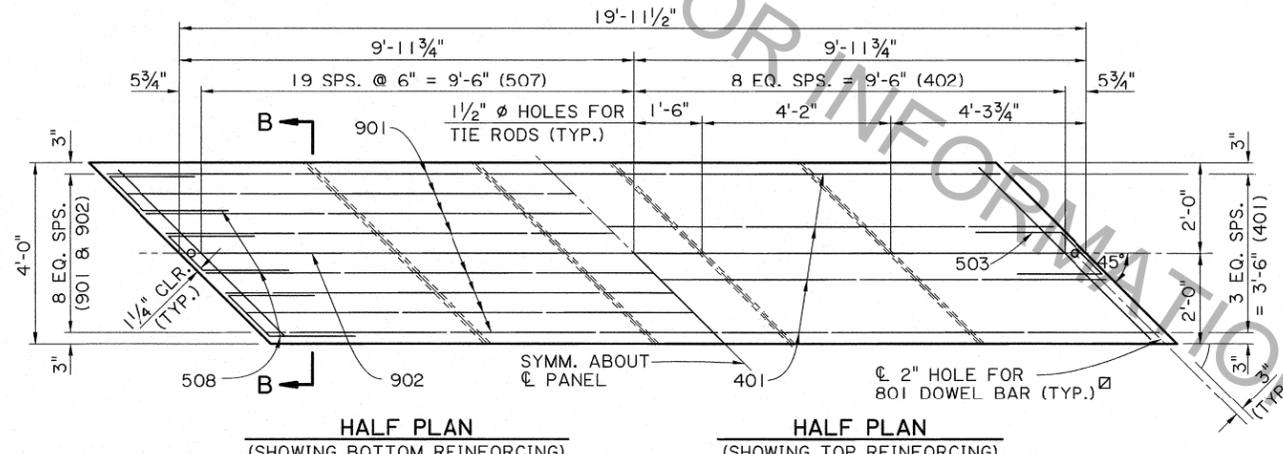
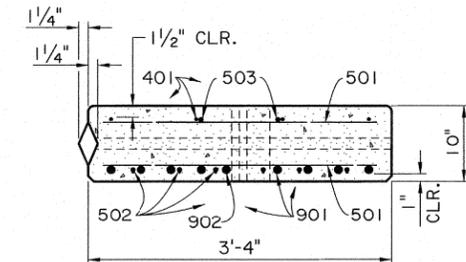


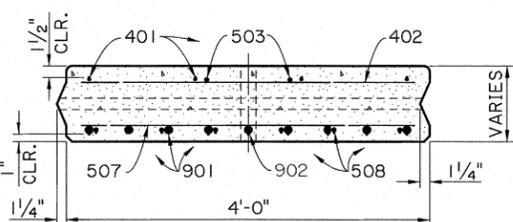
**EXTERIOR UNIT**  
SCALE 1/2" = 1'-0"



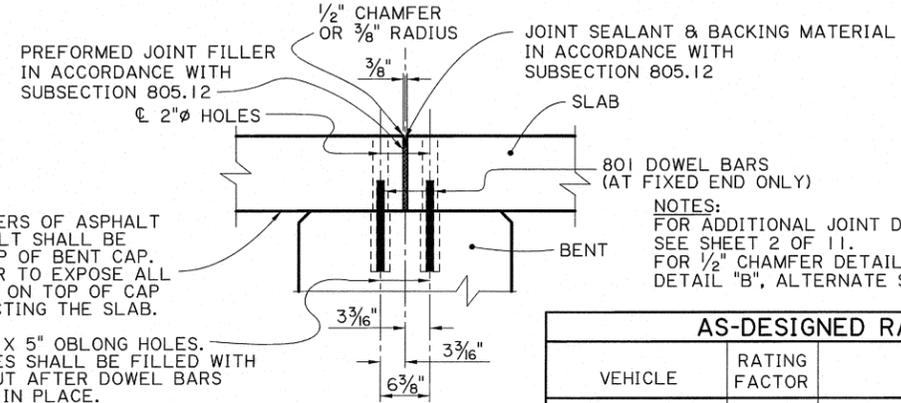
**INTERIOR UNIT**  
SCALE 1/2" = 1'-0"



**SECTION A-A**  
EXTERIOR UNIT  
SCALE 1" = 1'-0"



**SECTION B-B**  
INTERIOR UNIT  
SCALE 1" = 1'-0"



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

AS-DESIGNED RATING		
VEHICLE	RATING FACTOR	NOTES
HL-93 (INV)	1.372	
HL-93 (OPR)	1.781	
LADV-11 (INV)	1.055	MAGNIFICATION FACTOR = 1.3

Δ DRAINS ARE NOT REQUIRED ON END SPANS OVER UNPROTECTED SLOPES.

