

Our vision of Coeur d'Alene is of a beautiful safe city that promotes a high quality of life and sound economy through excellence in government

PUBLIC WORKS COMMITTEE

with

Council Members McEvers, Miller & English September 23, 2019, 4:00 p.m. AGENDA

****ITEMS BELOW ARE CONSIDERED TO BE ACTION ITEMS

- Item 1 Declaration of Surplus Used Equipment and Vehicles and Authorization to Proceed to Auction – Jack Reichert, Streets & Engineering Field Supervisor
- Item 2 Approval of Change Order No. 2 to the Agreement between the City of Coeur d'Alene and Apollo, Inc. for Construction of the Wastewater Tertiary Treatment Phase 2 Improvements – Mike Becker, WW Capital Program Manager

Library Community Room 702 Front Street

The City of Coeur d'Alene will make reasonable accommodations for anyone attending this meeting who requires special assistance for hearing, physical or other impairments. Please contact Amy Ferguson, Public Works Committee Liaison, at (208) 666-5754 at least 24 hours in advance of the meeting date and time.

PUBLIC WORKS STAFF REPORT

DATE: September 23, 2019

FROM:Jack Reichert, Streets & Engineering Field SupervisorSUBJECT:DECLARATION OF SURPLUS USED EQUIPMENT AND VEHICLES

DECISION POINT:

Should Council declare various pieces of used equipment "surplus" and authorize staff to dispose of them at auction?

HISTORY:

The following assets and items are the subject of this request:

- Paver: LeeBoy, 2001, VIN#1031098001261
 Non-replaceable auger boxes have worn through
 Hours 2.216
- Crafco Poly Patcher, 1999, Vin# 1C9TP1220X1418097
 Parts unavailable to repair
- Trailers (paver): Felling 1226T, 2003, VIN# 5FTCF3823L1002672
 Lee boy, VIN# 42ETPPF4881000434 Econoline
 Both trailers have ½ axles which are of poor design
- GMC Topkick Dump truck, 1995, VIN# 1GDT7HAJ6SJ502305
 - Mileage 146,892
 - Hours 11,389
- Freightliner, 2005, VIN# 1FVAB6BV66DW22294
 - Tymco box/blower housing + pick up head sand blasted thin w/many patches
 - Mileage 71,815
 - Hours- 8,10
- Loader Plow: prototype plow in-house in 2004
 It no longer will attach to any of our machines and is not useful
- GMC Flatbed, 2000, VIN# 1GDJK34R0YF495894
 - Rusty and well-worn
 - Mileage 71459.

PERFORMANCE ANALYSIS

This equipment/vehicles have been deemed of little or no value to any City department. We looked to provide or offer in-house before we sent items to surplus.

FINANCIAL ANALYSIS

There is no cost to the taxpayers. The Auction house takes a percentage of the bid auction item. There is a very minimal cost to the department for us to shuttle items to Post Falls.

DECISION POINT:

Council should declare the listed equipment to be "surplus" and authorize staff to dispose of them at auction.





PUBLIC WORKS COMMITTEE STAFF REPORT

DATE:September 23, 2019FROM:Mike Becker, Capital Program ManagerSUBJECT:Approval of Change Order No. 2 to the Agreement between
the City of Coeur d'Alene and Apollo, Inc. for Construction of
the Wastewater Tertiary Treatment Phase 2 Improvements

DECISION POINT: Should the City Council approve Change Order No. 2 (Final) to the <u>Agreement between the City of Coeur d'Alene and Apollo, Inc., dated February 7,</u> 2017, for Construction of the Wastewater Tertiary Treatment Phase 2 Improvements.

HISTORY: The scope of the improvements for this project includes the construction of a third covered Primary Clarifier, a third Secondary Clarifier, and the additional concrete tankage, piping, pumps, and membranes at the Tertiary Membrane Filtration (TMF) facility. Change Order No. 1 for this contract provided a lifting apparatus needed for the removal and maintenance of the TMF membrane cassettes.

Change Order No. 2 is for all the unanticipated and additional work items that are common for the completion of projects this size and complexity. This work is summarized in the attached Change Order through Change Proposal Requests (CPR) 001-035 and Work Change Directives (WCD) 001-066.

FINANCIAL ANALYSIS: The original construction contract price of this project was \$16,169,000. Change Order No.1 increased the contract by \$534,930. **Change Order No. 2 will increase the contract by another \$971,404.59** resulting in a new contract total of \$17,675,334.59. In addition, **Change Order No. 2 will extend the Substantial Completion Date by 237 days and the Final Completion Date by 207 days.** The design and construction of this project is funded by a \$20,000,000 CWSRF loan (9/16/2015) obtained from Idaho Department of Environmental Quality. This loan funding was amended on April 3, 2018 by an additional \$500,000 specifically for the design and construction of the bridge crane in Change Order No 1. The total loan funding available is therefore \$20,500,000. Funds for this Change Order No 2 are available in FY 19-20 Wastewater Operating Fund, account # 031-022-4351-7200, Capital Replacement Fund.

Original Contract (February 7, 2017)	\$16,169,000
Change Order No 1 (October 16, 2018)	\$534,930
Change Order No 2 (pending approval)	\$971,404.59
Amended Contract Total	\$17,675,334.59

PERFORMANCE ANALYSIS: This Change Order represents a cost increase of 5.8% to the amended contract total. Industry norm for a project of this size and complexity is 5-

10%. The Wastewater Department, Engineer, and Contractor worked well together during the entire process, the plant is functioning as intended, and staff is working on process optimization. The Wastewater Department is quite pleased with the results of this project.

DECISION POINT/RECOMMENDATION: The council should approve and authorize the Mayor to execute Change Order No. 2 to the <u>Agreement between the City</u> of Coeur d'Alene and Apollo, Inc., dated February 7, 2017, for Construction of the <u>Wastewater Tertiary Treatment Phase 2 Improvements</u> in the amount of \$971,404.59.

Attachments:

- Change Order No. 2 (6 pages)
- CPR & WCD Summarized Detail Report Detail Report (18 pages)

Owner: City of Coeur d'Alene Wastewater Department

Contractor: Apollo, Inc.

Engineer: HDR

Project Name: Coeur d'Alene Tertiary Treatment

Phase 2

Effective Date: September 23, 2019 Owner's Contract No.: Contractor's Project No.: P162 Engineer's Project No.: 10053342 Owner Project Number:

The Contract is modified as follows upon execution of this Change Order:

Description:

The Contract is modified as follows upon execution of this Change Order:

Description:

1. DELETE Agreement Specification Section 00 52 13 4.02 Contract Times: Dates in its entirety and REPLACE with:

- A. The Work will be substantially completed on or before October 25, 2019, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before November 25, 2019.
- B. Parts of the Work shall be substantially completed on or before the following Milestone(s):
 - 1. Milestone 1: July 14, 2018
 - a. Process Area 570 Chemical Systems Center
 - b. Process Area 591 Secondary Effluent Pumping Station
 - c. Process Area 610 Tertiary Membrane Filtration
 - Excludes membrane acceptance testing as defined in City of Coeur d'Alene Wastewater Department Tertiary Treatment Phase 2 Membrane Pre-purchase contract with Zenon Environmental Corporation d/b/a GE Water & Process Technologies, Specification Section 01 75 03 System Start-up and Acceptance for Membrane Procurement Contracts.
 - 2. Milestone 2: July 16, 2019
 - a. Process Area 610 Tertiary Membrane Filtration
 - Specifically includes membrane acceptance testing as defined in City of Coeur d'Alene Wastewater Department – Tertiary Treatment Phase 2 Membrane Pre-purchase contract with Zenon Environmental Corporation d/b/a GE Water & Process Technologies, Specification Section 01 75 03 System Start-up and Acceptance for Membrane Procurement Contracts.

