

SCHMATIC SHOWING CENTERLINE DIMENSIONS

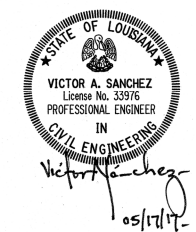
PLAN  
SCALE : 1/4" = 1'-0"

ESTIMATED QUANTITIES (ONE SLAB)						
BAR	NO.	SHORT BAR	VAR. (IN.)	LONG BAR	TOTAL LENGTH	LOCATION
601	1			19'-7"	19'-7"	LONGIT. BOT. OF SLAB
602-681	1 EA.	19'-10"	6.00	59'-4"	3166'-8"	LONGIT. BOT. OF SLAB
682	1			59'-7"	59'-7"	LONGIT. BOT. OF SLAB
683	40			40'-8"	1626'-8"	TRANSV. BOT. OF SLAB
684-6162	1 EA.	0'-10"	6.00	39'-10"	1606'-4"	TRANSV. BOT. OF SLAB
<b>TOTAL NO. 6 BARS = 6478'-10" = 9731 LBS.</b>						
401-421	1 EA.	19'-7"	12.00	39'-7"	621'-3"	LONGIT. TOP OF SLAB
* 422-441	1 EA.	42'-3"	12.00	61'-3"	1035'-0"	LONGIT. TOP OF SLAB
* 442	20			42'-4"	846'-8"	TRANSV. TOP OF SLAB
443-482	1 EA.	0'-10"	12.00	39'-10"	813'-4"	TRANSV. TOP OF SLAB
483	14			2'-0"	28'-0"	DOWELS IN CURB
484	2			9'-7"	19'-2"	LONGIT. IN CURB
<b>TOTAL NO. 4 BARS = 3316'-3" = 2215 LBS.</b>						
TOTAL DEFORMED REINFORCING STEEL					= 11946 LBS.	
CONCRETE APPROACH SLAB					= 182.22 SQ.YDS.	
ASPHALT CONCRETE					= 18.6 TONS	
SAW CUT & SEAL					= 39 LIN. FT.	

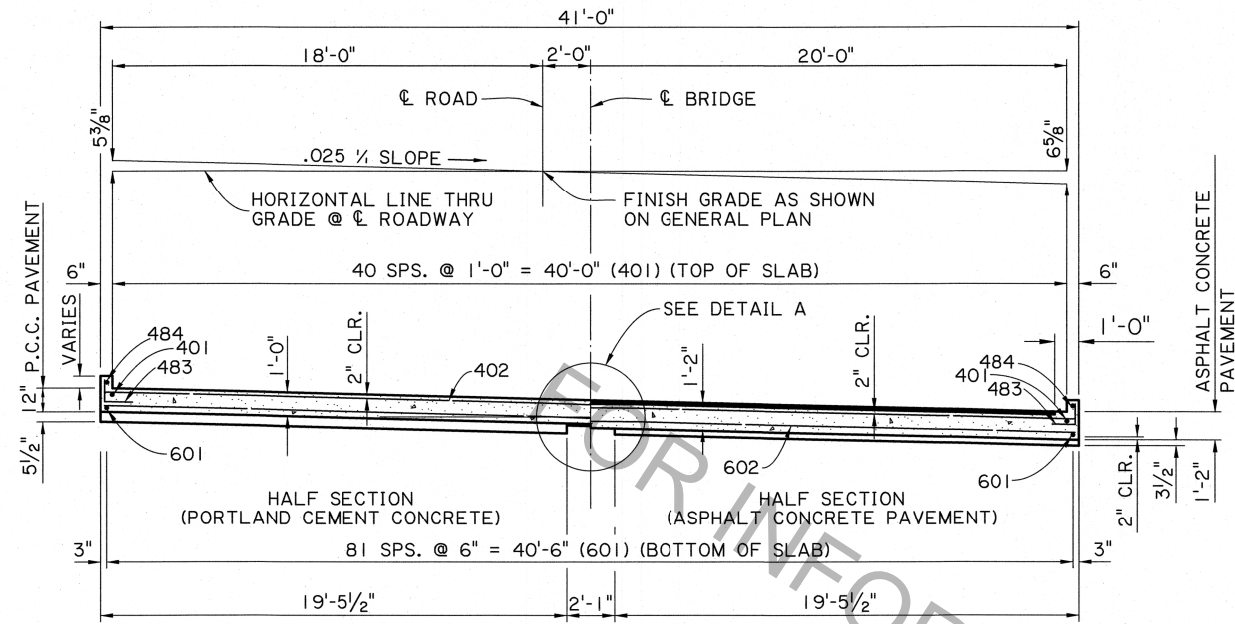
\* INCLUDES ONE (1) 1'-8" MINIMUM LAP SPLICE. ALL LAP SPLICES ARE TO BE STAGGERED.  
 ○ TO BE PAID FOR UNDER ITEM CONCRETE APPROACH SLABS.  
 □ REQUIRED WHEN APPROACH SLAB IS ADJACENT TO ASPHALT CONCRETE PAVEMENT, PAID FOR UNDER ITEM ASPHALT CONCRETE, AND SAWING AND SEALING TRANSVERSE JOINTS IN ASPHALT CONCRETE OVERLAY.

