

CHANGE ORDER NO.: 2

Owner: **Jefferson County**
Engineer: **Tetra Tech**
Contractor: **Ovivo USA, LLC**
Project: **Port Hadlock Wastewater**
Contract Name: **Port Hadlock Wastewater**

Owner's Project No.: **405-21140**
Engineer's Project No.: **N/A**
Contractor's Project No.:

Date Issued: **10/02/2023**

Effective Date of Change Order: **Upon Execution
by all parties**

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

Description:

**New master control panel to incorporate the Ovivo system and the non-Ovivo system controls.
Programming and integrating controls for non-Ovivo equipment which were not included in the
original design.**

Attachments:

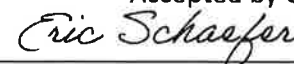
See attached proposal dated 9/28/2023

Change in Contract Price	Change in Contract Times
Original Contract Price: \$ 1,395,158.00 (plus WSST)	Original Contract Times: Substantial Completion: Per Article 2.02 (Original Contract) Ready for final payment: Per Article 2.02 (Original Contract)
Increase from previously approved Change Orders No. 1 to No. 1: \$ 6,098.00 (plus WSST)	Increase from previously approved Change Orders No.1 to No. 1: Substantial Completion: N/A Ready for final payment: N/A
Contract Price prior to this Change Order: \$ 1,401,256.00 (plus WSST)	Contract Times prior to this Change Order: Substantial Completion: N/A Ready for final payment: Per Payment Schedule in Change Order 2 Proposal, pp.5-6.
Increase this Change Order: \$ 438,000.00 (plus WSST)	[Increase] [Decrease] this Change Order: Substantial Completion: N/A Ready for final payment:
Contract Price incorporating this Change Order: \$ 1,839,256.00 (plus WSST)	Contract Times with all approved Change Orders: Substantial Completion: Per Article 2.02 (Original Contract) Ready for final payment: Per Payment Schedule in Change Order 2 Proposal, pp.5-6.

Recommended by Engineer (if required)

By: 
Title: Asst. Public Works Director
Date: 10/4/2023

Accepted by Contractor



Ovivo Project Manager

10/4/2023

Approved as to form only:

Approved as to form only:

P. C. Hunter

October 5, 2023

Greg Brotherton **Date**
Chair, Jefferson County Board of Commissioners

Philip C. Hunsucker, **Date**
Chief Civil Deputy Prosecuting Attorney

Ovivo SiC Systems

2300 Greenhill Dr. #100
Round Rock, TX 78664



Worldwide Experts in Water Treatment

ECN 10 for Plant Control Panel and Programming to Port Hadlock

Date	Prepared By	Services Performed For:
8/18/2023 -- Rev0	Ovivo	Port Hadlock
9/6/2023 -- Rev1	2300 Greenhill Dr. #100	623 Sheridan St
9/28/2023 -- Rev2	Round Rock, TX 78664	Port Townsend, WA 98368

This External Change Notice (ECN) is issued pursuant to the current contract between **Port Hadlock** ("Client") and Ovivo ("Vendor"), effective **September 6th, 2023**. This ECN is subject to the terms and conditions contained in the contract between the parties and is made a part thereof. Any term not otherwise defined herein shall have the meaning specified in the contract. In the event of any conflict or inconsistency between the terms of this ECN and the terms of the contract, the terms of this ECN shall govern and prevail.

Proposal Overview

Tetra Tech has requested Ovivo, as per "RFP – Ovivo SCADA Integration 02162023" (attachment #1), to provide a proposal for the Port Hadlock WWTP project to cover additional scope related to the three items listed below.

- 1) provision of a new Master Control Panel for non-Ovivo provided plant equipment,
- 2) services related to the programming and integration of all plant equipment into new panel,
- 3) provision of a plant SCADA system*



*At this time Ovivo cannot commit to scope 3) of providing a plant SCADA system, and we regretfully need to decline offering a proposal for this scope. As Ovivo does not generally provide services related to SCADA programming it would be a scope that we would have to subcontract out; and therefore, we feel we would not provide enough reasonable value for the client in taking on this scope and only end up providing additional overhead and management costs.

