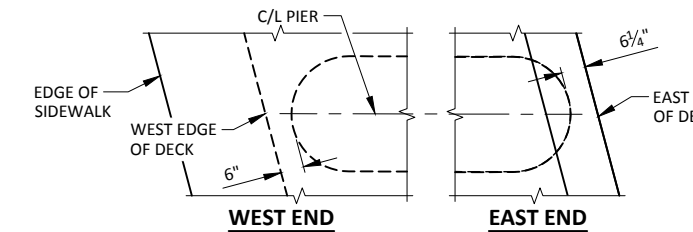
NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



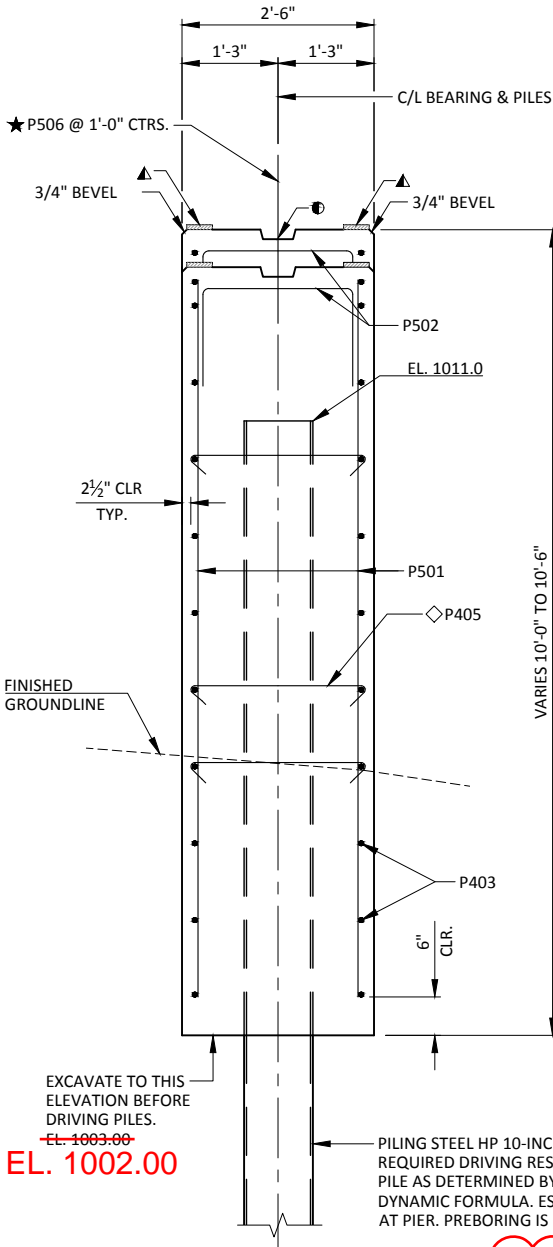
LEGEND

- KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.
- ¾"x4" PREFORMED FILLER, EXTEND FULL LENGTH OF PIER AS SHOWN.
- P506 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".
- PILE SPACING MEASURED AT BASE OF SHAFT.
- PLACE P405 BARS ADJACENT TO PILING @ 12" VERTICAL SPACING FROM BASE OF SHAFT TO TOP OF PILING.



PLAN AT END OF PIER

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		PIER	SHEET 8 OF 14



TYPICAL SECTION THROUGH PIER

All piles prebored 12".

EL. 1002.00

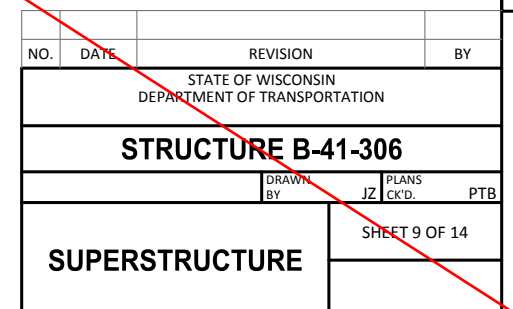
EXCAVATE TO THIS ELEVATION BEFORE DRIVING PILES.

PIILING STEEL HP 10-INCH X 42 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 170 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 20 FT PILE LENGTHS AT PIER. PREBORING IS REQUIRED AT PIER.

SURVEY TOP OF DECK ELEVATIONS

	S. ABUT.	0.50 PT.	PIER	0.50 PT.	N. ABUT.
WEST EDGE					
CENTERLINE					
EAST EDGE					

PRIOR TO RELEASING SLAB FASLEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF THE ABUTMENTS, THE C/L OF THE PIERS AND AT 0.50 PTS. TO VERIFY CAMBER. TAKE TOP OF DECK ELEVATIONS AT THE WEST EDGE OF DECK, CENTER LINE, AND EAST EDGE OF DECK. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.



TOP OF DECK ELEVATIONS

	C/L S. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L PIER	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L N. ABUT.
W. EDGE	1014.04	1014.11	1014.18	1014.25	1014.33	1014.40	1014.49	1014.57	1014.66	1014.75	1014.84	1014.94	1015.04	1015.14	1015.25	1015.35	1015.46	1015.58	1015.70	1015.81	1015.94
FACE CURB	1014.11	1014.18	1014.25	1014.32	1014.40	1014.47	1014.55	1014.64	1014.72	1014.81	1014.91	1015.00	1015.10	1015.20	1015.30	1015.41	1015.52	1015.63	1015.75	1015.87	1015.99
C/L	1014.39	1014.45	1014.51	1014.58	1014.65	1014.73	1014.80	1014.88	1014.97	1015.05	1015.14	1015.23	1015.32	1015.42	1015.52	1015.62	1015.73	1015.84	1015.95	1016.07	1016.18
E. EDGE	1013.92	1013.98	1014.04	1014.10	1014.17	1014.24	1014.31	1014.39	1014.47	1014.55	1014.63	1014.72	1014.81	1014.90	1015.00	1015.10	1015.20	1015.30	1015.41	1015.52	1015.63

SURVEY TOP OF DECK ELEVATIONS

	S. ABUT.	0.50 PT.	PIER	0.50 PT.	N. ABUT.
WEST EDGE	1014.04	1014.46	1014.90	1015.49	1016.06
CENTERLINE	1014.27	1014.70	1015.14	1015.69	1016.24
EAST EDGE	1013.95	1014.29	1014.68	1015.21	1015.81

PRIOR TO RELEASING SLAB FASLEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF THE ABUTMENTS, THE C/L OF THE PIERS AND AT 0.50 PTS. TO VERIFY CAMBER. TAKE TOP OF DECK ELEVATIONS AT THE WEST EDGE OF DECK, CENTER LINE, AND EAST EDGE OF DECK. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

Non-pigmented protective surface treatment used on deck: TK-590-1-MS, TK Products.

