

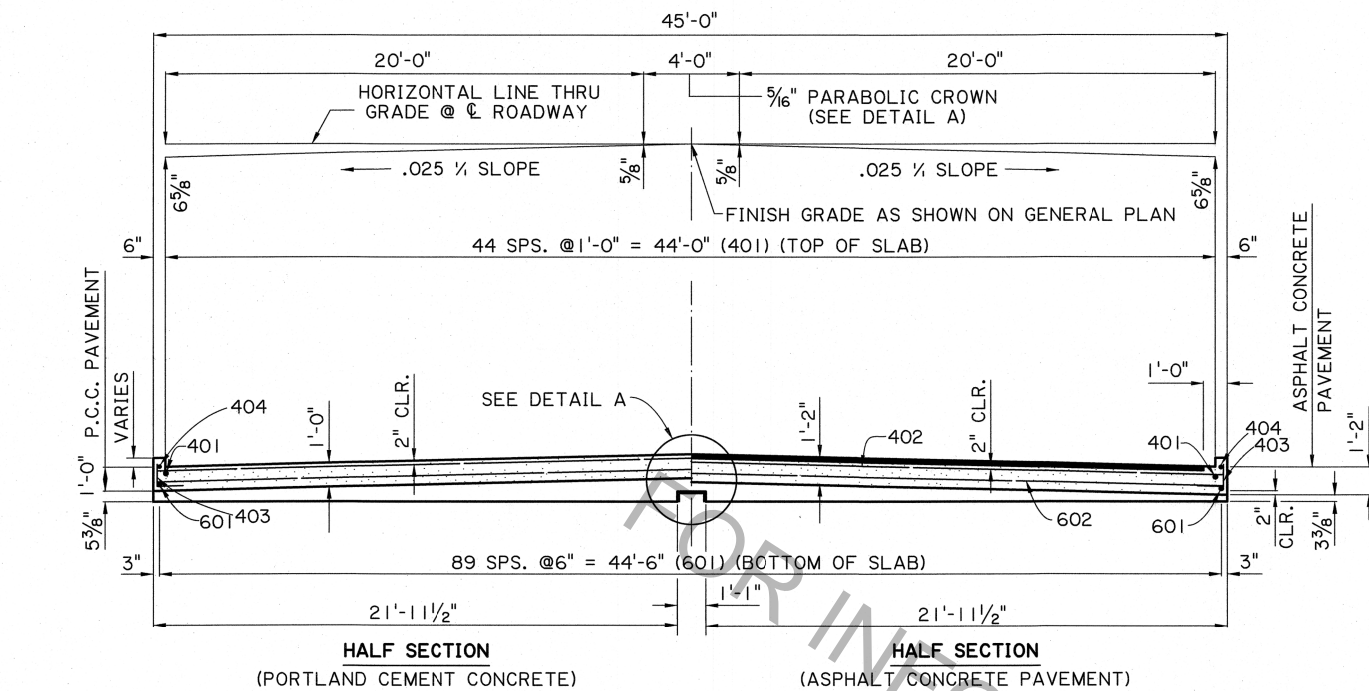


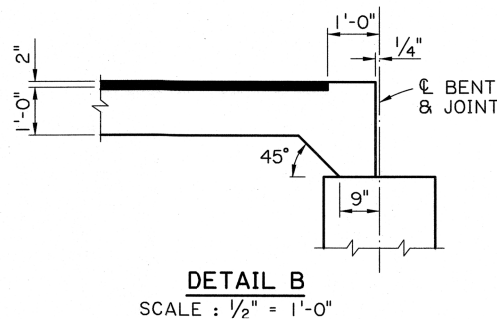
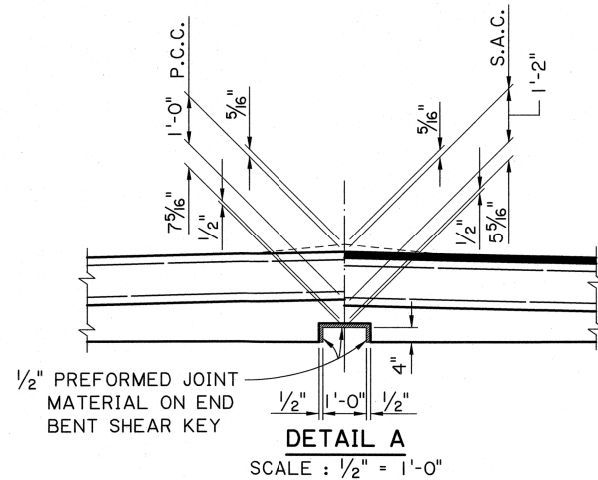
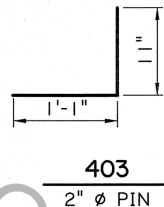
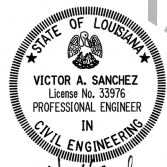
- * INCLUDES ONE (1) 1'-8" MINIMUM LAP SPLICE.
ALL LAP SPLICES ARE TO BE STAGGERED.
- TO BE PAID FOR UNDER ITEM CONCRETE
APPROACH SLABS
- ☑ REQUIRED WHEN APPROACH SLAB IS ADJACENT
TO ASPHALT CONCRETE PAVEMENT,
PAID FOR UNDER ITEM ASPHALT CONCRETE,
AND SAWING AND SEALING TRANSVERSE
JOINTS IN ASPHALT CONCRETE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

A circular professional engineer seal for the State of Louisiana. The outer ring contains the text "STATE OF LOUISIANA" at the top and "CIVIL ENGINEERING" at the bottom, separated