APPROACH SLAB NOTES:

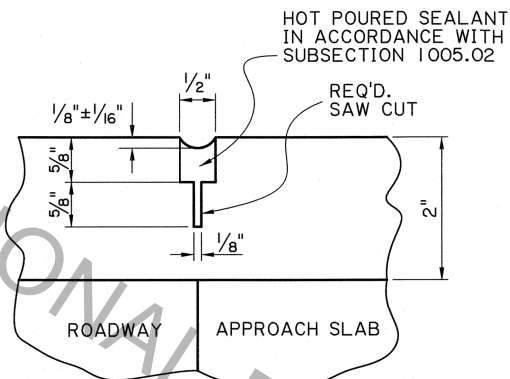
CONSTRUCTION SPECIFICATIONS: LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.  
 DESIGN SPECIFICATIONS: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION, WITH 2008 & 2009 INTERIMS.  
 STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE NOTED.  
 ASPHALT CONCRETE: TO BE THE SAME TYPE AS THE ASPHALT CONCRETE USED FOR THE APPROACH ROADWAY PAVEMENT OR OVERLAY.  
 REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO THE FABRICATION ARE OUT-TO-OUT OF BARS, UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS.  
 BEDDING MATERIAL: FOR DETAILS OF BEDDING MATERIAL AND UNDERDRAINS, SEE STANDARD DETAIL BD.2.10.1.0.07.  
 SAWING & SEALING: THE ASPHALT CONCRETE SHALL BE SAW CUT AT THE END OF THE CONCRETE APPROACH SLAB THE ENTIRE ROADWAY WIDTH AND SEALED.  
 BASIS OF PAYMENT: ALL MATERIAL SHALL BE PAID FOR UNDER 'CONCRETE APPROACH SLABS' ACCORDING TO THE SPECIFICATIONS, EXCEPT WHERE NOTED ON THIS SHEET.



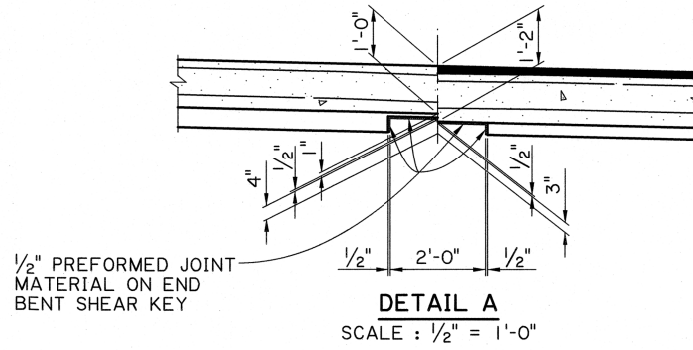
SHEET NUMBER		PARISH		CONTROL SECTION		STATE PROJECT	
DESIGNED	J. NAKHLEH	CHECKED	B. DELATTE	REVIEWED	OS/17/17	DATE	NO.
DETAILS	J. NAKHLEH	CHECKED	D. HYMEL	REVISION OR CHANGE	ORDER DESCRIPTION	BY	
APPROACH SLAB (1 OF 2) 40'-0" CONCRETE APPROACH SLAB 40'-0" CLEAR ROADWAY 45° CROSSING ONE WAY TANGENT STANDARD DETAIL CASBR-45-40T-40L-20SL							
DOTD BRIDGE DESIGN							



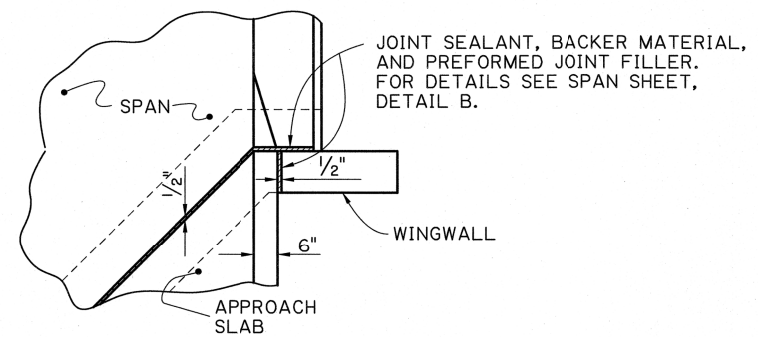
**SECTION A-A**  
SCALE : 1/4" = 1'-0"



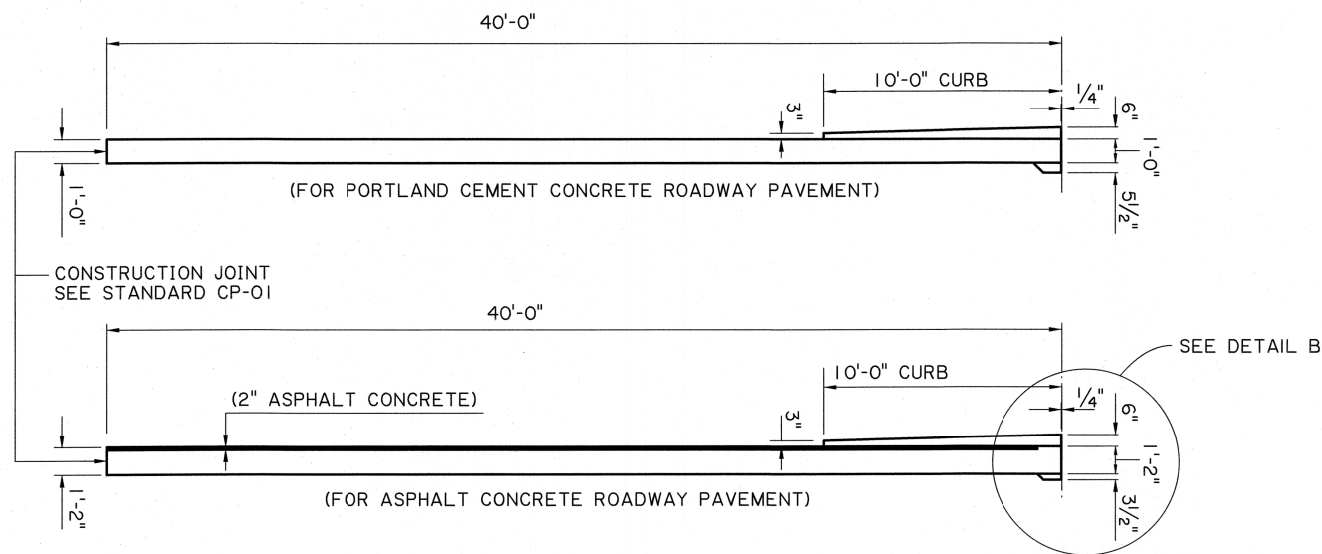
**SAWING & SEALING JOINT DETAIL**  
N.T.S.