LEGEND

▽ R503 PARAPET BARS AT EAST EDGE AND S416 SIDEWALK BARS TO BE TIED TO DECK STEEL BEFORE DECK IS POURED.

△ R503 PARAPET BARS AT WEST EDGE TO BE TIED TO SIDEWALK STEEL BEFORE SIDEWALK IS POURED. SEE THIS SHEET FOR BAR LAYOUT.

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 11 FOR BILL OF BARS.

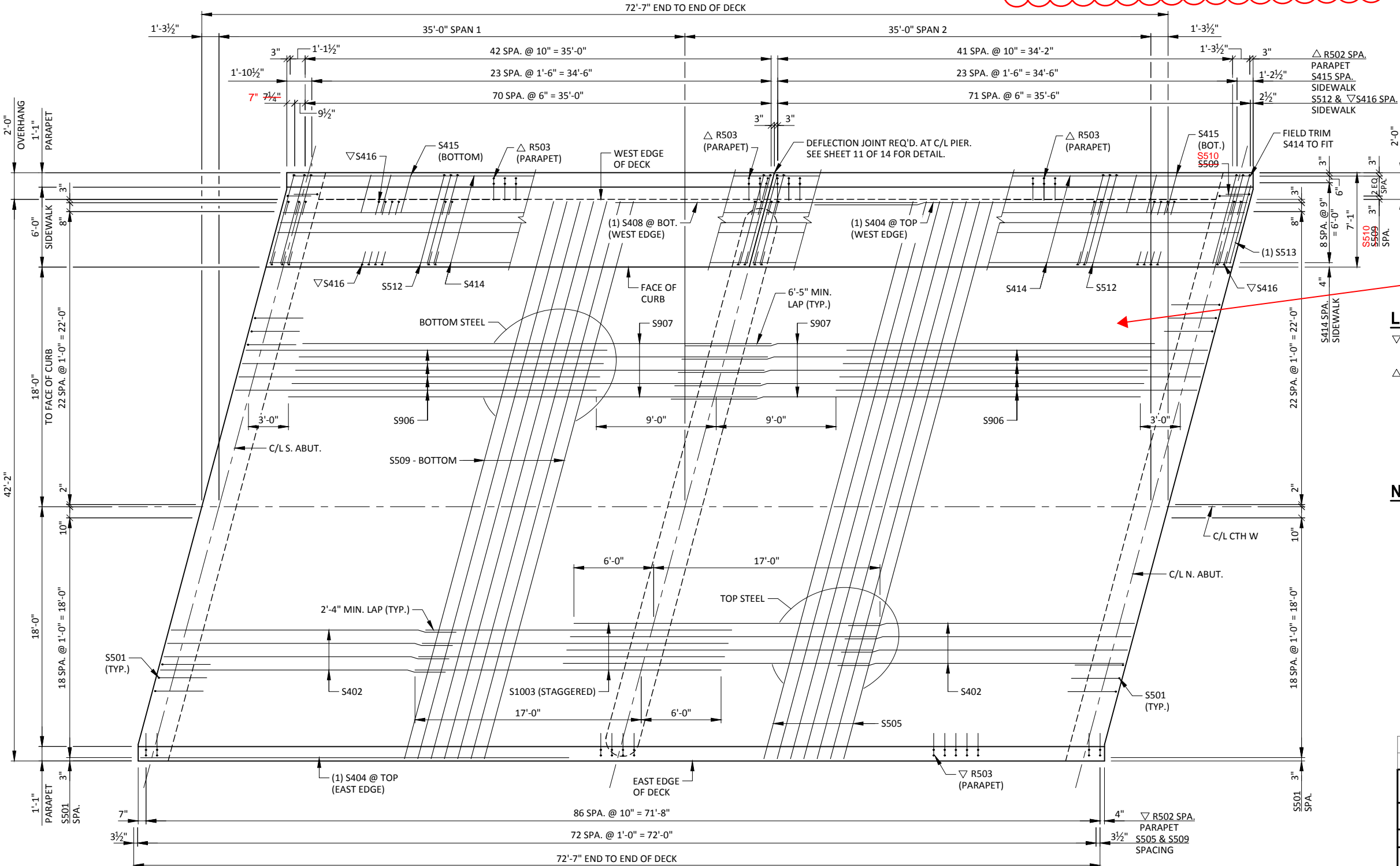
SEE SUPERSTRUCTURE DETAIL SHEET (SHEET 10 OF 14) FOR BAR SPACINGS NOT SHOWN ON THIS SHEET.

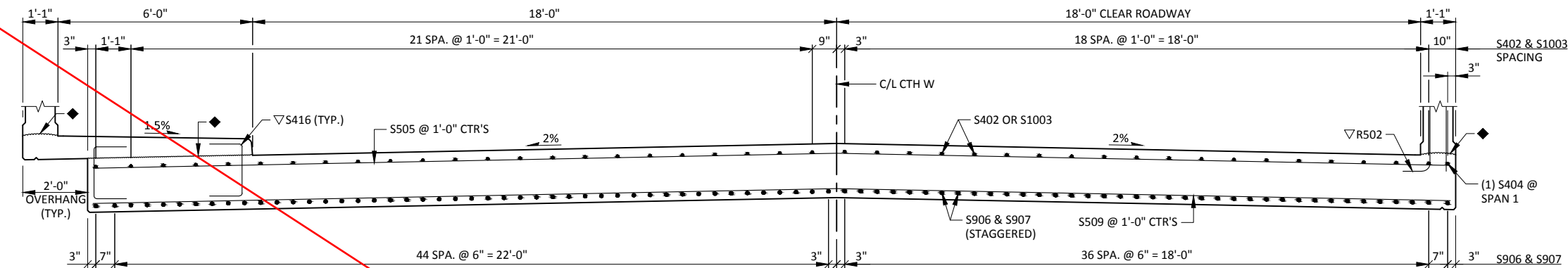
SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