ALTERNATE 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, 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 P. THE BRIDGE RAIL CONCRETE SHALL BE CLASS AA IF RAIL IS CAST IN PLACE. STEEL SIDE FORMS AND STEEL OR CONCRETE BOTTOM FORMS SHALL BE USED FOR PRECAST COMPONENTS. EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE NOTED. ALL SURFACES SHALL RECEIVE A CLASS I ORDINARY SURFACE FINISH UPON REMOVAL OF THE FORMS. THE FINAL FINISH SHALL BE A TINE FINISH IN ACCORDANCE WITH SUB-SECTION 805.13(d)(3) OF THE LOUISIANA STANDARD SPECIFICATIONS.

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. ALL REINFORCING BARS SHALL BE PLACED TO PROVIDE A MINIMUM COVER OF 1" FROM THE DRAIN HOLES. REINFORCING STEEL MAY BE TACK WELDED FOR A DISTANCE OF NOT MORE THAN 4'-0" FROM EACH END OF UNIT. NO OTHER WELDING SHALL BE PERMITTED.

MISCELLANEOUS STEEL : HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM DESIGNATION A-325. PRESTRESSING STRANDS SHALL CONFORM TO ASTM DESIGNATION A-416, GRADE 270. PLATES, TIE RODS, AND DRIFT BOLTS SHALL CONFORM TO ASTM DESIGNATION A709, GRADE 36. STEEL SPECIFIED TO BE ZINC COATED SHALL BE IN CONFORMANCE WITH ASTM DESIGNATION A-123.

GROUT : THE GROUT SHALL BE AN APPROVED FLOWABLE NON-SHRINK GROUT LISTED ON QPL 47. THE GROUT SHALL BE TESTED FOR ACCEPTANCE PRIOR TO USAGE. THE GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI PRIOR TO LOADING SLABS. SURFACES SHALL BE THOROUGHLY SATURATED WITH WATER BY FLOODING THE HOLES FOR APPROXIMATELY FIVE (5) MINUTES IMMEDIATELY BEFORE THE GROUT IS PLACED. ONLY POTABLE WATER SHALL BE USED FOR SATURATION AND MIXING PURPOSES.

PATCHING MATERIAL : THE PATCHING MATERIAL SHALL BE AN APPROVED PATCHING MATERIAL FOR PRECAST OR PRESTRESSED CONCRETE PRODUCTS LISTED ON QPL 49. SURFACE PREPARATION, MIXING AND PLACEMENT SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS. ONLY POTABLE WATER SHALL BE USED FOR SATURATION AND MIXING PURPOSES.

PRECAST UNITS : THE PLANS FOR AN ONGOING OPERATION OF FABRICATION FACILITIES SHALL BE APPROVED BY THE DEPARTMENT. EACH UNIT SHALL HAVE "LIVE LOAD HL-93 AND LADV-11", THE FABRICATOR'S MARK, AND UNIQUE NUMBER, MEETING THE APPROVAL OF THE ENGINEER STAMPED OR INSCRIBED IN THE PLASTIC CONCRETE. PRECAST UNITS MAY BE CAST WITH OR WITHOUT CAMBER. IF CAMBER IS PROVIDED IT SHALL NOT EXCEED 1/4" AT THE CENTERLINE OF SPAN. ALL UNITS SHALL BE HELD AT THE PLANT FOR A MINIMUM OF TEN(10) DAYS AFTER CASTING. THE CONCRETE SHALL REACH A MINIMUM STRENGTH OF 3,000 PSI BEFORE HANDLING IS PERMITTED. THE LIFTING INSERTS SHALL BE 1", TYPE S INSERTS AS MANUFACTURED BY DAYTON-SUPERIOR CORPORATION OR AN APPROVED EQUAL. EACH INSERT SHALL HAVE A MINIMUM LOAD CAPACITY OF 10,000 POUNDS. FOUR(4) INSERTS WITH 1" X 5" LONG COIL BOLTS SHALL BE PLACED IN THE TOP OF THE UNIT AND LOCATED 1'-3" FROM ITS ENDS AND 1'-0" FROM ITS EDGES. INSERT HOLES SHALL BE GROUT FILLED AFTER PLACEMENT OF UNIT. AT THE CONTRACTOR'S OPTION A SLING OF SUFFICIENT CAPACITY MAY BE USED FOR LIFTING, PROVIDED THE SAME PICKUP LOCATION FROM THE ENDS ARE USED. FABRICATION TOLERANCES SHALL BE AS FOLLOWS:

- UNIT DEPTH ± 3/16"
- UNIT LENGTH + 1/8" AND -1/2"
- OVERALL SPAN WIDTH ± 2"

ALL PRECAST UNITS IN EACH BRIDGE SPAN SHALL BE MATCH CAST IN THE SAME CASTING BED TO ENSURE A PROPER FIT DURING INSTALLATION.

GUARDRAIL : REFER TO GENERAL PLAN FOR GUARDRAIL REQUIREMENTS. PROVIDE HOLES FOR GUARDRAIL CONNECTIONS ACCORDING TO STANDARD PLAN GR 200 ON ALL FOUR(4) BRIDGE ENDS.

