



City Council Report

915 I Street, 1st Floor
Sacramento, CA 95814

www.cityofsacramento.org

File #: 2016-01190

Consent Item 13

Title: Change Order: Water Treatment Plants Rehabilitation Project, Change Order No. 21

Recommendation: Pass a Resolution 1) authorizing the City Manager or the City Manager's designee to sign Change Order No. 21 with C. Overaa & Co., for an amount not-to-exceed \$64,314, bringing the contract's not-to-exceed amount to \$120,557,600, 2) establishing a new Water Meter Program Trailers project, and 3) approving related budget transfers.

Location: Citywide

Contact: Dan Sherry, Engineering & Water Resources Manager, (916) 808-1419; Michelle Carrey, Supervising Engineer, (916) 808-1438; Ian Pietz, Senior Engineer, (916) 808-1910, Department of Utilities

Presenter: None

Department: Department of Utilities

Attachments:

1-Description Analysis

2-Resolution

3-Change Order

Description/Analysis

Issue Detail: Staff recommends Council approve Change Order No. 21 with C. Overaa & Co (Contractor) for a not-to-exceed amount of \$64,314, establish a new Water Meter Program Trailers (Z14140700) project, and approve a transfer of \$350,000 from the Water Meter Program (Z14010000) to (Z14140700). Proposed Change Order No. 21 settles numerous disputed items on the Water Treatment Plants Rehabilitation project (the "Project"), including extra work claims and potential liquidated damages due to schedule delays. The net change order amount of \$64,314 includes the City's purchase and relocation of the temporary office trailers and furnishings provided for the Project by the Contractor, for use on the multi-year Accelerated Water Meter Program.

Policy Considerations: The actions requested are in conformance with the City Code and are consistent with the City of Sacramento General Plan goals of providing high-quality and efficient utility services throughout the city.

Economic Impacts: The rehabilitation work on the City's water treatment plants was expected to create 455 total jobs (262 direct jobs and 193 jobs through indirect and induced activities) and create \$70.2 million in total economic output (\$44.2 million of direct output and another \$26 million of output through indirect and induced activities).

The indicated economic impacts are estimates calculated using a calculation tool developed by the Center for Strategic Economic Research (CSER). CSER utilized the IMPLAN input-output model (2009 coefficients) to quantify the economic impacts of a hypothetical \$1 million of spending in various construction categories within the City of Sacramento in an average one-year period. Actual impacts could differ significantly from the estimates and neither the City of Sacramento nor CSER shall be held responsible for consequences resulting from such differences.

Environmental Considerations: On March 20, 2012, the City Council adopted the Water Treatment Plants Rehabilitation Mitigated Negative Declaration and Mitigation Reporting Program (Resolution No. 2012-067). An Addendum to the adopted Mitigated Negative Declaration (MND) was prepared in accordance with the CEQA Guidelines Section 15164 and adopted on April 09, 2013 (Resolution No. 2013-0112). The approval of Change Order 21, which resolves disputed claims on the WTP Rehabilitation project and includes the purchase and relocation of the construction trailers does not change the conclusions of the analysis of the adopted MND. There have been no substantial changes, as described in CEQA Guidelines Section 15162(a)(3), that would require the preparation of subsequent environmental review.

Sustainability: The Project is consistent with the City's Sustainability Master Plan by providing a safe and reliable water supply for the Sacramento Region.

Commission/Committee Action: Not applicable.

Rationale for Recommendation: City staff and the Contractor have negotiated the terms of a "global settlement" to resolve the remaining outstanding delay and cost issues for the Project. This was necessary due to disagreements on the responsibility for the unresolved Project delays beyond the completion deadlines specified in the contract, and the responsibility for the cost of unresolved extra work items.

Proposed Change Order No. 21 includes a total cost deduction of \$1,213,094 to compensate the City for actual costs to extend services of City staff and consultants through the agreed-upon Substantial Completion date of 9/30/2016 and Final Completion date of 11/4/2016. The Contractor will remain responsible for all delays, and the assessed liquidated damages, if any, that occur beyond these dates.

As part of the construction contract, the Contractor was required to provide temporary office trailers for the City's Construction Management staff and consultants. These trailers have been very useful and will no longer be needed at the Water Treatment Plant. The City has a need for the trailers for the Accelerated Water Meter Program, and City staff has negotiated a very competitive price to purchase the trailers, as part of Change Order No. 21. Informal price quotes for similar trailers amounted to approximately \$275,000, not including furnishings, taxes and licensure, and other related costs. The total negotiated cost for the temporary office trailers, furnishings, and relocation is as follows:

Item	Amount
Trailers	\$180,000
Furnishings	\$48,000
Relocation	\$47,000
Total	\$275,000

There will be additional setup costs for water, sewer, electrical, and telecommunications services, estimated to be \$75,000, that are not included as part of the global settlement agreement. This task will be managed and completed by DOU staff.

Financial Considerations: The total cost for the Project, including design, environmental, construction, contingencies, and construction management is estimated to be \$171 million. The original construction contract amount for this project was \$113,776,000. To date, twenty change orders have increased the total contract amount by \$6,717,286, for a new contract

amount of \$120,493,286. The proposed Change Order No. 21 is for an amount not-to-exceed \$64,314, bringing the total contract amount to \$120,557,600. There are sufficient funds in the Treatment Plant Rehab Project (Z14006000) for Change Order No. 21.

Staff recommends establishment of a new Water Meter Program Trailers (Z14140700) project for the acquisition of the trailers and furnishings, and the related relocation and setup costs. Staff anticipates total costs for this project will be \$350,000 and is recommending a transfer from the Accelerated Water Meter Program, Project No. Z14010000 (Fund 6005, Water Fund). Sufficient resources are available in the Accelerated Water Meter Program Project to support the fund transfer.

Local Business Enterprise (LBE): The Contractor has exceeded the minimum LBE participation requirement for the Water Treatment Plants Rehabilitation Project.

Background: The Water Treatment Plants Rehabilitation Project was necessary to repair and replace aging infrastructure at the Sacramento River Water Treatment Plant and to add solids handling facilities at both the Sacramento River and Fairbairn Water Treatment Plants. The project was designed by Carollo Engineers and has taken over three years to construct.

This contract was awarded to C. Overaa & Co. for \$113,776,000 on April 09, 2013. When the contract was awarded, the City Council also adopted a Resolution (Resolution No. 2013-0113) increasing the City Manager's authority to issue individual change orders from \$100,000 to \$500,000, with no change to the City Manager's cumulative change order authority under the City Code. Copies of Change Order Nos. 1 through 21 are included with this report and are summarized below:

Original Contract Amount		\$113,776,000
Change Orders No. 1 – 20		
CO No. 1	Extra work, including partnering, unforeseen conditions, Owner related, design related, and value engineering	\$ 196,410
CO No. 2	Extra work, including unforeseen conditions, Owner related, design related, Contractor related, and value engineering	\$ 113,663
CO No. 3	Partnering Consultant Services	\$ 36,000
CO No. 4	Schedule of Value Adjustments	\$ -
CO No. 5	Extra work, including unforeseen conditions, Owner related, design related, Contractor related, and value engineering	\$ 479,172
CO No. 6	Global Settlement, resolved all known outstanding issues on the project	\$ 387,396
CO No. 7	New larger generator	\$ 1,336,008
CO No. 8	Extra work, including unforeseen conditions, Owner related, and design related	\$ 346,325
CO No. 9	Extra work, including unforeseen conditions, Owner related, design related, and Contractor related	\$ 137,806
CO No. 10	Extra work, including unforeseen conditions, Owner related, design related, Contractor related, and partnering	\$ 214,245
CO No. 11	Extra work, including unforeseen conditions, Owner related, design related, and Contractor related	\$ 369,055
CO No. 12	Extra work, including unforeseen conditions, Owner related, design related, and Contractor related	\$ 247,231
CO No. 13	Extra work, including unforeseen conditions, Owner related, and design related	\$ 438,405
CO No. 14	Extra work, including unforeseen conditions, Owner related, design related, and value engineering	\$ 412,728
CO No. 15	Extra work, including unforeseen conditions, Owner related, design related, and Contractor related	\$ 246,576