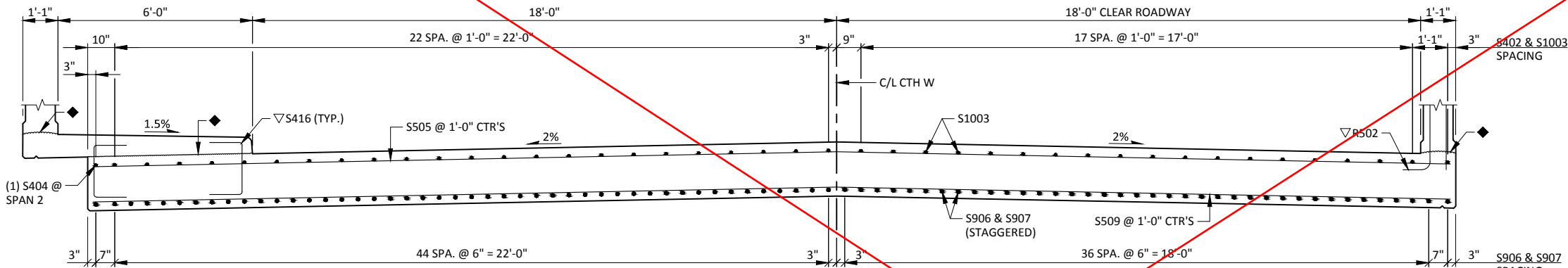
THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-41-306			
DRAWN BY		JZ	PLANS CK'D. PTB
SUPERSTRUCTURE		SHEET 9 OF 14	
		Revised 63	

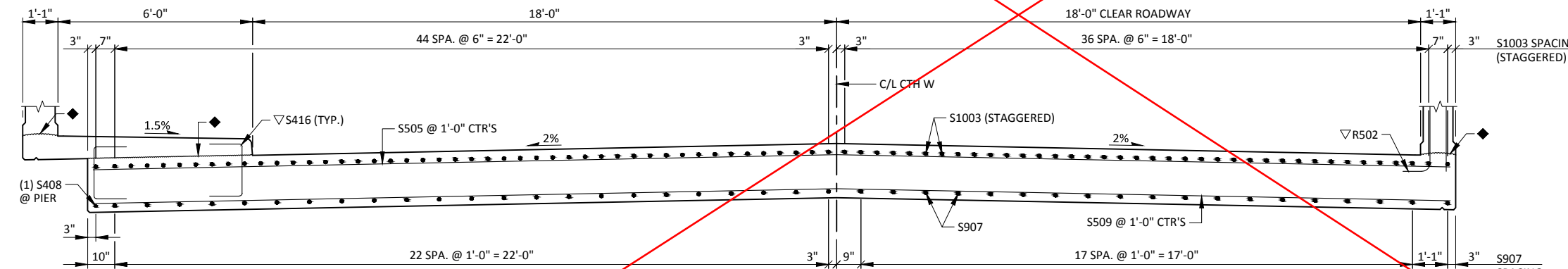




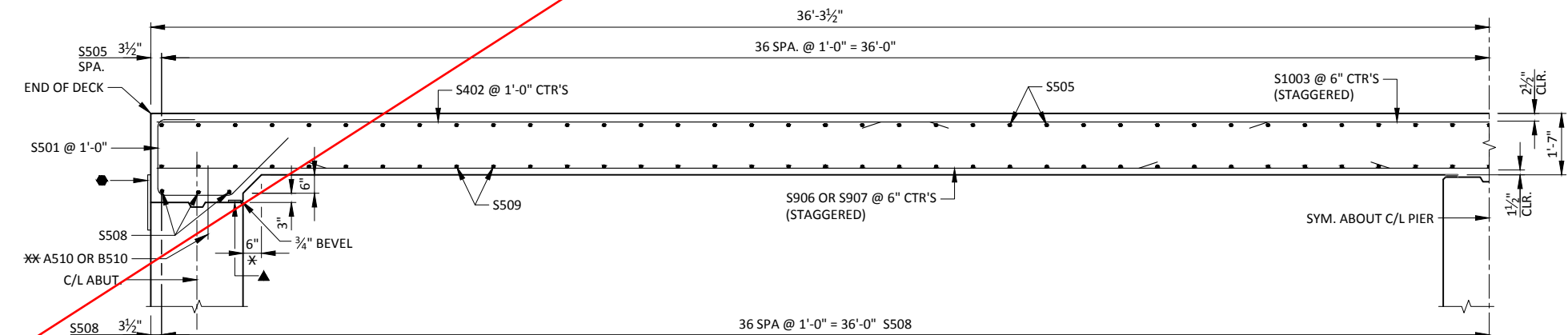
CROSS SECTION THROUGH ROADWAY
SPAN 1 - LOOKING NORTH



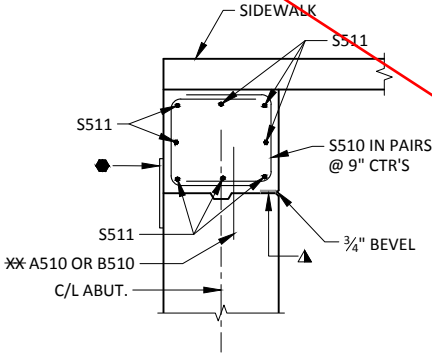
CROSS SECTION THROUGH ROADWAY
SPAN 2 - LOOKING NORTH



CROSS SECTION THROUGH ROADWAY
AT PIER - LOOKING NORTH



PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY



PARTIAL LONGITUDINAL SECTION
UNDER SIDEWALK

LEGEND

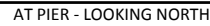
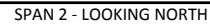
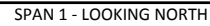
- 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- 3/4" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- CONSTRUCTION JOINT - STRIKE OFF AND LEAVE ROUGH. FINISH ALL AREAS THAT WILL NOT BE COVERED WITH SIDEWALK OR PARAPET AT COMPLETION. FOR SLAB PLACEMENT, MATCH BRIDGE CROSS SLOPE.
- R502 PARAPET BARS AT EAST EDGE AND S416 SIDEWALK BARS TO BE TIED TO DECK STEEL BEFORE DECK IS POURED. SEE SHEET 9 OF 14 FOR BAR LAYOUT.
- DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- SEE SHEETS 4 OR 6 FOR PLACEMENT OF A510 OR B510 BARS.

NOTES

PARAPETS AND SIDEWALKS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

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"Revised 64"

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-41-306			
DRAWN BY JZ		PLANS CK'D. PTB	
SUPERSTRUCTURE DETAILS (1 OF 2)		SHEET 10 OF 14	



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STRUCTURE B-41-306			
		DRAWN BY	JZ PLANS CK'D. PTB
SUPERSTRUCTURE DETAILS (1 OF 2)		SHEET 10 OF 14	
		Revised 64	

LEGEND

- ▽ S416 SIDEWALK BARS TO BE TIED TO DECK STEEL BEFORE DECK IS POURED.
- △ R502 PARAPET BARS TO BE TIED TO SIDEWALK STEEL BEFORE SIDEWALK IS POURED. SEE THIS SHEET 9 OF 14 FOR BAR LAYOUT.
- ◆ CONSTRUCTION JOINT - STRIKE OFF AND LEAVE ROUGH. FINISH ALL AREAS THAT WILL NOT BE COVERED WITH SIDEWALK OR PARAPET AT COMPLETION. FOR SLAB PLACEMENT, MATCH BRIDGE CROSS SLOPE.

