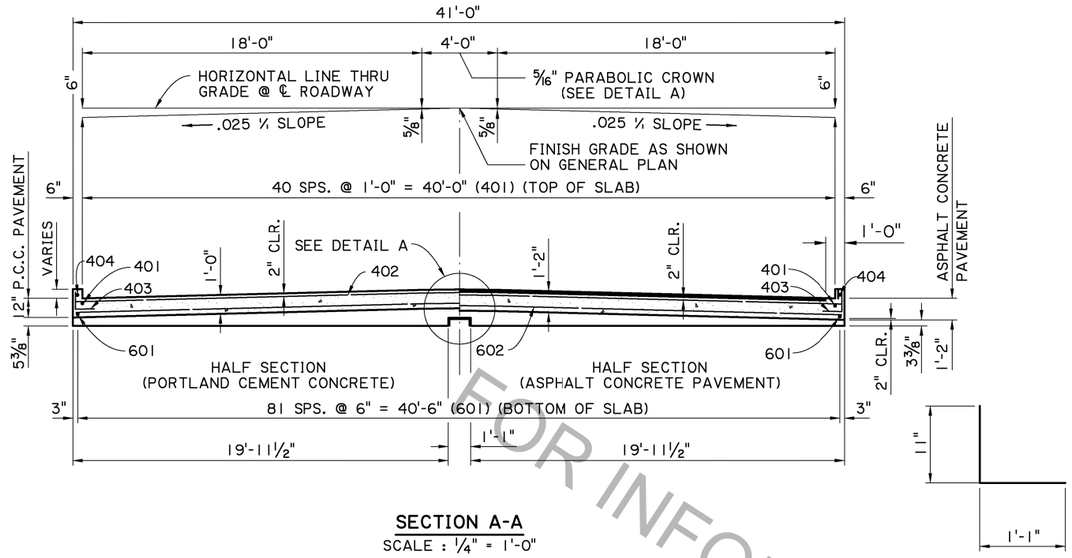
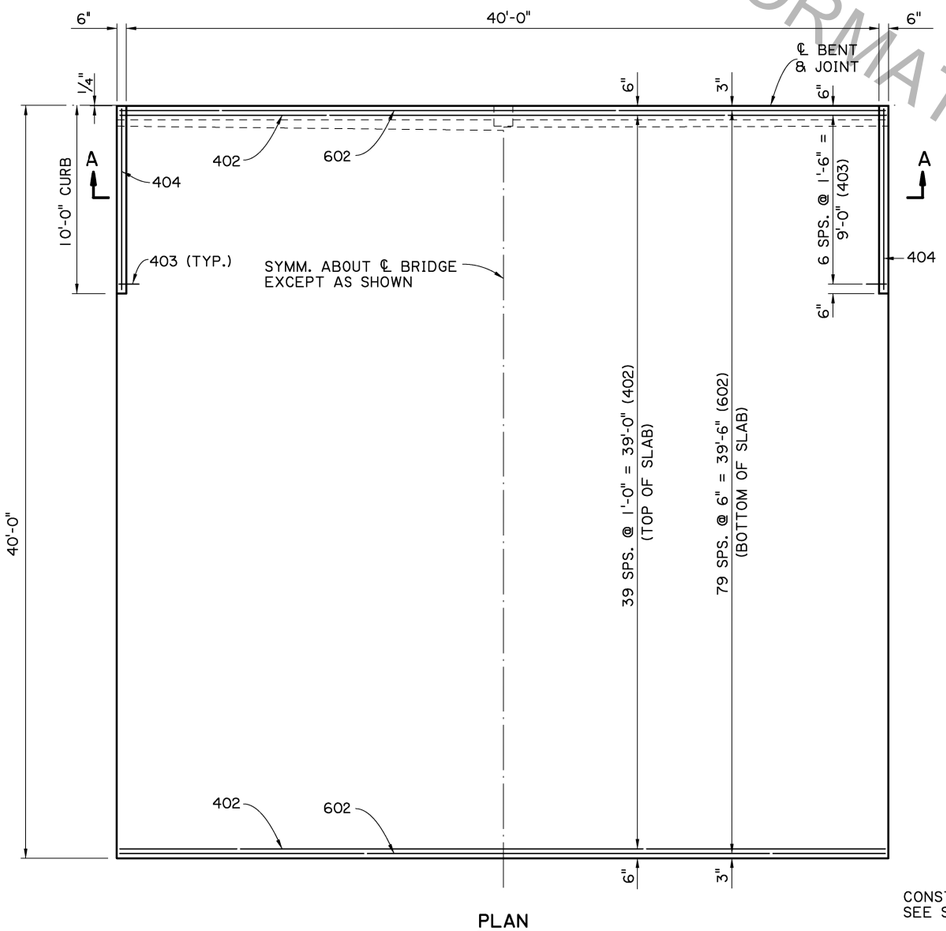
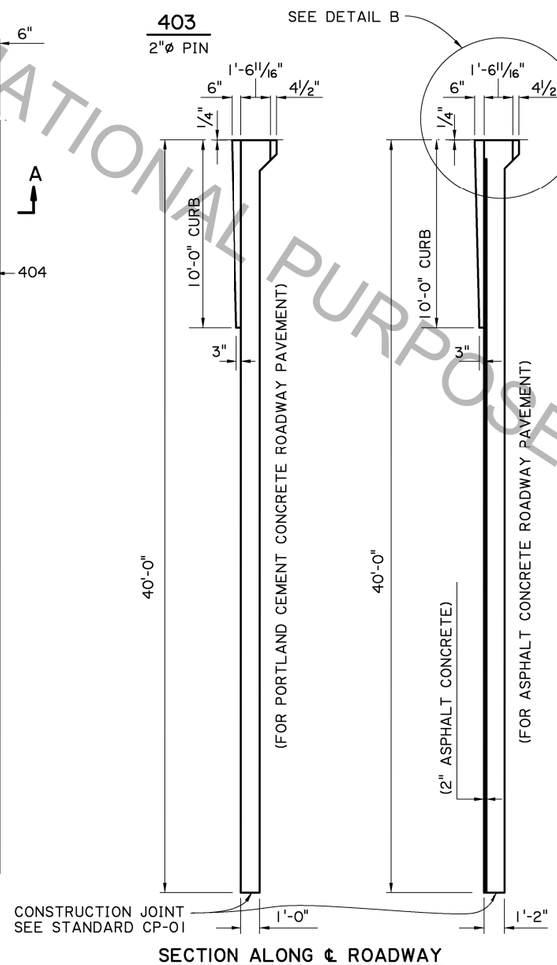