The following is an explanation of how the new Contract Times for Substantial Completion and Final Completion were developed:

There was one Change Proposal Request (CPR) and three Work Change Directives (WCD) that affected the Substantial and Final Completion dates of the projects. CPR 035 was additional work requested by the City to renovate electrical equipment and wiring in Primary Clarifier No. 1. This work required a 60-day time extension to Substantial Completion and a 30-day time extension to Final completion. WCD 054 was additional work requested by the City to provide modifications to the Primary Sludge Building (PSB) and LCP-4352. This work required a 30-day time extension to Substantial Completion and a 48-day time extension to Final Completion. WCD 065 was additional work requested by the City to replace existing corroded/damaged wiring between Primary Clarifier No. 1 Ventilation Fan and its corresponding bucket Section 3C in MCC-4351. This work required a 53-day time extension to Substantial Completion and a 35-day time extension to Final Completion. WCD 066 provided for odor control in three Sanitary Sewer Manholes by placing Tide Flex valves onto the influent pipelines. Due to the long lead time of the Tide Flex valves this this work required a 94-day time extension to Final Completion.

The increase in Contract Price was determined by totaling the amount of the CPRs and WCDs that are included with the backup of this Change Order. The amount of Contract Allowance of \$275,000.00 was subtracted from the total of Change Order No. 2 to arrive at the total amount to be added to the Contract Price. Other than the one CPR and three WCDs listed above, none of the other CPRs or WCDs requested any Contract Time be added to the project's Substantial or Final Completion dates.

002

<u>CPR</u>	Description	 Cost	Time
001	DIFFERING SITE CONDITIONS	\$ 24,997.46	0 Days
002	SUMP – RFI 003	\$ 1,846.59	0 Days
003	NACE INSPECTION CREDIT	\$ 0.00	0 Days
004	VOID	\$ VOID	VOID
005	PRIMARY CLARIFIER 3 – EXISTING PIPE	\$ 3,778.90	0 Days
006	8PW RELOCATION	\$ 0.00	0 Days
007	VOID	\$ VOID	0 Days
008	CAUSTIC STATIC MIXER	\$ 1,172.69	0 Days
009	LIGHT & ALARM POLE RELOCATION	\$ 989.84	0 Days
010	TMF FIBER RELOCATION	\$ 1,463.70	0 Days
011	TMF – PIPING, EXISTING CONCRETE REPAIR	\$ 103,349.65	0 Days
012	CHEMICAL CENTER 14" ABOVE GRATING COATING	\$ 0.00	0 Days
013	ISOLATION GATES IN PC EFFLUENT BOXES	\$ 12,537.00	0 Days
014	RELOCATE TRANSFORMER AT TMF & SCB	\$ 8,254.24	0 Days
015	PC3 STEEL UPPER ROOF SUPPORT	\$ 13,389.71	0 Days
016	VOID	\$ VOID	VOID
017	SURVEY EXPOSED FITTINGS AND VALVES	\$ 11,379.59	0 Days
018	REVISED MEMBRANE TANK COATING	\$ 41,723.68	0 Days
019	SEPS MAIN DISCONNECT RELOCATION	\$ 3,650.31	0 Days
020	TMF SEC CONTAINMENT COATING	\$ 17,612.03	0 Days
021	TMF SHUTDOWN PLAN	\$ 0.00	0 Days
022	VOID	\$ VOID	VOID
023	TMF TANK 6SS GATE	\$ 8,269.62	0 Days
024	TMF BLOWER CONTROL PANEL	\$ 5,581.52	0 Days
025	SEPS FILLET REPAIR AND GRATING CHANGESE	\$ 5,082.74	0 Days
026	MSA PIPE SUPPORT JOIST REINFORCEMENT	\$ 16,172.17	0 Days
027	SS WET ENDS FOR 3W INLINE CENTRIFUGAL GRUNDFOS PUMPS	\$ 19,897.45	0 Days
028	TMF TANK FRP COVER HANDLES	\$ 12,117.60	0 Days
029	REMEDIATION OF JOINTS ON HYPO SYSTEM	\$ 6,479.21	0 Days
030	HIGH PERFORMANCE INDUSTRIAL COATINGS SYSTEMS	\$ 18,425.20	0 Days
031	INTERIOR METAL LINER PANEL	\$ 11,665.14	0 Days
032	SCB2 FLOOR HARDENER – EPOXY	\$ -3,219.82	0 Days
033	TMF GANTRY CRANE	\$ -71,985.60	0 Days

034	VOID	\$ VOID	VOID
035	PC1 CORROSION RENOVATION	\$ 53,538.85	60 Days SC 30 Days FC
036	CHEMICAL TANK LEVEL TRANSMITTER BRACKETS	\$ 5,477.51	0 Days
SUBTOT	AL	\$ 333,646.98	60 Days SC 30 Days FC

<u>WCD</u>	Description	 Cost	Time
001	ELECTRICAL DUCTBANK RED DYE	\$ 3,457.09	0 Days
002	GE U BRACKETS MODIFICATIONS	\$ 10,124.41	0 Days
003	ADDITIONAL ASPHALT TMF	\$ 5,094.07	0 Days
004	PERMEATE PIPING ORIENTATION	\$ 4,079.36	0 Days
005	TANK WEIR COATING	\$ 4,656.03	0 Days
006	SEPS GUARDRAIL AND MEGA-FLANGE	\$ 13,359.02	0 Days
007	ORDER AND INSTALL NEW TMF VALVES	\$ 44,745.15	0 Days
008	REPLACEMENT 10IN PER PIPE IN TMF	\$ 10,347.63	0 Days
009	BELZONA COATING	\$ 19,980.47	0 Days
010	FLOWSERVE REPLACEMENT SEALS	\$ 19,718.38	0 Days
011	TMF FLOW SPLIT STRUCTURE GATES RELOCATION	\$ 1,535.83	0 Days
012	CHEM BLDG ELECTRICAL, HVAC DUCT, EYE WASH ALARM	\$ 16,553.16	0 Days
013	TMF SPRAY WATER	\$ 2,441.59	0 Days
014	SLIDE GATE COATING IN MEMBRANE TANKS	\$ 8,923.41	0 Days
015	RTS CHANNEL GRATING AND ELECTRICAL	\$ 2,008.96	0 Days
016	RETAINER RING ON DUCK BILL FLAPPER VALVE	\$ 2,327.09	0 Days
017	TMF ROOF DRAIN	\$ 2,464.68	0 Days
018	TMF TANK 6 SS BULK HEAD	\$ 8,009.82	0 Days
019	CHEMICAL BUILDING TANK OVERFLOW PREVENTION	\$ 24,471.37	0 Days
020	CHEMICAL LINE PRESSURE SWITCH	\$ 14,024.92	0 Days
021	FLAMMABLE LIQUIDS STORAGE SHED SLAB	\$ 10,159.40	0 Days
022	MEMBRANE BASIN T-6101-21 REPAIRS	\$ 14,131.09	0 Days
023	AIR PIPING FOR BUBBLE TESTING	\$ 2,876.29	0 Days
024	SECONDARY INFLUENT STRUCTURE MOD & SHY LINE EXTENSION	\$ 76,786.24	0 Days
025	HEAT TRACE & INSULATION FOR PERMEATE PIPING	\$ 75,368.81	0 Days
026	NEW TRANSFORMER FOR UV SYSTEM LOCAL CONTROL PANEL	\$ 5,498.94	0 Days
027	HEAT TRACE ALARMING	\$ 2,398.08	0 Days
028	PRIMARY CLARIFIER INCIDENTALS	\$ 75,627.75	0 Days
029	SCONDARY CLARIFIER INCIDENTALS	\$ 134,626.29	0 Days

