REVISE BUDGET AND ISSUE SUPPLEMENTAL AGREEMENT CHANGE ORDER NO. 19 TO J.F. SHEA CONSTRUCTION FOR THE CIP 6204 - DONALD C. TILLMAN WATER RECLAMATION PLANT CHEMICAL LINES UPGRADE PROJECT (PROJECT) (WORK ORDER NO. SZD11271, CONTRACT NO. C-129763)

RECOMMENDING THE BOARD OF PUBLIC WORKS (BOARD):

1. AUTHORIZE $400,000 in additional contingency and APPROVE a revised construction budget of $1,388,400 for the Project.

2. AUTHORIZE the City Engineer to issue Supplemental Agreement Change Order No. 19 for this Project to J.F. Shea for a not-to-exceed amount of $400,000 for the Project to integrate a Distributed Control System (DCS) and to compensate the contractor for schedule delays.

DISCUSSION

Background
On June 16, 2017, the Board awarded a contract to J.F. Shea in the amount of $832,000, with a contingency amount of $166,400, for a total approved construction budget of $998,400 to construct the Project (Transmittal No.1). The Project will install new chemical lines and implement improvements at the Donald C. Tillman Water Reclamation Plant’s (DCTWRP) Sodium Bisulfite Spiking Station (Figure No. 1). These improvements include installation of recirculation lines, associated recirculation pumps, improved pressurization controls, and a return line to the chemical storage tanks. The Spike Station provides de-chlorination to the DCTWRP’s treated and
disinfected effluent, ensuring continued compliance with the DCTWRP’s discharge permit and various beneficial uses downstream. This system is an emergency automated back-up system that prevents chlorinated water from discharging into the LA River, Lake Balboa, Wildlife Lake, and the DCTWRP Japanese Garden. It also prevents permit violations in the event any chlorine residual is detected in the plant effluent.

Over the course of construction, change requests for unforeseen conditions and minor errors and omissions resulted in expenditure of most of the available construction budget contingency.

**Supplemental Agreement Change Order No. 19: DCS Integration Installation Costs and Extended Overhead Costs Due to Schedule Delays (Transmittal No. 2)**

This Project was originally scoped to have the contractor run the signal wires to the cabinet for DCS integration and for LA Sanitation and Environment (LASAN) staff to provide the control logic programming and operator interface graphics for the in-plant DCS, which at the time of design had not yet been upgraded to a new system. Over the course of construction, it was discovered that the contractor’s scope of work did not include implementation of system controls for the plant to automatically switch between sodium bisulfite pumps in the event that one pump fails. This scope of work needs to be
added to the contract in order to prevent the risk of having both sodium bisulfite pumps unavailable in the event of a chlorine spike.

Additionally, integration with the LASAN’s Los Angeles Wastewater Integrated Network Systems (LAWINS) project is needed to connect all control logic programming and operator interface graphics for this Project to the in-plant DCS. Since this Project was not part of the original LAWINS contract, J.F. Shea hired the LAWINS contractor, Honeywell International Inc., (Honeywell) to design the control logic programming and operator interface graphics associated with connecting this Project’s equipment and facilities to the in-plant DCS. Supplemental Agreement Change Order No. 19 will compensate the contractor for all necessary labor, materials, and equipment to implement Honeywell’s design to integrate this Project’s equipment and facilities to the in-plant DCS for a total of $105,000. In addition, this change order will compensate the contractor for extended overhead costs associated with the DCS integration, which includes a contract time extension from October 2018 to July 2020 for a total of $295,000. The total estimated cost of Supplemental Agreement Change Order No. 19 is $400,000.

When the cumulative value of change orders on a given project exceeds 25 percent of the original contract amount, Board approval and a Supplemental Agreement Change Order is required. Final execution of Supplemental Agreement Change Order No. 19 will exceed 25 percent of the original contract amount. Therefore, a Supplemental Agreement Change Order will be issued to the contractor. Upon Board approval of this report, the BOE will execute Supplemental Agreement Change Order No. 19 with the contractor to accomplish the following:

- Allow the value of executed change orders to exceed 25 percent of the contract amount requiring the contractor to acknowledge that there will be no change to the terms and conditions of the contract.

- Allow the execution of Supplemental Agreement Change Order No. 19 and future change orders up to the approved construction budget. The maximum change order percentage will not exceed 67.84 percent, unless approved by the Board.
Status of Change Orders

A summary of the current change order status is presented below:

<table>
<thead>
<tr>
<th>Category</th>
<th>Total No. of Change Orders</th>
<th>Dollar ($) Amount</th>
<th>Percent (%) Contract Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully Executed Change Orders</td>
<td>12</td>
<td>$164,457</td>
<td>19.77%</td>
</tr>
<tr>
<td>Unilateral Change Orders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency/Preliminary Change Orders</td>
<td>1</td>
<td>$400,000</td>
<td>48.07%</td>
</tr>
<tr>
<td>Change Orders per this Board Report</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>$564,457</td>
<td>67.84%</td>
</tr>
</tbody>
</table>

Requested Contingency and Budget Authorization

<table>
<thead>
<tr>
<th>Original Contract</th>
<th>Original Contingency</th>
<th>Original Authorized Budget</th>
<th>Requested Additional Contingency</th>
<th>New Authorized Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>$832,000</td>
<td>$166,400</td>
<td>$998,400</td>
<td>$400,000</td>
<td>$1,388,400</td>
</tr>
</tbody>
</table>

Program Review Committee (PRC)

PRC was briefed on these change orders at its September 11, 2019 meeting. A revised budget of $1,646,787 was approved by PRC on September 11, 2019.

Status of Funding

There is no impact to the general fund. The total funding for this change order is not-to-exceed $400,000. The additional funding in the amount of $400,000 is available in the WSSRB Construction Fund, Series 2018-A (Green Bonds), Fund No. 75R, Department No. 50, Appropriation Unit No. 50SJF4, which is part of the Sewer Construction and Maintenance Fund.

However, funds and appropriations for future fiscal years are not yet identified and existing appropriations may change based on available cash balances. Therefore, funds and appropriations, will be determined by the Director of LASAN or designee.

The contract contains a “Financial Liability Clause” that states that “the City's liability under this contract shall only be to the extent of the present City appropriation to fund the contract. However, if the City shall appropriate funds for any succeeding years, the City’s liability shall be extended to the extent of such appropriation, subject to the terms and conditions of the contract.”
Report reviewed by:
BOE (ADM) and LASAN (FMD)

Report prepared by:
Environmental Engineering Division
Michael J. Sarullo, PE, ENV SP
Division Engineer
Phone No. (310) 648-6120

Statement as to Funds Approved by:
Miguel De La Pena, Interim Director
Office of Accounting
Fund Ref. 75R/50/50S/JF4/$400,000
Date: 2/27/2020

Respectfully submitted,

Gary Lee Moore, PE, ENV SP
City Engineer
Bureau of Engineering

Enrique C. Zaldivar, PE
Director and General Manager
Bureau of Sanitation

Lisa B. Mowery, PE
Chief Financial Officer
Bureau of Sanitation
Date: 2/19/20

MJS/IH/NS/11-2019-0210.EED.Ik

Questions regarding this report
may be referred to:
Ibrahim Hafeez, PE, ENV SP
Project Manager
Phone No. (310) 648-6111
E-mail: Ibrahim.Hafeez@lacity.org
and/or
Nadir Shah, PE, ENV SP
Senior Civil Engineer
Phone No. (310) 648-6197
E-mail: Nadir.Shah@lacity.org