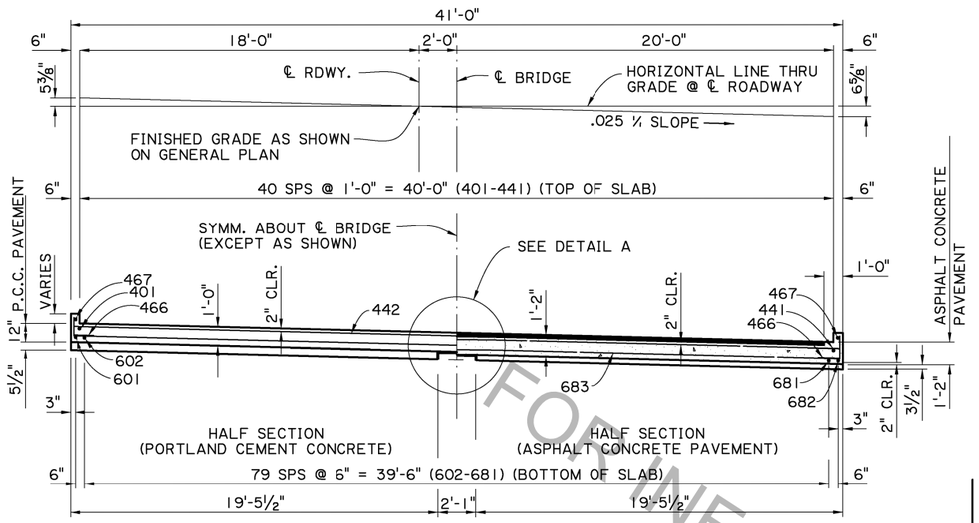
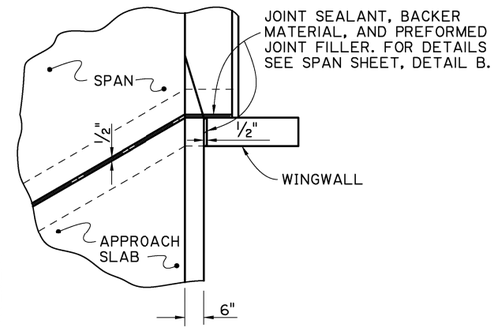
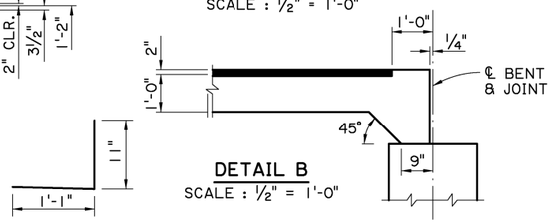
7/19/2017 12:4



SECTION A-A
SCALE : ¼" = 1'-0"



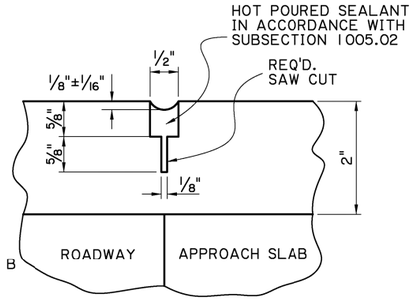
JOINT DETAIL
SCALE : ½" = 1'-0"



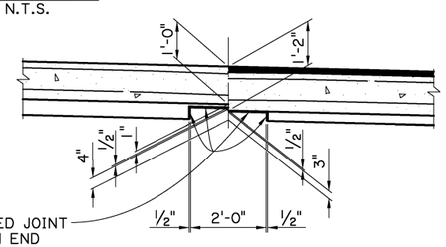
DETAIL B
SCALE : ½" = 1'-0"