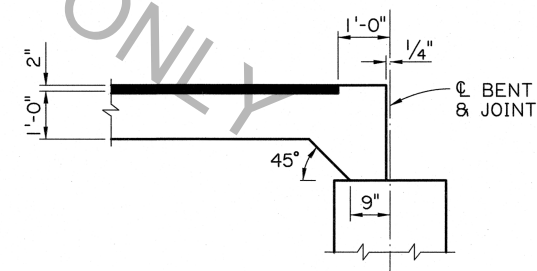
**DETAIL A**  
SCALE : 1/2" = 1'-0"



**JOINT DETAIL**  
SCALE : 1/2" = 1'-0"





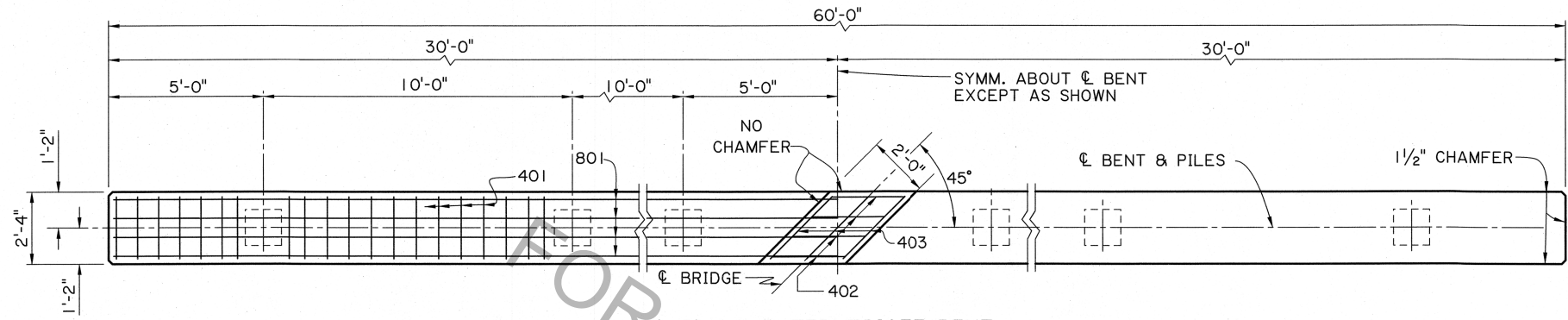
**SECTION ALONG ROADWAY**  
SCALE : 1/4" = 1'-0"



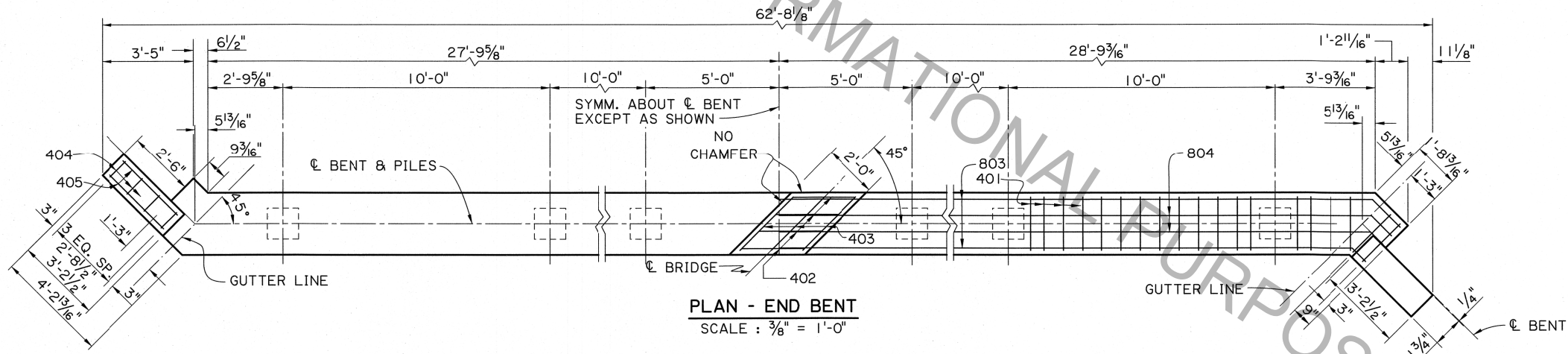
**DETAIL B**  
SCALE : 1/2" = 1'-0"



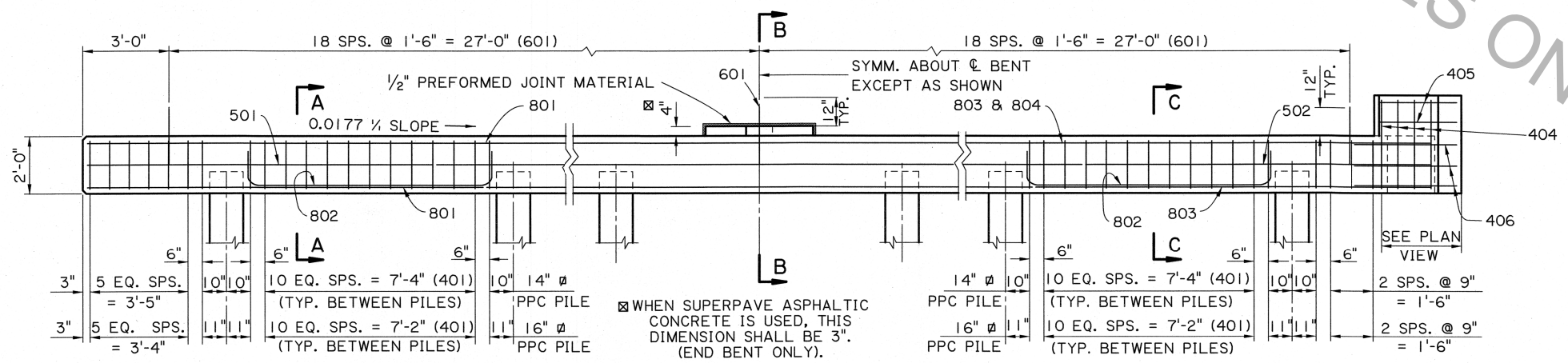
DESIGNED	J. NAKHLEH	PARISH	
CHECKED	B. DELATTE	CONTROL SECTION	
DETAILED	J. NAKHLEH	STATE PROJECT	
CHECKED	D. HYMEL	OS/17/17	
REVIEWED		SERIES #	
NO.		BY	
DATE		REVISION OR CHANGE ORDER DESCRIPTION	
 <b>APPROACH SLAB (2 OF 2)</b> 40'-0" CONCRETE APPROACH SLAB 40'-0" CLEAR ROADWAY 45° CROSSING ONE WAY TANGENT STANDARD DETAIL CASBR-45-40T-40L-20SL			
 DOTD BRIDGE DESIGN			



