# STATE OF LOUISIANA

## NEW MISSISSIPPI RIVER BRIDGE

# ST. FRANCISVILLE TO NEW ROADS INCLUDING APPROACHES AND CONNECTING ROADWAYS ROUTE LA 10 WEST FELICIANA AND POINTE COUPEE PARISHES

## **DESIGN-BUILD PROJECT**

STATE PROJECT NO. 052-02-0024, et. al.

# SCOPE OF SERVICES PACKAGE PART 1 APPENDIX A - PROJECT SCOPE





#### Louisiana Department of Transportation and Development

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#### 1.0 INTRODUCTION

This Part 1 – Agreement, Appendix, A to the Design-Build (DB) Agreement provides a summary description of the physical components of the Project that the Design-Builder shall design, construct, and/or install and the associated management, control, monitoring, compliance, and professional services and other elements of the Work.

The Design-Builder shall not rely solely on the description contained in this Appendix A to identify all Project components to be designed, constructed, and/or installed. The Design-Builder shall determine the full scope of the Project through thorough examination of the Contract Documents and the Project Site or as may be reasonably inferred from such examination.

The Design-Builder shall design, furnish, construct, and/or install all components of the Project meeting the requirements of the Contract Documents, except where the Louisiana Department of Transportation and Development (LA DOTD) will furnish and/or install the items as listed in Section 5.0.

#### 2.0 PROJECT CONFIGURATION

The Project shall include the major components listed in this Appendix A.

#### 2.1 PROJECT LIMITS

The Project is approximately 12 miles long. The Project termini are as follows:

- A) Beginning of Project (BOP) Near the intersection of LA1/LA10 and LA 3131 (Hospital Road) west of the City of New Roads, Louisiana in Pointe Coupee Parish; and
- B) End of Project (EOP) The intersection with US 61 south of the City of St. Francisville, Louisiana in West Feliciana Parish.

In general, there are 250 feet of Right-of-Way (ROW) available in the at-grade roadway sections and 150 feet of ROW available in the bridge and elevated roadway sections throughout the Project. The lateral limits of the Project are shown on the ROW Plans in Part 6 – Scope of Services Packages Plans.

#### 2.2 PROJECT-WIDE REQUIREMENTS

The base Project includes the following:

- A) A cable-stayed main span structure to accommodate four lanes;
- B) Two-lane bridge approaches to the cable-stayed main span structure. A climbing lane will be required on the west approach eastbound side. Currently, the east approach is shown at 2.9% in the plans and no climbing lane is required. However, if a grade is used that is steeper than 2.9% (up to a five percent maximum) it will require a climbing lane;
- C) Two-lane approach structures along the approach roadways;
- D) An grade-separated crossing at the Big Cajun 2 Electric Power Plant spur track(s);
- E) Two-lane roadways;
- F) <u>Intersections (including, necessary turn lanes, acceleration lanes, and deceleration lanes)</u> at Project termini and crossing highways; and
- G) Safe accommodation of bicyclists and pedestrians, including, but not limited to, attention to rail height and bicycle safe expansion joints.

The plan layout of the Project shall allow for the future construction of two additional lanes of the roadway and associated bridge structures within the ROW limits shown on the ROW Plans in Part 6 – Scope of Services Packages Plans.

Option 1 for this Project shall be four-lane, bridge approaches to the cable-stayed main span structure.

See Section 3.0 for additional detail regarding the Project proposed improvements.

#### 2.3 PROJECT SEGMENTS

The Project is divided into three segments as described Table 2-3. The segments are not meant to constrain the Design-Builder's design or construction schedule or approach except as otherwise specified in the Contract, such as LA DOTD-designated Milestones and Work limitations contained in the Contract Documents.

Table 2.3
Project Segment Designation and Limits

Segment Designator	Beginning Point	<b>Ending Point</b>
Section A	Sta 97+00	Sta 462+00
Section B	Sta 462+00	Sta 595+05
Section C	Sta 595+05	Sta 729+29.30

#### 2.3.1 Segment A – Pointe Coupee Parish Approach

The Project begins north of the City of New Roads at LA 1/LA 10 near LA 3131 (Hospital Road) in Pointe Coupee Parish. The alignment runs approximately north parallel to Portage Canal, then turns back to the east and passes to the south of Big Cajun 2 electric power plant. The proposed roadway crosses LA 10 with an at-grade intersection and ties into LA 981 (River Road) through the use of a service road, since the Project main line crosses over LA 981 on the elevated approaches of the main Mississippi River bridge described in Section 2.3.2.

