7/3/2013 14:13

GENERAL NOTES

CONSTRUCTION SPECIFICATIONS: CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, EXCEPT AS SUPPLEMENTED OR AMENDED BY THE PLANS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS. CONSTRUCTION OF THE SPB SUPERSTRUCTURE SHALL ALSO BE IN ACCORDANCE WITH THE ORIGINAL MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

DESIGN SPEED: 30 MPH.

DESIGN SPECIFICATIONS: THE SUBSTRUCTURE DESIGN IS IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FIFTH EDITION, AND AS AMENDED BY THE 2010 AASHTO INTERIM SPECIFICATIONS FOR BRIDGES. THE SPB SUPERSTRUCTURE SHALL BE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

DESIGN CRITERIA: THE SUBSTRUCTURE IS DESIGNED FOR HL-93. THE SUPERSTRUCTURE SHALL BE DESIGNED FOR HL-93.

CONCRETE: ALL PRECAST CONCRETE SHALL BE CLASS "P". EXPOSED EDGES SHALL HAVE A ¾" CHAMFER, UNLESS OTHERWISE NOTED. ALL SURFACES SHALL RECEIVE A CLASS 1 ORDINARY SURFACE FINISH.

GUARD RAIL: SEE STANDARD PLAN GR-200 FOR MORE INFORMATION.

STRUCTURAL METALWORK: ALL STEEL FOR THE SUBSTRUCTURE SHALL BE STRUCTURAL CARBON STEEL CONFORMING TO ASTM-A709 (GR-36), UNLESS OTHERWISE NOTED IN THE PLANS. ANY NECESSARY SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL OF THE BRIDGE DESIGN ENGINEER. ALL MISCELLANEOUS HARDWARE, ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE HOT DIPPED GALVANIZED. ALL STEEL AND MISCELLANEOUS HARDWARE FOR THE SUPERSTRUCTURE SHALL CONFORM TO THE SPECIFICATIONS AND RECOMMENDATIONS OF THE ORIGINAL MANUFACTURER. ANY NECESSARY SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL OF THE ORIGINAL MANUFACTURER.

HANDLING OF PRECAST CAPS: CONCRETE IN PRECAST UNITS SHALL REACH A MINIMUM OF 3,000 PSI BEFORE ANY LIFTING IS PERMITTED. SEE ANCHOR PLATE AND LIFTING DETAILS SHEET FOR LOCATION OF LIFTING HOLES.

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 LOAD AS NOTED ON THIS SHEET. THE AS-DESIGNED RATINGS INCLUDING HL-93 INVENTORY, HL-93 OPERATING AND LADV-11 OPERATING SHALL ALSO BE INCLUDED WITH THE SUPERSTRUCTURE AND/OR SUBSTRUCTURE ALTERNATE SUBMITALL. ALL DRAWINGS AND CALCULATIONS SHALL BE STAMPED 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 ROADS AND BRIDGES. LADOTD MAY APPROVE OR DISAPPROVE THE SUBMITTED DETOUR BRIDGE ALTERNATE AND/OR PILE ALTERNATE SOLELY AT LADOTD'S DISCRETION.

SPB COMPONENTS NOT AVAILABLE AT THE LADOTD SPB STORAGE FACILITY: THE CONTRACTOR SHALL PURCHASE THE FOLLOWING SPB COMPONENTS (FROM THE ORIGINAL MANUFACTURER) IF THEY ARE NOT AVAILABLE AT THE STORAGE FACILITY IN ABITA SPRINGS AND ARE REQUIRED IN THE SPB SUPERSTRUCTURE:

- AB601, DECK UNIT WITHOUT EPOXY ANTI-SKID SURFACE
- AB602, CURB UNIT WITHOUT EPOXY ANTI-SKID SURFACE
- AB708, HEAVY SHEAR PANEL
- AB620-AB623, REINFORCING CORD