ESTIMATED QUANTITIES (ONE SLAB)						
BAR	NO.	SHORT BAR	VAR. (INCHES)	LONG BAR	TOTAL LENGTH	LOCATION
601	1			28'-1"	28'-1"	LONGITUDINAL BOTTOM OF SLAB
602-681	1 EA.	28'-2"	3.4684	51'-0"	3166'-8"	LONGITUDINAL BOTTOM OF SLAB
682	1			51'-2"	51'-2"	LONGITUDINAL BOTTOM OF SLAB
683	57			40'-8"	2318'-0"	TRANSVERSE BOTTOM OF SLAB
684-6128	1 EA.	1'-4"	10.3864	39'-5"	916'-11"	TRANSVERSE BOTTOM OF SLAB
TOTAL NO. 6 BARS = 6,480'-10" = 9,734 LBS.						
401	1			28'-1"	28'-1"	LONGITUDINAL TOP OF SLAB
402-421	1 EA.	28'-7"	6.9474	39'-7"	681'-8"	LONGITUDINAL TOP OF SLAB
⊙ 422-441	1 EA.	41'-10"	6.9474	52'-10"	946'-8"	LONGITUDINAL TOP OF SLAB
⊙ 442	28			43'-4"	1213'-4"	TRANSVERSE TOP OF SLAB
443-465	1 EA.	1'-9"	20.7727	39'-10"	478'-3"	TRANSVERSE TOP OF SLAB
466	14			2'-0"	28'-0"	DOWELS IN CURB
467	2			9'-7"	19'-2"	LONGIT. IN CURB
TOTAL NO. 4 BARS = 3395'-2" = 2,268 LBS.						
✱ TOTAL DEFORMED REINFORCING STEEL						= 12,002 LBS.
CONCRETE APPROACH SLAB						= 182.22 SQ.YDS.
☑ ASPHALT CONCRETE						= 18.6 TONS
☑ SAW CUT AND SEAL						= 39 LIN. FT.

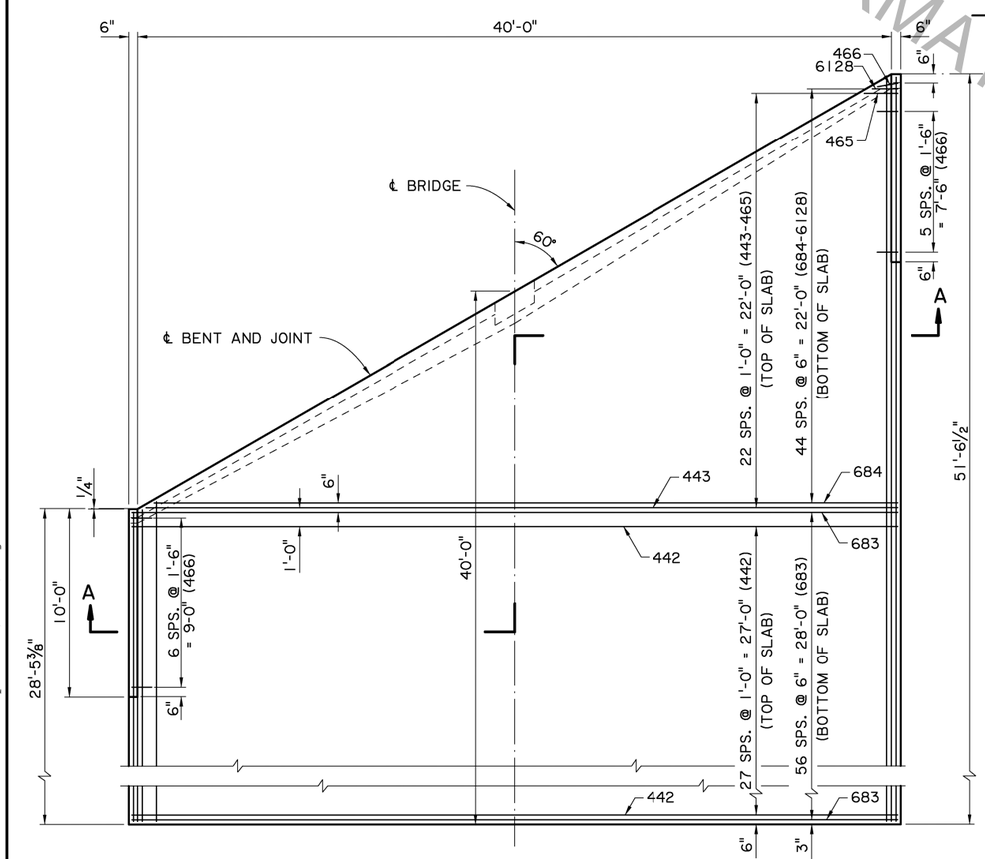
✱ TO BE PAID FOR UNDER ITEM CONCRETE APPROACH SLABS
⊙ INCLUDES 1'-8" MINIMUM LAP SPLICE. ALL LAP SPLICES ARE TO BE STAGGERED.
☑ REQUIRED WHEN APPROACH SLAB IS ADJACENT TO ASPHALT CONCRETE PAVEMENT. PAID FOR UNDER ITEM ASPHALT CONCRETE, AND SAWING AND SEALING TRANSVERSE JOINTS IN ASPHALT CONCRETE OVERLAY.