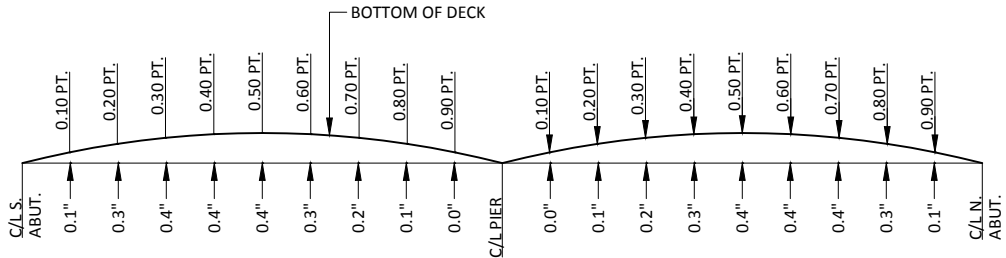
NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).



CAMBER DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR THEORETICAL DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB OR CENTER LINE FOLLOW THIS PROCEDURE:

- TOP OF SLAB ELEVATION AT FINAL GRADE
- SLAB THICKNESS
- +CAMBER
- +FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (COMPUTED BY CONTRACTOR)
- =TOP OF SLAB FALSEWORK ELEVATION.

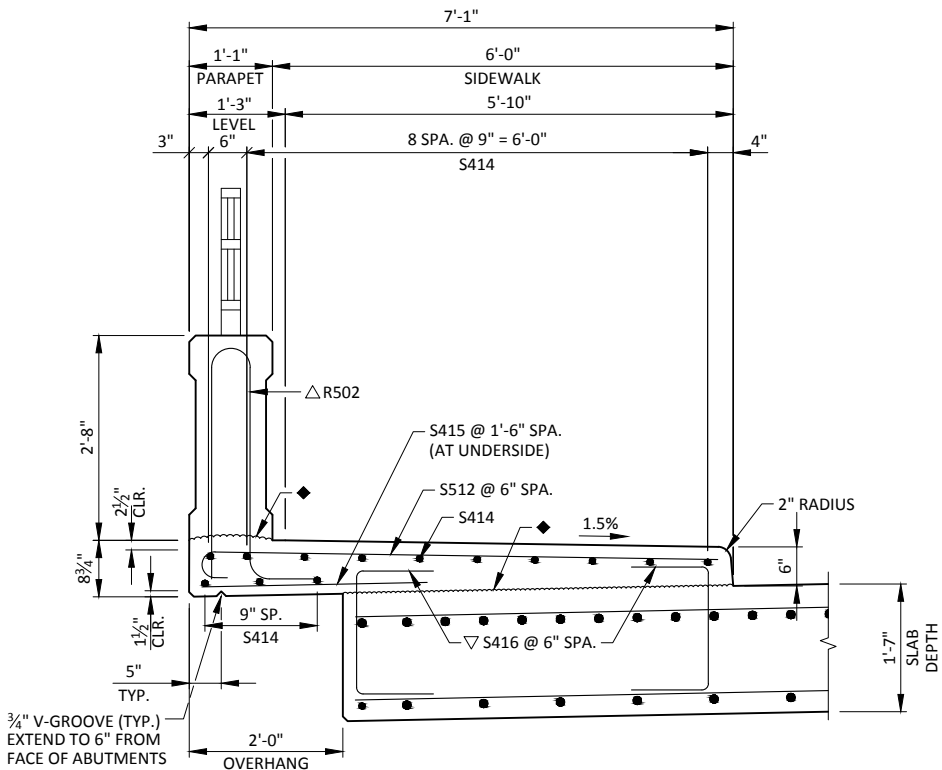
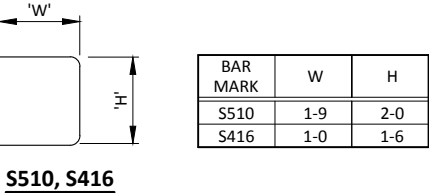
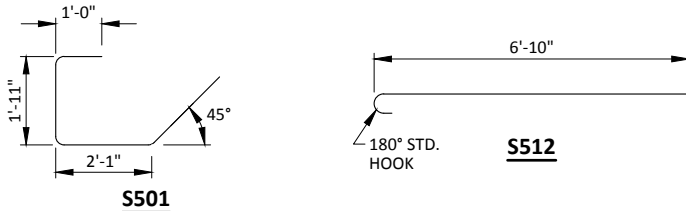
BILL OF BARS
SUPERSTRUCTURE

37,500 LB (COATED)

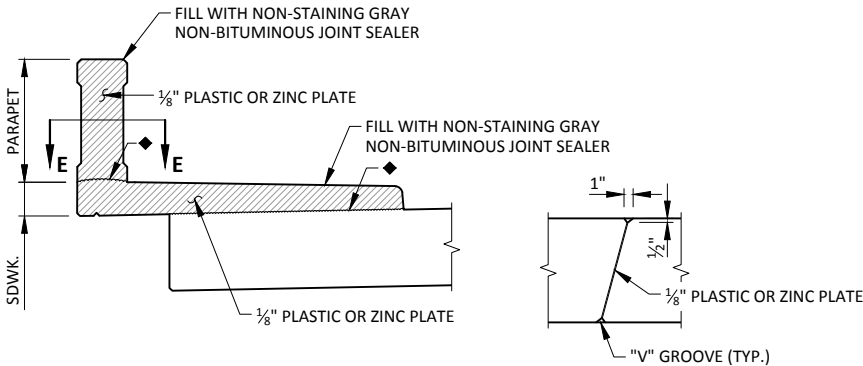
BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S501	86	6-10	X	X	END OF DECK
S402	84	21-6		X	SLAB - TOP - LONGITUDINAL
S1003	84	23-0		X	SLAB - TOP - LONGITUDINAL
S404	2	32-6		X	SLAB - TOP - LONGITUDINAL @ EDGES
S505	73	43-3		X	SLAB - TOP - TRANSVERSE
S906	84	27-2		X	SLAB - BOTTOM - LONGITUDINAL
S907	84	35-3		X	SLAB - BOTTOM - LONGITUDINAL
S408	1	22-8		X	SLAB - BOTTOM - LONGITUDINAL @ W. EDGE
S509	79	43-3		X	SLAB - BOTTOM - TRANSVERSE
S510	12	5-3	X	X	END OF DECK - UNDER SIDEWALK - STIRRUPS
S511	16	4-9		X	END OF DECK - UNDER SIDEWALK - TRANS.
S512	144	7-5	X	X	SIDEWALK - TOP - TRANSVERSE
S513	1	6-1		X	SIDEWALK - TOP - TRANSVERSE @ N. END
S414	26	35-11		X	SIDEWALK - LONGITUDINAL
S415	48	3-0		X	SIDEWALK - TRANSVERSE @ UNDERSIDE
S416	288	3-4	X	X	SIDEWALK - STIRRUPS

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



SECTION THROUGH RAISED SIDEWALK



NOTE: WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINT BY A PIECE OF 3/8" PLASTIC OR ZINC PLATE CUT AS SHOWN. IF CONSTRUCTION JOINT IN THE PARAPET IS USED AT THE DEFLECTION JOINT, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATOR MAY BE OMITTED.