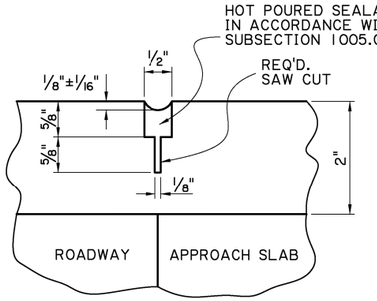
SECTION A-A
SCALE : ¼" = 1'-0"



PLAN
SCALE : ¼" = 1'-0"



SECTION ALONG ℄ ROADWAY
SCALE : ¼" = 1'-0"



SAWING & SEALING JOINT DETAIL
N.T.S.

ESTIMATED QUANTITIES (ONE SLAB)

	BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
	601	82	39'-7"	3245'-10"	LONGIT. BOT. OF SLAB
	602	80	40'-8"	3253'-4"	TRANSV. BOT. OF SLAB
	TOTAL NO. 6 BARS = 6,499'-2" = 9,762 LBS.				
*	401	41	39'-7"	1622'-11"	LONGIT. TOP OF SLAB
*	402	40	42'-4"	1693'-4"	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 = 3,363'-5" = 2,247 LBS.				
⊙	TOTAL DEFORMED REINFORCING STEEL = 12,009 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.

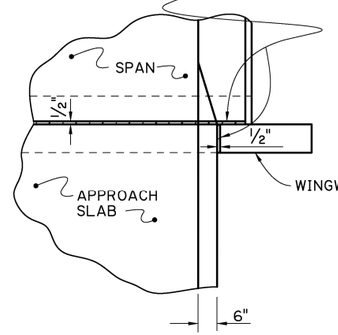
⊙ TO BE PAID FOR UNDER ITEM CONCRETE APPROACH SLABS

☑ 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.

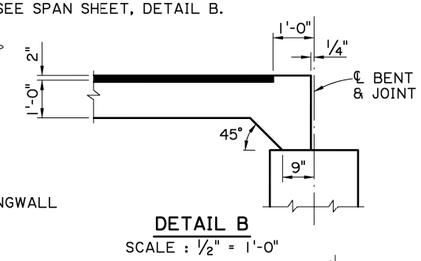
STATE OF LOUISIANA
VICTOR A. SANCHEZ
License No. 33976
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

05/17/17

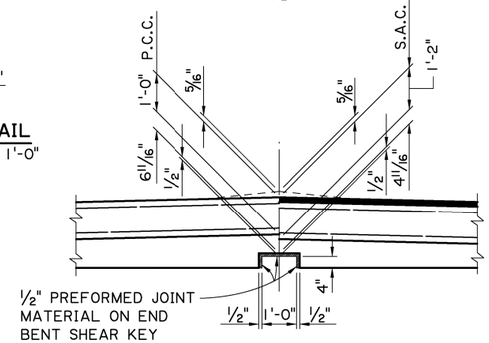
JOINT SEALANT, BACKER MATERIAL, AND PREFORMED JOINT FILLER. FOR DETAILS SEE SPAN SHEET, DETAIL B.



