Project Program

for the

ENGINEERS CANAL PUMP STATION IMPROVEMENTS PROJECT

PARISH PROJECT NO. P220206

PROJECT OVERVIEW

St. Charles Parish (SCP) plans to upgrade the capacity at the existing Engineers Canal Pump Station in Norco, Louisiana, by adding pumps to handle a 25-year storm, constructing a proper sump to feed the pumps, and improving conveyance to the station. Site development will consist of clearing a neighboring property, earthwork, ground improvement, a new road, new and relocated utilities, drainage excavation and installation of box culverts, and construction of a drainage pump station and possibly a new discharge line over the levee. The site development will be designed to accommodate a 25-year storm capacity, which is 250 cubic feet per second (cfs), based on the 2020 Master Drainage Plan. SCP intends to use the Construction Management at Risk (CMAR) delivery method for the Project, as authorized by Louisiana law pursuant to La. R.S. 38:2225.2.4.

SCP is currently in negotiations with the owner of the neighboring property (679 West Pine Street) to purchase the property, demolish the house, and use the site as more sump area to feed the pump station. The purchase of this property should be complete prior to a construction contract being signed, after agreement of a Guaranteed Maximum Price, however SCP may request demolition and clearing of this site be done during design of the project upon acquisition of the property by SCP. If this work is requested by SCP, a separate contract for this work will be drafted and signed by SCP and the CMAR contractor.

This project is immediately adjacent to the Bonnet Carre Spillway, within the footprint of the Army Corps of Engineers Levee, and therefore will require USACE permits before construction can begin.. Permitting will be initiated at 30% design so that any permit requirements can be included in design documents. The Design Professional will also apply for a Joint Permit Application (JPA) with the Louisiana Department of Natural Resources, Office of Coastal Management and the U.S. Army Corps of Engineers for Coastal Use and Section 10/404/408 permits, respectively, for construction of the Project .

The Design Professional will also engage the Canadian Pacific Kansas City (CPKC) railroad adjacent to the project, located approximately 200 feet northeast of the project site, for approval to do work near the right of way of the railroad and potentially within their property limits, if the design requires this. The Design Professional will also engage Entergy with either a Letter of No Objection (LONO) or permit to determine how to avoid or move the existing transformer bank located at the northwest corner of the existing property. Lastly, the Design Professional will engage any pipelines within the footprint of the property/project to obtain LONO's and gather pertinent requirements set in place by each pipeline in the vicinity.

SCP's intent is to have the CMAR Contractor (CMAR) on board to comment as to constructible and cost-effectiveness of design alternatives through participation in the design process. A key objective of the CMAR methodology is to tie down the construction cost and schedule and allow construction to begin as soon as possible upon approval of the required permits.

The CMAR contractor will be required to work with SCP staff and its Design Professional (DP) Volkert, Inc. to develop a comprehensive set of construction plans and specifications. The CMAR contractor will perform constructability reviews, provide phasing and sequencing suggestions, develop and update an open book cost model, assess appropriate means and methods, develop a construction schedule, and provide input into the development of innovative time saving and cost saving ideas for the project. The key to success of the CMAR contractor will be its willingness to work in the best interest of SCP tosafely achieving its cost, schedule, quality, community, and stakeholder relations goals.

SCP intends to contract with an Independent Cost Estimator (ICE) to provide third-party independent construction cost estimates to be used as a comparison and validation of the CMAR contractor's Opinions

of Probable Construction Cost (OPCC) and Guaranteed Maximum Price (GMP). Criteria for acceptance of the CMAR's GMP shall be at the discretion of SCP based on a thorough comparison and recommendation by the DP The CMAR and ICE shall use the same Work Breakdown Structure (WBS), to be updated upon mutual agreement from time to time and will be required to use complementary cost estimating software capable of supporting direct computerized line-item comparisons.

SCP also intends to contract with a Construction Management Professional (CMP) to perform construction engineering and inspection services during construction. The CMAR Contractor must be able to develop a strong, collaborative working relationship with SCP, the DP, the ICE, and the CMP. The CMP in this case will be the same as the DP, Volkert, Inc. The next sections of this Project Program will describe the Key Project Milestones, Pre-Construction Phase Scope of Work, Anticipated Physical Work, Items to be Provided by SCP, and Construction Considerations.

KEY PROJECT MILESTONES

Table 1, Site Development CMAR Key Project Milestones

30% Design Package (Begin CORPS Permit discussion)	1st Qtr 2023
60% Design Package	2nd Qtr 2023
90% Design Package	2nd Qtr 2024
100% Design Package	3rd Qtr 2024
GMP Negotiations	3rd Qtr 2024
CORPS Permit Approvals	3rd Qtr 2024
Start of Construction	4th Qtr 2024
Final Completion/Operation of Drainage Pump Station	4th Qtr 2025

PRE-CONSTRUCTION PHASE SCOPE OF WORK

The pre-construction phase scope of work shall include, but not be limited to, the following:

