

**GENERAL NOTES**

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

**DESIGN SPECIFICATIONS:** AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOURTH EDITION, 2007. WITH 2009 INTERIM SPECIFICATIONS AND REVISIONS.

**DESIGN LOAD:** LIVE LOAD IS HL-93.

**DESIGN SPEED:** 30 MPH.

**REINFORCING STEEL:** DIMENSIONS RELATING TO REINFORCING STEEL FABRICATION ARE OUT-TO-OUT OF BARS UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO REINFORCING STEEL SPACING ARE CENTER TO CENTER OF BAR. THE MINIMUM COVERING FROM THE SURFACE OF THE CONCRETE TO THE FACE OF ANY DEFORMED REINFORCING BAR SHALL BE 2" UNLESS OTHERWISE SHOWN. SEE STANDARD PLAN S.W.B.S 100 FOR BAR SUPPORTS FOR REINFORCING STEEL. REINFORCING STEEL SHALL BE GRADE 60 STEEL. THE FIRST DIGIT OF THE REINFORCING BAR NUMBER INDICATES BAR SIZE.

**BASIS OF DETOUR BRIDGE PAYMENT:** ALL DETOUR BRIDGE MATERIALS INCLUDING GUARD RAIL AND BARRIER RAILING SHALL BE PAID FOR UNDER ITEM 725-02-00100 "TEMPORARY DETOUR BRIDGING", PER LINEAR FOOT.

**DETOUR BRIDGE SHOP DRAWINGS:** THE BRIDGE DETOUR LENGTH, FINISH GRADE (F.G.) AND SUBSTRUCTURE LAYOUT IS SITE SPECIFIC. THE CONTRACTOR SHALL OBTAIN THE CURRENT FIELD GROUND LINE ALONG THE DETOUR CENTERLINE AND USE THE DETOUR AND PROFILE SHEET ALONG WITH THE DETOUR BRIDGE DETAILS PROVIDED TO DEVELOP SHOP DRAWINGS. THE SHOP DRAWINGS SHALL INDICATE SPAN TYPE AND LENGTHS, BENT CAP ELEVATIONS, BENT HEIGHT AND BENT CASE, GROUND ELEVATIONS AT EACH BENT, PILE TYPE AND LENGTH, WATER ELEVATION AT THE TIME OF CONSTRUCTION, AND ANY OTHER DETAILS REQUIRED TO CONSTRUCT THE DETOUR BRIDGE. ALL DRAWINGS SHALL BE SUBMITTED TO THE BRIDGE DESIGN ENGINEER FOR REVIEW ACCORDING TO SECTION 801 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES AND STAMPED BY A LICENSED CIVIL ENGINEER IN THE STATE OF LOUISIANA.

**ALTERNATE DESIGN:** AT THE CONTRACTOR'S OPTION, A DETOUR BRIDGE ALTERNATE TO THE LADOTD SPECIAL DETAILS MAY BE SUBMITTED TO THE BRIDGE DESIGN ENGINEER FOR REVIEW. IF THE CONTRACTOR ELECTS ONLY TO SUBMIT REVISED PILE LENGTHS AND/OR PILE TYPES, THE ALTERNATE SHALL BE SUBMITTED TO THE GEOTECHNICAL ENGINEER FOR REVIEW. ANY ALTERNATE SHALL BE DESIGNED ACCORDING TO THE REFERENCED AASHTO DESIGN SPECIFICATIONS AND LIVE LOADS AS NOTED ON THIS SHEET. DOTD MAY APPROVE OR DISAPPROVE THE SUBMITTED DETOUR BRIDGE ALTERNATE AND/OR PILE ALTERNATE SOLELY AT DOTD'S DISCRETION. ALL DRAWINGS SHALL BE STAMPED AND SIGNED BY A LICENSED CIVIL ENGINEER IN THE STATE OF LOUISIANA. ALL SUBMITTALS SHALL BE IN ACCORDANCE WITH SECTION 801 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROAD AND BRIDGES.