030	PRESSURE TRANSDUCER FOR SEPS WET WELL	\$ 3,938.83	0 Days
031	EXTERIOR LIGHTING AT SCB2	\$ 1,712.67	0 Days
032	SQUARE D MCC BUCKET MODIFICATION	\$ 10,023.51	0 Days
033	SC1 ELECTRICAL VAULT	\$ 3,870.50	0 Days
034	PC2-PC3 SCUM VAULT RECOAT	\$ 888.78	0 Days
035	TRENCH DRAIN MODIFICATIONS	\$ 16,797.46	0 Days
036	SCB2 ECCENTRIC REDUCER	\$ 4,200.73	0 Days
037	FA DUCT REVISIONS	\$ 5,036.54	0 Days
038	ASPHALT CROSS SECTION AND PAVING AREA REVISIONS	\$ 46,387.99	0 Days
039	ROOF DRAIN PIPING RECONFIGURATION	\$ -2,427.95	0 Days
040	PSPS PUMP ROOM MODIFICATIONS	\$ 10,612.56	0 Days
041	PC3 ROOF FRAMING AND HATCH MODIFICATIONS	\$ 9,091.02	0 Days
042	UV PROTECTOR SHIELD UNDER STAIRS	\$ 2,909.90	0 Days
043	SCB2 MONORAIL MODIFICATIONS	\$ 2,357.57	0 Days
044	6-SSC GRAVITY ROUTING REVISIONS	\$ VOID	VOID
045	TMF 3W ORIFICE PLATE INSTALLATION	\$ 962.27	0 Days
046	PC1 & 2 SCUM PUMP MODIFICATIONS	\$ 9,701.74	0 Days
047	HEAT TRACE TERMINALS – RFI 119	\$ 453.57	0 Days
048	PC3 SIDING CHANGE	\$ 28,350.72	0 Days
049	SITE BOLLARDS	\$ 8,210.57	0 Days
050	SCB2 PIPING & HEAT TRACE MODIFICATIONS	\$ 14,126.92	0 Days
051	PC3 ACTUATOR	\$ 2,433.49	0 Days
052	MISCELLANEOUS ELECTRICAL	\$ 9,973.78	0 Days
053	RSS WSS SAMPLING EQUIPMENT	\$ 3,321.87	0 Days
054	PSB & LCP 4352	\$ 21,247.26	30 Days SC
			48 Days FC
055	SEALING HOLES IN PC3	\$ 2,368.01	0 Days
056	REPLACE-REPAIR EXISTING ELECTICAL VAULTS QTY 3	\$ 7,228.24	0 Days
057	AHU PUMP MODIFICATION	\$ 12,331.08	0 Days
058	BOILER PUMP MODIFICATIONS	\$ 1,629.07	0 Days
059	SILLING WELL FOR SEPS WET WELL PRESSURE TRANSDUCER	\$ 2,071.55	0 Days
060	SOLENOID VALVE FOR PC3 SCUM BEACH SPRAY WATER	\$ 3,011.20	0 Days
061	PRIMARY CLARIFIER GAS MONITORING UPDATE	\$ 10,657.25	0 Days
062	AREA CLASSIFICATION WORK FOR SCB & SCB2 INSTRUMENTATION	\$ 7,414.10	0 Days
063	MISCELLANEOUS POLYMER SYSTEM ELECTRICAL WORK	\$ 7,860.12	0 Days

064 LA	NDSCAPING CHANGES	\$	13,837.91	0 Days
065 FA	N CONDUCTOR REPLACEMENT	\$	3,239.89	53 Days SC
				35 Days FC
066 M	ANHOLE MODIFICATIONS	\$	10,778.54	94 Days SC
				94 Days FC
SUBTOTAL		\$	912,404.59	177 Days SC 177 Days FC
CHANGE ORD	ER NO. 2 TOTAL	\$	1,246,051.57	237 Days SC 207 Days FC
CONTRACT ALLOWANCE		\$	275,000.00	
CHANGE ORDE	R TOTAL TO CONTRACT	\$	971,051.57	
Attachments:	CPR 001, CPR 011, CPR 020, CPR 029 CPR 002, CPR 012, CPR 021, CPR 030 CPR 003, CPR 013, CPR 023, CPR 031 CPR 005, CPR 014, CPR 024, CPR 032 CPR 006, CPR 015, CPR 025, CPR 033 CPR 008, CPR 017, CPR 026, CPR 035 CPR 009, CPR 018, CPR 027, CPR 036 CPR 010, CPR 019, CPR 028 WCD 001, WCD 011, WCD 021, WCD 031, WCD 041, WCD 052, WCD WCD 002, WCD 012, WCD 022, WCD 032, WCD 042, WCD 053, WCD WCD 003, WCD 013, WCD 023, WCD 033, WCD 043, WCD 054, WCD WCD 004, WCD 014, WCD 024, WCD 034, WCD 045, WCD 055, WCD WCD 005, WCD 014, WCD 024, WCD 034, WCD 045, WCD 055, WCD	0 062 0 063 0 064 0 065		

WCD 006, WCD 016, WCD 026, WCD 036, WCD 047, WCD 057 WCD 007, WCD 017, WCD 027, WCD 037, WCD 048, WCD 058 WCD 008, WCD 018, WCD 028, WCD 038, WCD 049, WCD 059 WCD 009, WCD 019, WCD 029, WCD 039, WCD 050, WCD 060 WCD 010, WCD 020, WCD 030, WCD 040, WCD 051, WCD 061

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES		
	[note changes in Milestones if applicable]		
Original Contract Price:	Original Contract Times:		
	Milestone 1: December 31, 2017		
	Milestone 2: June 29, 2018		
	Project Substantial Completion: October 31, 2018		
Ş <u>16,169,000.00</u>	Project Final Completion: December 31, 2018		
	Date		
[Increase] [Decrease] from previously approved Change	[Increase] [Decrease] from previously approved Change		
Orders No. <u>0</u> to No. <u>1</u> :	Orders No. <u>0</u> to No. <u>1</u> :		
	Milestone 1: July 14, 2018		
	Milestone 2: January 9, 2019		
	Project Substantial Completion:		
¢ 524 020 17	Project Substantial Completion: March 01, 2019		
5			
Contract Drice price to this Change Orden			
Contract Price prior to this Change Order:	Contract Times prior to this Change Order:		
	Milestone 1: July 14, 2018		
	January 9, 2019		
	Project Substantial Completion: March 01, 2019		
\$ 16,703,930.17	Project Final Completion: May 01, 2019		
	Date		
[Increase] [Decrease] of this Change Order:	[Increase] [Decrease] of this Change Order:		
	Milestone 1: July 14, 2018		
	Milestone 2: July 16, 2019		
	Project Substantial Completion: October 25, 2019		
Ş <u>9/1,051.5/</u>	Project Final Completion: November 25, 2019		
	Date		
Contract Price incorporating this Change Order:	Contract Times with all approved Change Orders:		
	Milestone 1: July 14, 2018		
	Milestone 2: July 16, 2019_		
	Project Substantial Completion: October 25, 2019		
\$ 17 674 981 74	Project Substantial completion: October 25, 2019 Project Final Completion: November 25, 2019		
<u> </u>	Date		
RECOMMENDED: ACCE			
By: By:	But		
By: By.	Dy.		
Engineer (ir required) Owner (Au	thorized Signature) Contractor (Authorized Signature)		
Title: <u>Project Manage</u> Title	Title		
Date: 109/13/2019 Date	Date		

Change Proposal Request No: 011

(Not a Change Order)

Project Name:	Project Owner:	
CDA Tertiary Ph 2 Improvements	City of Coeur d'Alene, Idaho	
HDR Project No: 10053342	Owner's Project No. (If applicable):	
Contractor:	Regulatory Agency Project No. (If applicable):	
Apollo, Inc	Initiated by: Contractor	Date: 12/01//2017

Attention:

The following change in the contract on this project is proposed. Please provide your proposed price for the cost of this change.