**PLAN - INTERMEDIATE BENT**  
SCALE : 3/8" = 1'-0"



**PLAN - END BENT**  
SCALE : 3/8" = 1'-0"



**HALF ELEVATION - INTERMEDIATE BENT**  
SCALE : 3/8" = 1'-0"

**HALF ELEVATION - END BENT**  
SCALE : 3/8" = 1'-0"

**ESTIMATED QUANTITIES (ONE INTER. BENT)**

BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	6	59'-8"	LONGIT. IN CAP
802	10	10'-10"	LONGIT. IN CAP BETWEEN PILES
<b>TOTAL NO. 8 BARS = 466'-4" = 1245 LBS.</b>			
601	37	2'-0"	DOWELS
<b>TOTAL NO. 6 BARS = 74'-0" = 111 LBS.</b>			
501	2	59'-8"	LONGIT. IN CAP
<b>TOTAL NO. 5 BARS = 119'-4" = 124 LBS.</b>			
401	79	8'-2"	STIRRUPS IN CAP
402	5	5'-0"	STIRRUPS IN RISER
403	3	2'-9"	8'-3" LONGIT. IN RISER
<b>TOTAL NO. 4 BARS = 678'-5" = 453 LBS.</b>			
<b>TOTAL DEFORMED REINFORCING STEEL = 1933 LBS.</b>			
<b>CLASS A1 CONCRETE = 10.13 CU. YDS.</b>			
<b>MAX. PILE LOAD: SERVICE DEAD LOAD = 28 TONS</b>			
<b>SERVICE LIVE LOAD = 32 TONS</b>			
<b>FACTORED TOTAL LOAD = 80 TONS</b>			

ADD 111 LBS. OF REINFORCING STEEL (37-601 DOWELS) WHEN TWO FIXED ENDS OCCUR ON THE SAME BENT.

**ESTIMATED QUANTITIES (ONE END BENT)**

BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
802	10	10'-10"	LONGIT. IN CAP BETWEEN PILES
803	4	58'-9"	LONGIT. IN CAP
804	2	58'-9"	LONGIT. IN CAP
<b>TOTAL NO. 8 BARS = 460'-10" = 1230 LBS.</b>			
601	37	2'-0"	DOWELS
<b>TOTAL NO. 6 BARS = 74'-0" = 111 LBS.</b>			
502	2	58'-9"	LONGIT. IN CAP
<b>TOTAL NO. 5 BARS = 117'-6" = 123 LBS.</b>			
401	77	8'-2"	628'-10" STIRRUPS IN CAP
402	5	5'-0"	25'-0" STIRRUPS IN RISER
403	3	2'-9"	8'-3" LONGIT. IN RISER
404	8	8'-9"	70'-0" STIRRUPS IN WINGWALL
405	8	2'-10"	22'-8" LONGIT. IN WINGWALL
406	12	4'-0"	48'-0" LONGIT. IN WINGWALL
<b>TOTAL NO. 4 BARS = 802'-9" = 536 LBS.</b>			
<b>TOTAL DEFORMED REINFORCING STEEL = 2000 LBS.</b>			
<b>CLASS A1 CONCRETE = 10.80 CU. YDS.</b>			
<b>MAX. PILE LOAD: SERVICE DEAD LOAD = 28 TONS</b>			
<b>SERVICE LIVE LOAD = 32 TONS</b>			
<b>FACTORED TOTAL LOAD = 80 TONS</b>			

16" # PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.07 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" # PPC PILES ARE USED.)

**AS-DESIGNED RATING**

VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.358	
HL-93 (OPR)	1.761	
LADV-11 (INV)	1.045	MAGNIFICATION FACTOR = 1.3



SHEET NUMBER

DESIGNED BY: J. NAKHLEH  
CHECKED BY: B. DELATTE  
DATE: 05/17/17

CONTROL SECTION: PARISH  
PROJECT: REINFORCED CONCRETE PILE BENT  
SERIES # 1 OF 2

BY: [Signature]