**STRUCTURAL CONCRETE:** ALL PRECAST CONCRETE SHALL BE CLASS "P". EXPOSED EDGES SHALL HAVE A 3/4" CHAMFER, UNLESS OTHERWISE NOTED. ALL SURFACES SHALL RECEIVE A CLASS I ORDINARY SURFACE FINISH. UPON REMOVAL OF FORMS THE FINAL FINISH FOR THE PRECAST DECK UNITS SHALL BE A BROOM FINISH. THE BROOM SHALL BE DRAWN TRANSVERSELY WITH ADJACENT STROKES SLIGHTLY OVER-LAPPING. THE CORRUGATIONS SHALL BE UNIFORM AND NOT MORE THAN 1/4" IN DEPTH. A MECHANICAL BROOMING METHOD MAY BE USED IN LIEU OF THE MANUAL METHOD. THE METHOD, EQUIPMENT, AND FINAL FINISH SHALL MEET THE APPROVAL OF THE PROJECT ENGINEER.

**STRUCTURAL METALWORK:** HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM DESIGNATION A325, UNLESS OTHERWISE NOTED. PRESTRESSED STRANDS SHALL CONFORM TO ASTM DESIGNATION A416, GRADE 270. PLATES, AND DRIFT BOLTS SHALL CONFORM TO ASTM DESIGNATION A709/AASHTO M270 GRADE 36. STEEL SPECIFIED TO BE ZINC COATED SHALL BE IN CONFORMANCE WITH ASTM DESIGNATION A123.

**WELDING:** ALL WELDING SHALL CONFORM TO SECTION 815 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

**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 3.5 KSI 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 AND 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:** FABRICATION FACILITIES SHALL BE APPROVED BY THE DEPARTMENT. EACH UNIT SHALL HAVE "LIVE LOAD HL-93", THE FABRICATORS MARK, AND A UNIQUE NUMBER, MEETING THE APPROVAL OF THE ENGINEER, STAMPED OR INSCRIBED IN THE PLASTIC CONCRETE. 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 KSI BEFORE HANDLING IS PERMITTED. THE LIFTING INSERTS SHALL HAVE A MINIMUM CAPACITY OF 10 KIPS AND SHALL BE 1" TYPE "S" INSERTS AS MANUFACTURED BY DAYON-SUPERIOR CORPORATION OR AN APPROVED EQUAL. FOUR (4) INSERTS WITH 1" DIAMETER BY 5" LONG COIL BOLTS SHALL BE PLACED IN THE TOP OF THE UNIT LOCATED 15" FROM ITS ENDS AND 12" FROM ITS EDGES. AT THE CONTRACTORS 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	+ 1/4" - 5/8"
UNIT LENGTH	+ 2"
OVERALL SPAN WIDTH	+ 2"

**STEEL PILING AND BRACING:** STEEL PILES AND BRACING SHALL CONFORM TO SECTION 804, 807, AND 815.

H-PILE SIZE & SPEC. = HP 12x74 AND SHALL CONFORM TO AASHTO M270/ASTM A572 GRADE 50.  
 PIPE PILE SIZE:  
 O.D. & SPEC.= 12.75"Ø AND SHALL CONFORM TO ASTM A252 GRADE 2  
 MIN. WALL THICKNESS = 3/8"

**TIMBER PILING AND STRUCTURAL TIMBER:** TIMBER SHALL CONFORM TO SECTIONS 725 AND 804 OF THE STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. STRUCTURAL TIMBER SHALL CONFORM TO SECTION 812.

**DEBRIS REMOVAL:** THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ANY DEBRIS WHICH MAY ACCUMULATE AT THE PILE BENTS OR WITHIN THE SWAY BRACING. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE OBSTRUCTIONS OF THIS NATURE AND ANY OTHER NATURE AT THE PROJECT SITE AT ALL TIMES (24 HOURS A DAY SEVEN DAYS A WEEK). THE CONTRACTOR SHALL NOT BE RELIEVED OF THIS OBLIGATION UNTIL THE DETOUR BRIDGE IS REMOVED. DEBRIS REMOVAL SHALL BE PAID FOR UNDER ITEM NO. 725-02-00100, "TEMPORARY DETOUR BRIDGING."