- 1) A breakdown of cost SHALL be provided upon request by the Owner or Engineer.
- 2) Work shall not commence until authorized by the Owner.

Description of Proposed Change:

The following work aligns with the response to RFI 17 TMF Facility Process Piping. Please provide pricing before work begins, with the exception of the installation of any filler/wedge flanges which will be priced on a Time and Materials basis (*italicized wording are comments/questions from Contractor*).

Corrective Concrete Work to existing Membrane Tank Walls: Item 1

1. Contractor shall provide a list and description of each item thought to be corrective work performed that was unforeseen concerning concrete work to existing Membrane Tank Walls. Provide a timesheet logging the hours specifically associated with each entry on the list for review and concurrence with the on-site RPR.

Raise Bottom of Sump: Item 2

 Add Normal Weight – all other concrete with 28 day compressive strength of 4,500 psi to bottom of tank drain sump to match invert of 6 inch tank drain piping. See Specification Section 03 31 30 – 2.3 Table 1. The piping is currently higher than the sump bottom which will prevent proper draining of sump contents. Ensure the bottom of sump slopes towards the piping.

MSA Piping: Item 3

- Loosen link seal of existing 8-inch MSA piping wall spool pieces. Add five 8-inch spools to existing exterior MSA piping manifolds to
 move the interior centerline one foot further away from the face of interior south wall. Use grooved coupling at point of connection
 exterior to the building to facilitate proper piping alignment and a level two hole configuration at the flanges.
- Remove three existing air inlet boxes on south wall of TMF Facility. Block off existing openings with sheet metal to accommodate new inlet filter box provided by MSA blower manufacturer. Fabricate an inlet adapter to transition from inlet filter box to 16-inch MSA inlet piping. Provide drawings of inlet adapter with cost proposal for Engineer's review.

Permeate Piping: Item 3

- The existing south wall spools do not align with each other, are not properly aligned horizontally or vertically, and are not square with the grid layout. Contractor shall avoid removing flanges on existing piping. Contractor shall loosen link seal and align piping properly. Also, achieve proper level two hole orientation with the exterior flanges, and facilitate the interior flanged connection with a grooved to flanged adapter on the new piping.
- 2. The existing 20-inch PER pipe at centerline elevation 2138.42 feet is not level. Contractor shall install a filler/wedge flange with a width of 2 inches or less at the point of connection to bring new 20-inch PER piping level.

10-inch BW Piping: Item 4

1. Existing manifold is not parallel with wall/grid layout lines. Contractor shall install a filler/wedge flange with a width of 2 inches or less at the point of connection to bring new 10-inch BW piping parallel with wall/grid layout lines.

Backpulse/CIP Pumps: Item 5

- 1. Plans indicate the existing discharge connect to be 6 inches. Flowserve pump drawings indicated the discharge to be 6-inch. The existing discharge size is 4-inch. Contractor shall provide new pipe section and flexible bellow from the pump discharge to the existing check valve above to make the 6-inch connection.
- Contract Drawing 610D301, Section F shows no modification to the existing suction piping for the new pump "swap out" and did not provide the size of the existing suction piping. This issue was not discovered until the new pumps were delivered. The existing suction piping is 6-inch. The new pump suction flange diameter is 8-inch. For each backpulse pump:

- a. Remove existing 6-inch bellow on suction side of pump.
- b. Remove suction piping from bellow to existing 12-inch butterfly valve.
- c. Provide 8-inch bellow on suction side of pump. See Specification Sections 40 05 00 and 40 05 23.
- d. Provide new 8-inch backwash piping, 12" x 8" eccentric reducer, and 12-inch 90 degree elbow to existing 12-inch butterfly valve. See Specification Sections 40 05 00 and 40 05 23.
- e. Reinstall existing pressure gage on top of new reducer. See Standard Detail 40 91 10-16.

Plant Drain & Other Piping Systems at Strainer: Item 5

- 1. New plant drain piping at 2 line conflicts with existing HVAC duct discharge vent. Contractor shall raise HVAC duct discharge and vent above elevation of PC line.
- 2. On the 10-inch PRG piping near the strainer where the check valve is relocated, the check valve will be in contact with the existing installed non-potable plant water line. Contractor shall reroute the existing non-potable plant water line.
- 3. The two 18-inch SE pipes at each strainer are not parallel and elevations differ. They get further apart where the spool and fittings are being connected for the new strainer. Installation of a FCA is not acceptable. Contractor shall install a dismantling joint, similar to Romac Style DJ400, in new spool piece near area C7 on Sheet 610D104 to bring the two 18-inch SE pipes parallel and accommodate installation of new SE piping.

3W Piping:

1. 8-inch 3W pipe spool at A line near 5 line is not installed horizontally and the flange is not vertical. FCA is not acceptable. Contractor shall install a dismantling joint, similar to Romac Style DJ400, in new 8-inch 3W line to provide adjustment at tie-in.

Tank Drain Piping Elevation and Manifold Corrections Item 5

- 1. The tank drain piping inverts as they penetrate the wall into the TMF basement are below the inverts of the 6-inch drain manifold tie-in points. Contractor shall raise the 6-inch drain manifold piping by cutting out a portion of the existing vertical spool.
 - a. Correct the elevations and re-groove the vertical spool and reuse the victaulic by flange adaptor.
 - b. A neoprene or approved material pipe support, with shims if necessary, shall be used to vertically support the piping in the new space created between the piping and the concrete pillars.
 - c. As the manifold is raised, the attached piping on the south side of the tee will also be raised, and these associated flanges will interfere with the existing grating. Provide cut outs in the grating and band the raw edges using flat bar.
 - d. Provide touch-up paint as necessary for finished product.

Six inch 3W Piping Interference with Strainer Removal Item 6

- 1. Sheet 610D104 in the Contract Drawings show the 6-inch 3W piping being routed to within interference of the where the strainer STR-6102-21 would be raised vertically when removed.
 - a. Correct the routing of the 6-inch 3W to be sufficiently moved southwest of the area directly above the strainer.
 - b. For pipe support reuse any available existing hangers and Unistruts to perform the relocation, otherwise provide costs for purchase of new hangers or Unistruts.
 - c. Purchase and install a 6-inch check valve in orientation and at location as directed by RPR.
 - d. Provide costs for re-order of new 6-inch spool to accommodate the shorter dimensions between fittings as a direct result of shifting the pipe horizontally, approximately 8 inches, and installing a 6-inch check valve.
 - e. Provide touch-up paint as necessary for finished product.

UV System Reconfiguration Additional Piping Item 6

- 1. Sheet 610D104 in the Contract Drawings provides a layout for the UV system including the pumps and associated control panel. The wiring for the pumps to reach the control panel was too short to accommodate the layout provided on sheet 610D104, thus a reconfiguration was necessary.
 - a. Provide cost for additional piping that was necessary to accommodate reconfiguration.