CO No. 16	Extra work, including unforeseen conditions, Owner related, design related, and Contractor related	\$ 178,519
CO No. 17	Extra work, including unforeseen conditions, Owner related, design related, and Contractor related	\$ 410,755
CO No. 18	Extra work, including unforeseen conditions, Owner related, design related, and Contractor related	\$ 498,078
CO No. 19	Extra work, including unforeseen conditions, Owner related, design related, and Contractor related	\$ 481,037
CO No. 20	Extra work, including unforeseen conditions, Owner related, and design related	\$ 187,877
Sum of Previous COs		\$ 6,717,286
Current Contract Amount (including CO No 1-20)		\$120,493,286
CO No. 21	Global Settlement	\$ 64,314
Proposed New Contract Amount (including CO No. 21)		\$120,557,600

RESOLUTION NO. 2016 –

Adopted by the Sacramento City Council

APPROVE CHANGE ORDER NO. 21 FOR THE WATER TREATMENT PLANTS REHABILITATION (Z14006000), ESTABLISH A PROJECT FOR THE WATER METER PROGRAM TRAILERS (Z14140700), AND APPROVE RELATED BUDGET TRANSFERS

BACKGROUND

- A. As part of the Water Treatment Plant Rehabilitation (Z14006000) project, the City and C. Overaa & Company (Contractor) have negotiated the terms of a “global settlement” to resolve the remaining outstanding delay and cost issues for the Project. These terms are included in Change Order No. 21 (Exhibit A).
- B. The net change order amount of \$64,314 includes the City’s purchase and relocation of the temporary office trailers and furnishings provided for the Project by the Contractor, for use on another multi-year project (the Accelerated Water Meter Program).
- C. To account for the expenses associated with the acquisition of the fully equipped trailers and relocation and setup costs, staff is recommending creation of a Water Meter Program Trailers project (Z14140700); and transferring budget from the Accelerated Water Meter Program (Z14010000) in the amount of \$350,000, to cover the purchase and relocation costs of \$275,000 and the estimated setup costs of \$75,000.

BASED ON THE FACTS SET FORTH IN THE BACKGROUND, THE CITY COUNCIL RESOLVES AS FOLLOWS:

- Section 1. The City Manager or the City Manager’s designee is authorized to sign Change Order No. 21 for the Water Treatment Plants (Z14006000) in the amount of \$64,314.
- Section 2. The purchase and relocation of the Water Treatment Plants project construction trailers and furnishings is approved as part of Change Order No. 21.
- Section 3. The Water Meter Program Trailers project (Z14140700) is established and expenditure budget is transferred to Project Z14140700 in the amount of \$350,000 of Water Funds (Fund 6005) from the Accelerated Water Meter Program (Z14010000).

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Exhibit A: Change Order No. 21

**CITY OF SACRAMENTO
CHANGE ORDER
EXHIBIT A**

Contract # & Date: 2013-0421 04/09/13

Budget #: 6005/6310-500000-51000000-Z14006000

Purchase Order #: 0000020293

Change Order No: 21

This Exhibit A describes the parties' agreement on a "global settlement" to settle and resolve all disputes between the CITY and CONTRACTOR relative to potential claims for additional compensation or damages, including claims from CONTRACTOR or any of CONTRACTOR's subcontractors or suppliers (at any sub-tier level), and all potential change orders, identified in writing by CITY, CONTRACTOR, or any of CONTRACTOR's subcontractors or suppliers on or before September 30, 2016. Any reference herein to any Contract Document means such Contract Document as amended by any prior Change Order(s). If there is any conflict between this Change Order and the provisions of any Contract Document or any prior Change Order, the provisions of this Change Order will govern.

In order to settle and resolve the claims described above the CITY and CONTRACTOR agree as follows:

- A. General – The CITY and CONTRACTOR have determined that a "global settlement" approach to resolve the remaining outstanding delay and cost issues for the Project is necessary due to disagreements on the responsibility for the unresolved project delays beyond the completion deadlines specified in Change Order No. 017 and Change Order No. 018, and for the responsibility for the cost of unresolved extra work items. This global settlement is a compromise and settlement of disputed matters and issues. As such, if this Change Order is not executed by both parties, under California Evidence Code section 1152 this unexecuted Change Order will be inadmissible for any reason in any litigation or other claim proceedings that may arise pertaining to these matters or issues.
- B. The CITY and CONTRACTOR agree to the following relative to liquidated damages, Contract completion times, work sequencing, and construction milestones:

1) 00520 Agreement Form, Article 4 Contract Times

The potential liquidated damages under the Contract were forecast by the CITY at \$2,705,000, based on the schedule forecast for Substantial Completion occurring on 9/30/16 and a Final Completion occurring on 11/4/16. The CONTRACTOR claimed that project delays included some concurrent delays, as defined in SS 01324-1.23.A.4., such that the CONTRACTOR was entitled to a time extension and no delay damages in those instances. To resolve these delay issues and other outstanding project closeout issues, CITY agrees to change the Substantial Completion and Final Completion dates as specified below, and waive all liquidated damages associated with CONTRACTOR's failure to achieve Substantial Completion and Final Completion by the dates specified in Change Order No. 17 and Change Order No. 18; in exchange CONTRACTOR agrees to a deductive change order to compensate the CITY's cost for extending the services of the CITY staff and CITY Consultants through the Substantial Completion and Final Completion dates specified below. CONTRACTOR will remain responsible for all delays, and the assessed Liquidated Damages, that occur beyond the Contract completion times allowed for Substantial Completion and Final Completion as specified below, except that any claim or potential change order arising from any cause or event occurring after September 30, 2016, is not included in this change order:

- a) Paragraph 4.02A, Days and Dates for Substantial Completion and Final Completion, of Article 4 of the Agreement is amended as follows: Delete the table that defines the Contract Time periods, and replace with this table:

Project Facilities	Mlst I - Substantial Completion	Mlst J - Final Completion
Combined WTP's - SR & EAF	1,240 days (9/30/16)	1,275 days (11/4/16)

- b) Paragraph 4.02B, Days and Dates for Substantial Completion and Final Completion, of Article 4 of the Agreement is amended as follows: Delete the table that defines the Contract Time periods, and replace with this table:

Milestone	Duration from Contract Time Commencement
Mlst I – Substantial Completion & All Intermediate Milestones Associated with Milestone I	1,240 days (9/30/16)
Mlst J – Final Completion & All Other Intermediate Milestones Associated with Milestone J	1,275 days (11/4/16)

- c) Paragraph 4.03D, Liquidated Damages, of Article 4 of the Agreement is amended as follows: Delete in its entirety, including additions from previous change orders, and replace with the following:

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“D. Liquidated Damages (LD’s) will only apply to two project Milestones, Mlst I - Substantial Completion and Mlst J - Final Completion. Liquidated Damages will no longer apply to the Intermediate Milestones associated with Substantial Completion or Final Completion. The assessed liquidated damages for CONTRACTOR’s failure to achieve Mlst I - Substantial Completion will be \$10,000 per day; and the assessed liquidated damages for CONTRACTOR’s failure to achieve Mlst J - Final Completion will be \$5,000 per day.