DEFLECTION JOINT DETAIL

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SUPERSTRUCTURE DETAILS (2 OF 2)		SHEET 11 OF 14	

~~3,160 LB (COATED)~~

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

Technical drawing of a bar with a table of dimensions and a detail view.

The main drawing shows a bar with a total length of 1'1" and a fillet radius of R2 1/2".

BAR MARK	L
R501	3-10
R502	4-8

The detail view shows a fillet with a radius of R2 1/2" and a height of 2'-8".

R503

R503

ALL WINGS SIMILAR

▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOUS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)

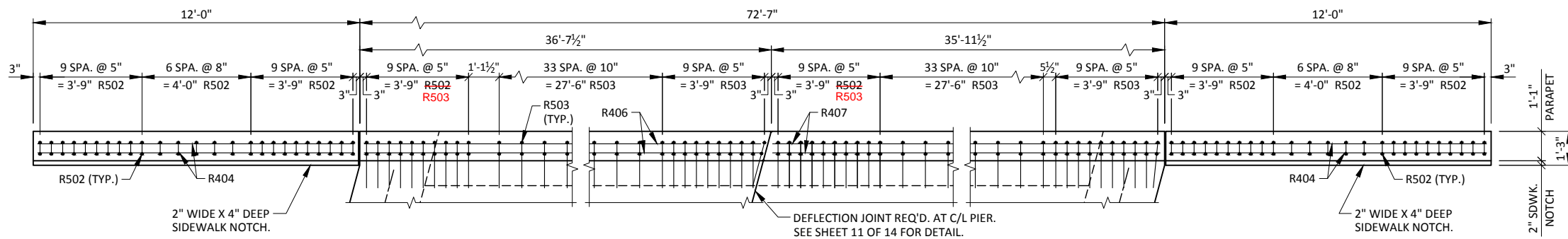
- ◆ CONSTRUCTION JOINT - STRIKE OFF AND LEAVE ROUGH. FINISH ALL AREAS THAT WILL NOT BE COVERED WITH SIDEWALK OR PARAPET AT COMPLETION. FOR SLAB PLACEMENT, MATCH BRIDGE CROSS SLOPE.
- ◆ OPTIONAL CONSTRUCTION JOINT. LEAVE ROUGH. POUR CONCRETE ABOVE THIS JOINT AFTER DECK IS IN PLACE. IF JOINT IS USED, UTILIZE RUBBERIZED MEMBRANE WATERPROOFING (COST IS INCIDENTAL TO "CONCRETE MASONRY BRIDGES").
- ▽ R503 BARS AT EAST EDGE TO BE TIED TO DECK STEEL BEFORE DECK IS POURED. ADJUST LOCATION OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING.
- ~~△ R503 BARS AT WEST EDGE TO BE TIED TO SIDEWALK STEEL BEFORE SIDEWALK IS POURED. ADJUST LOCATION OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING.~~
- ◇ R501 AND R502 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED. ADJUST LOCATION OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-41-306			
DRAWN BY		JZ	PLANS CK'D. P
PARAPET DETAILS		SHEET 12 OF 14	