by two stars. In the center is a smaller circle containing the text "VICTOR A. SANCHEZ", "License No. 33976", "PROFESSIONAL ENGINEER", and "IN". Below the seal, the name "Victor A. Sanchez" is handwritten in cursive, followed by the date "05/17/17" in a large, bold font.

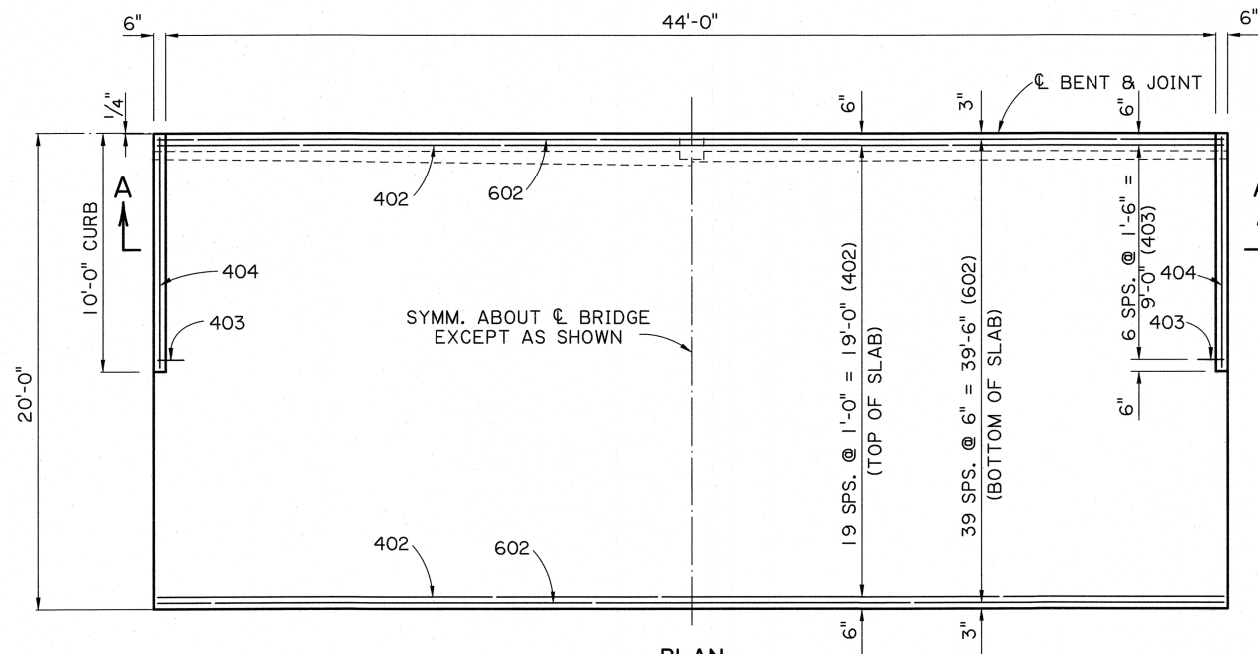
	DOTD BRIDGE DESIGN		STANDARD DETAIL		CASBR-90-44TWT-40L-20SL	
	<p>APPROACH SLAB</p> <p>40'-0" CONCRETE APPROACH SLAB 44'-0" CLEAR ROADWAY 90° CROSSING TWO WAY TANGENT</p>					
	NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION		BY	
			DESIGNED	J. NAKHLEH	PARISH	
			CHECKED	B. DELATTE		
			DETAILED	D. HYMEL	CONTROL SECTION	
			CHECKED	J. NAKHLEH		
			REVIEWED		STATE PROJECT	
			SERIES #	05/17/17		
SHEET NUMBER						