ANY OF THE ABOVE COMPONENTS WHICH ARE DETERMINED REUSABLE BY THE PROJECT ENGINEER, SHALL BECOME PROPERTY OF LADOTD, RETURNED TO THE STORAGE FACILITY AFTER THE SPB IS DISASSEMBLED AND ADDED TO THE LADOTD INVENTORY. ALL OTHER REQUIRED COMPONENTS THAT ARE NOT AVAILABLE AT THE STORAGE FACILITY MAY BE RENTED AND/OR PURCHASED FROM THE ORIGINAL MANUFACTURER. IF PURCHASED, ANY OF THESE SPB SUPERSTRUCTURE COMPONENTS WHICH ARE DETERMINED REUSABLE BY THE PROJECT ENGINEER SHALL BE BECOME PROPERTY OF LADOTD, RETURNED TO THE STORAGE FACILITY AFTER THE SPB IS DISASSEMBLED AND ADDED TO THE LADOTD INVENTORY.

SPB ERECTION 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 PLAN AND PROFILE SHEET ALONG WITH THE DETOUR BRIDGE DETAILS PROVIDED TO DEVELOP ERECTION DRAWINGS. THE DRAWINGS SHALL INDICATE TRUSS CONFIGURATIONS 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 STAMPED AND SIGNED BY A LICENSED CIVIL ENGINEER IN THE STATE OF LOUISIANA AND SHALL BE SUBMITTED TO THE BRIDGE DESIGN ENGINEER FOR REVIEW IN ACCORDANCE WITH SECTION 801 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

GALVANIZED STEEL: ALL MISCELLANEOUS HARDWARE WHICH IS SPECIFIED TO BE GALVANIZED SHALL BE COATED IN ACCORDANCE WITH ASTM DESIGNATION A-153. ALL STRUCTURAL STEEL SHAPES WHICH ARE SPECIFIED TO BE GALVANIZED SHALL BE COATED IN CONFORMANCE WITH ASTM DESIGNATION A-123 AFTER FABRICATION. DAMAGED GALVANIZED COATS THAT ARE NOT TO BE EMBEDDED IN MORE THAN THREE INCHES OF CONCRETE SHALL BE REPAIRED WITH AN APPROVED COLD APPLIED, ZINC RICH, ORGANIC PAINT FROM THE APPROVED QUALIFIED PRODUCTS LIST, OR ANY APPROVED METHOD OF REPAIR.

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 NOT BE LESS THAN 2" UNLESS OTHERWISE NOTED. 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.

WELDING: WELDING SHALL CONFORM TO SECTION 815 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. WELDING SHALL NOT BE ALLOWED ON THE SPB SUPERSTRUCTURE COMPONENTS.

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

H-PILE SIZE & SPEC. = HP 14x89 AND SHALL CONFORM TO AASHTO M270/ASTM A572 GRADE 50.
PIPE PILE SIZE:
NOMINAL SIZE & SPEC.= 16"ø AND SHALL CONFORM TO ASTM A252 GRADE 3
O.D. = 16.00"
MIN. WALL THICKNESS = ½"

WHEN H-PILES ARE USED, THE PILES SHALL BE PLACED SO THAT THE LENGTH OF THE FLANGES ARE PERPENDICULAR TO THE CENTERLINE OF THE DETOUR BRIDGE.

TIMBER PILING AND STRUCTURAL TIMBER: TIMBER SHALL BE TREATED, EITHER NEW OR USED. DEFECTS WHICH, AS DETERMINED BY THE PROJECT ENGINEER, MATERIALLY AFFECT THE STRENGTH OF THE TIMBER SHALL NOT BE USED. TIMBER PILING SHALL CONFORM TO SECTION 804 AND STRUCTURAL TIMBER SHALL CONFORM TO SECTION 812 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

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 CONTRACTORS RESPONSIBILITY TO REMOVE OBSTRUCTIONS OF THIS NATURE AS WELL AS ANY OTHER OBSTRUCTIONS THAT MAY OCCUR AT THE PROJECT SITE AT ALL TIMES. THE CONTRACTOR SHALL NOT BE RELIEVED OF THIS OBLIGATION UNTIL THE DETOUR BRIDGE IS REMOVED. DEBRIS REMOVAL SHALL BE PAID FOR UNDER ITEM NO. 725-02-00200, "TEMPORARY DETOUR BRIDGING (STEEL PANEL BRIDGE, LADOTD SUPPLIED)."

