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1011 N Causeway Blvd. Suite 19 ♦ Mandeville, Louisiana 70471 ♦ Phone: 985.624.5001 ♦ Fax: 985.624.5303

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## ENGINEERING SERVICES PROPOSAL FOR:

### RIVER RD. SPILLWAY REPAIR ST. CHARLES PARISH

#### I. INTRODUCTION

The limits of work are within the guide levees of the Bonnet Carre Spillway, west of Norco, LA. As a result of the recent prolonged spillway opening, the roadway was extensively damaged by scour, including washout of portions of the pavement, and dislocation of box culvert crossings under the road. Seven box culverts cross River Rd. within the spillway, with six suffering dislocation. Segments of roadway damage are concentrated in regions totaling 1,900 LF in length.

#### II. SCOPE OF WORK

The repair project objective is to restore the River Rd. for safe public use, and to better protect the roadway from scour by future spillway openings. Roadway reconstruction where the road is washed out, removal and re-set of the existing box culvert segments, addition of concrete headwalls at the box culverts, scour protection, and finally roadway re-surfacing over the areas of damage are items of work expected to accomplish the objective.

Design tasks include preliminary and final design, to provide construction drawings, specifications, and a final cost estimate for construction of the repairs and scour protection.

Bidding Phase services include preparation of an advertisement, response to RFIs, a pre-bid meeting, preparation of any addenda, evaluation of bids, and recommendation of award.

Construction Phase services include responsibilities of the Engineer as defined in the EJCDC General Conditions to the Construction Contract as modified by St. Charles Parish (basic service), and providing a Resident Project Representative (RPR) on a full-time basis (supplemental service).

Record Drawing Phase services include the preparation of complete as-built drawings for Parish records.

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**III. PROPOSED FEE**

**A. BASIC FEE**

Please refer to Exhibit A for the Preliminary Estimate of Probable Construction Cost. The preliminary estimate is \$740,635.00. From ASCE Curve A (Exhibit B); this equates to a 7.83% design fee multiplier. Our Total Proposed Basic Fee is outlined below:

<b>BASIC FEE: \$772,836.00 (7.83%)</b>	<b>=</b>	<b>\$ 60,510.00 (LS)</b>
PRELIMINARY PHASE (25% Basic Fee)	=	\$ 15,127.50
DESIGN PHASE (45% Basic Fee)	=	\$ 27,229.50
BIDDING PHASE (5% Basic Fee)	=	\$ 3,025.50
CONSTRUCTION PHASE (20% Basic Fee)	=	\$ 12,102.00
RECORD DRAWING PHASE (5% Basic Fee)	=	\$ 3,025.50

**B. SUPPLEMENTAL SERVICES**

A proposal for topographic survey will be provided to the Parish for approval prior to release, and invoiced at the actual amount incurred x 1.1. The Resident Inspection estimate is based on a 12 week construction period, and services will be provided if separately authorized by the Parish at the time of construction. The USACE may have comments or requirements on the design or construction; or require permits, since the work is near the spillway control structure. Last, the work is located within the Louisiana Coastal Zone, and will require authorization from the DNR.

TOPOGRAPHIC SURVEY (NTE)	=	\$ 15,000.00
GEOTECHNICAL INVESTIGATION (NTE)	=	\$ 6,000.00
RESIDENT INSPECTION (Hourly, NTE)	=	\$ 35,000.00
USACE COORD/ PERMITTING (NTE)	=	\$ 10,000.00
ENVIRONMENTAL PERMITTING (NTE)	=	\$ 10,000.00
 Total Supplemental Services	 =	 \$76,000.00 (NTE)

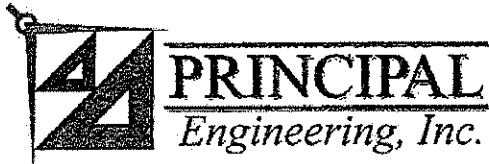
**RIVER RD SPILLWAY REPAIR**  
**ST. CHARLES PARISH**  
**CONCEPTUAL ESTIMATE OF PROBABLE CONSTRUCTION COSTS**  
September 2019