NO. DATE

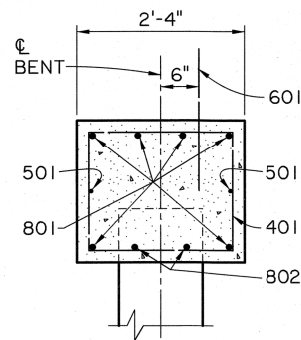
REVISION OR CHANGE ORDER DESCRIPTION

STATE OF LOUISIANA  
VICTOR A. SANCHEZ  
License No. 33976  
PROFESSIONAL ENGINEER  
IN  
CIVIL ENGINEERING

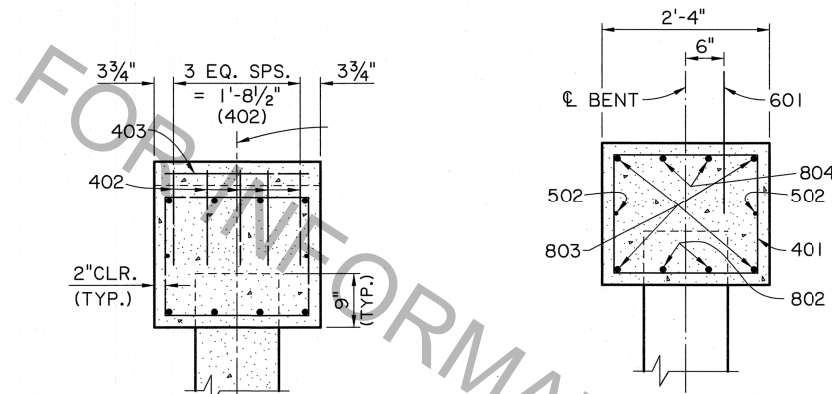
REINFORCED CONCRETE PILE BENT  
40'-0" CLEAR ROADWAY  
45° CROSSING ONE WAY TANGENT

STANDARD  
DETAIL  
DOTD BRIDGE DESIGN

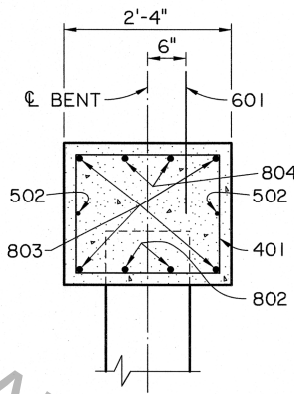
BCSSBR-45-40T-20SL



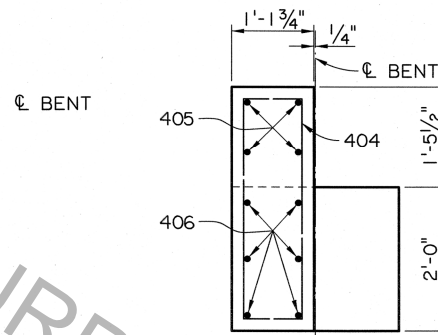
**SECTION A-A**  
SCALE : 3/4" = 1'-0"



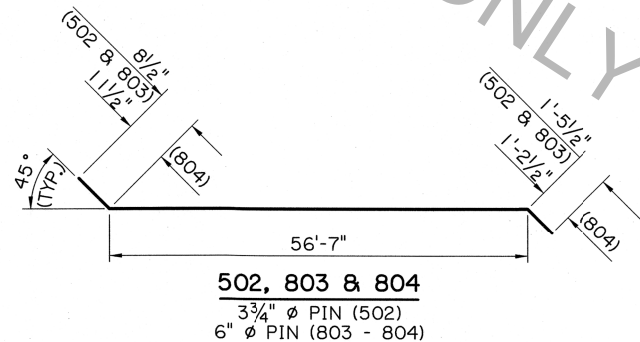
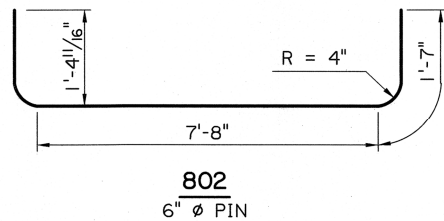
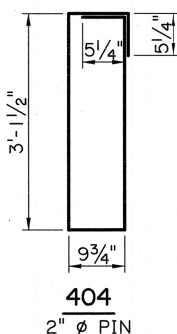
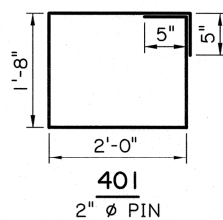
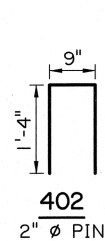
**SECTION B-B**  
SCALE : 3/4" = 1'-0"



**SECTION C-C**  
SCALE: 3/4" = 1'-0"



**END ELEVATION**  
SCALE : 3/4" = 1'-0"



**BENT NOTES:**

**CONSTRUCTION SPECIFICATIONS:** LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.  
**DESIGN SPECIFICATIONS:** AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION WITH 2008 & 2009 INTERIMS.

**DESIGN LOAD:** LIVE LOAD IS HL-93, AND LADV-II (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).

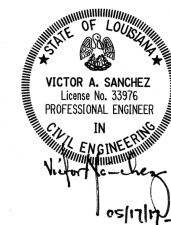
**STRUCTURAL CONCRETE:** ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE NOTED. ALL EXPOSED FACES OF WINGWALLS AND ENDS OF CAPS SHALL RECEIVE A SURFACE FINISH AS PER SUB-SECTION 805.08 OF THE STANDARD SPECIFICATIONS, EXCEPT WHEN SPECIFIED ELSEWHERE IN THE PLANS.

1/2" PREFORMED JOINT MATERIAL AND ASPHALT SATURATED FELT SHALL BE INCLUDED IN THE PRICE BID FOR CLASS A1 CONCRETE.