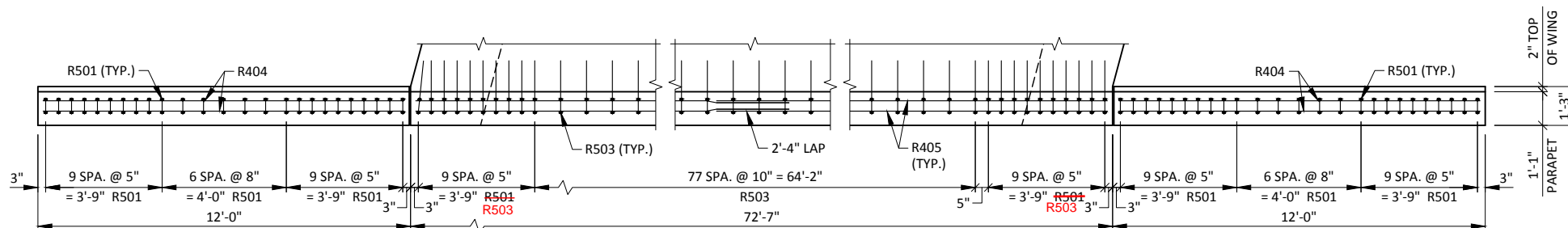


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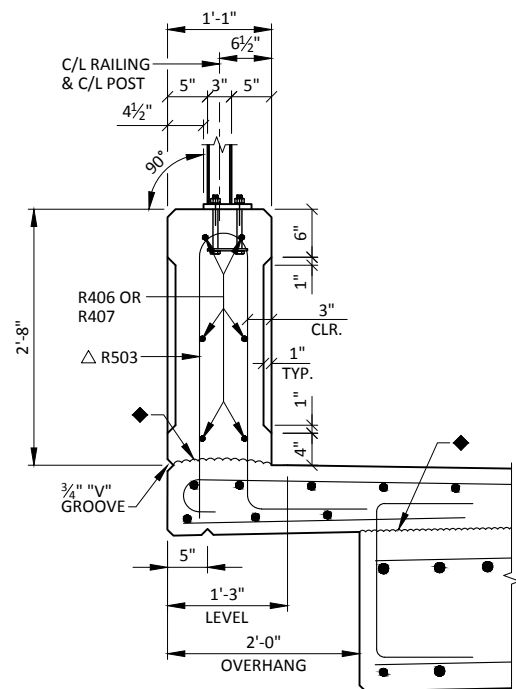
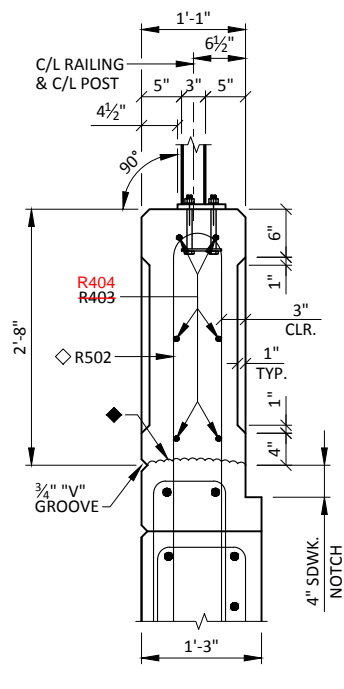
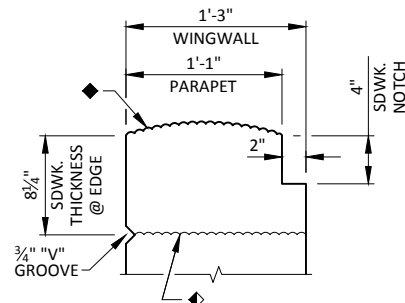
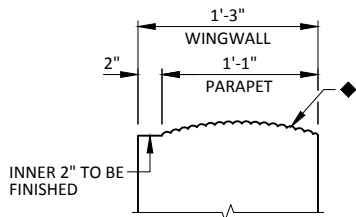
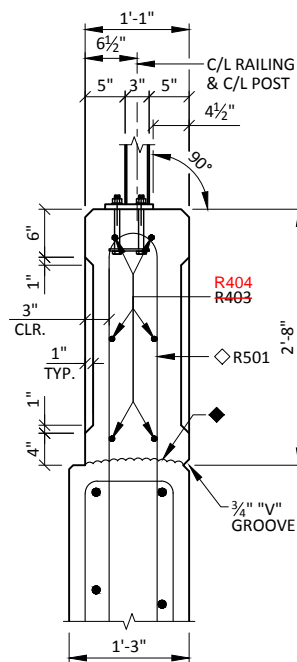
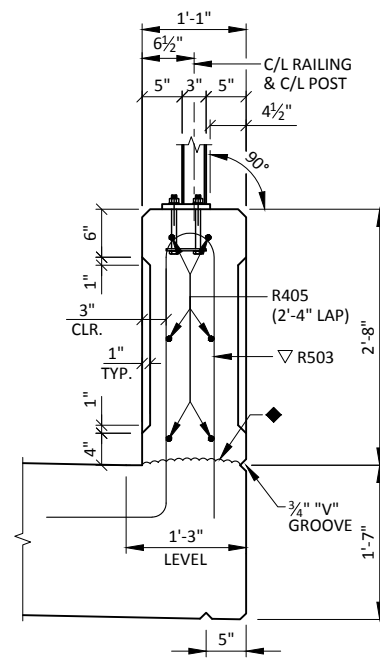




PART PLAN OF WEST PARAPET



PART PLAN OF EAST PARAPET

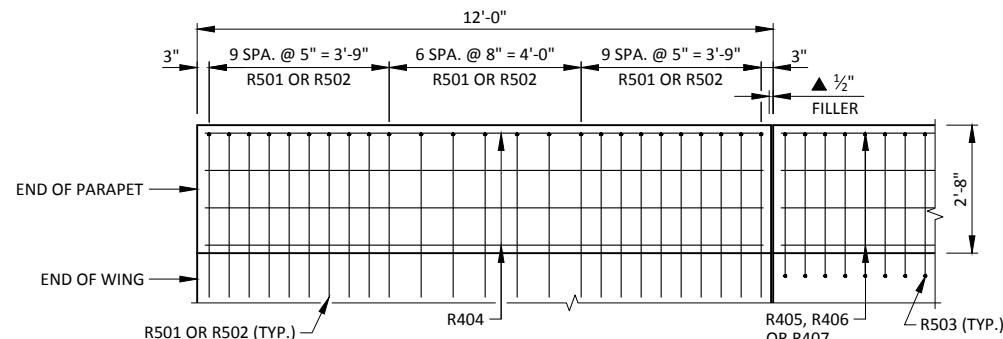
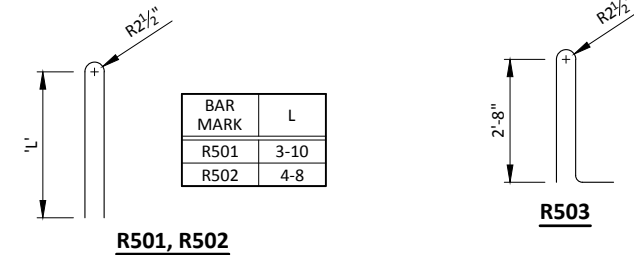
SECTION THROUGH PARAPET
AT RAISED SIDEWALK
(WEST PARAPET)SECTION THROUGH PARAPET
AT WING WITH SIDEWALK
(WEST PARAPET)TOP OF WING DETAIL
WEST WINGSTOP OF WING DETAIL
EAST WINGSSECTION THROUGH PARAPET
AT WING WITHOUT SIDEWALK
(EAST PARAPET)SECTION THROUGH
PARAPET ON BRIDGE
(EAST PARAPET)BILL OF BARS
PARAPETS

3,160 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
R501	50 38	8-4	X	X	PARAPET - VERT. - EAST WINGS
R502	50 38	10-0	X	X	PARAPET - VERT. - WEST WINGS
R503	203 174	6-9	X	X	PARAPET - VERT. - DECK
R404	24	11-7		X	PARAPET - HORIZ. - WINGS
R405	12	37-4		X	PARAPET - HORIZ. - EAST PARAPET
R406	6	36-1		X	PARAPET - HORIZ. - WEST PARAPET - SOUTH
R407	6	35-9		X	PARAPET - HORIZ. - WEST PARAPET - NORTH

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

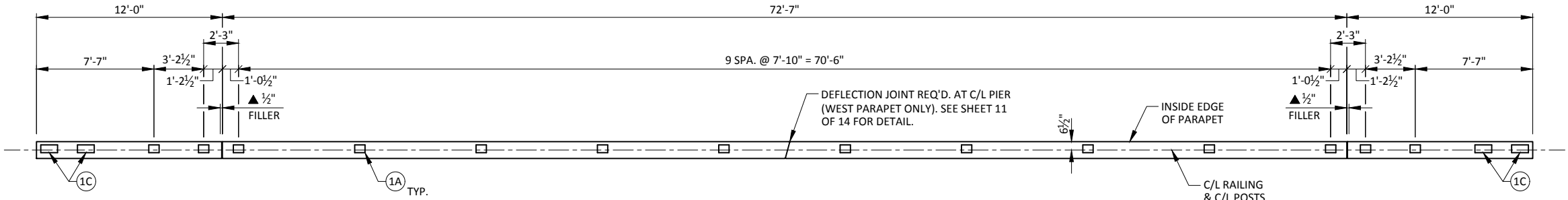
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