Item No.	Description	Estimated Quantity	Unit	Unit Price	Total Price
<b>Demolition &amp; Earthwork</b>					
1	Debris Removal (Veh. Measure)	470	CY	\$35.00	\$16,450
2	Removal of Existing Pavement (Full Depth)	2100	SY	\$10.00	\$21,000
3	Excavation and Embankment	1	LS	\$15,000.00	\$15,000
<b>Pavement</b>					
4	Class II Base Course (12" Depth)	700	CY	\$80.00	\$56,000
5	Geotextile Fabric (Under Base Course)	2,100	SY	\$2.00	\$4,200
6	Asphaltic Pavement (Level A Wearing, PG70-22m)	485	TN	\$90.00	\$43,650
7	Asphaltic Pavement (Binder, PG70-22m)	966	TN	\$90.00	\$86,940
8	PCC Paving (8" Thick)	290	SY	\$85.00	\$24,650
<b>Box Culverts</b>					
9	Remove and Re-Set Segmented Box Culvert Sections	390	LF	\$120.00	\$46,800
10	Stone Bedding (12" Depth Over Geotextile) (Headwalls)	603	SY	\$30.00	\$18,090
11	Reinforced Concrete Headwalls	161	CY	\$850.00	\$136,850
12	PCC Slope Paving (6" Thick) (Armoring)	460	SY	\$70.00	\$32,200
13	Stone Bedding (6" Depth Over Geotextile) (PCC Armoring)	460	SY	\$20.00	\$9,200
14	Riprap (DOTD Class 55, Over Geotextile, 18" Thick)	1,150	SY	\$70.00	\$80,500
15	Dewatering and Cofferdam Setup	7	EA	\$2,500.00	\$17,500
<b>Traffic Control</b>					
16	Mobilization	1	LS	\$20,000.00	\$30,000
17	Construction Layout	1	LS	\$5,000.00	\$5,000
Sub-Total					\$644,030
20% Contingency					\$128,806
<b>Total</b>					<b>\$772,836</b>

## ASCE FEE CURVES

PROJECT TITLE	<u>RIVER RD. SPILLWAY REPAIR</u>	
PRINCIPAL PROJECT NUMBER	<u>1921</u>	
ESTIMATED CONSTRUCTION COST	<u>\$772,836.00</u>	
CURVE "A" PERCENT	7.83%	
CURVE "A" FEE	\$60,510.00	
Preliminary Design Fees:	\$15,127.50	25%
Final Design Fees:	\$27,229.50	45%
Advertisement and Bidding Fees:	\$3,025.50	5%
Construction Administration Fees:	\$12,102.00	20%
Record Drawing Phase	<u>\$3,025.50</u>	<u>5%</u>
	\$60,510.00	100%

Principal Engineering, Inc.  
Sep 20, 2019



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## HOURLY RATES

### BILLABLE RATES PER CLASSIFICATION

CLASSIFICATION	BILLABLE RATE
Principal Engineer (Licensed PE)	\$200.00
Engineer IV (Senior - Licensed PE)	\$180.00
Engineer III (Mid - Licensed PE)	\$155.00
Engineer II (Junior - Licensed PE)	\$130.00
Engineer I (Graduate BS/MS Engineer or EI)	\$110.00
Senior Architect (Licensed Architect)	\$155.00
Project Architect (Licensed Architect)	\$140.00
Senior Engineering Tech (AS or Equiv.)	\$115.00
CAD Technician III	\$95.00
CAD Technician II	\$80.00
CAD Technician I	\$65.00
Resident Inspector	\$70.00
Office/Business Manager	\$80.00
Clerical/Administrative	\$55.00



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