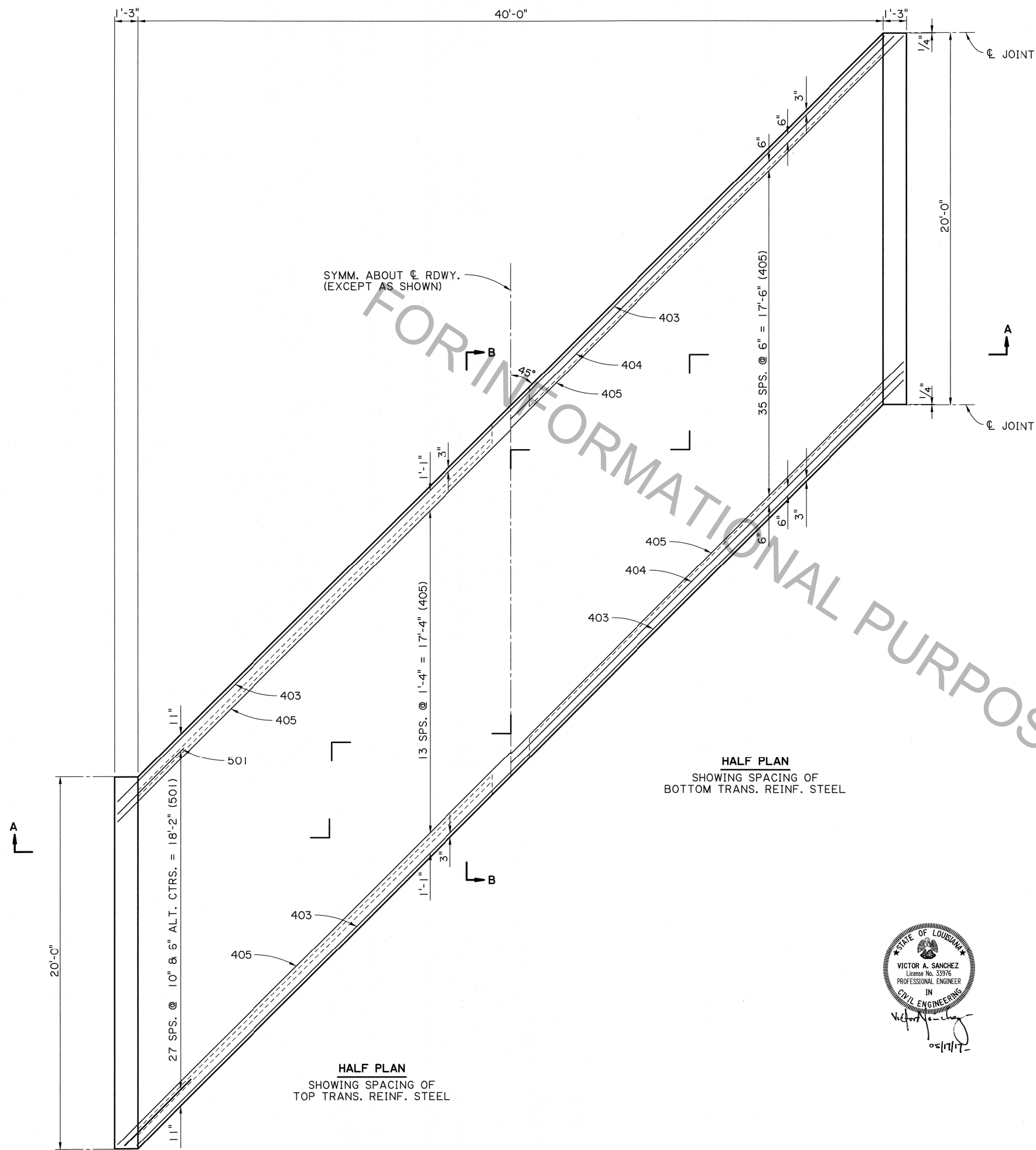
**REINFORCING STEEL:** ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, UNLESS OTHERWISE NOTED. DOWELS (601 BARS) SHALL BE PROVIDED AT ALL FIXED BEARINGS AND APPROACH SLAB BEARINGS (SEE GENERAL PLAN). ALL EXPOSED ENDS OF DOWELS SHALL BE WRAPPED WITH TWO LAYERS OF 15 LB. ASPHALT SATURATED FELT. CLOSE FITTING TUBES OF COMPRESSIBLE MATERIAL NOT LESS THAN 3/16" THICK MAY BE SUBSTITUTED.

**PRECAST CONCRETE PILES:** FOR DETAILS SEE STANDARD DETAIL BD.2.5.1.0.01 (CS-216). EXTERIOR PILES ARE TO BE BATTERED OUTWARD AT 1 1/2 ON 12 IN THE LONGITUDINAL DIRECTION OF THE BENT, WHEN NOTED ON THE GENERAL PLAN.

**PREFORMED JOINT MATERIAL:** PREFORMED JOINT MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 815.04 OF THE STANDARD SPECIFICATIONS.



SHEET NUMBER		PARISH	
CONTROL SECTION		PROJECT	
DESIGNED J. NAKHLEH	CHECKED B. DELATTE	REVIEWED OS/T/17	SERIES # 2 OF 2
DATE	NO.	REVISION OR CHANGE ORDER DESCRIPTION	BY
STATE OF LOUISIANA			
<b>BENTS (2 OF 2)</b> REINFORCED CONCRETE PILE BENT 40'-0" CLEAR ROADWAY 45° CROSSING ONE WAY TANGENT			
STANDARD DETAIL		BCSSBR-45-40T-205L	
 DOTD BRIDGE DESIGN			



HALF PLAN  
SHOWING SPACING OF  
BOTTOM TRANS. REINF. STEEL

HALF PLAN  
SHOWING SPACING OF  
TOP TRANS. REINF. STEEL

**SPAN NOTES:**

**CONSTRUCTION SPECIFICATIONS:** LATEST APPROVED LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, SUPPLEMENTAL SPECIFICATIONS AND SPECIAL PROVISIONS.

**DESIGN SPECIFICATIONS:** AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 4th EDITION WITH 2008 & 2009 INTERIMS.

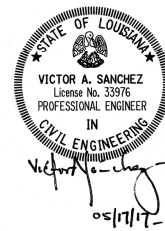
**DESIGN LOAD:** THE BRIDGE DECK IS DESIGNED FOR A FUTURE WEARING COURSE OF 19 PSF. THE LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLE LIVE LOAD 2011).

**STRUCTURAL CONCRETE:** ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE NOTED. JOINT SEALANT, BACKER MATERIAL, PREFORMED JOINT FILLER, AND ASPHALT SATURATED FELT SHALL BE INCLUDED IN THE PRICE BID FOR CLASS A1 CONCRETE.