#### 2.3.2 Segment B – Mississippi River Bridge

The main Mississippi River bridge begins west of the river at Begin Bridge Station 462+00 and ends east of the river at End Bridge Station 595+05. The cable-stayed portion of the bridge over the Mississippi River provides minimum navigational clearances of 1,280 feet horizontally and 65 feet vertically above high water level. The west approach structure also provides a 20 foot vertical clearance over the levee. The east approach structure extends over the high water relief area on the West Feliciana Parish side to minimize wetland impacts.

#### 2.3.3 Segment C – West Feliciana Parish Approach

Between the high water relief area and the at-grade intersection at US 61, the alignment travels in a northeasterly direction and is primarily at-grade, with <u>five</u> bridge structures <u>at Grants Bayou and across three deep ravines</u> <u>as outlined in Table 3.1.1-1, West Feliciana Parish Bridge Structures Summary</u>.

#### 3.0 PROPOSED IMPROVEMENTS

#### 3.1 BASE PROJECT

The proposed improvements included in the Project will include, but not be limited to, the following:

- A) Design and construction of a four lane cable-stayed bridge crossing the Mississippi River with a main span length providing minimum navigational clearance of 1,280 feet horizontally (measured perpendicular to the flow of the Mississippi River) and 65 feet above the high water level vertically, with a minimum typical section including four 11 foot travel lanes, two eight foot outside shoulders, two foot offsets, and necessary width to accommodate a vertical-faced median barrier in the ultimate four-lane configuration;
- B) Design and construction of the approach bridges to the cable-stayed main span structure, with a minimum typical section including two 11 foot travel lanes, two eight foot outside shoulders, and any appropriate traffic barriers. The west approach structure will require a climbing lane to the constructed on the eastbound side. The minimum width of the climbing lane will be 11 foot, but a 14 foot overall width is required to align the edge of deck on the eastbound side between the approach bridge and the cable-stayed main span structure;
- C) Design and construction of the following two lane bridges with a typical section, including, two <u>12 11</u> foot travel lanes, one eight foot outside shoulder, and one eight foot inside shoulder;
  - 1) One bridge over Portage Canal on relocated LA10/LA1;
  - Design and construction of an elevated grade separation for existing spur track at approximate station 362+25 and the future railroad spur track in to Big Cajun 2 electric power plant at approximate station 357+12.32. The elevated grade separation bridge structure shall have a minimum vertical clearance of 26 feet from top of rail to low elevation of the bridge superstructure and a minimum horizontal clearance of 25 feet from existing track center-line to face of obstruction up-station down-station and 40 feet from existing track center-line to face of obstruction down-station up-station from the existing spur track. At approximate station 357+12.32, the minimum vertical clearance shall be 23.5 feet from top of rail to low elevation of the bridge superstructure and a minimum horizontal clearance of not less than 25 feet from center line to face of obstruction. Profile grades may require adjustment to obtain specified clearance envelopes; and
  - 3) Five two lane bridges on the mainline in West Feliciana Parish, as shown on Table 3.1.1-1.

Table 3.1.1-1
West Feliciana Parish Bridge Structures Summary

Bridge Site	Begin Station	End Station
Unnamed	609+30.00	616+00.00
Grants Bayou	630+55.00	641+30.00
Unnamed	672+80.00	679+05.00
East Fork Grants Bayou Tributary	683+65.00	687+80.00
East Fork Grants Bayou	691+80.00	697+65.00

D) Design and construction of the following two lane roadway sections:

- 1) In West Feliciana Parish, a Rural Arterial-3 (RA-3) with a typical section including, two 12 11 foot travel lanes and two ten eight foot shoulders (approximately 1.9 miles);
- 2) In Pointe Coupee Parish, an RA-3 with a typical section including, two 12 11 foot travel lanes and two ten eight foot shoulders (approximately 6.15 miles);
- A relocated LA10/LA 1 [Urban Arterial-1 (UA-1)] with a typical section including two 11 foot lanes with two eight foot paved shoulders (approximately 0.33 miles);
- 4) A relocated LA 981 and old LA 10 [Rural Collector-2 (RC-2)] with a typical section including two 12 11 foot travel lanes and two eight four foot shoulders (approximately 0.37 miles and 0.38 miles, respectively);
- An LA 981 connection [Rural Local-3 (RL-3)] with a typical section including two 12 11 foot travel lanes and two eight foot shoulders (approximately 1.02 miles);
- A relocated Delta Place [Urban Local-1 (UL-1)] with a typical section including. two <u>12 10</u> foot lanes and two four foot shoulders (approximately 0.28 miles); and
- A relocated Delta Place/Major Parkway (UL-1) with a typical section including, two 12 10 foot lanes and two four foot shoulders (approximately 0.12 miles).
- E) Design and construction of a right turn lane/deceleration lane from southbound US 61 to westbound proposed LA 10 and/or a right turn lane/acceleration lane from eastbound proposed LA 10 to southbound US 61. The plan and profile sheet, typical finished section sheet, and cross-section sheets (sheet numbers 10, 2, 423, 424, and 426) for the proposed US 61 widening project (state project number 19-04-36) are included in Part 6 Scope of Services Package Plans, Appendix B Directive Plans.