JOINT DETAIL
SCALE : ½" = 1'-0"



DETAIL B
SCALE : ½" = 1'-0"



DETAIL A
SCALE : ½" = 1'-0"

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 ¾" 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
DETAILED D. HYMEL
CHECKED J. NAKHLEH
REVIEWED 05/17/17
SERIES #

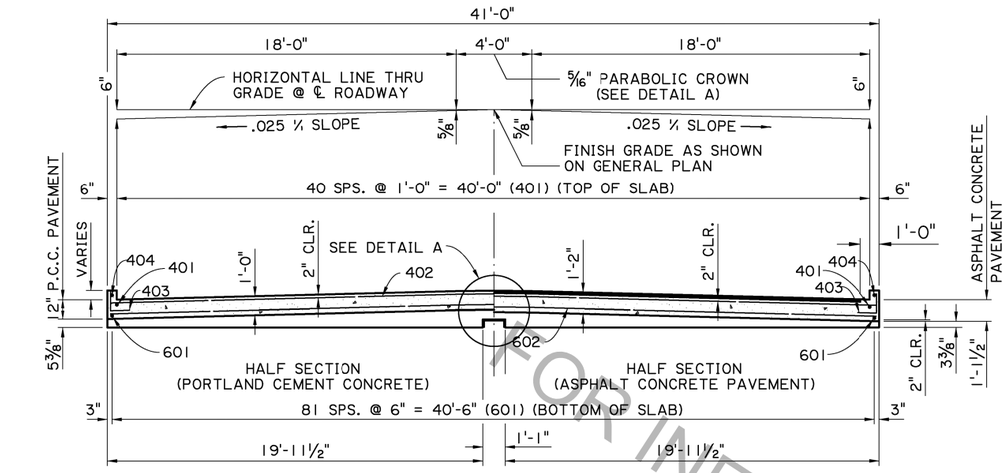
NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

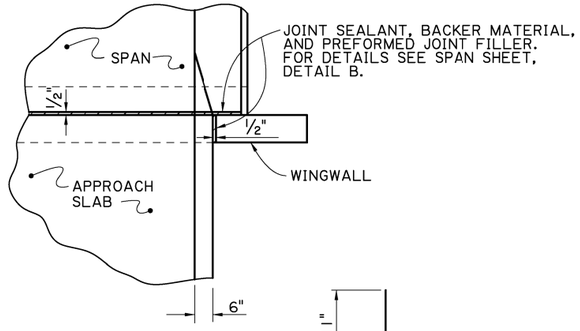
APPROACH SLAB
40'-0" CONCRETE APPROACH SLAB
40'-0" CLEAR ROADWAY
90° CROSSING TWO WAY TANGENT

STANDARD SHEET NO. CASBR-90-40TWT-40L-20SL

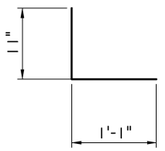
DOTD BRIDGE DESIGN



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



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



403
2"ø PIN

ESTIMATED QUANTITIES (ONE SLAB)

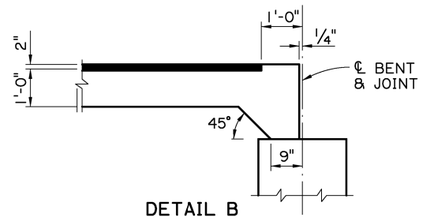
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
601	82	19'-7"	1605'-10"	LONGIT. BOT. OF SLAB
602	40	40'-8"	1626'-8"	TRANSV. BOT. OF SLAB
TOTAL NO. 6 BARS = 3,232'-6" = 4,855 LBS.				
401	41	19'-7"	802'-11"	LONGIT. TOP OF SLAB
* 402	20	42'-4"	846'-8"	TRANSV. TOP OF SLAB
403	14	2'-0"	28'-0"	DOWELS IN CURB
404	2	9'-7"	19'-2"	LONGIT. IN CURB
TOTAL NO. 4 BARS = 1,696'-9" = 1,133 LBS.				

⊙ TOTAL DEFORMED REINFORCING STEEL = 5,988 LBS.
CONCRETE APPROACH SLAB = 91.11 SQ.YDS.
☑ ASPHALTIC CONCRETE = 9.1 TONS
☑ SAW CUT & SEAL = 39 LIN. FT.