In this proposal Ovivo gives an overview of the scope being offered, including both material and labor, related to items 1) & 2) above.

Ovivo Scope of Supply

Ovivo has taken the requirements laid out in Tetra Tech's RFP and have applied them to the August 2022 version of the P&IDs (attachment #2) and the 90% design Electrical Enlarged Site Plan (attachment #3). As this is the basis of Ovivo's proposal, any future changes of the equipment depicted in these drawings, due to the maturing of the design, is open for future changes.

- Supply / program – new Master Control Panel, located in Electrical room / chemical storage.
 - Control Panel to be NEMA 4X, Stainless Steel
 - Control Logix Redundant PLC (2x CPU racks)
 - Compact Logix I/O rack
 - I/O to include EQ system I/O, Yard Pump I/O, Fuel Storage I/O, Dewatering I/O, and odor control I/O.
 - Provision of 20-25% spare I/O
 - Local Panelview.
- Modify / Upgrade - existing MBR Skid Panel, located on MBR skid (existing panel, modified as follows)
 - Upgrade current Red Lion HMI to Allen Bradley
 - Compact Logix I/O rack
 - I/O to include MBR system, and some minor adjacent I/O as space permits
 - Provision of 20-25% spare I/O
 - Local Panelview.
- Junction Boxes
 - Locations
 - EQ Tank
 - Yard Pump



- Dewatering
 - Fuel Storage
- NEMA 4x SS junction boxes with wiring diagrams, conduit schedules, etc.
- Electrical
 - Provide drawings for 2x MCP panels
 - Provide drawings for 4x Junction Box Panels (Marshalling)
- Programming
 - Programming to be added for all wired I/O, and network VFD / starters as show in the P&ID drawings provided.
 - Update all control documents as required, all systems will be represented by Ovivo standard documents.
- Shipping of new Master Control Panel to site
 - Planned to be shipped with all other Ovivo project equipment
 - If panel is required at an earlier/later time than all other Ovivo provided equipment, additional shipping costs may result in a change.
- Provision of labor for interfacing with SCADA integrator
- 15x business days of On-Site controls / electrical support. Days assumed to be applied over 3x trips; and includes all labor and travel expenses. All on-site days in support of new Master Control Panel will count against 15 business day balance.
- Training of staff during installation and commissioning on the HMI and program use

Out of Scope Items

- Future addition of equipment not currently called out on Aug 2022 P&IDs or in scope of supply above
- Starter and/or VFDs for plant equipment.
 - Note: Ovivo assumes all starters/VFDs to be either Allen Bradley or Schneider, any other brand may result in a change
- Field wiring to connect equipment and instrumentation to new Master Control Panel, or communication wiring.
- On-Site support in excess of 15x days provided, to be reimbursable based on Ovivo's current Technical Services Rate sheet at time of scope execution.
- Design of physical location of new Master Control Panel within the plant.



- Tetra Tech to design final location of new Master Control panel and all conduit runs from plant equipment. Ovivo to provide design input as needed.
- Integration and Installation of new Master Control Panel into new wastewater treatment plant
 - General Contractor to unload panel from delivery truck and install into final location within plant.
 - Electrical Contractor to make all wiring field runs and land all wires within panel. Ovivo to provide site support to electrical contractor during integration of new Master Control panel.
- Non-Ovivo provided equipment - start-up, testing and commissioning.
 - Ovivo to provide site support to electrical contractor as needed. Ovivo will confirm signals from termination point to PLC.