TODD JENSEN, PE, CCM

Bу

All work shall be in accordance with the terms, stipulations, and conditions of the original Contract Documents. If the work herein provided for is Approved by Change Order, the time of completion will be:

[] Increased [] Decreased [] Unchanged

by calendar days.

This change will: [] Add [] Deduct [] Not Change

HDR Recommendation:

[] Recommend Acceptance

[] Do Not Recommend Acceptance

By: HDR Engineering

Date

Owner's Action:

[] Accepted [] Not Accepted

By: Owner

Date

HDR Project Tracker Collaboration System

Change Proposal Request No: 018

(Not a Change Order)

Project Name:	Project Owner:	
CDA Tertiary Ph 2 Improvements	City of Coeur d'Alene, Idaho	
HDR Project No:	Owner's Project No. (If applicable):	
10053342		
Contractor:	Regulatory Agency Project No. (If applicable):	
Apollo, Inc	Initiated by: Engineer	Date: 9/1/2017

Attention:

The following change in the contract on this project is proposed. Please provide your proposed price for the cost of this change.

- 1) A breakdown of cost SHALL be provided upon request by the Owner or Engineer.
- 2) Work shall not commence until authorized by the Owner.

Description of Proposed Change:

Section 09 96 00 -1.4.A.5 of the Contract Documents requires that the coating systems proposed for use are to be reviewed and approved by a Senior Corrosion Specification Specialist employed by the coatings manufacturer. Themec's specialist has reviewed the coating proposed for application to the interior of the membrane tanks at the Tertiary Membrane Filtration (TMF) Facility and has proposed an alternative coating. Please reference Themec's letter dated August 25, 2017 attached here. The alternative coating proposed by Themec's specialist, Series 436/435 coatings, were applied to the interior of Membrane Tanks 1 and 2 during the Phase 5C.1 project and has performed well since. The filter/surfacer, Themec Series 218 MortarClad, has already been applied to the interior of Membrane Tanks 3 – 6 at a thickness of 1/16 inch.

Tnemec's specialist has certified the use of the Series 436/435 for application in the membrane tanks. See letter dated August 30, 2017 attached here. This certification is based upon the environmental conditions described in the email thread also attached to this CPR.

Please provide a cost proposal for the following:

- 1. Provide a credit for the specified system for an Immersion non-NSF environment, 16 to 20 mil of Tnemec Series 22.
- Provide material and labor costs for applying the following coatings system to the entire interior concrete surface of Membrane Tanks 3 -6:
 - a. Reinforced Epoxy: Series 436 Perma-Shield FR at 60-80 mils DFT
 - b. Topcoat: Series 435 Perma-Glaze at 15-20 mils DFT
- 3. Surface preparation and coatings application shall be per coatings manufacturer's recommendation and per Section 09 96 00 3.4 and 3.5.
- 4. Apply coatings two inches beyond horizontal edge of chamfer at top of each membrane tank, matching existing coatings application. Termination cut is not required.

Bу

All work shall be in accordance with the terms, stipulations, and conditions of the original Contract Documents. If the work herein provided for is Approved by Change Order, the time of completion will be:

[] Increased [] Decreased [] Unchanged

by calendar days.

This change will: [] Add [] Deduct [] Not Change

HDR Recommendation:

- [] Recommend Acceptance
- [] Do Not Recommend Acceptance

By: HDR Engineering

Date

Owner's Action:

By: Owner

Date

HDR Project Tracker Collaboration System

Change Proposal Request No: 035

(Not a Change Order)

Project Name:	Project Owner:	
CDA Tertiary Ph 2 Improvements	City of Coeur d'Alene, Idaho	
HDR Project No:	Owner's Project No. (If applicable):	
10053342		
Contractor:	Regulatory Agency Project No. (If applicable):	
Apollo, Inc	Initiated by: Contractor	Date: 01/09/2019

Attention:

The following change in the contract on this project is proposed. Please provide your proposed price for the cost of this change.

1) A breakdown of cost SHALL be provided upon request by the Owner or Engineer.

2) Work shall not commence until authorized by the Owner.

Description of Proposed Change:

Provide a cost proposal for the proposed modifications as stated below and with the accompanying drawings.

Primary Clarifier #1 (PC1) has had considerable deterioration of electrical equipment, conduit, wire, and appurtenances housed within the footprint of the building due to the extremely corrosive nature of the process area. With this, the City would like to renovate all electrical equipment excluding the one (1) drive unit, lights, and louvers for ventilation. The following statements should encompass the majority of work involved in renovating this structure in order to implement a new installation that closely resembles the current Primary Clarifier #3 (PC3).

PC1 Interior (Class I Division 1), Exterior (Class I Division 2, up to 3.5' – Unclassified beyond 3.5'): Remove all conduits and wire for the devices as shown in the accompanying diagrams including, but not limited to, one (1) drive unit disconnect switch, hand-off-auto switches, emergency pushbutton(s), light switches, solenoid valve hand-off-auto switch, and gas detection sensor(s). All lighting fixtures with respective conduits and wire from the switch level are to remain in place. Louvers and HVAC conduits/wire, where applicable, shall remain in place.

Remove all devices as shown in the accompanying diagrams including, but not limited to, one (1) drive unit disconnect switch, hand-off-auto switches, emergency pushbutton(s), light switches, solenoid valve hand-off-auto switch, and gas detection sensor(s).

Install new devices as shown in the accompanying diagrams including, but not limited to, one (1) drive unit disconnect switch, hand-off-auto switches, emergency pushbutton(s), light switches, solenoid valve hand-off-auto switch, and gas detection sensor(s).

Install Class I Division 1 rated conduits and wire for the devices as shown in the accompanying diagrams including, but not limited to, one (1) solenoid valve hand-off-auto switch, gas detection sensor(s), high torque and high-high torque limit switches, and emergency pushbutton(s) and light switches where passing through PC1.

Install seal offs and explosionproof rated junction boxes inline with the raceway system on the exterior of PC1 where transitioning from unclassified space to classified spaces per NFPA 820, 2016.

Install stainless steel 304 Uni Strut rack system affixed to guard rail outside North PC1 door for mounting of electrical equipment as shown in the accompanying diagrams.

Install RGS conduits, or approved equal, on the exterior of PC1 where transitioning from the existing ductbank to the electrical equipment area, or from the electrical equipment area to the seal off(s) and explosionproof junction boxes, where transitioning between classified spaces. Field route conduits in the most effective, lowest area of visibility, and with minor exposure to possible damage.

Install new wire for all devices, where being replaced, relocated, or untouched, using the existing conduit system ductbank from Primary Sludge Building to the electrical area.

Handhole intercepting ductbank 14B and 14C shall be cleaned out, debris removed, and backfilled under with gravel, or appropriate bedding material, of sufficient depth to provide adequate drainage of liquid buildup inside electrical handhole.

Field research and review wiring, outside the replacements above, within handhole for insulation failures, knicks, abrasions, or other integrity deformities and failures in which replacement shall be reviewed with and approved by the Engineer. Where wiring is subject to review and approved by Engineer, replacement, termination, and verification of testing operations shall be completed.

Terminate new wiring within existing MCC buckets at the intended equipment locations. Testing and commissioning shall be performed and verified by the electrical contractor, control system integrator, and Engineer following PC3 and Primary Clarifier #2 (PC2) startups. Preliminary testing may take place ahead of schedule to fast track the PC1 startup if deemed necessary.

Coordinate locations with Engineer during installation for final approval. Clearances, ratings, and conduit bending radii for wireway shall meet National Electric Code (NEC) 2017 and National Fire Protection Association 820, 2016.