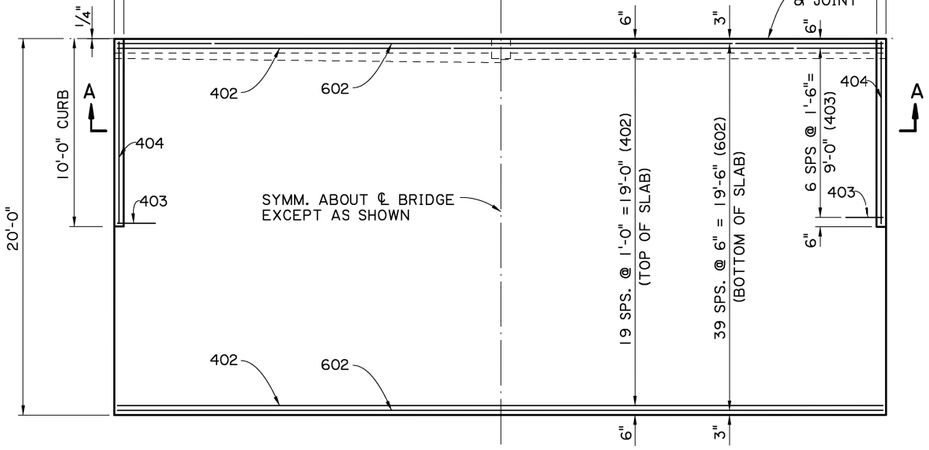
* INCLUDES ONE (1) 1'-8" MINIMUM LAP SPLICE. ALL LAP SPLICES ARE TO BE STAGGERED.

⊙ TO BE PAID FOR UNDER ITEM CONCRETE APPROACH SLABS.

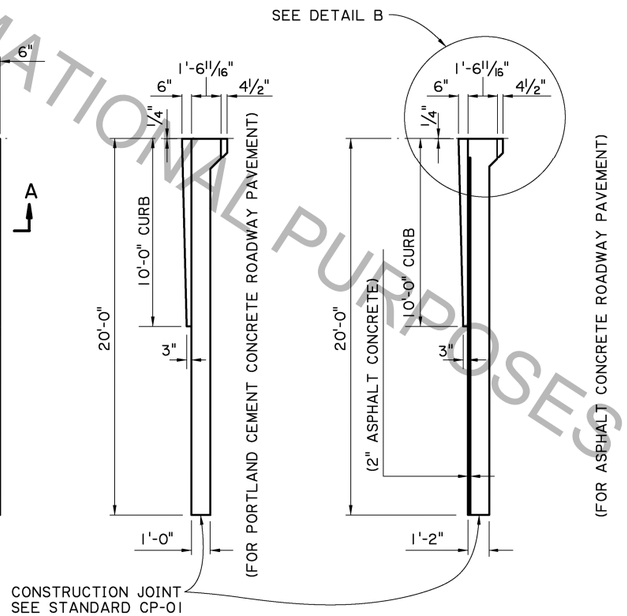
☑ REQUIRED WHEN APPROACH SLAB IS ADJACENT TO ASPHALT CONCRETE PAVEMENT, PAID FOR UNDER ITEM ASPHALT CONCRETE, AND SAWING AND SEALING TRANSVERSE JOINTS IN ASPHALT CONCRETE OVERLAY.



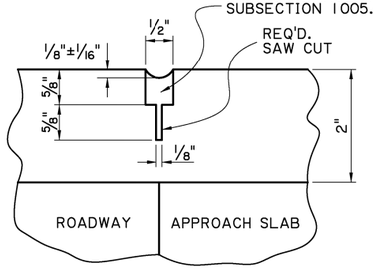
DETAIL B
SCALE : 1/2" = 1'-0"



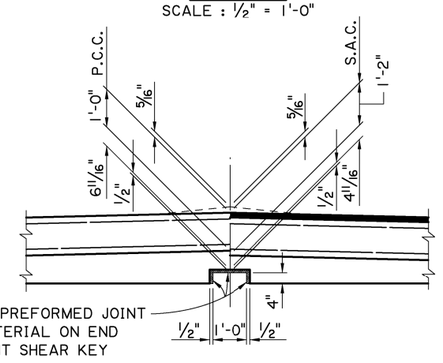
PLAN
SCALE : 1/4" = 1'-0"



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



SAWING & SEALING JOINT DETAIL
N.T.S.