Supporting Documentation & Attachments

- Scope of Supply update
- P&ID update
- PFD update
- Control Narrative update
- SCC update
 - Including incorporation of plant programming
 - Provision of filtered list for SCADA integrator
- New Panel Design Package
 - Control Block Diagram,
 - Loop diagrams for instruments
 - Panel layout drawings
 - Component cutsheets
- MBR skid panel design package update
- Shelf Spare Parts List
- IOM update



Delivery Details

- Deliverables to be provided in an updated submittal package.
- New Plant Panel to be delivered along with all Ovivo provided equipment.

Delivery Terms

- Delivery terms will remain consistent with project contract, wherein Ovivo will cover shipping costs to site, site's general contractor responsible to offload and store equipment.

Purchase Price

Item	Description	Sell Price (US Dollars)
1	Plant Control Panel and Programming	\$396,245.00
2	15x business days ¹ (3x trips) of on-site Support	\$41,755.00 ^{2,3}
Total:		\$438,000.00
Notes:		
1.	On 16 th on-site day, controls engineer's time to be reimbursable based on Ovivo's current Field Services Rate sheet at time of scope execution.	
2.	Current prices based on 2023 Field Service Rate Sheet (see attachment #4).	
3.	For price breakdown see attachment #5	

Payment Schedule

- Propose the following milestone payments for Item 1:
 - 50% (\$198,222.50) at signing of Change Order
 - 40% (\$158,498.00) at delivery of panel
 - 10% (\$39,624.50) at performance test



- Propose the following milestone payments for Item 2:
 - 33.33% (\$13,918.33) after week 1 of service is completed
 - 33.33% (\$13,918.33) after week 2 of service is completed
 - 33.33% (\$13,918.33) after week 3 of service is completed

Pricing and Commercial Terms

- Item 2 to be billed in full week increments. If third week is not utilized, then the third week will not be billed.
- Standard Terms are 30 days NET, interest charged at 1 ½% per month (18%) per annum on outstanding balances. Please refer to contract terms for a reference point.
- Pricing are net, taxes are not included.
- Prices are valid for 30 days from proposal issuance date. If a formal purchase order is not received and accepted within this validity period Ovivo reserves the right to review and adjust pricing and lead times as necessary.
- Prices are quotes in US Dollars unless otherwise noted.
- No allowances have been included for bonds of any kind.

Warranty

- Warranty terms will remain consistent with Ovivo's project warranty statement, with the scope contained within this proposal being covered by Part 2 of the Ovivo MBR System Warranty.

General Notes

- Pricing is based on the use of Ovivo standard design, equipment engineering submittals (IFI), materials of construction, QA/QC procedures and documentation.



Proprietary and Confidential Information

The attached document contains proprietary and confidential information and is submitted under a confidential relationship. By accepting this document, the recipient agrees:

- It will not disclose to third parties or use any drawings, specifications, designs, processes or information supplied by Ovivo in any manner detrimental to the interests of Ovivo;
- Any special features particular to this design and information gained as a result of this document shall be treated as confidential and shall be the property of Ovivo and will not be incorporated in whole or in part in other projects unless recipient obtains written permission from Ovivo to do so;
- Not to copy in whole or in part nor reveal its contents in any manner or for any purpose except for the purpose stated herein;
- The foregoing applies without limitation to all documents prepared by Ovivo in connection with this submission and the recipient acknowledges that this document involves confidential rights of Ovivo and all design, manufacturing, reproduction, use and sale rights regarding same are expressly reserved.



Approval and Acceptance

In order to move forward with this change request Ovivo requires that the below be signed off and returned to the Ovivo Project Manager. Upon acceptance, a revised PO will need to be issued to include additional scope.

Port Hadlock

Ovivo Project Manager

By:
Samantha Harper
Project Manager

By:
Eric Schaefer
Project Manager

Eric Schaefer

Date:

Date:

9/28/2023



Attachments:

Attachment #1 - RFP -- Ovivo SCADA Integration 02162023 (2 pages)

Attachment #2 - August 2022 version of the P&IDs (7 pages)

Attachment #3 - 90% design Electrical Enlarged Site Plan (2 pages)

Attachment #4 -- 2023 SiCBLOX Field Service Rate Sheet (1 page)

Attachment #5 -- Field Service Cost Breakdown (1 page)



Attachment 1

Text from original document 2/16/23.