- Review SCP's Project Criteria (Basis of Design or BOD) and its periodic updates as it relates to site development, and provide written comments, suggestions, and updated information for incorporation into the BOD on forms provided by the DP. It is anticipated the BOD will be updated at each stage in the design process.
- Review the 30%, 60%, 90%, and 100% design packages submitted by the DP, for constructability, equipment, materials, sequencing, and methodology, and provide written comments and suggestions for improvement, on forms provided by the DP. The CMAR shall identify uncertainties in the design in terms of design detail, products and technologies, manufacturer and vendor performance, construction methodology, logistics, space and staging requirements, conflicts, community impacts, etc., and provide written recommendations on how to reduce those uncertainties as the design progresses.
- Work with the ICE to establish a Work Breakdown Structure (WBS) which shall form the basis of cost estimates and construction schedules, to be approved by the DP. The approved WBS shall form the basis for the Schedule of Values (SOV) to be used for payment during construction. The WBS level at each stage of design development shall be in general conformance with the level of design detail at each stage of the Project. The final WBS level for the cost estimate and schedule in support of the GMP shall be approved by the DP.
- Develop an Opinion of Probable Construction Cost (OPCC) based on the 30% design package, to be updated in increasing level of detail based on the 60%, 90%, and 100% design packages submitted by the DP. CMAR shall reconcile quantities with the DP and ICE prior to each OPCC update. The 100% cost estimate substantiating the GMP shall be a production-based bottom-up estimate based on construction hard-bid level estimating methodology, to a final level of detail approved by the DP. All cost information shall be shared with the DP open book.
- Collaborate with SCP to determine the amount of cost contingency to include in the construction contract. Use knowledge-based methodology and/or risk-based modeling approved by SCP to perform contingency analyses on each cost line item as appropriate and provide a written

recommendation with justification for the amount of contingency to be included in the construction contract.

- Collaborate with SCP to establish the detailed scope and dollar amount of each allowance to include in the construction contract.
- Develop a Construction Schedule based on the 30%, 60%, 90%, and 100% design packages submitted by the DP. Work with the DP to coordinate schedule milestones with the development of the backland area of the terminal by the terminal operator/tenant. Provide written recommendations on design details to improve the schedule. The final construction schedule at the time of GMP shall be in sufficient detail to control the work (WBS Level 4/5) and to support detailed time impact analyses in support of requests for time extensions.
- Collaborate with SCP in arriving at the value and justification for any incentives or disincentives to be included in the construction contract and participate in design and value engineering charrettes.
- Assist with the generation, vetting and development of value engineering ideas. Provide recommendations regarding accelerated or fast-track scheduling, procurement, or phased construction. CMAR shall consider cost reductions, cost information, constructability, provisions for temporary facilities, and procurement and construction scheduling issues.
- Develop what-if scenarios based on value engineering ideas, to evaluate potential cost and schedule impacts. Provide schedule-based cost analyses to show the potential impact of value engineering ideas on the project schedule, cost, SOV, and cash flow.
- Participate in reviews and meetings as required for the Section 10/404 and Section 408 federal permit approval processes. Advise on information required for the Mitigation Plan in support of permitting efforts such as construction methodologies, equipment, noise, vibration, emissions, environmental best practices, and other construction information as requested by the DP.
- Provide construction and cost information as needed in support of benefit-cost analyses (BCA) for grant funding applications. This project does not currently have funding that requires a BCA but this capability should still be available upon request.
- Participate and contribute to periodic updates of the project risk register and assist with monetization and determination of the schedule impact of risks as needed.
- Advise on procurement strategies for equipment and materials. Identify long lead items and procurement risks and provide recommendations for early contractor or owner procurement of select items, or other procurement strategies for the benefit of the project.
- Attend select Council meetings and participate in select community outreach events as requested by SCP.

ANTICIPATED PHYSICAL WORK

During the pre-construction phase, SCP may request the CMAR Contractor provide physical construction work at the project site that may include labor, equipment, and materials (Physical Work). The cost to SCP for Physical Work, including the administrative tasks of scheduling, packaging, and procurement activities associated with any early Physical work, shall be negotiated between SCP and the CMAR Contractor per the Agreement.

It is anticipated that the following Physical Work activities may be required by the CMAR Contractor during pre-construction, subject to permit authorization. This list is not all inclusive and additional activities may be required as deemed necessary:

- Clearing and demolition
- Drainage excavation and dewatering
- Additional topographic, or subsurface utility surveys or field investigations (potholing) prior to construction
- Utility abandonment and/or relocation

ITEMS TO BE PROVIDED BY SCP

- Section 10/404/408 federal permits
- Topographic survey and geotechnical reports for the Project area (both expected to be complete by end of 2023)
- DP's design submittal documents (30% design projected for completion March 2024)

CONSTRUCTION CONSIDERATIONS

The CMAR shall be responsible for all construction permits other than the federal permits mentioned herein.

The CMAR shall prepare Work-Specific Mitigation Plans including but not limited to traffic, noise, dust, vibration, and any other identified community impacts, for SCP approval prior to commencement of any Physical Work activities.

CMAR shall be responsible for any additional survey control required beyond the provided survey. All communication with public utilities shall be coordinated through the DP.

The CMAR Contractor will not be precluded from participating in other contracts with SCP in the event of failure to agree on a GMP per the Agreement.

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