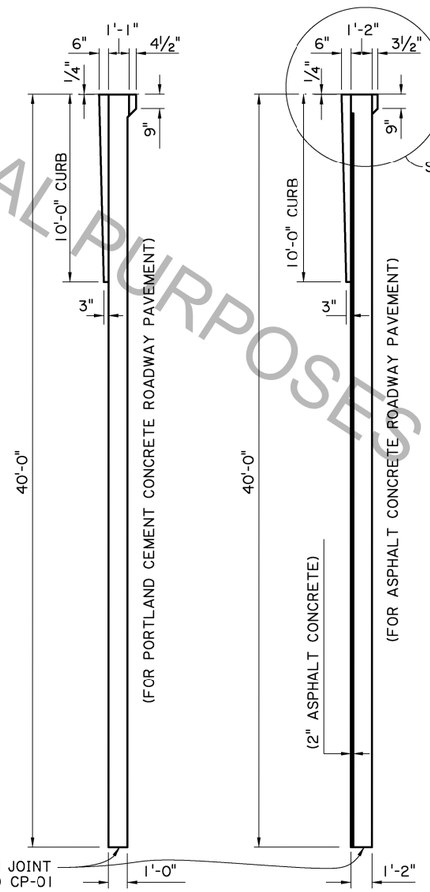
SAWING & SEALING JOINT DETAIL
N.T.S.



DETAIL A
SCALE : ½" = 1'-0"



PLAN
SCALE : ¼" = 1'-0"



SECTION ALONG ℄ ROADWAY
SCALE : ¼" = 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.

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

FOR INFORMATIONAL PURPOSES ONLY

SHEET NUMBER

PARISH	CONTROL SECTION	STATE PROJECT

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

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

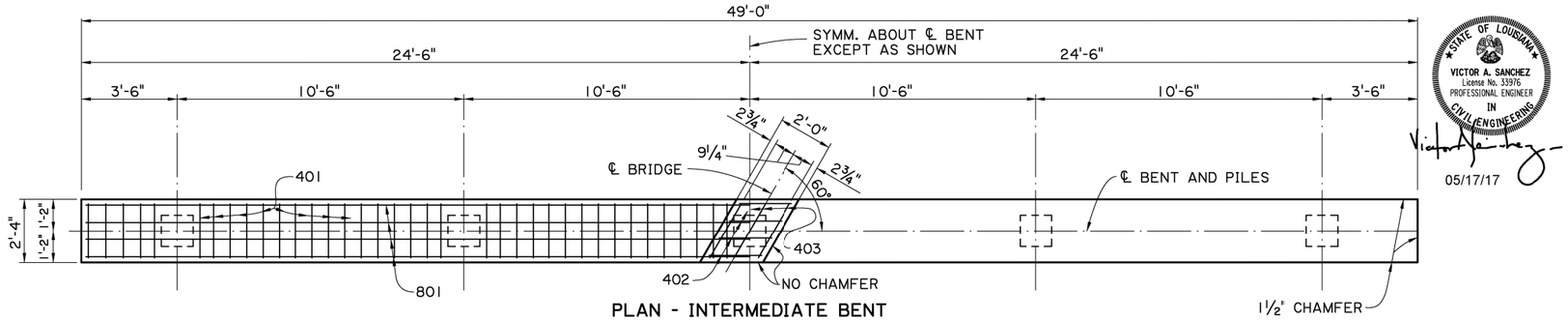
APPROACH SLAB
40'-0" CONCRETE APPROACH SLAB
40'-0" CLEAR ROADWAY
60° CROSSING ONE WAY TANGENT