Text added 3/15/23.

RFP Description:

Ovivo to provide full integration services during construction for all MBR and non-MBR equipment. A list of anticipated services includes, but is not limited to the following:

Services:

- Create Process Flow Diagram showing the high-level connectivity between the control systems
 - OV: Controls specific or expand standard PFD?
 - Tt: OV to create control block diagram for controls portion
 - P&ID:
 - Tt: OV to take over P&ID ownership for extended scope, to own control and make update to control line as needed
- Detailed control sequence of operation
 - OV: expanded SCC
- Integration of field instruments to local/remote controllers
 - OV: tie in additional instruments into local IO
 - Tt: currently have an OV panel and plant panel
 - OV: evaluate distance between IO to determine remote IO or panels, prefer less wiring and more ethernet
- Wiring of all control panels and field instruments (conduit and wire pulls by others)
 - Tt: internal wiring of control panels
 - Tt: develop loop diagrams for instruments
 - OV to provide control panels needed at site
- Detailed design of SCADA network architecture, with needed redundancy
- Detailed design of process control panels
 - OV to provide full design package
 - Tt has a 95% design package for control package
- Interface design between MBR and non-MBR equipment (interlocks and permissives)
 - A lot of information in process control narrative
 - Evaluate critical and non-critical interfaces
 - OV: interfaces shown in electrical drawings and SCC
- Data access / acquisition for SCADA platform
 - OV would switch from RedLion to Allen Bradley with FactoryTalk
 - OV/Tt: use of Allen Bradley throughout facility
- PLC redundancy design and implementation
 - ControlLogix to be used potential with dual power supply
 - OV to recommend shelf spares list
 - Need hot switch over setup
- SCADA servers and thin-client remote desktop services
 - OV would propose middle of road industrial PC
 - OV to spec PCs, then to be decided who to furnish
- Remote VPN SCADA access, or secure web services
 - OV uses inhouse products; an EWON and program WaterExpert
- SCADA software and application development
 - OV to provide full programming suite and supporting software

Attachment 1

- Alarming / notification platform implementation
 - OV's WaterExpert application provides
- Development of automated reporting software required for DOQ compliance
 - Tt: been using DreamReports in WA
 - OV can propose alternative
- System start-up, testing and commissioning
 - Mechanical out of scope; EC&I in OV scope
- Staff training
 - OV will quote a specific amount of training, with additional time being invoiced
- Record document preparation (O&M manuals, as-builts, programming documentation, etc.)
 - OV to include proposed document delivery register
 - TBD: documentation to be stand alone or combined with previous documentation
- Some SCADA items outside of process scope (i.e. monitoring generators / power monitoring), currently hardwired interfaced
 - OV has experience with MODBust
 - Hardwired interfaces can be open for discussion
- Tetra Tech maintains ownership over construction contractors
 - OV to take on installation confirmation

The scope would include setting up a SCADA server and remote workstation within the Administration Trailer using remote desktop services, or equal. The goal is to provide a single unified SCADA platform, fully integrated without need for novel interfaces between MBR / Non-MBR SCADA platforms, or which would otherwise require separate operator consoles for MBR versus non-MBR processes.