BASIS OF PAYMENT : ALL MATERIALS SHALL BE PAID FOR UNDER "BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE" ACCORDING TO THE SPECIFICATIONS.

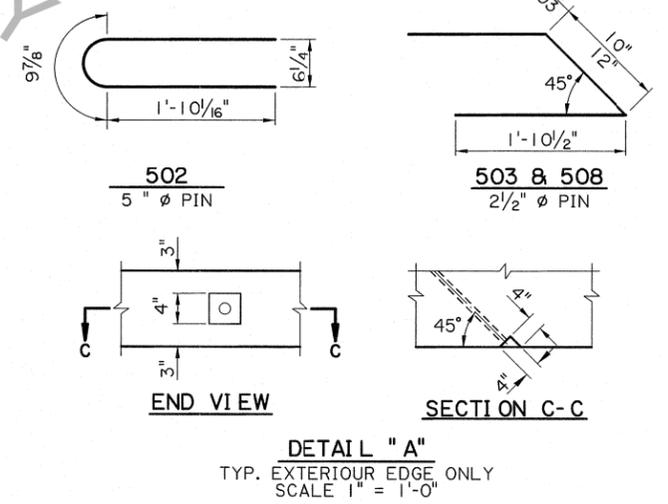
**ESTIMATED QUANTITIES (ONE EXTERIOR UNIT)**

BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
901	8 19'-7"	156'-8"	LONGIT. BOT. OF SLAB
902	1 18'-11"	18'-11"	LONGIT. BOT. OF SLAB
<b>TOTAL NO. 9 BARS = 175'-7" = 597 LBS.</b>			
801	1 1'-0"	1'-0"	DOWELS
<b>TOTAL NO. 8 BARS = 1'-0" = 3 LBS.</b>			
501	74 4'-2"	308'-4"	TRANS. TOP & BOT. OF SLAB
502	6 4'-6"	27'-0"	TOP & BOT. END OF SLAB
503	2 4'-9"	9'-6"	TOP & BOT. END OF SLAB
504	2 3'-9"	7'-6"	TOP & BOT. END OF SLAB
505	2 3'-0"	6'-0"	TOP & BOT. END OF SLAB
506	2 1'-4"	2'-8"	TOP & BOT. END OF SLAB
<b>TOTAL NO. 5 BARS = 361'-0" = 377 LBS.</b>			
401	4 19'-7"	78'-4"	LONGIT. TOP OF SLAB
<b>TOTAL NO. 4 BARS = 78'-4" = 52 LBS.</b>			
<b>DEFORMED REINFORCING STEEL = 1029 LBS.</b>			
<b>CLASS P CONCRETE = 2.05 CU. YDS.</b>			
<b>CONCRETE RAILING (PER SPAN) = 40.00 LIN. FT.</b>			

**ESTIMATED QUANTITIES (ONE INTERIOR UNIT)**

BAR NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
901	8 19'-7"	156'-8"	LONGIT. BOT. OF SLAB
902	1 18'-11"	18'-11"	LONGIT. BOT. OF SLAB
<b>TOTAL NO. 9 BARS = 175'-7" = 597 LBS.</b>			
801	1 1'-0"	1'-0"	DOWELS
<b>TOTAL NO. 8 BARS = 1'-0" = 3 LBS.</b>			
503	2 4'-9"	9'-6"	TOP END OF SLAB
507	39 5'-2"	201'-6"	TRANS. BOT. OF SLAB
508	6 4'-7"	27'-6"	BOT. END OF SLAB
<b>TOTAL NO. 5 BARS = 238'-6" = 249 LBS.</b>			
401	4 19'-7"	78'-4"	LONGIT. TOP OF SLAB
402	17 4'-2"	70'-10"	TRANS. TOP OF SLAB
<b>TOTAL NO. 4 BARS = 149'-2" = 100 LBS.</b>			
<b>DEFORMED REINFORCING STEEL = 949 LBS.</b>			
<b>CLASS P CONCRETE = 2.46 CU. YDS.</b>			

○ BASED ON A 10" SLAB THICKNESS



**DETAIL "A"**  
TYP. EXTERIOR EDGE ONLY  
SCALE 1" = 1'-0"

SHEET NUMBER

DESIGNED BY: J. NAKHLEH  
CHECKED BY: B. DELATTE  
DATE: 9/18/2012

CONTROL SECTION: D. HYMEI  
CHECKED BY: J. NAKHLEH

REVISION OR CHANGE ORDER DESCRIPTION: 12/14/2010  
SERIES #: 12 OF 13

STATE PROJECT: 12 OF 13

NO. DATE

BY

ALTERNATE SPAN (4 OF 4)  
20'-0" PRECAST CONCRETE SLAB UNIT  
28'-0" CLEAR ROADWAY  
45° CROSSING TWO WAY TANGENT

STANDARD DETAIL: PSS-45-28-20SL

BRIDGE & STRUCTURAL DESIGN