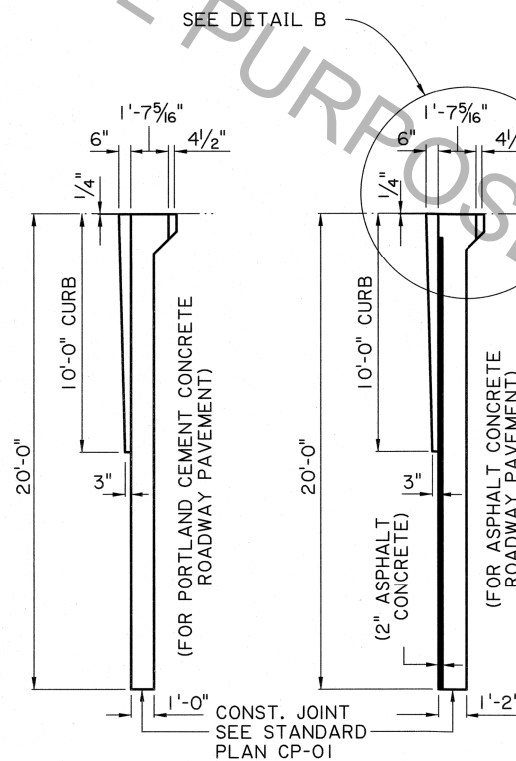
SECTION A-A
SCALE : 1/4" = 1'-0"



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



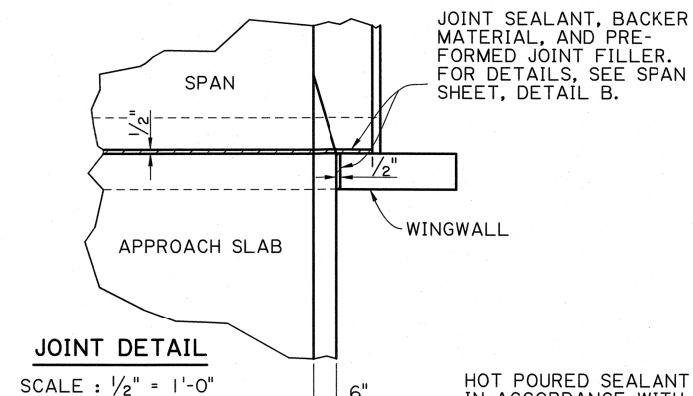
PLAN
SCALE : 1/4" = 1'-0"



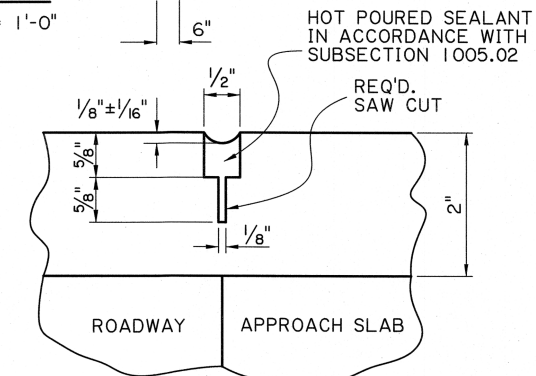
SECTION ALONG C ROADWAY
SCALE : 1/4" = 1'-0"