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

STATE OF LOUISIANA
VICTOR A. SANCHEZ
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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 ¾" 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
DETAILED D. HYMEL
CHECKED J. NAKHLEH
REVIEWED 05/17/17
SERIES #

NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

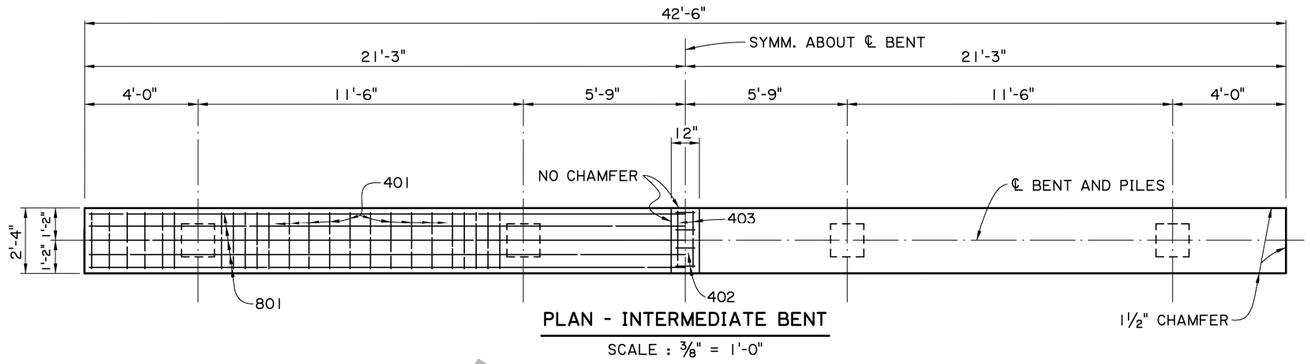
APPROACH SLAB
20'-0" CONCRETE APPROACH SLAB
40'-0" CLEAR ROADWAY
90° CROSSING TWO WAY TANGENT

STANDARD DETAIL NO. CASBR-90-40TWT-20L-20SL

DOTD BRIDGE DESIGN

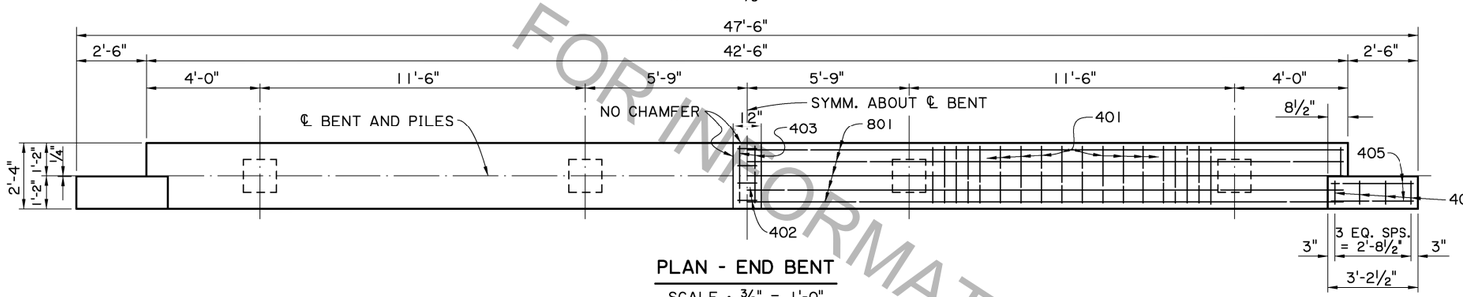
7/18/2017 15:4

IP_PWP:d0767277\SS9040aprs1ab2(LRFD).dgn



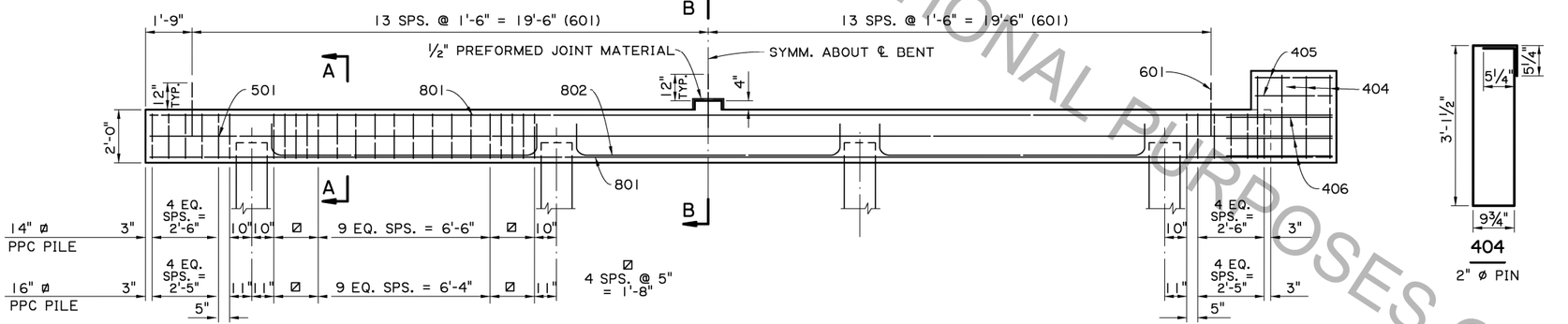
PLAN - INTERMEDIATE BENT

SCALE : ⅜" = 1'-0"