STANDARD SHEET NO. CASBR-60-40T-40L-20SL

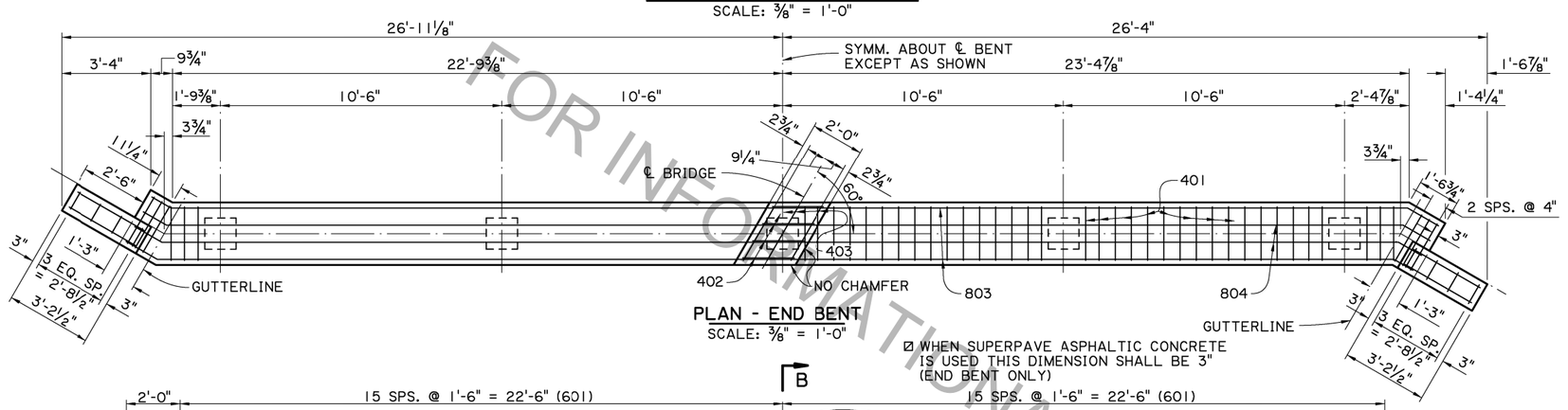
DOTD BRIDGE DESIGN

IP_PWP:d0767265\SS6040Taprslab(LRFD).dgn

10/17/2017 14:2

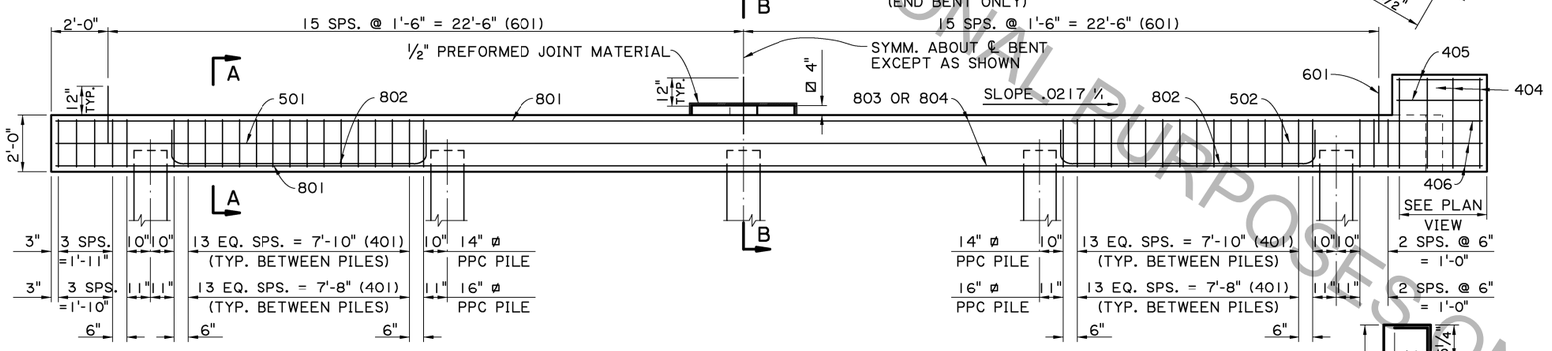


PLAN - INTERMEDIATE BENT
SCALE: ⅜" = 1'-0"



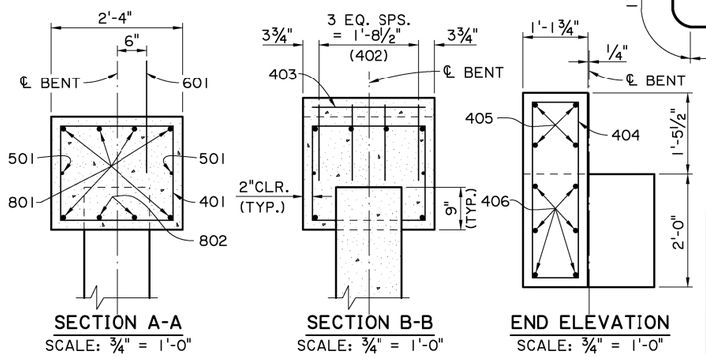
PLAN - END BENT
SCALE: ⅜" = 1'-0"