ESTIMATED QUANTITIES (ONE SLAB)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
601	90	19'-7"	1762'-6"	LONGT. BOT. OF SLAB
602	40	44'-8"	1786'-8"	TRANSV. BOT. OF SLAB
TOTAL NO. 6 BARS = 3,549'-2" = 5,331 LBS.				
401	45	19'-7"	881'-3"	LONGT. TOP OF SLAB
402	20	46'-4"	926'-8"	TRANSV. TOP OF SLAB
403	14	2'-0"	28'-0"	DOWELS IN CURB
404	2	9'-7"	19'-2"	LONGIT. IN CURB
TOTAL NO. 4 BARS = 1855'-1" = 1,239 LBS.				
TOTAL DEFORMED REINF. STEEL = 6,570 LBS.				
ASPHALT CONCRETE = 10.0 TONS				
CONCRETE APPROACH SLAB = 100.00 SQ.YDS.				
SAW CUT & SEAL = 43 LIN. FT.				

- 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.



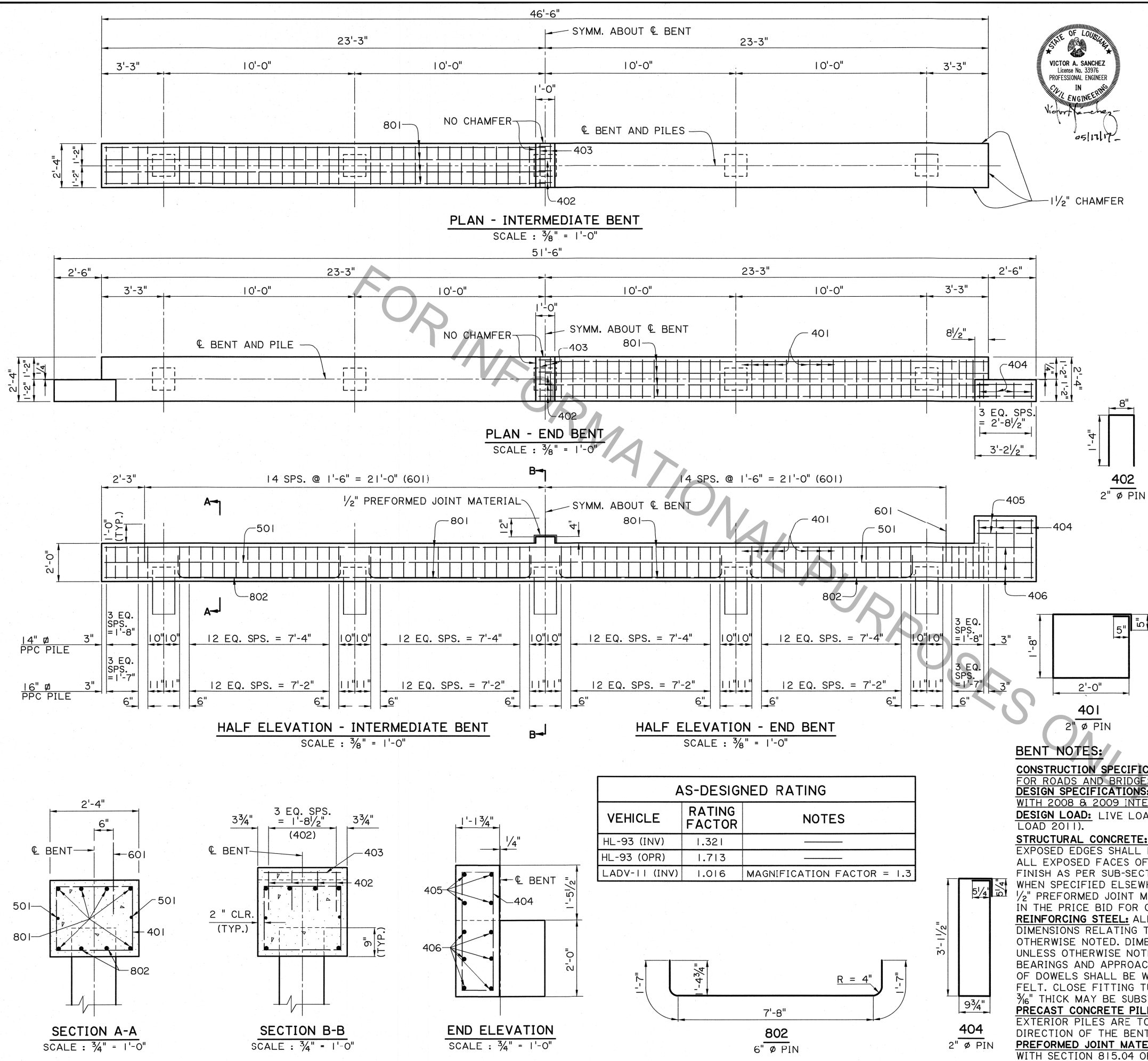
JOINT DETAIL
SCALE : 1/2" = 1'-0"