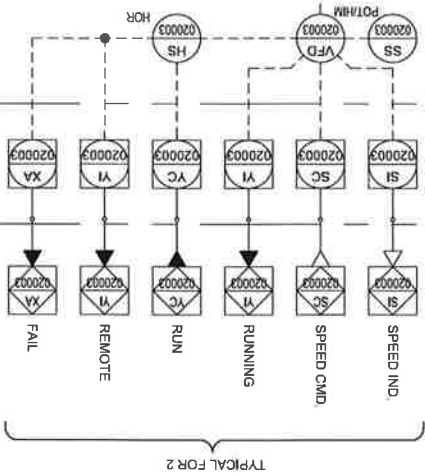
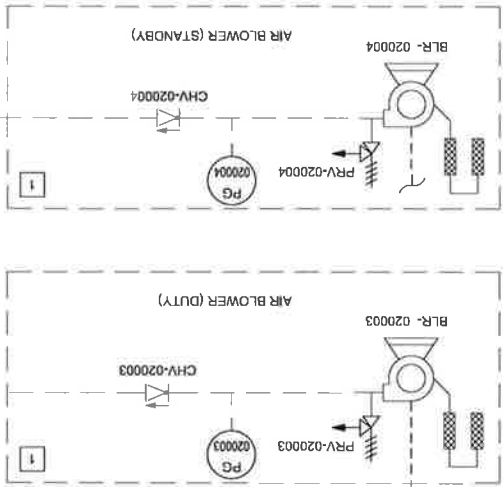
The quote is to be based upon the phase 2 100% drawings and specifications. Please refer to the following specification sections, which shall be utilized as minimum requirements for the quote:

- Section 409002 Testing and Commissioning
- Section 409600 SCADA System Software
- Section 409635 Programming

Quote to include a construction phase submittal to be submitted from Ovivo through the Contractor. The quote should also include costs for site visits, testing, training, and record documentation of the new SCADA system.

NOTES

- 1 COORDINATE DISCHARGE OF BLOWER WITH EQUIPMENT MANUFACTURER.



Project No.: 200-12562-20003	Designed By: J. RICE	Drawn By: W. CHANCELLOR	Checked By: E. DIENST
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JEFFERSON COUNTY, WASHINGTON
PORT MADLOCK UGA SEWER SYSTEM
PHASE 2
P&ID
EQ BLOWER