Ø WHEN SUPERPAVE ASPHALTIC CONCRETE IS USED THIS DIMENSION SHALL BE 3" (END BENT ONLY)



HALF ELEVATION - INTERMEDIATE BENT
SCALE: ⅜" = 1'-0"

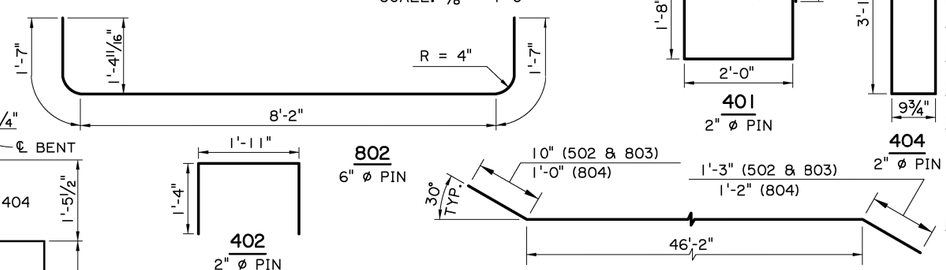
HALF ELEVATION - END BENT
SCALE: ⅜" = 1'-0"



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)	1.395	——
HL-93 (OPR)	1.809	——
LADV-11 (INV)	1.073	MAGNIFICATION FACTOR = 1.3

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

ESTIMATED QUANTITIES (ONE INTER. BENT)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	6	48'-8"	292'-0"	LONGIT. IN CAP
802	8	11'-4"	90'-8"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 382'-8" = 1,022 LBS.				
601	31	2'-0"	62'-0"	DOWELS
TOTAL NO. 6 BARS = 62'-0" = 93 LBS.				
501	2	48'-8"	97'-4"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 97'-4" = 102 LBS.				
401	74	8'-2"	604'-4"	STIRRUPS IN CAP
402	4	4'-7"	18'-4"	STIRRUPS IN RISER
403	3	2'-3"	6'-9"	LONGIT. IN RISER
TOTAL NO. 4 BARS = 629'-5" = 421 LBS.				
* TOTAL DEFORMED REINFORCING STEEL = 1,638 LBS.				
⊖ CLASS A1 CONCRETE = 8.29 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 30 TONS SERVICE LIVE LOAD = 42 TONS FACTORED TOTAL LOAD = 100 TONS				

* ADD 93 LBS. OF REINFORCING STEEL (31-601 DOWELS) WHEN TWO FIXED ENDS OCCUR ON THE SAME BENT.

ESTIMATED QUANTITIES (ONE END BENT)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
802	8	11'-4"	90'-8"	LONGIT. IN CAP
803	4	48'-3"	193'-0"	LONGIT. IN CAP
804	2	48'-4"	96'-8"	LONGIT. IN CAP
TOTAL NO. 8 BARS = 380'-4" = 1,015 LBS.				
601	31	2'-0"	62'-0"	DOWELS
TOTAL NO. 6 BARS = 62'-0" = 93 LBS.				
502	2	48'-3"	96'-6"	LONGIT. IN CAP
TOTAL NO. 5 BARS = 96'-6" = 101 LBS.				
401	76	8'-2"	620'-8"	STIRRUPS IN CAP
402	4	4'-7"	18'-4"	STIRRUPS IN RISER
403	3	2'-3"	6'-9"	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 = 786'-5" = 526 LBS.				
TOTAL DEFORMED REINFORCING STEEL = 1,735 LBS.				
⊖Ø CLASS A1 CONCRETE = 9.06 CU. YDS.				
MAX. PILE LOAD: SERVICE DEAD LOAD = 30 TONS SERVICE LIVE LOAD = 42 TONS FACTORED TOTAL LOAD = 100 TONS				

⊖ 16" ø PPC PILES USED FOR ESTIMATING PURPOSES ONLY. (ADD 0.06 CU. YDS. OF CLASS A1 CONCRETE PER BENT WHEN 14" ø PPC PILES ARE USED.)
Ø WHEN SUPERPAVE ASPHALTIC CONCRETE IS USED, SUBTRACT 0.02 CU. YDS. OF CLASS A1 CONCRETE.

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 SUBSECTION 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.