ELEVATION AT WING PARAPET
ALL WINGS SIMILAR

LEGEND

- ▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD 1/8" BELOW SURFACE OF CONCRETE)
- ◆ CONSTRUCTION JOINT - STRIKE OFF AND LEAVE ROUGH. FINISH ALL AREAS THAT WILL NOT BE COVERED WITH SIDEWALK OR PARAPET AT COMPLETION. FOR SLAB PLACEMENT, MATCH BRIDGE CROSS SLOPE.
- ◇ OPTIONAL CONSTRUCTION JOINT. LEAVE ROUGH. POUR CONCRETE ABOVE THIS JOINT AFTER DECK IS IN PLACE. IF JOINT IS USED, UTILIZE RUBBERIZED MEMBRANE WATERPROOFING (COST IS INCIDENTAL TO "CONCRETE MASONRY BRIDGES").
- ▽ R503 BARS AT EAST EDGE TO BE TIED TO DECK STEEL BEFORE DECK IS POURED. ADJUST LOCATION OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING.
- △ R503 BARS AT WEST EDGE TO BE TIED TO SIDEWALK STEEL BEFORE SIDEWALK IS POURED. ADJUST LOCATION OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING.
- ◇ R501 AND R502 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED. ADJUST LOCATION OF BARS TO ALLOW PLACEMENT OF ANCHOR ASSEMBLY FOR RAILING.

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PARAPET DETAILS		SHEET 12 OF 14 Revised 66	

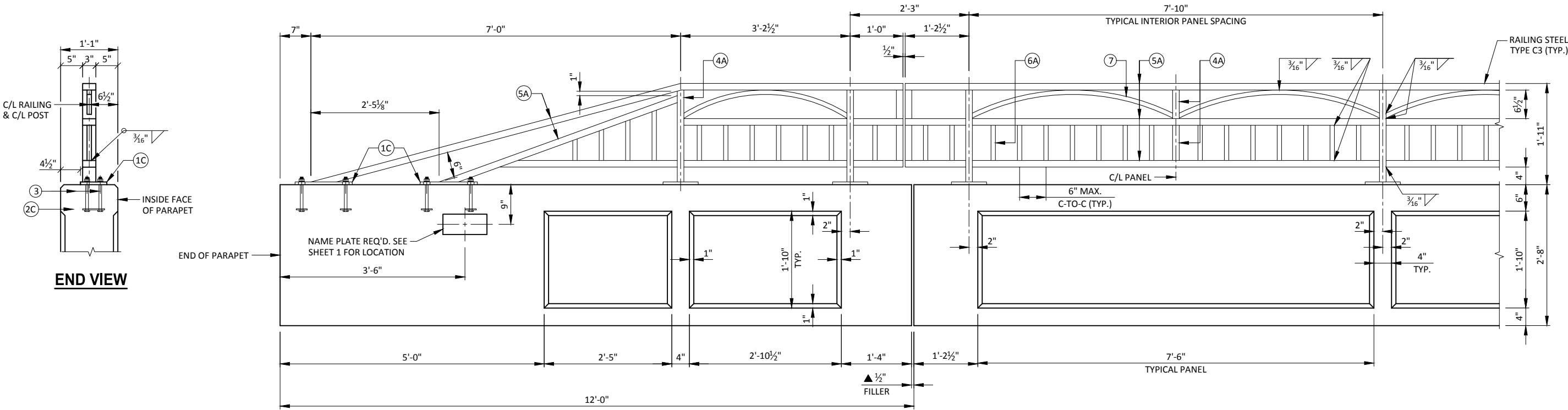


RAILING LAYOUT

WEST RAIL SHOWN
EAST RAIL SIMILAR

LEGEND

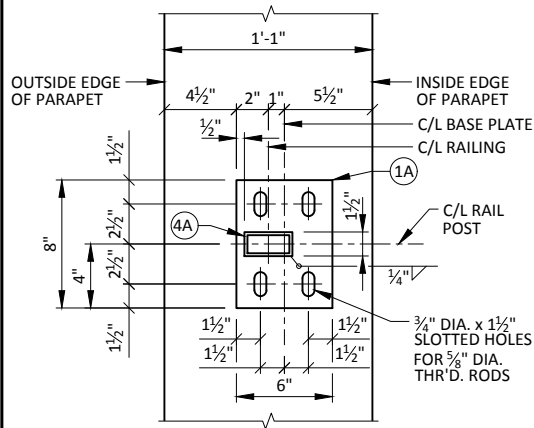
▲ 1/2" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUS JOINT SEALER. (1" DEEP & HOLD 3/8" BELOW SURFACE OF CONCRETE)



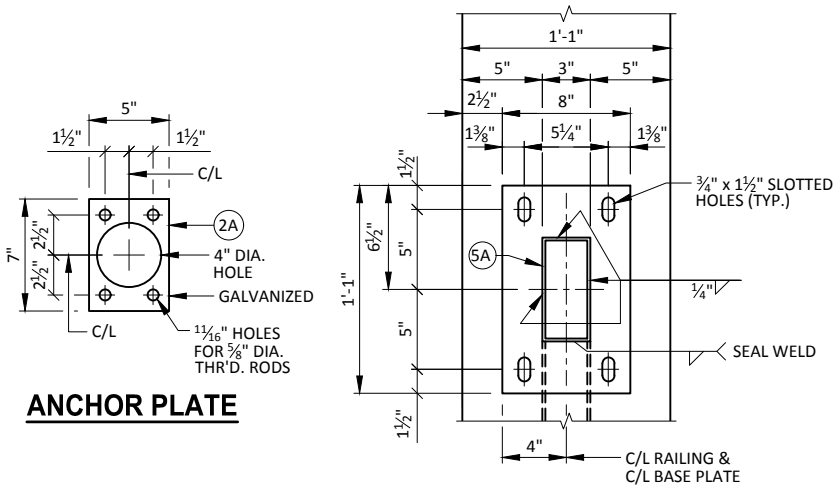
PARAPET AND RAILING ELEVATION

ALL WINGS SIMILAR

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STEEL RAILING TYPE C3			SHEET 13 OF 14