MARK	DATE	DESCRIPTION	BY

PRELIMINARY - NOT FOR CONSTRUCTION
FOR ECOLOGY APPROVAL
AUG 2022





TETRA TECH

1420 FIFTH AVENUE, SUITE 600
SEATTLE, WA 98101
PHONE (206) 883-9300 FAX (206) 883-9301
www.tetrattech.com

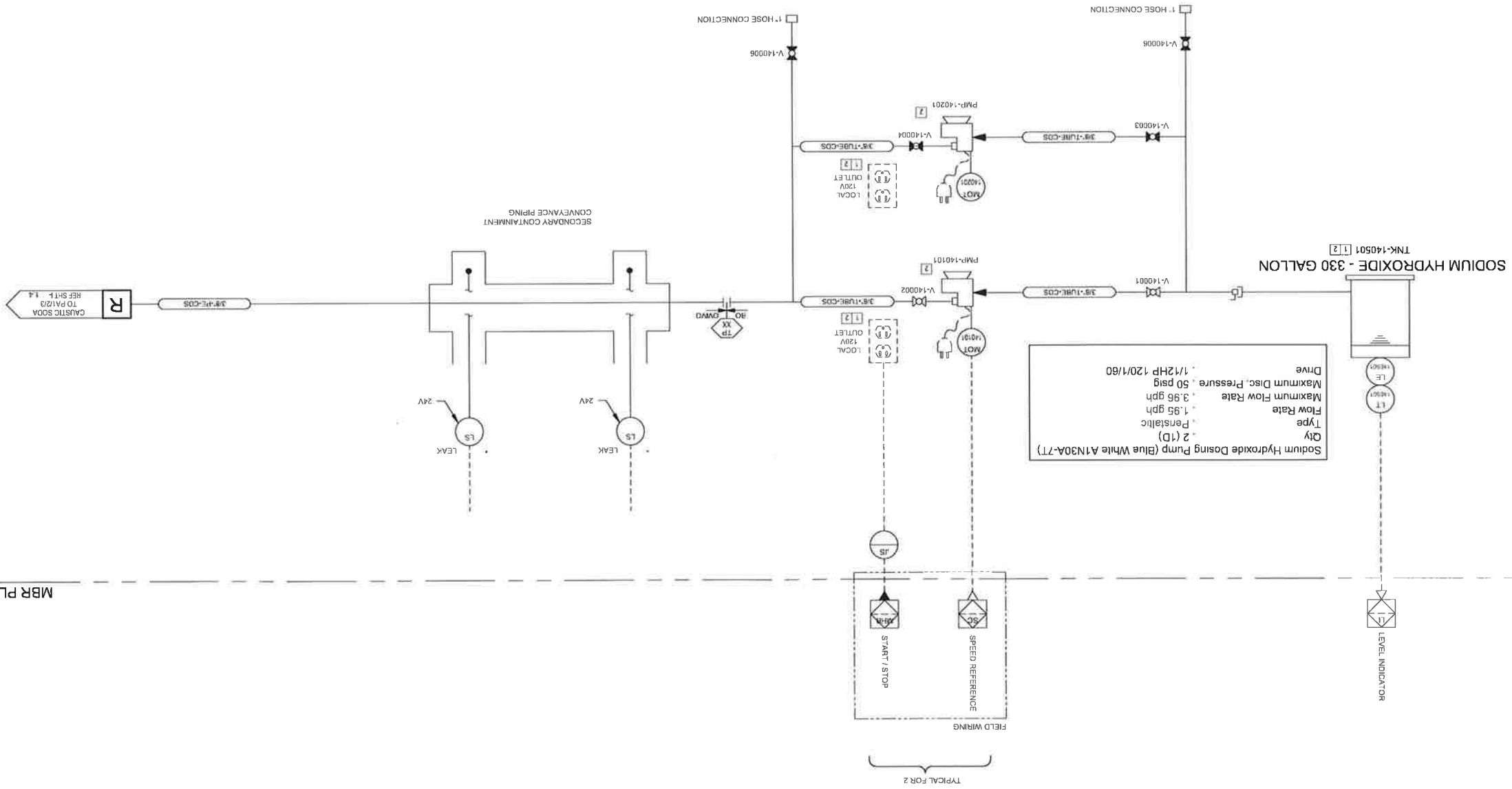
Attachment 2
CALL BEFORE YOU DIG
811

I-101
Sheet

Bar Measures 1 inch

- NOTES**
- | | |
|---|-------------------|
| 5 | FUTURE |
| 4 | SUPPLIED BY OVIVO |
| 3 | NOT USED |
| 2 | NOT USED |
| 1 | NOT USED |

ITEMS INDICATED AS 'BY OTHERS' ARE NOT PROVIDED BY THE MBR VENDOR AND SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR UNLESS NOTED OTHERWISE



Attachment 2

CALL BEFORE YOU DIG
811

804-1

Project No.	200-12562-20003
Designed By	JR
Drawn By	WC
Checked By	ED

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JEFFERSON COUNTY, WASHINGTON
PORT MANLOCK UGA SEWER SYSTEM
PHASE 2
RECLAMATION PLANT
PAID
PH CDS SYSTEM