FOR INFORMATIONAL PURPOSES ONLY

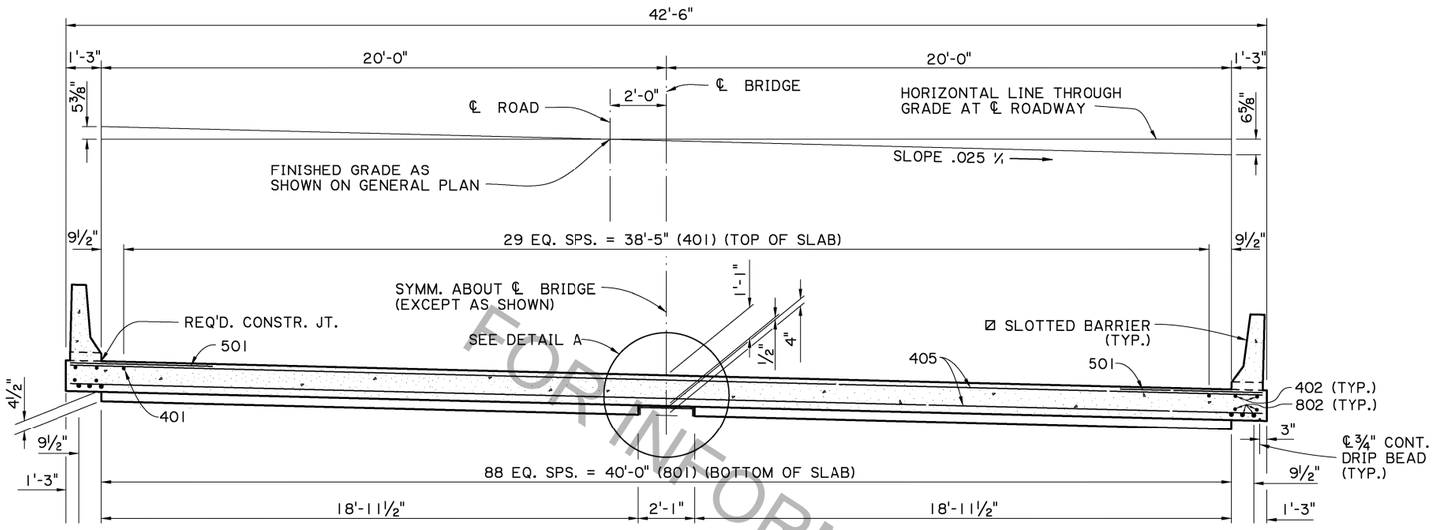
SHEET NUMBER
PARISH
CONTROL SECTION
STATE PROJECT
DESIGNED J. NAKHLEH
CHECKED B. DELATTE
DETAILED D. HYMEL
CHECKED J. NAKHLEH
REVIEWED 05/17/17
SERIES #
NO. DATE REVISION OR CHANGE ORDER DESCRIPTION BY

BENTS
REINFORCED CONCRETE PILE BENT
40'-0" CLEAR ROADWAY
60° CROSSING ONE WAY TANGENT
STANDARD SHEET NO. BCSSBR-60-40T-20SL

DOTD BRIDGE DESIGN

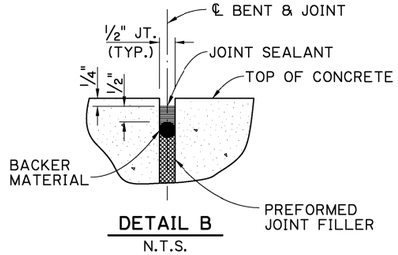
IP_PWP:d0767265\SS6040Tbent(LRFD).dgn

10/17/2017 14:2

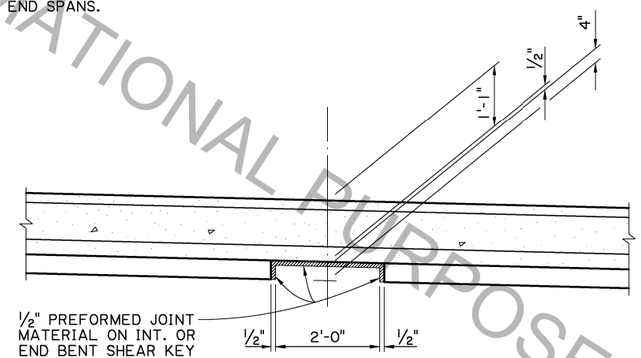


SECTION A-A
SCALE : ⅜" = 1'-0"