SAWING & SEALING JOINT DETAIL
N.T.S.

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.



ESTIMATED QUANTITIES (ONE INTER. BENT)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
801	6	46'-2"	277'-0"	LONGIT. IN CAP
802	8	10'-10"	86'-8"	LONGIT. IN CAP BTW. PILES
TOTAL NUMBER 8 BARS = 363'-8"		= 971 LBS.		
601	29	2'-0"	58'-0"	DOWELS
TOTAL NUMBER 6 BARS = 58'-0"		= 87 LBS.		
501	2	46'-2"	92'-4"	LONGIT. IN CAP
TOTAL NUMBER 5 BARS = 92'-4"		= 96 LBS.		
401	68	8'-2"	555'-4"	STIRRUPS IN CAP
402	4	3'-4"	13'-4"	STIRRUPS IN RISER
403	2	2'-0"	4'-0"	LONGIT. IN RISER
TOTAL NUMBER 4 BARS = 572'-8"		= 383 LBS.		
* TOTAL DEFORMED REINFORCING STEEL = 1,537 LBS.				
o TOTAL CLASS A1 CONCRETE = 7.82 CU. YDS.				
MAX. PILE LOAD:		SERVICE DEAD LOAD = 27 TONS		
		SERVICE LIVE LOAD = 40 TONS		
		FACTORED TOTAL LOAD = 92 TONS		

* ADD 87 LBS. OF REINFORCING STEEL (29-601 DOWELS) WHEN TWO FIXED ENDS OCCUR ON THE SAME BENT.

ESTIMATED QUANTITIES (ONE END BENT)				
BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION	
801	6	46'-2"	277'-0"	LONGIT. IN CAP
802	8	10'-10"	86'-8"	LONGIT. IN CAP BTW. PILES
TOTAL NUMBER 8 BARS = 363'-8"		= 971 LBS.		
601	29	2'-0"	58'-0"	DOWELS
TOTAL NUMBER 6 BARS = 58'-0"		= 87 LBS.		
501	2	46'-2"	92'-4"	LONGIT. IN CAP
TOTAL NUMBER 5 BARS = 92'-4"		= 96 LBS.		
401	68	8'-2"	555'-4"	STIRRUPS IN CAP
402	4	3'-4"	13'-4"	STIRRUPS IN RISER
403	2	2'-0"	4'-0"	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
TOTAL NUMBER 4 BARS = 713'-4"		= 477 LBS.		
TOTAL DEFORMED REINFORCING STEEL = 1,631 LBS.				
o TOTAL CLASS A1 CONCRETE = 8.64 CU. YDS.				
MAX. PILE LOAD:		SERVICE DEAD LOAD = 27 TONS		
		SERVICE LIVE LOAD = 40 TONS		
		FACTORED TOTAL LOAD = 92 TONS		

o 16" PPC PILES USED FOR ESTIMATING PURPOSES ONLY (ADD 0.06 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" PPC PILES ARE USED).