PLAN - END BENT

SCALE : ⅜" = 1'-0"

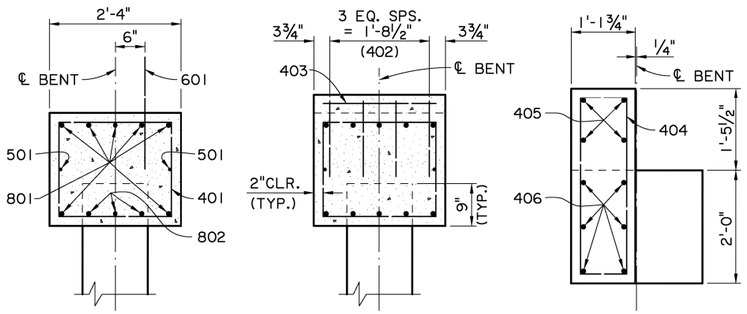


HALF ELEVATION - INTERMEDIATE BENT

SCALE : ⅜" = 1'-0"

HALF ELEVATION - END BENT

SCALE : ⅜" = 1'-0"



SECTION A-A

SCALE : ¾" = 1'-0"

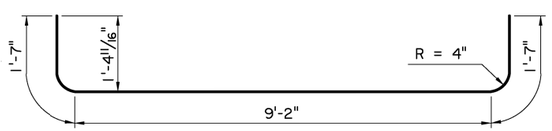
SECTION B-B

SCALE : ¾" = 1'-0"

END ELEVATION

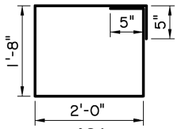
SCALE : ¾" = 1'-0"

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.570	———
HL-93 (OPR)	2.036	———
LADV-11 (INV)	1.208	MAGNIFICATION FACTOR = 1.3



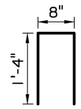
802

6" ø PIN



401

2" ø PIN



402

2" ø PIN

05/17/17

404

2" ø PIN

ESTIMATED QUANTITIES (ONE INTER. BENT)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	7	42'-2"	295'-2"	LONGIT. IN CAP
802	9	12'-4"	111'-0"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 406'-2" = 1084 LBS.				
601	27	2'-0"	54'-0"	DOWELS
TOTAL NO. 6 BARS = 54'-0" = 81 LBS.				
501	2	42'-2"	84'-4"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 84'-4" = 88 LBS.				
401	66	8'-2"	539'-0"	STIRRUPS IN CAP
402	4	3'-4"	13'-4"	STIRRUPS IN RISER
403	2	2'-0"	4'-0"	LONGIT. IN RISER
TOTAL NO. 4 BARS = 556'-4" = 372 LBS.				
* TOTAL DEFORMED REINFORCING STEEL = 1625 LBS.				
⊖ CLASS A1 CONCRETE = 7.18 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 31 TONS SERVICE LIVE LOAD = 47 TONS FACTORED TOTAL LOAD = 108 TONS				

* ADD 81 LBS. OF REINFORCING STEEL (27-601 DOWELS) WHEN TWO FIXED ENDS OCCUR ON THE SAME BENT.

ESTIMATED QUANTITIES (ONE END BENT)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	7	42'-2"	295'-2"	LONGIT. IN CAP
802	9	12'-4"	111'-0"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 406'-2" = 1084 LBS.				
601	27	2'-0"	54'-0"	DOWELS
TOTAL NO. 6 BARS = 54'-0" = 81 LBS.				
501	2	42'-2"	84'-4"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 84'-4" = 88 LBS.				
401	66	8'-2"	539'-0"	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 NO. 4 BARS = 697'-0" = 466 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 1719 LBS.				
⊖ CLASS A1 CONCRETE = 8.00 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 31 TONS SERVICE LIVE LOAD = 47 TONS FACTORED TOTAL LOAD = 108 TONS				

⊖ 16" ø PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.05 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" ø 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 ¾" 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.
½" 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 1½ 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 | STATE PROJECT