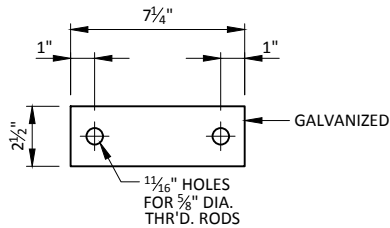


TYPICAL RAIL POST
BASE PLATE



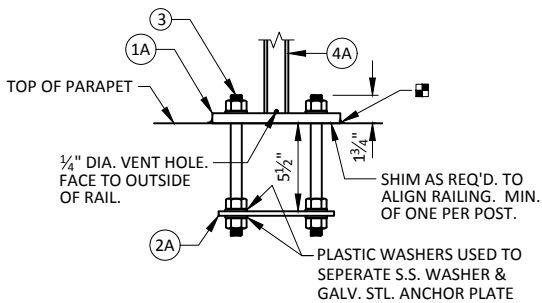
ANCHOR PLATE

END RAIL BASE PLATE



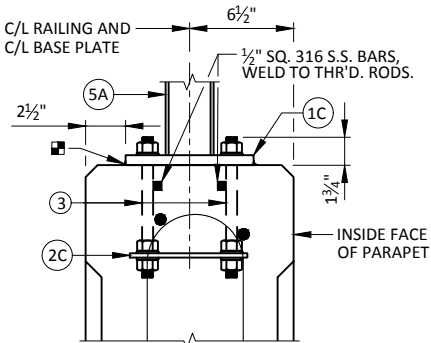
END RAIL ANCHOR PLATE

FOR END RAIL BASE PLATES
2 REQ'D. PER END RAIL BASE PLATE



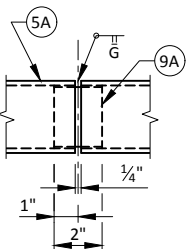
ANCHORAGE FOR RAIL POSTS

NOTE: ANCHOR PLATE NOT REQ'D. WHEN
ADHESIVE ANCHORS ARE USED.



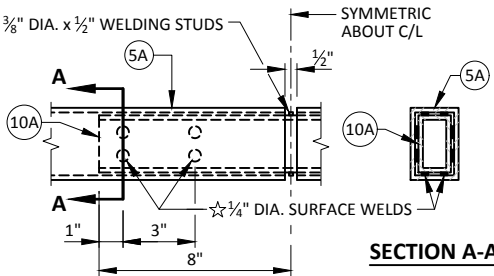
ANCHORAGE FOR END RAIL

NOTE: ANCHOR PLATE NOT REQ'D. WHEN
ADHESIVE ANCHORS ARE USED.



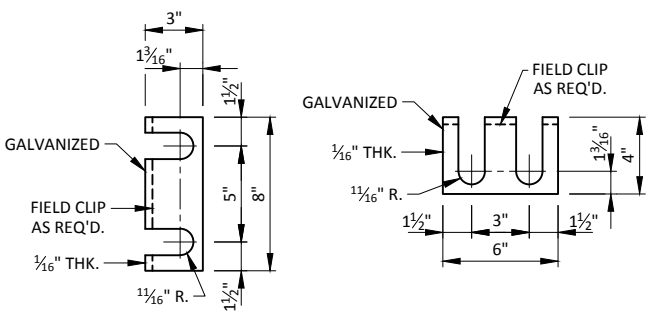
SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN
ON SHOP DRAWINGS)



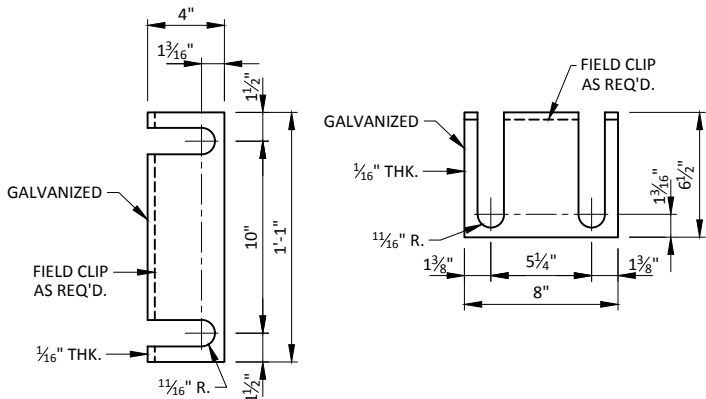
FIELD ERECTION JOINT DETAIL

☆ MIN. 5/8" FLAT SURFACE DIA. PUNCHINGS
OR STUDS MAY BE USED AS AN ALTERNATE.



RAIL POST SHIM DETAIL

(2 SETS PER POST)



END RAIL SHIM DETAIL

(2 SETS PER POST)

LEGEND

- 1A PLATE 5/8" x 6" x 8" WITH 3/4" x 1 1/2" SLOTTED HOLES.
- 1C PLATE 3/8" x 8" x 1'-1" WITH 3/4" x 1 1/2" SLOTTED HOLES.
- 2A 3/4" x 5" x 7" ANCHOR PLATE WITH 1 1/16" DIA. HOLES FOR THR'D. RODS NO. 3.
- 2C 3/4" x 2 1/2" x 7 1/4" ANCHOR PLATE WITH 1 1/16" DIA. HOLES FOR THR'D. RODS NO. 3.
- 3 5/8" DIA. x 9" LONG, TYPE 316 STAINLESS STEEL THREADED RODS (MIN. TENSILE STRENGTH = 70 KSI) WITH NUT AND WASHERS OF SAME ALLOY GROUP. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 5/8"-INCH. EMBED 7" IN CONCRETE FOR RAIL POSTS. EMBED 5" IN CONCRETE FOR END RAILS. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.
- 4A STRUCTURAL TUBING 3" x 1 1/2" x 3/16". PLACE VERTICAL. WELD TO NO. 1 & 5.
- 5A STRUCTURAL TUBING 3" x 1 1/2" x 3/16" RAILS. WELD TO NO. 1 & NO. 4. INSIDE OF TUBE TO BE PAINTED AT ALL FIELD ERECTION & EXPANSION JOINTS.
- 6A BAR 1"x1" PICKETS. WELD TO NO. 5. (SPACE AT 6" MAX. C/L TO C/L SPACING). PLACE VERTICAL.
- 7 BAR 1"x1". BEND TO REQUIRED RADIUS. WELD TO NO. 4 & 5.
- 9A RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. PROVIDE "SLIDING FIT".
- 10A RECTANGULAR SLEEVE FABRICATED FROM 3/16" PLATES. (1'-4" @ FIELD ERECTION JOINTS.)

NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE C3", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL PLATES, BARS, AND RECTANGULAR SLEEVES SHALL CONFORM TO ASTM A709 GRADE 36. ALL STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING. SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHOULD BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038 (BLACK) OR SIMILAR COLOR APPROVED BY THE ENGINEER IN THE FIELD.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQ'D. TO FACILITATE GALVANIZING AND DRAINAGE.

AT COMPLETION OF STEEL RAILING INSTALLATION, PAINT THE TOPS OF ANCHOR BOLTS AND NUTS WITH THE TIE COAT. TOUCH-UP PAINT WITH THE TOP COAT ALL DAMAGED AREAS AND THE ANCHOR BOLTS TO THE SATISFACTION OF THE ENGINEER IN THE FIELD AT NO EXTRA COST.

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