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-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. ALL EXPOSED FACES OF WINGWALLS AND ENDS OF CAPS SHALL RECEIVE A SURFACE FINISH AS PER SUB-SECTION 805.08.5.3 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 1/2" 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

DESIGNED BY: J. NAKHLEH

CHECKED BY: B. DELATTE

DATE: 05/17/17

PROJECT: DOTD BRIDGE DESIGN

PARISH: J. NAKHLEH

CONTROL SECTION: D. HYMEL

STATE: J. NAKHLEH

SERIES #: 05/17/17

BY: J. NAKHLEH

REVISION OR CHANGE ORDER DESCRIPTION

NO. DATE

DOTD

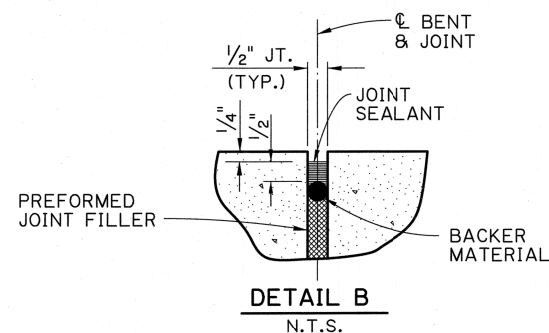
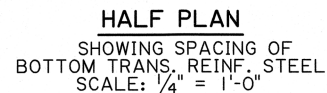
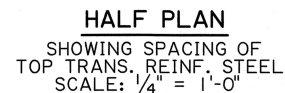
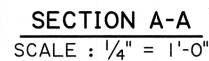
REINFORCED CONCRETE PILE BENT

44'-0" CLEAR ROADWAY

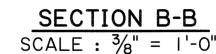
90° CROSSING TWO WAY TANGENT

STANDARD DETAIL

BCSSBR-90-44TW-20SL



SCALE : $\frac{1}{2}" = 1'-0"$



☑ NOTE: STANDARD BARRIERS ARE REQ'D.
ON END SPANS

☒ FOR BRIDGES IN DISTRICTS 04 & 05, MINIMUM CONCRETE COVER IN TOP OF SLAB SHALL BE 2 1/2".

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 LADY-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).

ESTIMATED QUANTITIES (ONE SPAN)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	109	19'-7"	2134'-7"	LONGT. BOT. OF SLAB
TOTAL NO. 8 BARS = 2134'-7" = 5,699 LBS.				
501	56	5'-0"	280'-0"	TRANS. TOP OF SLAB
TOTAL NO. 5 BARS = 280'-0" = 292 LBS.				
401	37	19'-7"	724'-7"	LONGT. TOP OF SLAB
* 402	56	47'-10"	2678'-8"	TRANS. BOT. & TOP OF SLAB
TOTAL NO. 4 BARS = 3403'-3" = 2,273 LBS.				
DEFORMED REINFORCING STEEL				= 8265 LBS.
CLASS A1 CONCRETE				= 39.32 CU. YDS.
CONCRETE RAILING (BARRIER TYPE)				= 40.00 LIN. FT.

* 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)	1.352	_____
HL-93 (OPR)	1.753	_____
LADV-11 (INV)	1.040	MAGNIFICATION FACTOR = 1.3

	<div>SPAN</div> <div>20'-0" CONCRETE SLAB SPAN</div> <div>44'-0" CLEAR ROADWAY</div> <div>90° CROSSING TWO WAY TANGENT</div>	<div>STANDARD DETAIL</div> <div>CSBR-90-44TW-20SL</div>	NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY	DESIGNED J. NAKHLEH	PARISH	SHEET NUMBER	
							CHECKED J. PAINE			
							DETAILED D. HYMEL			CONTROL SECTION
							CHECKED J. NAKHLEH			STATE PROJECT
							REVIEWED 05/17/17			