Liquidated Damages will remain applicable if the allowed contract times for the project Substantial Completion and/or Final Completion are exceeded. If all Work is not completed by the deadline for Final Completion, at the CITY’s discretion the Engineer will either assess liquidated damages at \$5,000 per calendar day until the Work is completed, or the Engineer will assign a cost value to each remaining work item, and exercise one of the following options where no further LD’s for delayed Final Completion or extended management costs would be claimed by either the CITY or CONTRACTOR:

- a) Dismiss the remaining work items as not required;
- b) Take over the remaining work items and issue a deductive change order to the CONTRACTOR based on the cost value of the work;
- c) Extend Final Completion contract time to allow the CONTRACTOR to complete the remaining work and withhold retention and final payment until all the remaining work is completed.”

2) 01140-1.12. Work Sequence and Construction Milestones

Presently, completion of the Area 71 High Service Pump Station is forecast to delay Substantial Completion from the current deadline of March 19, 2016, to September 30, 2016. As part of this global settlement, some deadlines for delayed Work are being changed from Milestone I, Substantial Completion to Milestone J, Final Completion. In addition, some work with technical challenges has been deleted from the Work for a suitable credit and the CITY will self-perform to complete the work, and some of this work will remain the CONTRACTOR’s responsibility to find a solution and complete the work.

In addition, the following Contract time adjustments are made to Paragraphs A.1 of Article 1.12 of Work Sequence and Construction Milestones:

- a) Paragraphs 1.12.A.1.a. through 1.12.A.1.h. are amended as follows: Change all completion deadlines associated with plant operations to “Milestone I”, and change all other remaining work completion deadlines to Final Completion, unless otherwise indicated in Section C of this Exhibit A, below.”
- b) Paragraph 1.12.A.1.i. is amended as follows: In Milestone I, Substantial Completion delete the 2nd sentence in its entirety and replace with the following “All facilities shall be functional, operational, and suitable for water production, water transmission, and solids processing, by the September 30, 2016 deadline for this milestone period, except for any specific component that has been associated with Milestone J – Final Completion, by Change Order No. 21.
- c) Paragraph 1.12.A.1.j. is amended as follows: In Milestone J, Final Completion delete the first sentence in its entirety and replace with the following: “CONTRACTOR shall successfully complete all testing and startup related work before beginning Mlst J4 – Combined Plant-Wide 7-Day Test. In addition, the CONTRACTOR shall complete all remaining Work in the contract, prior to the Mlst J – Final Completion deadline.”

C. CITY and CONTRACTOR agree to the following:

- 1) The CITY will provide a final punch list to CONTRACTOR on 9/23/16. However, due to operational testing activities being extended to Final Completion via Change order No. 17 and Item #’s 6, 7, 11, 12, and 15 below, all deficiencies that arise out of the remaining testing activities or ongoing operational activities, will be added to the Final Punch List, without additional contract time being provided by the CITY.
- 2) The CITY will delete 1ODPI communications at SR and EAF Plants from the Contract and self-perform this work for a credit of \$5,000.
- 3) CITY shall accept the current valve communication network, as is, as complete. CONTRACTOR shall, through end of the warranty period, provide the support of the valve actuator supplier to replace any actuator components that are defective, or do not function as specified.
- 4) Submittal #1464.3 VFD Harmonic Test Plan. CONTRACTOR shall complete the VFD harmonic testing prior to the Final Completion milestone.
- 5) CITY shall allow decommissioning of the TWPS to commence 8/3/16.

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- 6) Acceptance testing of the fire alarm and security systems will be conditions of Final Completion.
- 7) The automatic flow and pressure control testing, and vibration and harmonics testing of the HSPS will be conditions of Final Completion
- 8) The RVSS seven-day test commenced on 8/3/16 and the 7-day test results are accepted with six of eight pumps meeting the established performance criteria by 8/9/16. The HSPS shall be considered Substantially Complete when all eight pumps remain in-service for a continuous 7-day period without faults. Pump vibration switch corrections and RVSS electric braking issues are not required for Substantial Completion but will be solved by Final Completion.
- 9) The RVSS 'ramp-down' command, that implements electric braking of the high service pumps upon loss of power will be solved by the CITY.
- 10) Three incomplete items must be completed during the winter full plant shutdown due to schedule and operational constraints which will occur after the Substantial and Final Completion dates set forth above. The value of this work's labor will be deducted from the Contract and completed by the CITY, and the CONTRACTOR will provide all materials necessary for this work prior to and as a condition of Final Completion. The value of this work's labor is \$15,000. These items include:
 - a. The installation of Weko seals at four locations
 - b. Installation of the construction joint seal at filter wash water channel connection
 - c. Leak testing and adjustment of the 9.5 MG drop box slide gate.
- 11) The plant wide power fail, surge protection, and network testing will be conditions of Final Completion.
- 12) The combined plant-wide 7-day operational test period, which will commence after the testing in Item #'s 7, 11, and 15 have been completed, will be a condition of Final Completion. The plant-wide 7-day operational test period shall not be considered complete until after the 5 MG Clearwell in Item #16 has completed a 7-Day test after being returned to service.
- 13) The 30-day medium voltage VFD/RVSS no-fault test period will commence and run concurrently with the HSPS 7-day test, and be completed by CONTRACTOR and accepted by CITY prior to Final Completion. The 30- day period will include a combination of run times on all eight VFD/RVSS drives/starters. A failure of only one drive will only require a retest of the failed unit, and the remaining units shall be considered as successfully passing the 30-day test period. A fault will be considered a mechanical or electrical issue internal to the drive, not an external command telling the drive/starter to fault.
- 14) Despite the CONTRACTOR's diligent efforts with vendors to provide all required O&M manuals (including preliminary and final), spare parts, training, minor punch list items not effecting the operations of the facility, and as-built's, there may be some outstanding items not furnished by the CONTRACTOR and accepted by the CITY prior to the Final Completion milestone. Should there be any outstanding items not furnished and accepted by the CITY as of the Final Completion milestone, the Engineer shall determine an amount to be retained by the CITY until all O&M manuals (including preliminary and final), spare parts, training, minor punch list items not effecting the operations of the facility, and as-built's are received and accepted by the CITY. The CITY and CONTRACTOR agree that this amount will be withheld from the retention release as a "disputed amount" pursuant to Public Contract Code Section 7107(c).
- 15) The RVSS fail alarm communication to SCADA via discrete hardwire connection will be completed by CITY before the start of the 7-Day Plant-Wide operational test. The fault communication module shall be programmed to communicate the fault status to SCADA and provide access to the manufacturer Web pages for troubleshooting the drive faults.
- 16) The subsidence at the 5 MG Drop Box, must be repaired by CONTRACTOR following design recommendations from the structural engineer. The CONTRACTOR has completed the preliminary CPT Testing to aid the engineered repair solution. The CITY requires this work to be completed prior to the Final completion, and is willing to pay a portion of the direct cost of repair work to be completed by the CONTRACTOR, with the CITY contribution as described for PCO 476. The CITY's and CONTRACTOR's cost contributions will proportionately increase or decrease based on the final accounting of the repair costs.
- 17) Article 13.07 (Correction Period) of SS 00700 General Conditions is amended as follows:

In Article 13.07.A, the correction period during which CONTRACTOR's general warranty and guarantee applies is extended from one year to 18 months to compensate the CITY for the risk of premature equipment wear and failure of equipment, except in those specific cases, where a longer Warranty period is required in the Technical Specification, such as roofing warranties. The CONTRACTOR shall provide a revised Guaranty Bond that increases the surety's general warranty period to 18 months, and all longer warranty periods where specified and/or in Change Order 21. CITY will assume responsibility for all maintenance responsibilities effective September 17, 2016.
- 18) Article 6.19 (Contractor's General Warranty and Guarantee) of SS 00700 General Conditions is amended as follows:

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Article 6.19.B.1. is amended to read: "1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible, provided that this exclusion from defects or damage will not apply unless the applicable act or omission occurred after Substantial Completion, or"

- 19) Except as expressly provided otherwise herein, and including all current and potential future claims for additional compensation or damages, arising from any cause or event occurring on or before September 30, 2016, from CONTRACTOR or any of CONTRACTOR's subcontractors or suppliers at any sub-tier level, including all "pass-through" claims of any of CONTRACTOR's subcontractors or suppliers at any sub-tier level (hereafter referred to as "Claims"), and including all potential change orders identified in writing by CITY, CONTRACTOR, or any of CONTRACTOR's subcontractors or suppliers at any sub-tier level on or before September 30, 2016 (hereafter referred to as "Potential Change Orders"), CONTRACTOR: (a) unconditionally waives and releases, and assumes sole responsibility for resolving, any and all Claims and Potential Change Orders; (b) agrees to cease submitting all such Claims and Potential Change Orders against CITY; and (c) agrees to defend, indemnify, and hold harmless the CITY against any and all claims, actions, costs, or other liability arising from any such Claims or Potential Change Orders.
- 20) All Consultant staff retained by CITY or by CITY's consultants on the project shall be compensated by CONTRACTOR for all time spent traveling to and attending court or depositions to testify in connection with any legal proceedings between CONTRACTOR and any of CONTRACTOR's subcontractors or suppliers at any sub-tier level.
- 21) VFD Training & NETA Testing – CONTRACTOR shall provide VFD training and NETA testing on vendor provided VFD's, as required by SS 16262-3.02.C. & 3.05 and SS 16950-3.02.Q.
- 22) Delay Claims – CONTRACTOR unconditionally waives and releases all potential claims (by or on behalf of CONTRACTOR or any of CONTRACTOR's subcontractors or suppliers at any sub-tier level) for excusable, compensable, and/or concurrent delays occurring or arising from any circumstance occurring at any time through September 30, 2016. This includes, but is not limited to, the claimed concurrent delays listed in the CONTRACTOR's July 29, 2016 letter to the CITY, any delay claims related to shop drawing review, and any delay claims related to work added to the Contract after January 25, 2016.
- 23) Lutron Lighting Controls – CONTRACTOR shall provide the software TCP/IP interface between the lighting system and the lighting panel controller, per specifications 16500 2.02 E. 5 e. 1), and the functionality to enable Operations to turn on/off lights throughout the plant via SCADA Remote commands, without being at the local lighting control panel, and to enable Maintenance to access lighting panel faults from a remote laptop, prior to Final Completion. If new components are required, beyond those specified, the procurement cost will be considered a future change order.
- 24) Centrifuge Repairs Under Warranty – All the centrifuge equipment on the project experienced abnormal and excessive wear, prior to Substantial Completion, due to the local control system allowing dewatered sludge to accumulate above the drop chute diverter gate and encroach into spinning centrifuge discharge nozzles before the isolation gate is opened. As such, the CONTRACTOR will provide repairs, under Warranty, for all five centrifuges on the project. The repairs for four units, Centrifuges EAF #1 & #2 and Centrifuges SR #1 & #3, will consist of bowl repairs and 8-each discharge nozzle/ring replacements per centrifuge. The repairs for Centrifuge SR #2 are more extensive, and will likely require bowl replacement (versus bowl repair), and replacement of the 8-each discharge nozzles/rings.

Due to the lead time to procure all the replacement components that are necessary to conduct repairs, the CITY will declare Substantial Completion and Final Completion while utilizing Centrifuges EAF #1 & #2 and Centrifuges SR #1 & #3 in continued operation. Once the Centrifuge SR #2 repairs have been completed, the unit installed, and functionally tested, Centrifuges EAF #1 and Centrifuges SR #1 will be removed from the sites and shipped to the Andritz repair facility, with the remaining three units remaining in operation for up to a 3-week period, until these units are returned, reinstalled, and functionally tested.

At that time, the final two centrifuges requiring repair, Centrifuges EAF #2 and Centrifuges SR #3, will be removed from the sites and shipped to the Andritz repair facility, with the remaining three units remaining in operation for up to a 3-week period, until these units are returned, reinstalled, and functionally tested. All centrifuge repair work under Warranty, shall be completed by 2/28/17.

- 25) Additional Work Activities Completion Extended Beyond Substantial Completion– In addition to the work activities listed elsewhere in Exhibit A, including Items 7, 11, 15, and 24, the following work activities have also been extended beyond the Substantial Completion deadline:
 - a. Polymer Pump Seal Replacement at EAF – Duty Pump #1 by Substantial Completion & Standby Pump #2 prior to start of Plant-Wide Operational Test

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- b. Reservoir #1 Drop Box Repairs – Completion of drop box repairs and getting Reservoir #1 back on-line, shall be accomplished at least 7-days prior to completion of the 7-Day Plant-Wide Operational Test.
- c. Mixer Blades – Replacement of the damaged mixer blades on 7-each homogenizing tank mixers, one tank at a time, with higher chromium content for a harder metal, the final positioning of the mixers to keep the thickened sludge in suspension, and the final level set-points, shall all be completed and functionally tested prior to Final Completion. The Plant-Wide Operational Test shall be conducted utilizing the existing damaged blades.
- d. FWW Lagoons at EAF – The collector over-torque faults and shutdown corrections shall be completed and operational, one lagoon at a time, prior to start of Plant-Wide Operational Test.
- e. Dewatered Sludge Conveyor Over-Torque Faults – The conveyor manufacturer has recommended operational sequencing changes when starting centrifuges, to mitigate the over-torque faults that appear to occur when the dewatered sludge that accumulates above the drop chute inverter gate is released onto the conveyor. The CITY has agreed to implement these changes immediately and will accept the conveyors without further corrections if the over-torque faults and shutdowns are eliminated during ongoing Operations that occur through completion of the Plant-Wide Operational Test. However, if the over-torque faults and shutdowns continue to occur during this period, the CONTRACTOR shall provide larger conveyor drive motors and starters under Warranty and prior to 2/28/17.

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E. The parties agree, as part of this global settlement, to resolve the Potential Change Orders described below as follows:

1. PCO #184 – Filter Inlet Channel Level Instruments

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 184 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-57.2, the CONTRACTOR was directed to change out the Filter Inlet Channel level instruments “51LE/LIT-014” and “51LE/LIT-015”, from level switches to ultrasonic level transducers/transmitters. The CITY and CONTRACTOR agree to the lump sum price of \$9,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Design Related

Total this item: \$9,000.00

2. PCO #210 – 5 MG Clearwell Circulation Improvements - Material Cost

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 210 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-142, the CONTRACTOR was directed to install a new fabric baffle system in the existing 5 million-gallon (MG) Clearwell. This was an Owner added improvement that was not part of the original contract scope. This PCO is for the procurement of the Environetics Director III Clearwell Baffle System specified in DCM-142. The labor for installation of this system will be addressed under a separate PCO at the time of installation. The CITY and CONTRACTOR agree to the lump sum price of \$64,265.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Owner Related

Total this item: \$64,265.00

3. PCO #227 – Credit for Deletion of Coating Prep for A/G Cast Iron Soil Pipe

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 227 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per RFI-682.1 response, the exposed cast iron soil pipe coating prep requirements were significantly reduced from what is required in the Contract Documents. The substitution in RFI-682.1 is limited only to aboveground soil pipe in non-submerged conditions and non-corrosive environments. The CITY and CONTRACTOR agree to the lump sum credit of \$5,000.00 in exchange for the above-mentioned deleted work.