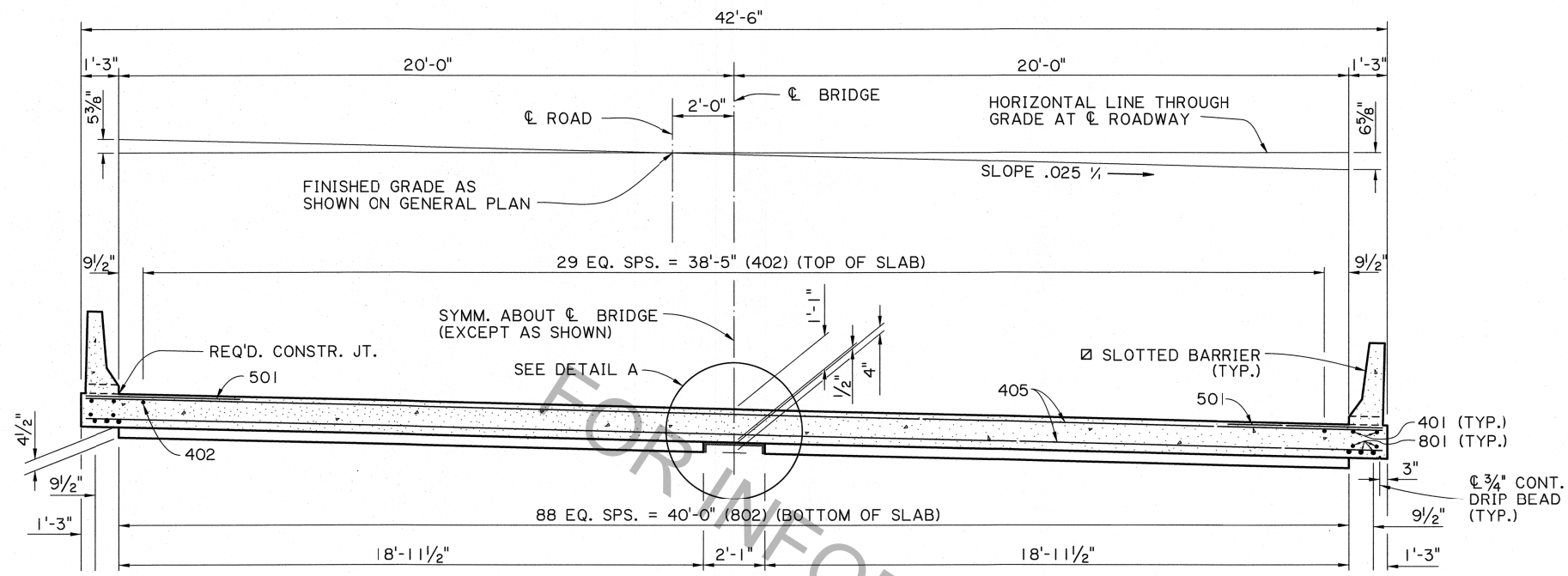
**REINFORCING STEEL:** ALL REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS RELATING TO SPACING ARE TO BAR CENTERS, DIMENSIONS RELATING TO FABRICATION ARE OUT TO OUT OF BARS UNLESS OTHERWISE NOTED. ALL REINFORCING BARS SHALL BE PLACED TO PROVIDE A MINIMUM COVER OF ONE INCH FROM THE SURFACE OF THE DRAIN HOLES TO THE FACE OF THE BARS EXCEPT FOR THE TRANSVERSE BARS WHICH MAY BE CUT FOR THIS PURPOSE.

**GUARD RAIL:** REFER TO THE GENERAL PLAN AND STANDARD PLAN BD.1.1.1.0.01 (GR-200) FOR GUARD RAIL REQUIREMENTS.

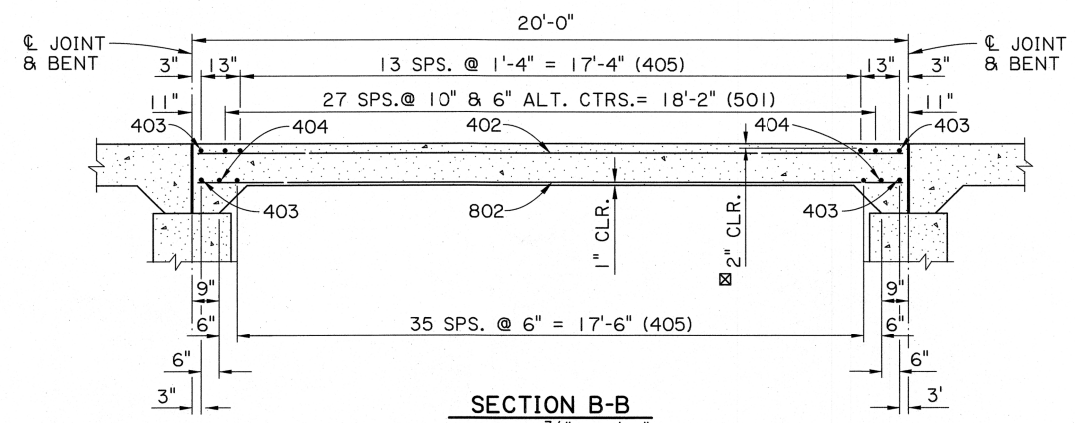
**BARRIER RAILING:** FOR BARRIER RAILING DETAILS, SEE STANDARD DETAIL BD.2.6.1.14.02 (BR-02).