DESIGNED J. NAKHLEH
CHECKED B. DELATTE
DETAILED D. HYMEL
CHECKED J. NAKHLEH
REVIEWED 05/17/17
SERIES #

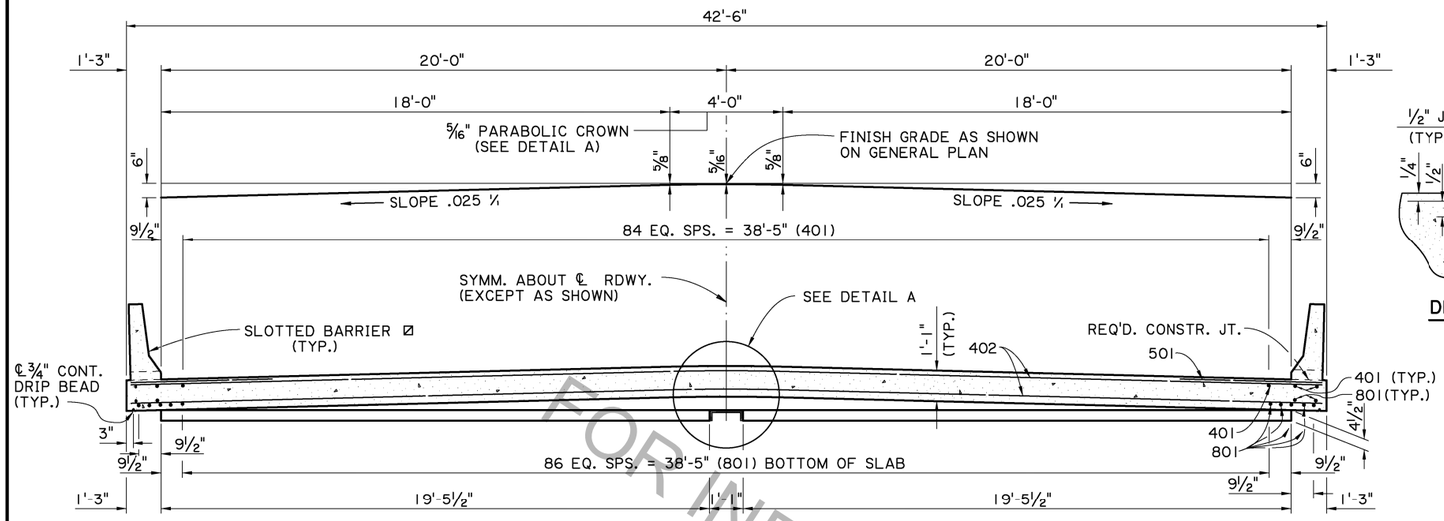
NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

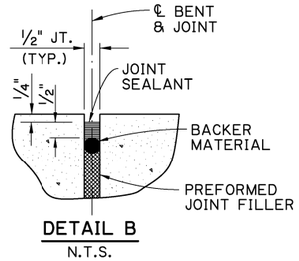
BENTS
REINFORCED CONCRETE PILE BENT
40'-0" CLEAR ROADWAY
90° CROSSING TWO WAY TANGENT

STANDARD SHEET NO. BCSSBR-90-40TWT-20SL

DOTD BRIDGE DESIGN



SECTION A-A
SCALE : ⅜" = 1'-0"



DETAIL B
N.T.S.

ESTIMATED QUANTITIES (ONE SPAN)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	98	19'-7"	1919'-2"	LONGIT. BOT. OF SLAB
TOTAL NO. 8 BARS = 1919'-2" = 5124 LBS.				
501	56	5'-0"	280'-0"	TRANS. TOP OF SLAB
TOTAL NO. 5 BARS = 280'-0" = 292 LBS.				
401	34	19'-7"	665'-10"	LONGIT. TOP OF SLAB
* 402	56	43'-10"	2454'-8"	TRANS. TOP & BOT. OF SLAB
TOTAL NO. 4 BARS = 3120'-6" = 2084 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 7501 LBS.				
CLASS A1 CONCRETE = 35.80 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.

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.

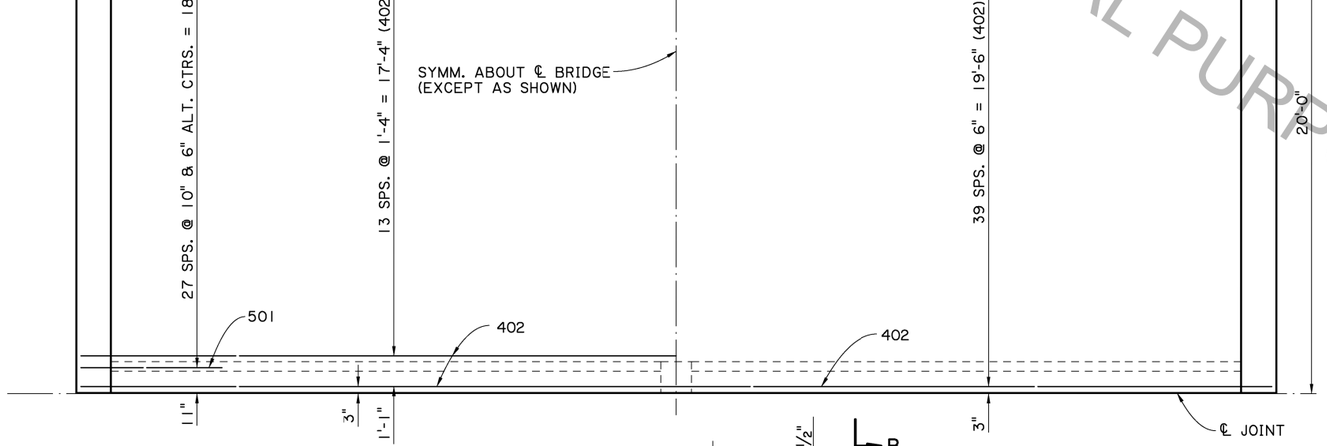
DESIGN LOAD: THE BRIDGE DECK IS DESIGNED FOR A FUTURE WEARING COURSE OF 19 PSF. THE LIVE LOAD IS HL-93, AND LADV-11 (LOUISIANA DESIGN VEHICLES LIVE LOAD 2011).