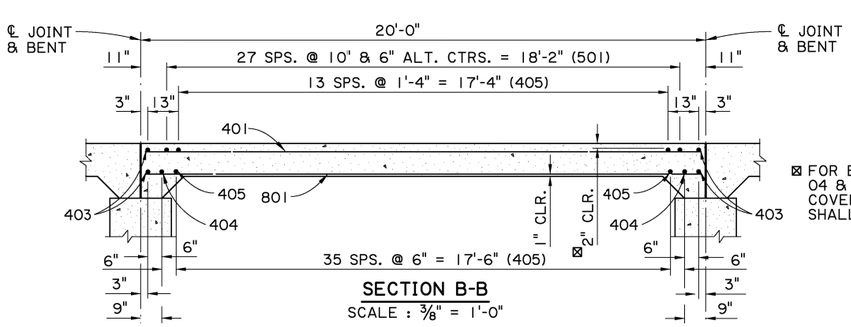
Ø STANDARD BARRIERS REQUIRED ON END SPANS.



DETAIL B
N.T.S.

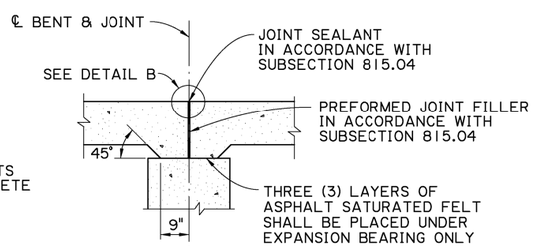


DETAIL A
SCALE : ¾" = 1'-0"



SECTION B-B
SCALE : ⅜" = 1'-0"

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



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

ESTIMATED QUANTITIES (ONE SPAN)

	BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
	801	89	19'-6"	1735'-6"	LONGIT. BOT. OF SLAB
	802	8	19'-7"	156'-8"	LONGIT. BOT. OF SLAB
	TOTAL NO. 8 BARS = 1892'-2" = 5053 LBS.				
	501	56	5'-0"	280'-0"	TRANS. TOP OF SLAB
	TOTAL NO. 5 BARS = 280'-0" = 292 LBS.				
	401	30	19'-6"	585'-0"	LONGIT. TOP OF SLAB
	402	4	19'-7"	78'-4"	LONGIT. TOP OF SLAB
*	403	4	49'-2"	196'-8"	TRANS. TOP & BOT. OF SLAB
*	404	2	50'-2"	100'-4"	TRANS. BOT. OF SLAB
*	405	50	50'-4"	2516'-8"	TRANS. TOP & BOT. OF SLAB
	TOTAL NO. 4 BARS = 3477'-0" = 2323 LBS.				
	TOTAL DEFORMED REINFORCING STEEL = 7668 LBS.				
	CLASS A1 CONCRETE = 39.15 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)	1.410	——
HL-93 (OPR)	1.828	——
LADV-11 (INV)	1.085	MAGNIFICATION FACTOR = 1.3