	TODD JENSEN, PE, CCM
	Ву
All work shall be in accordance with the terms, stipulations, and conditions of the original Contract Documents. If the work herein provided for is Approved by Change Order, the time of completion will be:	HDR Recommendation: [] Recommend Acceptance
[] Increased [] Decreased [] Unchanged	[] Do Not Recommend Acceptance
by calendar days.	By: HDR Engineering
This change will: [] Add [] Deduct [] Not Change	Date
	Owner's Action: [] Accepted [] Not Accepted
	By: Owner

Date

HDR Project Tracker Collaboration System

Work Change Directive No. 007

Date of Issu	ance:	Effective Date:	11/21/2017
Owner: Contractor:	City of Coeur d'Alene, ID Apollo	Owner's Contract No.: Contractor's Project No.:	
Engineer:	HDR	Engineer's Project No.:	10026247
Project:	CDA Tertiary Phase 2 Improvements	Contract Name:	

Contractor is directed to proceed promptly with the following change(s):

Description:

While working to remove piping in the TMF, corrosion was discovered on the existing valves. These valves identified will need to be replaced with new valves that have stainless steel for the disc and body and Buna-N or EPDM for the seat. Exhibits identifying these valves are provided.

Contractor shall proceed with ordering the following valves, or equivalent as approved by engineer:

Description	Manufacturer Information
Two, 8" Wafer Check Valves on Permeate Pump Discharge , 5C.1	Prince Series 813 Bray Rite Model 210
Two, 8" Butterfly Valves - One Upstream of each Flow Meter	Bray Series 30/31
Two, 8" Butterfly Valves - One Downstream of each Purge Flow Control Valve	Bray Series 30/31
Two, 8" Manual Wafer Butterfly Valves, Isolation to Permeate Tank	Bray Series 30/31
Two, 10" Wafer Check Valves on Backpulse Pump Discharge	Prince Series 813 Bray Rite Model 210
Two, 10" Butterfly Valves on Backpulse Pump Discharge	Bray Series 30 - General Use
Two, 10" Butterfly Valves Backwash to Filter	Bray Series 31
One, 10" Wafer Butterfly Valve, Purge line before Strainers	Bray Series 30/31
Three, 8" Wafer Check Valve on Permeate Pump Discharge, TTP2	Prince Series 833 Bray Rite Model 210

Continue forward with contract work to install valves currently on-site so as not to let the work included in this Work Change Directive delay the project.

Contractor shall proceed with installing new valves once they are received on-site.

Contractor shall confirm work activities daily with on-site RPR.

Purpose for Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to:

Non-agreement on pricing of proposed change.

Necessity to proceed for schedule or other Project reasons.

Contract Price \$ 26,125	increase	
Contract Time 0	days [increase] [dec	rease].
Basis of estimated change in Con	stract Price:	
Lump Sum	Unit Price	
Cost of the Work per Day	Other	
RECOMMENDED:	AUTHORIZED BY:	RECEIVED:
ATP Com		
By:	By: Authorized Signature)	By: MM
By: Engineer (Authorized Signat Title: Project Manager	By: Owner (Authorized Signature) Title Cap. Program M4r.	By: Contractor (Authorized Signatu

			Work Change Directive No. 024
Date of Issu	ance: April 3, 2018	Effective Date:	April 3, 2018
Owner:	City of Coeur d'Alene, ID	Owner's Contract N	o.:
Contractor:	Apollo	Contractor's Project	No.:
Engineer:	HDR	Engineer's Project N	lo.: 10026247
Project:	CDA Tertiary Phase 2 Improvements	Contract Name:	
Contracto Description	r is directed to proceed promptly wit <u>1:</u>	h the following change(s	۵۰ ۱۹۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ ۱۹۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ ۱۹۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰ - ۲۰۰۰
2. 3.	SS anchors at 18-inches on cer b. The wall shall be nested in a 1 side poured after the wall is ser Install a new 36" x 36" face mounted, wall. Gate to have a seating and unsea 59 for additional requirements. Gate SLG-501-32 to be used on PC #7. Dimensions of existing structures wer	nter. ¹ / ₂ " bed of grout, and built t. The grout allows for im downward opening stain ting head of 3 feet and cross 3 Effluent Box with an ad	to accommodate 1 ¹ / ₂ " of grout on each perfections in the floor and the walls. less steel slide gate on the new concrete ank handle. See Specification Section 40 0! justed operating rod. See CPR 13.
5.	2018. See modifications on Drawings 001C:	e verified by Contractor d 501 attached.	luring deactivation request on February 15,
5. <u>Exten</u> 1. 2. 3. 4. 5.	2018. See modifications on Drawings 001C: sion of 1"-SHY line: Install new tee, See Specification Sect Install two plastic ball valves on 1"-SI provide "vented" ball valves for all se: Route new 1"-SHY line to Secondary trenching, backfilling, and compaction See modifications on Drawings 001C: Provide a negative slope on secondary the basement wall. This will allow lea	e verified by Contractor d 501 attached. 501 attached. HY line. See Specification rvices with greater than 5 Effluent Pumping Station in requirements. 203, 501D901, and 591D0 v containment piping exten- king to be more readily no	 luring deactivation request on February 15, 1 Section 40 05 63 – 2.3. Additionally, percent concentrated sodium hypochlorite. a. See Specification Section 31 23 33 for b) attached. anding 2-inches beyond the inside face of oticed.
5. <u>Exten</u> 1. 2. 3. 4. 5. Contractor	2018. See modifications on Drawings 001C: <u>sion of 1"-SHY line:</u> Install new tee. See Specification Sect Install two plastic ball valves on 1"-SI provide "vented" ball valves for all set Route new 1"-SHY line to Secondary trenching, backfilling, and compaction See modifications on Drawings 001C: Provide a negative slope on secondary the basement wall. This will allow lea shall confirm work activities daily with	e verified by Contractor d 501 attached. 501 attached. HY line. See Specification rvices with greater than 5 Effluent Pumping Station or requirements. 203, 501D901, and 591D0 v containment piping exten- king to be more readily no on-site RPR.	luring deactivation request on February 15, a Section 40 05 63 – 2.3. Additionally, percent concentrated sodium hypochlorite. a. See Specification Section 31 23 33 for 31 attached. nding 2-inches beyond the inside face of oticed.
5. Exten 1. 2. 3. 4. 5. Contractor <u>Attachments</u>	2018. See modifications on Drawings 001C: <u>sion of 1"-SHY line:</u> Install new tee. See Specification Sect Install two plastic ball valves on 1"-SI provide "vented" ball valves for all set Route new 1"-SHY line to Secondary trenching, backfilling, and compaction See modifications on Drawings 001C: Provide a negative slope on secondary the basement wall. This will allow lea shall confirm work activities daily with	e verified by Contractor d 501 attached. 501 attached. HY line. See Specification rvices with greater than 5 Effluent Pumping Statior or requirements. 203, 501D901, and 591D0 v containment piping exten- king to be more readily no on-site RPR.	 luring deactivation request on February 15, Section 40 05 63 – 2.3. Additionally, percent concentrated sodium hypochlorite. See Specification Section 31 23 33 for 11 attached. nding 2-inches beyond the inside face of oticed.
5. Exten 1. 2. 3. 4. 5. Contractor <u>Attachments</u> 1. Dra 2. Deta wall	2018. See modifications of Ortshing inductors were 2018. See modifications on Drawings 001C: <u>sion of 1"-SHY line:</u> Install new tee, See Specification Sect Install two plastic ball valves on 1"-SI provide "vented" ball valves for all set Route new 1"-SHY line to Secondary trenching, backfilling, and compaction See modifications on Drawings 001C: Provide a negative slope on secondary the basement wall. This will allow lea shall confirm work activities daily with <u>sec</u> wing 001C203, 001C501, 501D901 and all 3 on 001C501 does not apply as con- will be precast. Apollo is thinking the	e verified by Contractor d 501 attached. 501 attached. HY line. See Specification rvices with greater than 5 Effluent Pumping Station is requirements. 203, 501D901, and 591D0 containment piping extent king to be more readily not on-site RPR.	 luring deactivation request on February 15, Section 40 05 63 – 2.3. Additionally, percent concentrated sodium hypochlorite. See Specification Section 31 23 33 for 11 attached. nding 2-inches beyond the inside face of oticed.
5. <u>Exten</u> 1. 2. 3. 4. 5. Contractor <u>Attachments</u> 1. Dra 2. Deta wall	2018. See modifications of Ortshing inductors were 2018. See modifications on Drawings 001C: <u>sion of 1"-SHY line:</u> Install new tee. See Specification Sect Install two plastic ball valves on 1"-SI provide "vented" ball valves for all set Route new 1"-SHY line to Secondary trenching, backfilling, and compaction See modifications on Drawings 001C: Provide a negative slope on secondary the basement wall. This will allow lea shall confirm work activities daily with wing 001C203, 001C501, 501D901 and ail 3 on 001C501 does not apply as con- will be precast. Apollo is thinking the on-agreement on pricing of proposed cl	e verified by Contractor d 501 attached. 501 attached. HY line. See Specification rvices with greater than 5 Effluent Pumping Station requirements. 203, 501D901, and 591D0 containment piping exten- king to be more readily no non-site RPR.	 luring deactivation request on February 15, Section 40 05 63 – 2.3. Additionally, percent concentrated sodium hypochlorite. See Specification Section 31 23 33 for 11 attached. nding 2-inches beyond the inside face of oticed.