Database Code: Design Related

Total this item: (\$5,000.00)

4. PCO #262 – 66" SW Pipe Misalignment

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 262 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-262 was issued to address changes were made to the 66" SW alignment as a result of RFI-736 and RFI-785. PCO-262 also addresses the deletion of pipe encasement as indicated in the response to RFI-785. The CITY and CONTRACTOR agree to the lump sum price of \$60,000.00, which includes all related materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Design Related

Total this item: \$60,000.00

5. PCO #272 – Coating of Galvanized Perforated Acoustical Metal Deck - Credit

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 272 dated September 21, 2016, attached hereto and incorporated herein by this reference. Spec Section 09960.3.19.D.3.f.1 requires coating of exposed galvanized metal deck. PCO-272 was opened to track the credit associated with the deletion of contract work proposed by the CONTRACTOR in RFI-823. The CITY and CONTRACTOR agree to the lump sum credit of \$7,500.00 in exchange for the above-mentioned deleted work.

Database Code: Value Engineering

Total this item (\$7,500.00)

6. PCO #289 – EAFWTP - Temporary Access to Centrifuge Equipment

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 289 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Field Order 48, the CONTRACTOR was directed to provide temporary access for centrifuge and conveyor testing and startup. The CONTRACTOR is entitled to cost impacts associated with EAFWTP centrifuge platform added material design changes from RFI-829.2. The CITY and CONTRACTOR agree to the lump sum price of \$31,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Contractor Related

Total this item \$31,000.00

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7. **PCO #334 – City Sludge Removal From FWW Lagoons**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 334 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Spec Section 01140-1.05.D, the CONTRACTOR is responsible for emptying existing process units and disposing of residue. To this point, the CONTRACTOR has requested that the City provide support in removing the solids in the FWW lagoons at both sites. The CITY and CONTRACTOR agree to performance of the above-mentioned work, which includes all related materials, manpower, and equipment hours, for no increase to the Contract amount.
Database Code: Owner Related **Total this item** **\$0.00**
8. **PCO #350 – Grit Basin Overflow Flooding of Floc-Sed Excavation**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 350 dated September 21, 2016, attached hereto and incorporated herein by this reference. On 8/20/15 CITY operations inadvertently caused the Grit Basin to overflow, flooding the east side of the Floc-Sed Basin excavation. When flooding of the Floc-Sed Basin excavation occurred, the Sludge Vault mechanical room was also flooded. The rotary lobe pump had been staged inside and was completely submerged. To meet the manufacturer's requirements and to maintain the warranty, the manufacturer required the pump to be sent back to their facility for testing. The CITY and CONTRACTOR agree to the lump sum price of \$47,396.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Unforeseen Conditions **Total this item** **\$47,396.00**
9. **PCO #358 – Reimbursement for 66" FW OT Inspection**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 358 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-358 was opened to track reimbursement costs to the CITY for its costs to provide additional inspection for the CONTRACTOR proposed shift non-standard work hours to haul import soil and perform backfill and compaction work at the Area 42 Floc-Sed Basin. This proposed non-standard shift was ultimately cancelled. The CITY and CONTRACTOR agree to performance of the above-mentioned work, which includes all related materials, manpower, and equipment hours, for no increase to the Contract amount.
Database Code: Contractor Related **Total this item** **\$ 0.00**
10. **PCO #370 – EAFWTP - Polymer Incidents Week of 9/21/15**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 370 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-370 was opened to track reimbursement costs to the CITY for cost impacts resulting from improperly batched polymer being drained into the sewer system, resulting in a reportable event to Sacramento County. The CITY and CONTRACTOR agree to performance of the above-mentioned work, which includes all related materials, manpower, and equipment hours, for no increase to the Contract amount.
Database Code: Owner Related **Total this item** **\$0.00**
11. **PCO #381 – G60 Relay Function - 87G & 87S**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 381 dated September 21, 2016, attached hereto and incorporated herein by this reference. The generator protection relays specified in Spec Section 16295-2.02.A.3.e and shown on Dwg S00E-06 were intended to include the following relay protection functions: 87G Restricted Ground Fault and 87S Generator Stator Differential. The CITY and CONTRACTOR agree to the lump sum price of \$8,755.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Design Related **Total this item** **\$8,755.00**
12. **PCO #388 – Bercut Drive Storm Drain Conflicts**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 388 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per RFI-1041 and RFI-1047, the existing telecom duct bank shown below the 12" SD pipeline on S10C-41 was higher than anticipated. To address this, the new 12" SD pipeline was raised and some chipping out of existing utility concrete duct bank below was required in order to get the SD line to pass over the top of the utilities. The CITY and CONTRACTOR agree to the lump sum price of \$3,500.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Design Related **Total this item** **\$3,500.00**

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13. **PCO #409 – Ductbank 16 & Existing FW Pipe Abandonment Conflict**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 409 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-679, the CONTRACTOR notified the CITY of potential cost impacts associated with Ductbank 16 and Existing FW Pipe abandonment conflicts. The CITY and CONTRACTOR agree to the lump sum price of \$7,786.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Contractor Related **Total this item** **\$7,786.00**
14. **PCO #410 – Caulk Construction Joint at S71 HSPS Mezzanine Deck**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 410 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Field Order 072, the CONTRACTOR was directed to caulk and seal the construction joint at the HSPS Mezzanine deck per standard detail S-132 (SIM), without the bond breaker. Prep the tooled joints and seal with an approved sealant for repairing cracks in concrete. The CONTRACTOR believed this work was not needed and that it would not prevent leaks from forming in the joint above. The CITY opted to self-perform this work. The CITY and CONTRACTOR agree to performance of the above-mentioned work, which includes all related materials, manpower, and equipment hours, for no increase to the Contract amount.
Database Code: Owner Related **Total this item** **\$0.00**
15. **PCO #413 – Relocate Existing Conduits at the TWPS**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 413 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Field Order 073, the CONTRACTOR was directed to relocate, remove, disconnect and reconnect, or protect in place all existing utilities in conflict with the 66" FW pipeline located west of the TWPS. These existing utilities were not shown in the contract documents. The CITY and CONTRACTOR agree to the lump sum price of \$43,515.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Contractor Related **Total this item** **\$43,515.00**
16. **PCO #417 – Rotork Actuator Network Card**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 417 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-692 the CONTRACTOR notified the CITY of cost impacts associated with the replacement of Rotork valve network cards. Due to the need for a single-channel with repeater network, 62 of the 109 network cards provided were required to be replaced. The CITY and CONTRACTOR agree to the lump sum price of \$50,000.00, which includes materials, manpower and equipment hours to perform the above-mentioned work.
Database Code: Contractor Related **Total this item** **\$50,000.00**
17. **PCO #421 – Chemical Trench Chlorine Analyzers**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 421 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-183, the CONTRACTOR was directed to proceed with the installation of new chlorine analyzers in the SRWTP chemical trench. This was a CITY added improvement to the project. The CITY and CONTRACTOR agree to the lump sum price of \$35,796.00, which includes materials, manpower and equipment hours to perform the above-mentioned work.
Database Code: Owner Related **Total this item** **\$35,796.00**
18. **PCO #422 – TWPS Pipe Abandonment**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 422 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-422 was established to track costs and issues with the required pipe abandonment near the Treated Water Pump Station (TWPS). The work being required through various RFI responses was more substantial than what was shown in the Contract Documents. The CITY and CONTRACTOR agree to the lump sum price of \$25,000.00, which includes materials, manpower and equipment hours to perform the above-mentioned work.
Database Code: Contractor Related **Total this item** **\$25,000.00**
19. **PCO #423 – Subsurface Obstructions While Drilling at 66" FW Shoring**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 423 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-702, the CONTRACTOR