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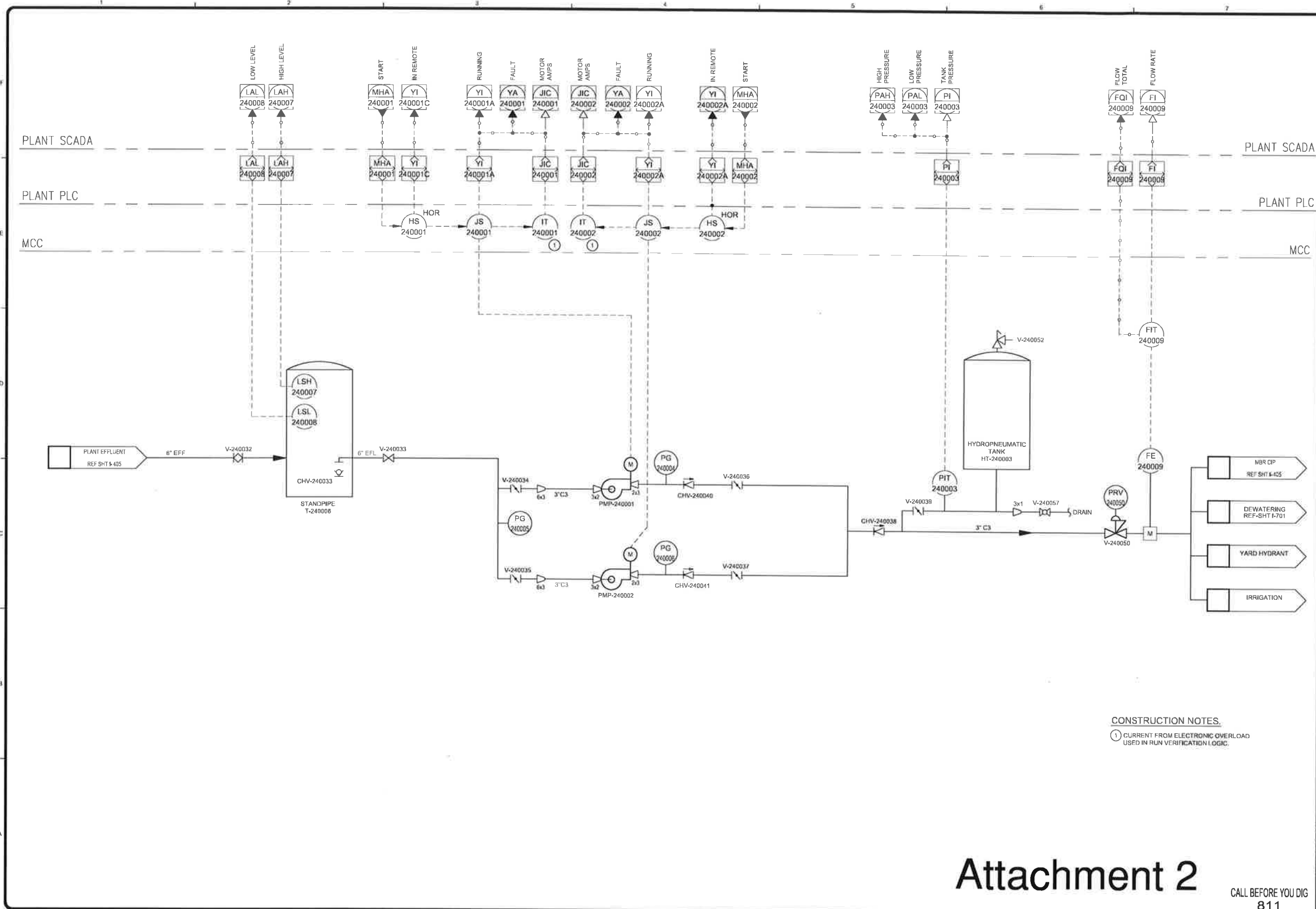
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FOR ECOLOGY APPROVAL
AUG 2022



TETRA TECH

1420 FIFTH AVENUE, SUITE 600
SEATTLE, WA 98101
PHONE (206) 883-9300 FAX (206) 883-9301
WWW.ICTECH.COM

8/9/2022 10:58:03 PM - C:\USERS\RICHARD.MORRIS\ACCDG\TETRA TECH\INC200-12562-20003 P&ID - HADLOCK PROJECT FILES\WORKING MODELS\ICAD-MODEL FILES\SHEET FILES\SWWTP PHASE 02\1-501-PID-C3 CHEMICAL FEED SYSTEM.DWG - MORRIS, RICHARD



Attachment 2

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811

**TETRA TECH**
www.tetratech.com
1420 FIFTH AVENUE, SUITE 600
SEATTLE, WA 98101
PHONE (206) 833-9300 FAX (206) 863-9301



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FOR ECOLOGY APPROVAL
AUG 2022