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. 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 ALTERNATIVE DETOUR BRIDGE SUBMITTAL.

⊖ AS-DESIGNED BRIDGE RATING: THE MOST CRITICAL AS-DESIGNED BRIDGE SUBSTRUCTURE RATING IS SHOWN IN THE BRIDGE RATING TABLE. FOR ADDITIONAL SUBSTRUCTURE RATING INFORMATION, SEE THE AS-DESIGNED BRIDGE RATING REPORT. CONTACT THE ORIGINAL MANUFACTURER FOR RATING OF THE SUPERSTRUCTURE.

ASPHALT OVERLAY: THE SUBSTRUCTURE IS DESIGNED TO ACCOMMODATE THE ADDITIONAL LOAD FROM A TWO (2) INCH ASPHALT WEARING SURFACE PLACED ON THE DECK PANELS.

TRUSS CONFIGURATION: THE SUBSTRUCTURE IS DESIGNED BASED ON A SIMPLE SPAN CONFIGURATION WITH 90'-0" MAXIMUM SPAN LENGTHS AND A DSR2 (DOUBLE SINGLE WITH TWO (2) REINFORCING CORDS) TRUSS CONFIGURATION. SPAN LENGTHS LONGER THAN 90'-0" AND/OR TRUSS CONFIGURATIONS HEAVIER THAN A DSR2 SHALL REQUIRE A DESIGN CHECK AND/OR COMPLETE REDESIGN OF THE SUBSTRUCTURE.

AS-DESIGNED BRIDGE RATING TABLE

VEHICLE	SUPERSTRUCTURE	SUBSTRUCTURE	NOTES
HL-93 (INV)	1.00⊖	1.41	
HL-93 (OPR)	1.00⊖	1.83	
LADV-11 (OPR)	1.00⊖	1.41	MAGNIFICATION FACTOR = 1.30

TRUSS CONFIGURATION*

	SPAN LENGTH (FT.)				
	50	60	70	80	90
TRUSS CONFIGURATION	DS	DS	DSR2	DSR2	DSR2
END OF BRIDGE PANEL	AB702	AB702	AB702	AB708	AB708

ABOVE CONFIGURATIONS ARE BASED ON DECK PANELS WITH A TWO (2) INCH ASPHALT OVERLAY.

TRUSS CONFIGURATION*

	SPAN LENGTH (FT.)				
	50	60	70	80	90
TRUSS CONFIGURATION	DS	DS	DSR2	DSR2	DSR2
END OF BRIDGE PANEL	AB702	AB702	AB702	AB702	AB708

ABOVE CONFIGURATIONS ARE BASED ON DECK PANELS WITH AN EPOXY ANTI-SKID SURFACE.

* THE INFORMATION SHOWN IN THE TRUSS CONFIGURATION TABLES IS FOR ESTIMATION PURPOSES AND DOES NOT RELIEVE THE CONTRACTOR FROM HIS OBLIGATION TO CONTACT THE ORIGINAL MANUFACTURER FOR TECHNICAL ASSISTANCE IN SELECTING THE CORRECT TRUSS AND COMPONENT CONFIGURATIONS. THEY SHALL MEET THE REFERENCED AASHTO DESIGN SPECIFICATIONS AND LIVE LOAD AS NOTED ON THIS SHEET.

STATE OF LOUISIANA
JUSTIN C. PELTIER
License No. 34765
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/25/2013

SHEET NUMBER

	PARISH	CONTROL SECTION	STATE PROJECT
DESIGNED J. PELTIER / CHECKED M. HEBERT			
DETAILED J. PELTIER / CHECKED M. HEBERT			
REVIEWED K. BRAUNER / SERIES # 2 OF 13			

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BRIDGE GENERAL NOTES AND BRIDGE RATING

BD.2.8.2.0.02 STEEL PANEL DETOUR BRIDGE

BRIDGE & STRUCTURAL DESIGN

IP_PWP:dms55670\Steel Panel Detour Bridge 2.dgn