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

05/17/17

FOR INFORMATIONAL PURPOSES ONLY

SHEET NUMBER

PARISH	CONTROL SECTION	STATE PROJECT

DESIGNED J. NAKHLEH
CHECKED B. DELATTE
DETAILED D. HYMEL
CHECKED J. NAKHLEH
REVIEWED 05/17/17
SERIES # 1 OF 2

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

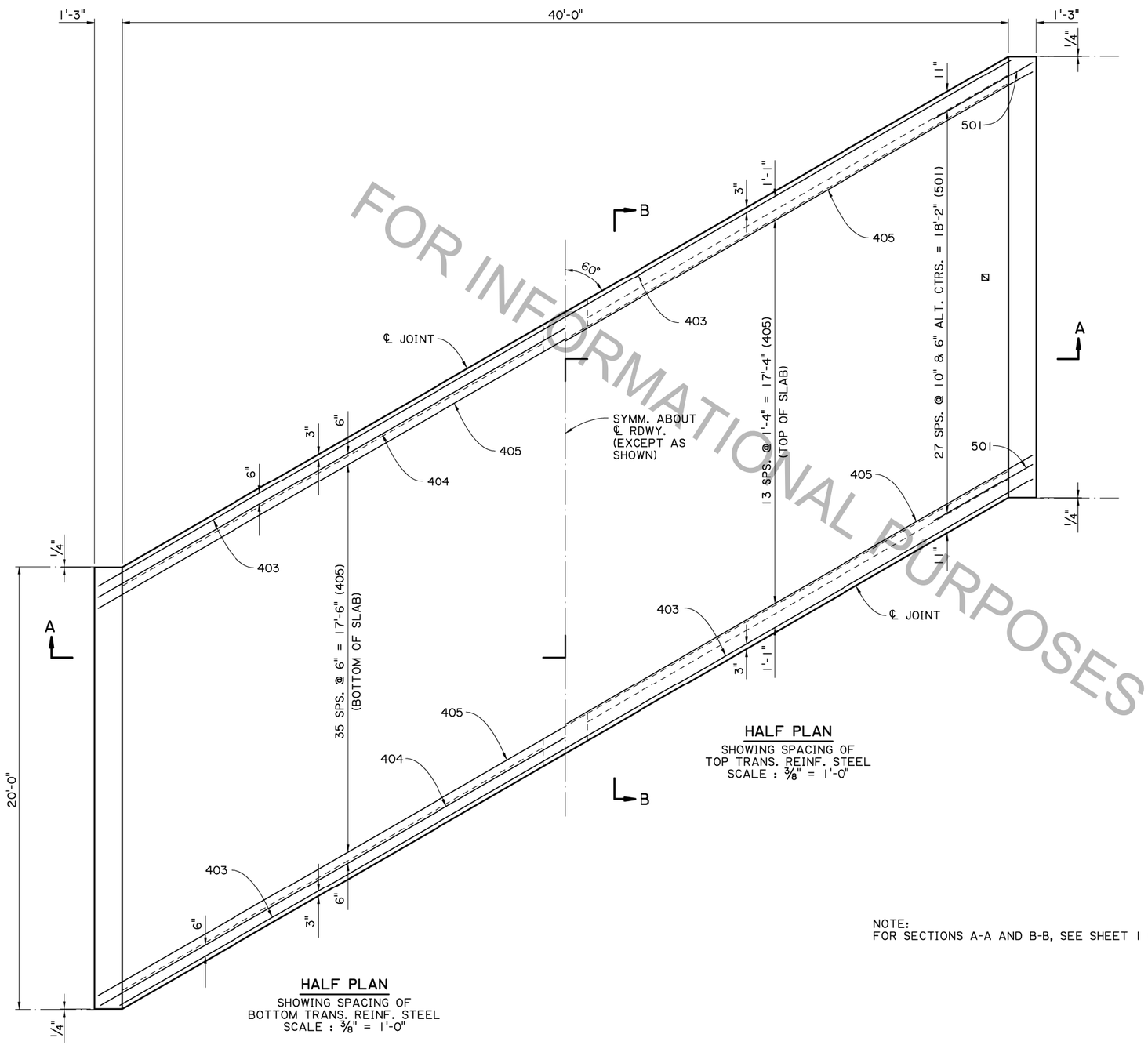
DOTD BRIDGE DESIGN

SPAN (1 OF 2)
20'-0" CONCRETE SLAB SPAN
40'-0" CLEAR ROADWAY
60° CROSSING ONE WAY TANGENT

STANDARD SHEET NO. CSSBR-60-40T-20SL

IP_PWP:d0767265\SS6040Tspan1(LRFD).dgn

7/19/2017 12:5



HALF PLAN
SHOWING SPACING OF TOP TRANS. REINF. STEEL
SCALE : 3/8" = 1'-0"

HALF PLAN
SHOWING SPACING OF BOTTOM TRANS. REINF. STEEL
SCALE : 3/8" = 1'-0"

NOTE:
FOR SECTIONS A-A AND B-B, SEE SHEET 1 OF 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 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).

⧄ NOTE:
STANDARD BARRIERS REQUIRED ON END SPANS

FOR INFORMATIONAL PURPOSES ONLY

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

05/17/17

SHEET NUMBER

PARISH	CONTROL SECTION	STATE PROJECT

DESIGNED	J. NAKHLEH
CHECKED	J. PAINE
DETAILED	J. NAKHLEH
CHECKED	D. HYMEL
REVIEWED	05/17/17
SERIES #	2 OF 2

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

SPAN (2 of 2)
20'-0" CONCRETE SLAB SPAN
40'-0" CLEAR ROADWAY
60° CROSSING ONE WAY TANGENT

STANDARD DETAILS: CSSBR-60-40T-20SL

DOTD BRIDGE DESIGN

IP_PWP:d0767265\SS6040Tspan2(LRFD).dgn