**SCOUR:** SCOUR CONSIDERATION IS LIMITED TO THE BENTS IN THE CHANNEL, AS DETERMINED BY THE BRIDGE ENGINEER OR PROJECT ENGINEER, AND ONLY LOCAL SCOUR SHALL APPLY. LOCAL SCOUR IS CALCULATED ACCORDING TO FHWA HEC-18, "EVALUATING SCOUR AT BRIDGES". THE PREDICTED SCOUR ELEVATION FOR EACH BENT IS DETERMINED BY SUBTRACTING THE LOCAL SCOUR DEPTH FROM THE EXISTING GROUND ELEVATION AT EACH BENT. A MAXIMUM OF 5'-0" OF LOCAL SCOUR WAS USED IN THE FLEXURAL DESIGN OF THE PILES FOR EACH BENT CASE. UNLESS AN ADDITIONAL SCOUR ANALYSIS IS PERFORMED FOR THE DETOUR STRUCTURE, THE LOCAL SCOUR DEPTH SHOWN IN THE HYDRAULIC DATA TABLE FOR THE PERMANENT STRUCTURE SHALL BE USED AS A MINIMUM FOR THE DETERMINATION OF PILE LENGTHS AND/OR PILE TYPES USED IN AN ALTERNATE DETOUR BRIDGE SUBMITTAL.

**AS-DESIGNED BRIDGE RATING:** THE MOST CRITICAL AS-DESIGNED BRIDGE RATING IS SHOWN IN THE BRIDGE RATING TABLE. FOR ADDITIONAL RATING INFORMATION, SEE THE AS-DESIGNED BRIDGE RATING REPORT.

SHEET	BRIDGE STANDARD INDEX NO.	DESCRIPTION
1 OF 15	BD.2.8.1.0.01	BRIDGE INDEX AND GENERAL NOTES
2 OF 15	BD.2.8.1.0.02	BRIDGE GENERAL PLAN
3 OF 15	BD.2.8.1.0.03	BENT CONFIGURATION AND PILE LOADS
4 OF 15	BD.2.8.1.0.04	SWAY BRACING DETAILS
5 OF 15	BD.2.8.1.0.05	SWAY BRACING DETAILS
6 OF 15	BD.2.8.1.0.06	END BENT TYPE "A" AND INTERMEDIATE BENT DETAILS
7 OF 15	BD.2.8.1.0.07	END BENT TYPE "A" AND INTERMEDIATE BENT DETAILS
8 OF 15	BD.2.8.1.0.08	END BENT TYPE "B" DETAILS
9 OF 15	BD.2.8.1.0.09	END BENT TYPE "B" DETAILS
10 OF 15	BD.2.8.1.0.10	END BENT TYPE "B" DETAILS
11 OF 15	BD.2.8.1.0.11	ANCHOR BENT DETAILS
12 OF 15	BD.2.8.1.0.12	ANCHOR BENT DETAILS
13 OF 15	BD.2.8.1.0.13	PRECAST CONCRETE SLAB UNIT DETAILS
14 OF 15	BD.2.8.1.0.14	PRECAST CONCRETE SLAB UNIT DETAILS
15 OF 15	BD.2.8.1.0.15	BARRIER AND GUARD RAIL DETAILS

VEHICLE	SUPERSTRUCTURE	SUBSTRUCTURE	NOTES
HL-93 (INV)	1.21	1.16	
HL-93 (OPR)	1.57	1.50	
LADV-11 (OPR)	1.21	1.15	MAGNIFICATION FACTOR = 1.30



SHEET NUMBER		PARISH		CONTROL SECTION		STATE PROJECT	
DESIGNED CHECKED J. PELTIER M. HEBERT	DETAILED CHECKED J. PELTIER M. HEBERT	SERIES NUMBER	1 OF 15				
		NO.	DATE				
		REVISION OR CHANGE	ORDER DESCRIPTION				
		BRIDGE INDEX & GENERAL NOTES					
		BD.2.8.1.0.01 - DETOUR BRIDGE					
		BRIDGE AND STRUCTURAL DESIGN					