Contract I Contract	Price \$ TBD Fime 0	days	increase [increase] [decrea	ase].
Basis of e	stimated change in Co	ontract Price:	Unit Price	
Cost	of the Work per Day		☐ Other	
By:	Jate R. Gr	By:	- Residence By	: Any fearle
Title: F	roject Manager	Title: Cap.1	Ragran MGE. Ti	tle: VP
Date: 0	4/03/2018	Date: 4-	4-2018 Da	ite: 414119

		We	ork Change Directive No. 025
Date of Issu	ance: 04/06/18	Effective Date: 04/06/18	
Owner:	City of Coeur d'Alene, ID	Owner's Contract No.:	
Contractor:	Apollo	Contractor's Project No .:	
Engineer:	HDR	Engineer's Project No .:	10026247
Project:	CDA Tertiary Phase 2 Improvement	ts Contract Name:	
Contracto	r is directed to proceed promptly v	with the following change(s):	
Description	<u>n:</u>		
Contractor Replace wi aluminum s	shall remove existing heat trace and th new heat trace and insulation. See shroud to greatest extent possible.	insulation on exterior permeate p Specification Sections 40 41 13	siping for Membrane Trains 1 and 2. and 40 42 00. Reuse existing
Additionally Therefore,	, the scale for Sheet 610E105 is inco Contractor shall provide cost and lab	prrectly shown as 3/8" = 1' -0". Th or for installation for additional he	e correct scale is 3/16" = 1' -0". eat trace and insulation required.
Contractor	shall confirm work activities daily with	n on-site RPR.	
Attachmen 1)	<u>ts:</u>		
Directive to Contract Ti	proceed promptly with the Work des me, is issued due to: on-agreement on pricing of proposed	scribed herein, prior to agreeing t I change.	to changes on Contract Price and
	lecessity to proceed for schedule or o	other Project reasons.	
Estimated	Change in Contract Price and Con	tract Times (non-binding, preli	iminary):
Contract Pri	ce S TBD	increase	
Contract 11	ne 0 days		
Basis of est	imated change in Contract Price: Sum f the Work	Unit Price Other	
RE	COMMENDED:	AUTHORIZED BY:	RECEIVED:
By:	JALR Jone By:	Owner (Authorized Signature)	y: Amplene Contractor (Authorized Signature
Title: Pro	ject Manager Title:	Ap. Pecareau Mar T	itle: VP

Work Change Directive No. 028

Date of Issuance:06/20/19Effective Date:06/20/19Owner:City of Coeur d'Alene, IDOwner's Contract No.:Contractor:ApolloContractor's Project No.:Engineer:HDREngineer's Project No.:Project:CDA Tertiary Phase 2 ImprovementsContract Name:

Contractor is directed to proceed promptly with the following change(s): Description:

PC3 Incidental Work:

- 1) Make revisions to the PI(G) piping for PC3 to address conflicts with existing piping as directed by the Owner and Engineer.
- 2) Upsize water supply piping to PC3 from 1-inch piping to 2-inch piping from the main 3-inch 3W supply line to the hydrants. Piping to remain 1-inch downstream of the walkway hydrant.
- 3) Provide revised hydrant type per the attached detail on all installed/changed hydrants at Primary Clarifiers.
- 4) Provide a new hydrant per the attached detail at the northwest corner of the Primary Sludge Pump Building.

PC1 Incidental Work:

- 1) Move the proposed PC1 Effluent box approximately 18 inches to the north and lower by approximately 12 inches to accommodate the existing effluent piping. Provide any credit associated with change in piping.
- 2) Provide additional grating and support as needed on PC1 Effluent Box.
- 3) Provide a 2-inch drain from PC1 scum valve vault to the PSPB.
 - a. Provide 2-inch schedule 80 PVC piping.
 - b. Provide a cored opening approximately 36 inches below grade through the west wall and seal piping using link seal. Grout hole outside of link seal.
 - c. Join the new 2-inch valve vault drain line to the contract provided Foul Air Fan drain inside the PSPB and run one common drain line to the sump via the closest drain.
 - I. Coordinate with the city/engineer on which drain to use and routing of piping.
- 4) Re-route the existing 4-inch DI Secondary Dewatering Sump Drain Piping around the newly located valve vault at PC1.
- 5) For grading purposes in this area, remove the top two northern steps immediately west of the new PC1 Effluent Box (steps leading down to the grit removal gallery).
 - a. Modify existing handrail to accommodate the change in steps.
 - b. Grade general area to where flow is directed towards the new CB near the PSPB. Flow should be away from the existing 'Low P' Building, the new Foul Air Fan support slab, and the new PC1 Effluent Box. Coordinate with the Owner and Engineer.