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notified the CITY of cost impacts associated with subsurface obstructions while drilling for the 66" FW pipeline trench shoring. The CITY and CONTRACTOR agree to the lump sum price of \$31,592.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Design Related **Total this item** **\$31,592.00**

20. PCO #425 – Flocc-Sed Stair Landing Mods at Existing Flocc-Sed Basin

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 425 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-706, the CONTRACTOR notified the CITY of potential cost impacts associated with the design revisions made to the Flocc-Sed stair landing and hand railing in RFI-1095. The CITY and CONTRACTOR agree to the lump sum price of \$17,446.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Design Related **Total this item** **\$17,446.00**

21. PCO #426 – Routing of power from Area 94 to Area 70

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 426 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-426 was opened to track the credit associated with deleting trenching and PVC conduit to route power from Area 94 to Area 70. The CITY and CONTRACTOR agreed to the lump sum credit of \$5,000.00 in exchange for the above-mentioned deleted work.

Database Code: Design Related **Total this item** **(\$5,000.00)**

22. PCO #433 – TWPS 66" FW Pile Driving and Vibration Monitoring

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 433 dated September 21, 2016, attached hereto and incorporated herein by this reference. RFI-1087 was submitted with a pile plan intended to mitigate the vibration and settlement effects of pile driving for the 66" FW pipes along the north and west sides of the TWPS. The response to RFI-1087 required daily vibration and settlement monitoring for piles installed with up to 50 feet of pre-drilling, in order to protect the Historical Preservation criteria for the Area 70 TWPS. Memo-710 was issued by the CONTRACTOR to notify the CITY of potential added costs and a schedule impact will be incurred per RFI-1087 response. The CITY and CONTRACTOR agree to the lump sum price of \$60,500.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Contractor Claim **Total this item** **\$60,500.00**

23. PCO #435 – EAFWTP Centrifuge Platform and Grating Design Changes

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 435 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-196, the CONTRACTOR was directed to make modifications to the existing EAFWTP centrifuge platform grating to cover the openings between the centrifuges and platform, and to install a second ships ladder to provide better access to the platform. The CITY and CONTRACTOR agree to the lump sum price of \$26,848.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Design Related **Total this item** **\$26,848.00**

24. PCO #439 – Range Setting Modification for Turbidity and Sludge Density Instruments

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 439 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-203 and 203.1, the CONTRACTOR was directed to re-set Turbidimeter and Sludge Density Instrument range settings in the field. At the same time, the CITY (JSP) would adjust the signal range at SCADA. The CITY and CONTRACTOR agree to the lump sum price of \$5,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Design Related **Total this item** **\$5,000.00**

25. PCO #440 – Southern Bercut Gate Entry/Exit Loop Layout

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 440 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-734, the CONTRACTOR notified the CITY of potential cost impacts associated with the Southern Bercut Gate Entry/Exit Loop Layout. The CITY and CONTRACTOR agree to the lump sum price of \$12,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Design Related **Total this item** **\$12,000.00**

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26. **PCO #441 – Electrical Modifications for Flow Transmitters and Control Panels**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 441 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-201, the CONTRACTOR was directed to upgrade the controls communication from the following control panels to SCADA: 1) East Surge Tank 71VCP701, 2) West Surge 71VCP601, 3) American River Flow Meter FE/FIT-017, and 4) FIT-001 Communication. The CITY and CONTRACTOR agree to the lump sum price of \$40,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Owner Related **Total this item** **\$40,000.00**
27. **PCO #442 – Inputs for Power Failure Indication and Surge Protection Devices**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 442 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-204, the CONTRACTOR was directed to provide the closed contact relays and control wiring to transmit digital input signals from the Power Quality Meters (PQM's) and Surge Protection Devices (SPD's) to SCADA, and provide the loop check and functional testing. The CITY and CONTRACTOR agree to the lump sum price of \$15,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Owner Related **Total this item** **\$15,000.00**
28. **PCO #444 – Vertical Turbine Pump Coating Issue**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 444 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-738, the CONTRACTOR requested a PCO be opened to track time and cost impacts associated with the Vertical Turbine Pump coating issues identified in Deficiency Notice 22. Several RFIs were submitted by the Contractor's coatings applicator to coordinate this issue to a successful resolution. The CITY and CONTRACTOR agree to performance of the above-mentioned work, which includes all related materials, manpower, and equipment hours, for no increase to the Contract amount.
Database Code: Contractor Related **Total this item** **\$0.00**
29. **PCO #451 – 9.5 MG Clearwell Dropbox Ships Ladder Landing**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 451 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-200, the CONTRACTOR was directed to provide a block retaining wall at the 9.5 MG Clearwell Dropbox ships ladder landing, and to verify that the finished slope west side of 60" FW is graded in accordance to Detail B on S10C-07 and S10C-34. The CITY and CONTRACTOR agree to the lump sum price of \$13,470.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Design Related **Total this item** **\$13,470.00**
30. **PCO #453 – Smoke Detector Inputs**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 453 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-205 the CONTRACTOR was directed to provide the closed contact relays to transmit digital input signals from the Smoke Detectors to SCADA at several areas throughout the project. The CITY and CONTRACTOR agree to the lump sum price of \$10,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Owner Related **Total this item** **\$10,000.00**
31. **PCO #454 – SRWTP Curb, Gutter and Pavement Repair**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 454 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Field Order No. 78 the CONTRACTOR was directed to perform additional curb and gutter, site paving, and site concrete flatwork beyond the scope of the contract. The CITY and CONTRACTOR agree to the lump sum price of \$40,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Contractor Related **Total this item** **\$40,000.00**
32. **PCO #457 – Time Impacts Related to DDW Requirements, ERS, and JSP at Filters and Floc-Sed**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 457 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-457 was issued to track and negotiate potential time impacts associated with the Division of Drinking Water (DDW) Requirements, City/ERS testing, and

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JSP programming changes at Filters 9-16 and Floc-Sed Basin 3-4. The DDW criteria increased the number and duration of filter runs and backwashes for multiple loading rate testing, the ERS filter media testing required that construction testing be stopped for one-week, and JSP programming changes extended the duration of some filter tests. The CITY and CONTRACTOR agree to performance of the above-mentioned work, which includes all related materials, manpower, and equipment hours, for no increase to the Contract amount.

Database Code: Unforeseen Conditions **Total this item** **\$0.00**

33. PCO #458 – Floc Sed Basin 1-2 Inlet Valve Bridge Mux Programming Changes

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 458 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-458 was issued to track and negotiate potential time impacts related to the bridge mux programming changes at the Flocculation-Sedimentation Basins 1-2 Inlet Valve. The CITY and CONTRACTOR agree to performance of the above-mentioned work, which includes all related materials, manpower, and equipment hours, for no increase to the Contract amount.

Database Code: Owner Related **Total this item** **\$0.00**

34. PCO #459 – Old Basin 1 Sludge Removal

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 459 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-767, the CONTRACTOR notified the CITY of cost impacts associated with removing existing sludge from the Old Basin 1 prior to decommissioning of the basin. The CITY and CONTRACTOR agree to the lump sum price of \$123,500.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Contractor Related **Total this item** **\$123,500.00**

35. PCO #461 – Irrigation Conflict with Chemical Trench

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 461 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-765, the CONTRACTOR notified the CITY of potential cost impacts associated with the potholing that was directed to be done per the RFI-1136 response to locate the existing irrigation line. The CITY and CONTRACTOR agree to performance of the above-mentioned work, which includes all related materials, manpower, and equipment hours, for no increase to the Contract amount.