STRUCTURAL CONCRETE: ALL CONCRETE SHALL BE CLASS A1. EXPOSED EDGES SHALL HAVE A ¾" 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 RELTING TO FABRICATION ARE CUT 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).

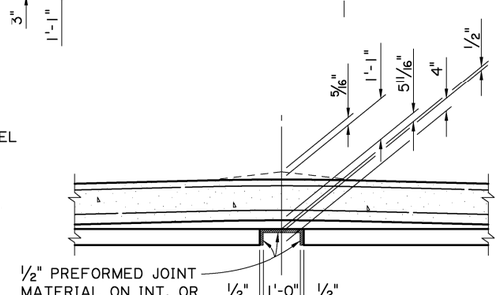


HALF PLAN
SHOWING SPACING OF TOP TRANS. REINF. STEEL
SCALE : ⅜" = 1'-0"

HALF PLAN
SHOWING SPACING OF BOTTOM TRANS. REINF. STEEL
SCALE : ⅜" = 1'-0"

⊠ NOTE: NORMAL BARRIERS ARE REQ'D. ON END SPANS

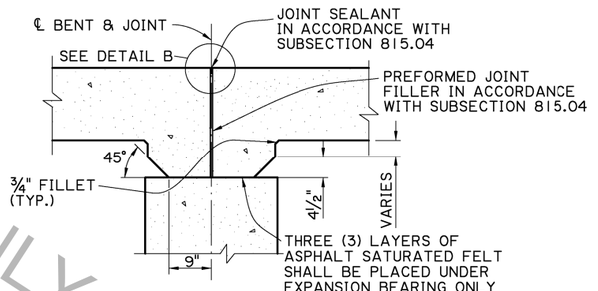
⊠ FOR BRIDGES IN DISTRICTS 04 & 05, MINIMUM CONCRETE COVER IN TOP OF SLAB SHALL BE 2½".



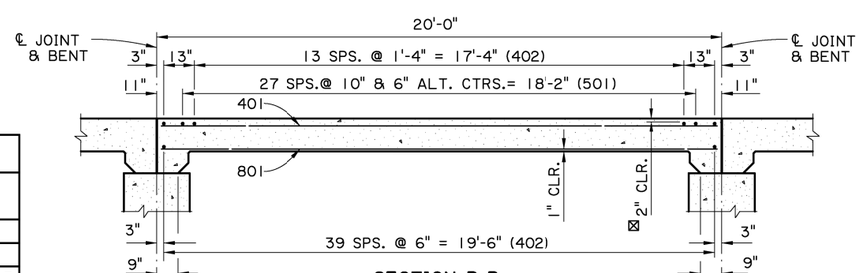
DETAIL A
SCALE : ½" = 1'-0"

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.384	———
HL-93 (OPR)	1.794	———
LADV-11 (INV)	1.064	MAGNIFICATION FACTOR = 1.3

STATE OF LOUISIANA
VICTOR A. SANCHEZ
License No. 33976
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
05/17/17



DETAIL SHOWING TYPICAL JOINT & HAUNCH
SCALE : ½" = 1'-0"



SECTION B-B
SCALE : ⅜" = 1'-0"

SHEET NUMBER

PARISH	CONTROL SECTION	STATE PROJECT

DESIGNED	J. NAKHLEH
CHECKED	J. PAINE
DETAILED	D. HYMEL
CHECKED	J. NAKHLEH
REVIEWED	05/17/17
SERIES #	

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

SPAN
20'-0" CONCRETE SLAB SPAN
40'-0" CLEAR ROADWAY
90° CROSSING TWO WAY TANGENT

STANDARD DETAIL NO. CSSBR-90-40TWT-20SL

DOTD BRIDGE DESIGN