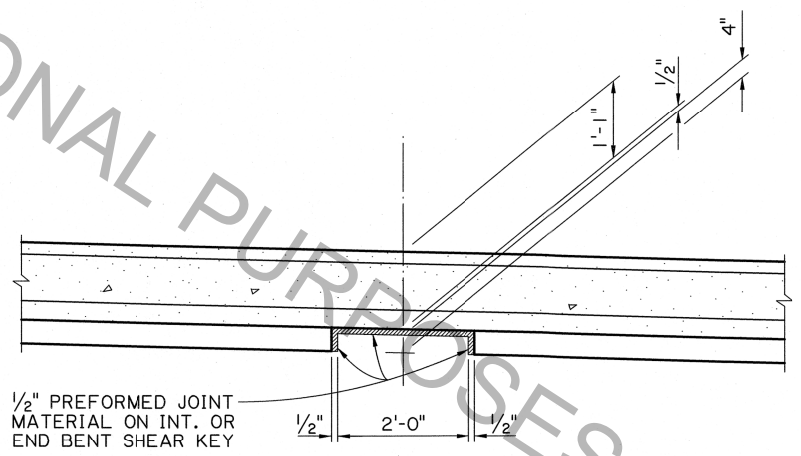
SHEET NUMBER		PARISH	
CONTROL SECTION		STATE PROJECT	
DESIGNED J. NAKHLEH	CHECKED B. DELATTE	REVIEWED OS/17/17	SERIES #
DETAILED J. NAKHLEH	CHECKED D. HYMEL		
REVISION OR CHANGE ORDER DESCRIPTION		NO.	DATE
BY			
DOTD BRIDGE DESIGN		SPAN (1 OF 2)	
20'-0" CONCRETE SLAB SPAN		40'-0" CLEAR ROADWAY	
45° CROSSING ONE WAY TANGENT		STANDARD DETAIL	
CSSBR-45-40T-20SL			



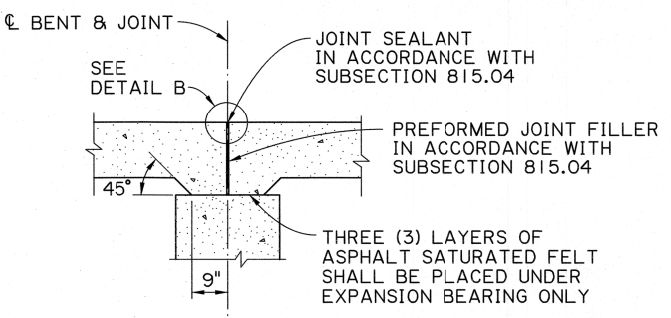
**SECTION A-A**  
SCALE : 3/8" = 1'-0"  
STANDARD BARRIERS REQUIRED ON END SPANS.



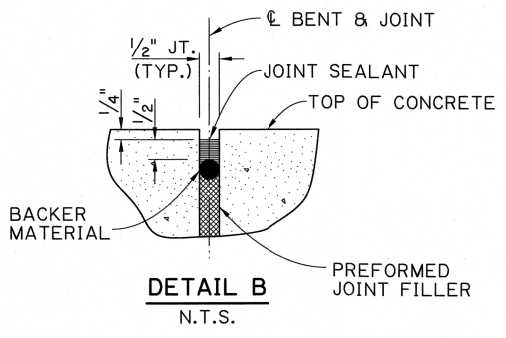
**SECTION B-B**  
SCALE : 3/8" = 1'-0"  
FOR BRIDGES IN DISTRICTS 04 & 05, MINIMUM CONCRETE COVER IN TOP OF SLAB SHALL BE 2 1/2".



**DETAIL A**  
SCALE : 3/4" = 1'-0"



**DETAIL SHOWING TYPICAL JOINT**  
SCALE : 1/2" = 1'-0"

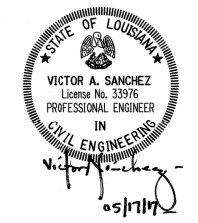


**DETAIL B**  
N.T.S.

ESTIMATED QUANTITIES (ONE SPAN)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
801	8	19'-7"	156'-8"	LONGIT. BOT. OF SLAB
802	89	19'-5"	1728'-1"	LONGIT. BOT. OF SLAB
<b>TOTAL NO. 8 BARS = 1884'-9" = 5033 LBS.</b>				
501	56	5'-0"	280'-0"	TRANS. TOP OF SLAB
<b>TOTAL NO. 5 BARS = 280'-0" = 292 LBS.</b>				
401	4	19'-7"	78'-4"	LONGIT. TOP OF SLAB
402	30	19'-5"	582'-6"	LONGIT. TOP OF SLAB
* 403	44	61'-3"	2695'-0"	TRANS. TOP & BOT. OF SLAB
* 404	2	60'-10"	121'-8"	TRANS. BOT. OF SLAB
* 405	2	60'-0"	120'-0"	TRANS. BOT. OF SLAB
* 406	2	59'-10"	119'-8"	TRANS. TOP OF SLAB
<b>TOTAL NO. 4 BARS = 3717'-2" = 2483 LBS.</b>				
<b>TOTAL DEFORMED REINFORCING STEEL = 7808 LBS.</b>				
<b>CLASS A1 CONCRETE = 35.32 CU. YDS.</b>				
<b>CONCRETE RAILING (BARRIER TYPE) = 40.00 LIN. FT.</b>				

\* INCLUDES ONE (1) 1'-8" MINIMUM LAP SPLICE. ALL LAP SPLICES ARE TO BE STAGGERED.

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.400	
HL-93 (OPR)	1.815	
LADV-II (INV)	1.077	MAGNIFICATION FACTOR = 1.3



SHEET NUMBER  
 DESIGNED BY: J. NAKHLEH  
 CHECKED BY: B. DELATTE  
 PARISH: J. NAKHLEH  
 CONTROL SECTION: D. HYMEL  
 STATE: 05/17/17  
 PROJECT: DOTD BRIDGE DESIGN  
 DATE: 05/17/17  
 NO.:  
 REVISION OR CHANGE ORDER DESCRIPTION:  
 BY:

SPAN (2 OF 2)  
 20'-0" CONCRETE SLAB SPAN  
 40'-0" CLEAR ROADWAY  
 45° CROSSING ONE WAY TANGENT  
 STANDARD DETAIL: CSSBR-45-40T-20SL