Database Code: Contractor Related **Total this item** **\$0.00**

36. PCO #462 – East Surge Tank Irrigation and Landscaping

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 462 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per RFI-515, additional landscaping including planting and irrigation, was required to be installed around the East Surge Tank. The CITY and CONTRACTOR agree to the lump sum price of \$6,139.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Design Related **Total this item** **\$6,139.00**

37. PCO #463 – UW to PVC Storage Room

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 463 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Field Order 81, the CONTRACTOR was directed to install the necessary UW piping to provide a hose bib at the southwest corner of the PVC Storage Room. The CONTRACTOR installed the buried piping, but was later directed to not make the tie in to the existing 6" UW or install the above grade hose bib. The CITY will self-perform that portion of work at a later date. The CITY and CONTRACTOR agree to the lump sum price of \$3,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Owner Related **Total this item** **\$3,000.00**

38. PCO #464 – Grade Repairs at Handicap Ramp Road

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 464 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-775, the CONTRACTOR notified the CITY of cost impacts associated with the road grading and settlement issues at the Floc-Sed Basin 3 & 4 handicap ramp as identified in RFI-1144. The CITY and CONTRACTOR agreed to share cost impacts related to this work. The CITY and CONTRACTOR agree to the lump sum price of \$5,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Design Related **Total this item** **\$5,000.00**

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39. **PCO #465 – Remove Anthracite From Master Sump**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 465 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-780, the CONTRACTOR notified the CITY of cost impacts associated with the removal of additional anthracite filter media material from the Master Sump. This material was more than was documented for the basis of bid as stated in Key Note 1 on S10D-01. The CITY and CONTRACTOR agree to the lump sum price of \$12,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Unforeseen Conditions **Total this item** **\$12,000.00**
40. **PCO #466 – EAFWTP - Sinkhole Repair at Area F18**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 466 dated September 16, 2016, attached hereto and incorporated herein by this reference. Per Field Order 083 and RFI-1165, the CONTRACTOR was directed to perform Ground Penetrating Radar (GPR) testing in an attempt to determine the extent of voids that may have developed near sinkholes at the EAFWTP Area F18 Thickened Sludge Pump Station (TSPS) and near the SRWTP Treated Water Pump Station (TWPS). The CITY and CONTRACTOR agree to the lump sum price of \$5,500.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Unforeseen Conditions **Total this item** **\$5,500.00**
41. **PCO #467 – Install 1.5" Irrigation Piping and Valve, Area A**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 467 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per the RFI-1152 response, the CONTRACTOR was directed to install a new valve and upsize the Area "A" irrigation piping. The CITY and CONTRACTOR agree to the lump sum price of \$2,517.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Unforeseen Conditions **Total this item** **\$2,517.00**
42. **PCO #470 – Owner Purchase and Relocation of Field Trailer & Power System**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 470 dated September 21, 2016, attached hereto and incorporated herein by this reference. The CITY elected to purchase the quad-wide modular field office trailer, electrical switchboard and transformer, and furnishings provided by the CONTRACTOR for use on the WTPs Rehabilitation Project. The CONTRACTOR shall relocate the quad-wide field office trailer and all furnishings, except the copy machine and printer, to the 35th Avenue site. The CITY and CONTRACTOR agree to the lump sum price of \$275,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Owner Related **Total this item** **\$275,000.00**
43. **PCO #472 – Filter Area Instrument Calibrations**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 472 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-472 was opened to track the potential cost impacts for the re-calibration of instruments at the Filter structure, as directed by the CITY/MWH at the 6/8/2016 Progress Meeting. The CITY and CONTRACTOR agree to the lump sum price of \$2,500.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Unforeseen Conditions **Total this item** **\$2,500.00**
44. **PCO #473 – EAFWTP FWW Lagoon Valve Platform Handrail Modifications**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 473 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per DCM-210, the CONTRACTOR identified a conflict between the existing EAFWTP FWW Lagoon 1 Filter Washwater Valve Operator and the new handrails to be installed for the valve platform per DCM-096.2. In order to eliminate this conflict, DCM-210 modified the handrails at the FWW Lagoon 1 Valve Platform. The CITY and CONTRACTOR agree to the lump sum price of \$2,170.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Unforeseen Conditions **Total this item** **\$2,170.00**
45. **PCO #474 – Credit for HSPS Landscaping Proposed Hydroseed in Lieu of Required Sod**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 474 dated September 21, 2016, attached hereto and incorporated herein by this reference. The CITY agreed to accept hydroseed

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in lieu of the no mow fescue sod required on the north and west sides of the HSPS per S10L-07, provided an acceptable credit is negotiated for the cost difference between sod and hydroseed. The CITY and CONTRACTOR agreed to the lump sum credit of \$4,351.00 in exchange for the above-mentioned deleted work.

Database Code: Contractor Related **Total this item** **(\$4,351.00)**

46. PCO #476 – 5 MG Dropbox Settlement Repairs

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 476 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Memo-808, Advisory Notice 33 was issued to the CONTRACTOR with action to be taken to address settlement concerns at the Area 63 5MG Clearwell Drop Box channel. The CONTRACTOR believed this was extra work and requested PCO-476 be opened to track all cost associated with the scope of work provided in Advisory Notice 33. As per verbal direction from Ian Pietz on 9/9/16, CONTRACTOR was directed to proceed with Cost #2 Proposal that included two extra grout columns and CPT testing after production grouting was completed. The estimated total cost is \$150,000, with CITY responsible for 75% or \$112,500 and CONTRACTOR for 25% or \$47,500. The cost split of the as-built total amount, between the City and the Contractor, shall be determined and reconciled in a future change order. The CITY and CONTRACTOR agree to the lump sum price of \$112,500.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Contractor Related **Total this item:** **\$112,500.00**

47. PCO #477 – Credit to City for not providing special tools or spare parts per 17050

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 477 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Spec Section 17050-1.12.C, the CONTRACTOR was to include in the Bid a \$10,000.00 tools and spare parts allowance. Per Spec Section 17050-1.12.C.3, the Owner at its discretion may elect to remove any or all of this allowance from the Contract, credit any amounts so removed to the Owner with a reduction in the Contract Price. The CITY opted not to use this \$10,000.00 allowance to select special tools and/or spare parts, and requested that the Contractor provide this credit back. The CITY and CONTRACTOR agreed to the lump sum credit of \$10,000.00 in exchange for the above-mentioned deleted work.

Database Code: Contractor Related **Total this item** **(\$10,000.00)**

48. PCO #478 – Communication from 10DP-1 to SCADA

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 478 dated September 21, 2016, attached hereto and incorporated herein by this reference. The CITY will accept deleting the remaining Contract Work related to establishing SCADA communication with the East Power Center 10DP-1 (SRWTP) and the South Power Center 10DP-1 (EAFWTP) provided an adequate credit can be negotiated back to the City. The CITY and CONTRACTOR agreed to the lump sum credit of \$5,000.00 in exchange for the above-mentioned deleted work.

Database Code: Contractor Related **Total this item** **(\$5,000.00)**

49. PCO #481 – Seismic Bracing at Filters Drain Line

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 481 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per the current Punchlist, there is an item at the Filters stating that the CITY wants seismic bracing to be installed at the Drain Lines at the Filter Building. The CITY and CONTRACTOR agreed that this was extra work that was not included in the scope of drain line added work that was priced for DCM-177 work captured in MWH PCO-330. The CITY and CONTRACTOR agree to the lump sum price of \$8,862.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.