CDA Hydrant Details for WCD 28.pdf		
Purpose for Work Change Directive: Directive to proceed promptly with the Wor Contract Time, is issued due to:	rk described herein, prior to agreeing to	o changes on Contract Price and
Non-agreement on pricing of prop	posed change.	
Necessity to proceed for schedul	e or other Project reasons.	
Estimated Change in Contract Price and	Contract Times (non-binding, preli	minary):
Contract Price \$ TBD	increase	
Contract Time 0 day	/s	
Basis of estimated change in Contract Pr	ice:	
Lump Sum	Unit Price	
Cost of the Work (time and materials)	L Other	
RECOMMENDED:	AUTHORIZED BY:	RECEIVED:
JATR OF		Ame Roma
By: V By Engineer (Authorized Signature)	Owner (Authorized Signature)	Contractor (Authorized Sign
Title: Project Manager Ti	tle Cap. REDGEAM MGE. T	itle: VP
	11	all ila

Work Change Directive No. 029 Date of Issuance: 08/21/19 Effective Date: 08/21/19 Owner: City of Coeur d'Alene, ID Owner's Contract No .: Contractor: Apollo Contractor's Project No.: Engineer: HDR Engineer's Project No .: 10026247 Project: CDA Tertiary Phase 2 Improvements Contract Name: Contractor is directed to proceed promptly with the following change(s): Description: Incidental Extra Work for SC1, 2, 3, Dewatering Sumps, and Field Piping Interferences. SC1: 1) Replace existing %-inch hydrants located on the north and east sides of SC1 with new hydrants per attached hydrant detail. Run minimum 2-inch schedule 80 PVC from the 3-inch 3W mainline for all new hydrants. 2) Provide a new 3W source for the existing spray bar system with curb stop and valve box. a. The source tie-in shall be approximately 4 to 5 LF upstream of the new northern hydrant assembly. b. A hole shall be cored through the outer clarifier wall and using a swing joint from the main line piping, the spray bar piping shall pass through the wall and be secured with link seal. c. Discontinue the existing piping to the spray bar by removing and providing a removable cap on the original system. Coordinate with OWNER/RPR for other details as needed. 3) SCI Dewatering Sump 1: 4-inch TD (p) routing change per Owner's request. a. Intercept existing common 4-inch tank drain from DW Sump 2 and 3 at the closest proximity to DW Sump 1 TD. This location will most likely be at the 4-inch elbow (see attached photos). b. Provide credit for approximately 40 LF of piping, fittings, excavation, and the core drill required that was originally detailed in the drawings. SC2: 1) Replace existing southern hydrant with new hydrant per attachment. a. The source line for this hydrant may be 1-1/2-inch schedule 80 PVC as it was pre-existing. 2) Replace the existing hydrant on the east side with the new hydrant using 2-inch minimum schedule 80 PVC as the source from the mainline, 3) Remove existing 2-inch hydrant being used for water truck filling. Discontinue use below ground at the source. SC3: 1) Provide two extra hydrants around the perimeter of SC3 per attachment. a. Yard Hydrant I shall be constructed per the attached detail. b. Yard Hydrant 2 shall be a combination yard hydrant and water truck fill point. Construction shall be per attached detail except all piping will be a minimum 2-inch through the hose bib. 2) Place concrete under the upper level access stairs at SC3 in lieu of asphalt and return the concrete to the concrete landing at SCB2.

Secondary Dewatering Sumps:

- 1) Dewatering Sumps #1 and #3: For safety and ease of access, the following sump piping changes have been requested by the city.
 - a. Modify the 4-inch cleanout piping to delete the 4-inch plug valve shown on details 1 & 3 on sheet 001C503, Provide a blind flange with a 2-inch ball valve. Give the plug valve to the city.
 - b. Provide a separate cored access hole in the lid for the 4-inch cleanout piping to pass through. This may require an offset in the 4-inch piping.
 - c. Coordinate with the city on final height of the 2-inch ball valve above cored opening.
- 2) Dewatering Sump #2:
 - a. Leave this sump as is. Leave the existing pump in place. Leave the wall attached gate valve in place.

- Provide credit for the 6-inch plug valve as shown on the 6-inch TD(G) in P&IDs sheet 00Y609 at Dewatering Sump 2. This valve was inadvertently omitted.
- c. Provide credit for all contract work not performed as well as material cost savings.

Field Piping Interferences:

- The existing 6-inch WSS line and 10-inch RSS line from SC2 are in the way of the proposed 36-inch SI(G) #3 line. Relocate the existing 6-inch and 10-inch lines as needed, replacing plastic pipe with ductile.
- 2) The existing 6-inch SSC line from both SC1 and SC2 share a common line with the solids contact basins. Provide piping so the solids contact basins will continue to drain into DWS 2 and reroute the existing 6-inch SSC (g) lines to converge and travel to the new scum vault at SCB2. Provide as-built drawings showing new elevations as per additional survey work.
- Remove and replace the existing metering vault that is located above the required excavation for the 36-inch SI(G). Maintain the flow meter for plant operations.
 - a. Install a 2-inch schedule 80 PVC drain from the new vault to DW Sump 2. Include a 'P' trap. Discuss option with City to pipe directly to the SCB1 and avoid sump gases and delete the 'P' trap.
- Provide credit for 'leaving as is' the 8-inch RSS from SCB1 to the 16-inch ML line per sheet 001C202, keynotes 10 & 11.

Grating Support for Secondary Distribution Box:

Provide grating support for grating spanning the weir gate cut-out. Use 2-inch x 2-inch SS or Galvanized
angle the same length as the wall per field discussion with Tony.

Grating Support for Secondary Effluent Box:

 Provide grating support for installed grating on the secondary effluent box per detail –inch SE Grating Detail-inch and per field discussion with Tony.

Note: All supply piping from the mainline to the hydrants shall be 2-inch minimum unless discussed otherwise.

Attachments:

Grating Support Detail

Purpose for Work Change Directive:

Directive to proceed promptly with the Work described herein, prior to agreeing to changes on Contract Price and Contract Time, is issued due to:

Non-agreement on pricing of proposed change.

Necessity to proceed for schedule or other Project reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contrac	t Price	\$ TBD		Increase		
Contrac	t Time	TBD	days			
Basis o	f estimat imp Sum ost of the	t <mark>ed change</mark> i Work (time	in Contract Price and materials)	Unit Price		
	RECO	MMENDE	D:	AUTHORIZED BY:		RECEIVED:
By:	Enginee	a R g	By:	Cr. Owner (Authorized Signature)	By:	Contractor (Authorized Signature)
Title: Date:	Project 08/21/1	Manager 9	Title: Date:	Wastender Superintedal 8/21/19	Title: Date:	4110119

		Work Change Directive No. 38
Date of Issu	ance: 06/15/19	Effective Date: 06/15/19
Owner:	City of Coeur d'Alene, ID	Owner's Contract No .:
Contractor:	Apollo	Contractor's Project No .:
Engineer:	HDR	Engineer's Project No.: 10026247
Project:	CDA Tertiary Phase 2 Improvements	Contract Name:
Contracto	r is directed to proceed promptly with	the following change(s):
Description 1) Modify attachment	n: existing asphalt placement plan to incor s.	porate new limits as discussed in the field and as detailed in the
Attachmen 1) 001C10	<u>ts:</u> 5, 001C204, 001C205	
Purpose fo	r Work Change Directive: proceed promptly with the Work descri	bed herein, prior to agreeing to changes on Contract Price and
Contract Ti	me, is issued due to:	
Contract Ti	me, is issued due to: Non-agreement on pricing of proposed cl	hange.
Contract Ti	me, is issued due to: Non-agreement on pricing of proposed cl Necessity to proceed for schedule or othe	hange. er Project reasons.
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Coeur d'Alene

Upgraded Wastewater Treatment Facility





Examples of Unanticipated and Additional Work

Underground "Utility" Interferences





Contract With Apollo, Inc.

- Original Contract for "Tertiary Treatment Phase II Improvements" which included a third Primary Clarifier, third Secondary Clarifier, and build-out of Tertiary Membrane Filtration system from 1 MGD to 5 MGD.
- Change Order No 1 was for construction of a gantry crane to facilitate maintenance of the membranes.
- Change Order No 2 is for unanticipated and additional work throughout the project.

Item	Date	Cost
Original Contract	Feb 7, 2017	\$16,169,000
Change Order No 1	Oct 16, 2018	\$534,930
Change Order No 2	Pending Approval	\$971,404.59
Amended Contract Total		\$17,675,334.59