#### 3.2 OPTION 1

Option 1 for this Project shall provide the four lane bridge cross-section used for the cable-stayed main span continuous unit (including, four 11 foot lanes, two eight foot outside shoulders, two foot offsets, and a vertical-faced median barrier) for the cable-stayed main span structure approach bridges (approximate stations Sta 462+00.00 to Sta 495+50.00 and Sta 522+50.00 to Sta 593+75.00). The effect of this Option 1 will be to provide a four-lane bridge over the Mississippi River, abutment to abutment (approximate stations Sta 462.00 to Sta 593.75.00).

#### 4.0 ASSOCIATED WORK

The Design-Builder shall, in association with the design and construction of the physical components of the Project, perform the following elements of Work:

- A) Associated aesthetics and landscaping;
- B) Design and construction management;
- C) Project-related public outreach (*see* Part 3 Design Requirements and Performance Specifications, Public Outreach and Maintenance of Traffic Performance Specification);
- D) Coordination with Project stakeholders and other contractors adjacent to the Work;
- E) Design Quality Control and design review (see Part 2 DB Section 111);

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- F) Construction Quality Control (see Part 2 DB Section 112);
- G) Environmental mitigation and compliance monitoring (*see* Part 3 Design Requirements and Performance Specifications, Environmental Mitigation and Compliance Performance Specification;
- H) Any additional environmental investigations and monitoring associated with or resulting from the Design-Builder's actions;
- I) Maintenance of traffic, access to property (both temporary and permanent), and maintenance and coordination of river traffic;
- J) Project safety and security;
- K) Any necessary Preliminary Engineering (such as surveys and geotechnical investigations) not provided by the LA DOTD;
- L) Any necessary harmful and hazardous materials remediation (design and construction);
- M) Drainage and erosion control;
- N) Construction waste disposal and handling;
- O) Required clearances, licenses, construction easements, and permits for the Design-Builder's Work, Work sites, and storage areas on- or off-site;
- P) Any necessary ancillary Work, such as, access roads, driveways, temporary fencing, relocation of drainage, Work sites, and temporary Work;
- Q) Location, acquisition, permits, and transportation for Material;
- R) Coordination of the relocation of any utilities and municipal drainage facilities and the design and relocation of any utilities as designated in Part 5 Design Requirements;
- S) Site clearance;
- T) Maintenance of the Project during the Contract period; and
- U) Any other activities, functions, or elements necessary to the successful completion of the Project.

#### 5.0 BASIC PROJECT CONFIGURATION

The Basic Project Configuration shall consist of the following:

- A) The horizontal and vertical alignments;
- B) Number of intersections;
- C) Number of bridges;
- D) Number and type of signalized intersections;
- E) Number of lanes;
- F) The general location of the limits of the Project;
- G) The minimum vertical clearances: and
- H) The Right-of-Way limits.

# 5.1 STANDARD FOR DETERMINING MATERIALITY OF CHANGE IN BASIC PROJECT CONFIGURATION

The following are the standards for determining materiality of Basic Project Configuration changes:

- A) Any change to the Project that affects the Project ROW limits or the minimum vertical and/or horizontal clearances;
- B) A change in the termini of the Project (either or both) by more than ten feet longitudinally;
- C) Any change in the Project Right-of-Way limits depicted;
- D) A reduction in minimum vertical clearances by 1 foot or more; and/or
- E) Any change in Section 4.2(A) 5.2(A) through (D) requiring a change in the Environmental Assessment/Finding of No Significant Impact.

#### 6.0 LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT-PROVIDED MATERIAL OR EQUIPMENT

The Louisiana Department of Transportation and Development will not be providing any design, Material, or Equipment for the Design-Builder's use, unless the Design-Builder elects to utilize concrete articulated mattresses.