Database Code: Contractor Related **Total this item** **\$8,862.00**

50. PCO #482 – Filter Wash Water Channel Hypalon Liner at Construction Joint

CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 482 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per RFI-1179, the CONTRACTOR failed to install the 12" wide flexible polyolefin waterproofing tape called out in Detail 24 - Drawing S51-12 to be installed for the expansion joint between the existing and new FWW Channel. The CONTRACTOR omitted the installation of this waterproofing tape during the construction of the new filter FWW Channel. The CONTRACTOR shall provide an acceptable credit to the CITY for the time, materials, and labor that are associated with procuring the waterproofing tape materials, coordinating plant shutdown, hiring contractors and inspectors to perform and inspect the work. The CITY and CONTRACTOR agreed to the lump sum credit of \$5,000.00 in exchange for the above-mentioned deleted work.

Database Code: Contractor Related **Total this item** **(\$5,000.00)**

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- 51. PCO #483 – Area S18 - 18DSP002 Belt Replacement**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 483 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Field Order 88, the CONTRACTOR was directed to purchase spare belts for Area S19 TSPS pumps 18DSP001 and 18DSP002 and install a third new set of belts onto pump 18DSP002 that had failed. The CITY and CONTRACTOR agree to the lump sum price of \$569.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Owner Related **Total this item** **\$569.00**
- 52. PCO #484 – Final Keying Change, Schlage to Best**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 484 dated September 21, 2016, attached hereto and incorporated herein by this reference. The CONTRACTOR was directed to change out the project door hardware for all doors because the Schlage hardware specified and provided did not match the Best Lock cores the CITY intended to use. PCO-484 was opened to track the net cost difference between changing out the door hardware and the costs the CITY has incurred with purchasing the final cores. The CITY and CONTRACTOR agree to the lump sum price of \$7,275.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Owner Related **Total this item** **\$7,275.00**
- 53. PCO #485 – Weko Seal Work During Plant Shutdown**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 482 dated September 21, 2016, attached hereto and incorporated herein by this reference. Per Spec Section 15121-2.02.H, Weko seals are required for flexible sleeve couplings for pipes 60” diameter and greater. The Weko seal work originally scheduled to take place during plant shutdown will not be performed by the CONTRACTOR. The CITY will self-perform the labor to perform the Weko seal work for an agreed upon credit amount and the CONTRACTOR will supply all materials. The CITY and CONTRACTOR agreed to the lump sum credit of \$5,000.00 in exchange for the above-mentioned deleted work.
Database Code: Contractor Related **Total this item** **(\$5,000.00)**
- 54. PCO #486 – Additional Training for Vendor VFDs**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 486 dated September 21, 2016, attached hereto and incorporated herein by this reference. The CITY requested that additional training be provided for the vendor supplied VFDs after the contract required training had already be provided. The CITY and CONTRACTOR agree to the lump sum price of \$5,000.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Owner Related **Total this item** **\$5,000.00**
- 55. PCO #487.1 – NOE Firmware Upgrade - Telstar Valve Network**
 CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 487.1 dated September 21, 2016, attached hereto and incorporated herein by this reference. In several instances at both EAFWTP and SRWTP, the ProSoft Gateway communication modules had been failing to respond when given valve control commands by their associated PLCs. Per Spec Section 17733-3.02.A, the CONTRACTOR is required to perform all firmware installations, configuration and other set up, as required, to place the network into proper operation. The CONTRACTOR was directed to complete all firmware revisions listed for the NOE Cards in the PLCs in Memo-803, Response I. The CITY and CONTRACTOR agree to the lump sum price of \$2,500.00, which includes materials, manpower, and equipment hours to perform the above-mentioned work.
Database Code: Contractor Related **Total this item** **\$2,500.00**
- 56. 487.2 – Other Firmware Upgrades – City to Self-Perform from Credit Amount**
 487.2 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-487.2 was opened to obtain the credit owed to the CITY for deleting the remaining firmware upgrades from the project work that were not already performed in the PCO-487.1 work. The CONTRACTOR had difficulty performing the work for PCO-487.1 properly, and the resulting delays, the CITY decided to self-perform the remaining firmware updates for the project, to facilitate completing the ongoing SCADA system upgrades by others, without further delay or network performance issues. The CITY and CONTRACTOR agreed to the lump sum credit of \$3,143.00 in exchange for the above-mentioned deleted work.
Database Code: Contractor Related **Total this item** **(\$3,143.00)**

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57. **PCO #488 – Compensation for City & Consultant Staff Cost During Time Extension**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 488 dated September 21, 2016, attached hereto and incorporated herein by this reference. The CITY agreed to extend the Substantial Completion and Final Completion dates, and waive all liquidated damages associated with CONTRACTOR's failure to achieve Substantial Completion and Final Completion by the dates specified in Change Orders No. 17 & 18; in exchange for the CONTRACTOR agreeing to a deductive change order to compensate the CITY's cost for extending the services of the CITY staff and CITY Consultants through the Substantial Completion and Final Completion dates The CITY and CONTRACTOR agreed to the lump sum credit of \$1,157,500.00 in exchange for the above-mentioned deleted work.
Database Code: Contractor Related **Total this item: (\$1,157,500.00)**
58. **PCO #489 – Maintenance Requirements**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 489 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-489 was opened to track the potential cost impacts of the Maintenance performed by the CONTRACTOR during the Construction Phase that was outside of Contract Work. CITY agrees to reimburse CONTRACTOR for expenditures on lubricants, and other related products, utilized to maintain equipment during the construction phase that CITY was required to provide. CONTRACTOR agrees to provide a revised Guaranty Bond that increases the surety's general warranty period to 18 months, and all longer warranty periods where specified, and/or changed elsewhere in Change Order 21. The CITY and CONTRACTOR agreed to the lump sum price of \$11,007.00 in exchange for the above-mentioned work and warranty extension.
Database Code: Contractor Related **Total this item: \$11,007.00**
59. **PCO #490 – Centrifuge Repairs**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 490 dated September 21, 2016, attached hereto and incorporated herein by this reference. All the centrifuge equipment on the project experienced abnormal and excessive wear, prior to Substantial Completion, due to the local control system allowing dewatered sludge to accumulate above the drop chute isolation gate and encroach into spinning centrifuge discharge nozzles before the isolation gate is opened. As such, the CONTRACTOR will provide repairs, under Warranty, for all five centrifuges on the project. The CITY and CONTRACTOR agree to performance of the above-mentioned work, which includes all related materials, manpower, and equipment hours, for no increase to the Contract amount.
Database Code: Contractor Related **Total this item: \$0.00**
60. **PCO #491 – Filter Gallery Chlorine Analyzer Spare Replacement**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 491 dated September 21, 2016, attached hereto and incorporated herein by this reference. PCO-491 was opened to track the credit owed to the CITY for the purchase of two Chlorine Repair Kits. The CITY and CONTRACTOR agreed to the lump sum credit of \$5,600.00 in exchange for the above-mentioned equipment repairs.
Database Code: Contractor Related **Total this item: (\$5,600.00)**
61. **PCO #492 – Mixer Blade Damage**
CONTRACTOR agrees to all of the changes, terms, and conditions specified in the Potential Change Order Memoranda No. 492 dated September 21, 2016, attached hereto and incorporated herein by this reference. As documented in Memo-832, the mixer impellers at both SRWTP and EAFWTP have experienced excessive wear and damage. PCO-492 was issued to track cost and time impacts associated with the replacement of the damaged propellers. The CITY and CONTRACTOR agreed to the lump sum price of \$34,500.00 in exchange for the above-mentioned equipment repairs.
Database Code: Design Related **Total this item: \$34,500.00**
- Total this Change Order = \$64,314.00**