BY	DATE	DESCRIPTION

JEFFERSON COUNTY, WASHINGTON
PORT HADLOCK LGA SEWER SYSTEM
**PHASE 2
RECLAMATION PLANT
P&ID
PLANT WATER
SYSTEM**

Project No. 200-12562-20003
Designed By: J RICE
Drawn By: JRC
Checked By: E. OENST

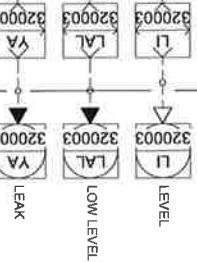
I-501
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Bar Measures 1 inch

PLANT SCADA

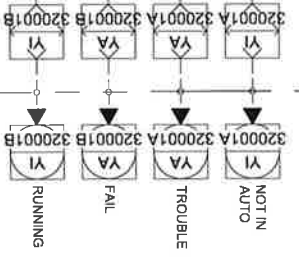
PLANT PLC

MCC

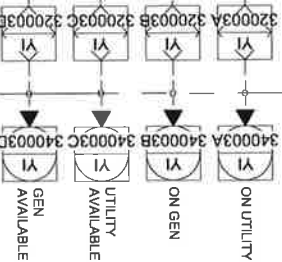
P.NL-320003 FUEL TANK INVENTORY PANEL



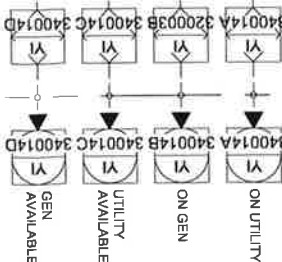
GEN-320001 GENERATOR CONTROL PANEL



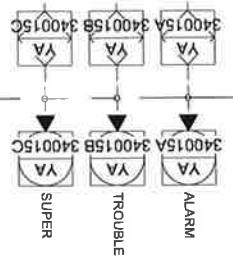
ATS-340003 AUTOMATIC TRANSFER SWITCH



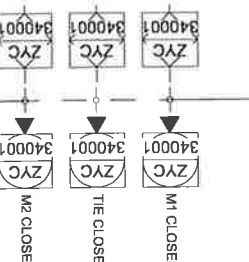
ATS-340014 AUTOMATIC TRANSFER SWITCH



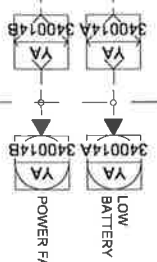
P.NL-340015 FIRE ALARM PANEL



SWB-340001 SWITCHBOARD



UPS



FSH-340009



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Attachment 2

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1-600

JEFFERSON COUNTY WASHINGTON
PORT HADLOCK USA SEWER SYSTEM

PHASE 2
RECLAMATION PLANT
P&ID
MISCELLANEOUS
SYSTEMS

MARK

DATE

DESCRIPTION

BY

Project No.: 200-12562-20003

Designed By: JR

Drawn By: WC

Checked By: ED

PRELIMINARY - NOT FOR CONSTRUCTION
FOR ECOLOGY APPROVAL
AUG 2022



TETRA TECH

www.tetratech.com
1420 FIFTH AVENUE, SUITE 600
SEATTLE, WA 98101
PHONE: (206) 883-9300 FAX: (206) 883-9301

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AUG 2022

[illegible]

JEFFERSON COUNTY, WASHINGTON
PORT HADLOCK UGA SEWER SYSTEM
PHASE 2
RECLAMATION PLANT
DEWATERING BINS

Project No.	200-12562-20003
Designed By	JR
Drawn By	WC
Checked By	ED

I-701
Steel

Copyright Tetra Tech

FIELD SERVICE RATE SHEET

Effective January 1st, 2023 and valid until December 31st, 2023

OVIVO SiCBLOX Technical Services group is our field-based team for your water treatment system needs. We work directly with clients to commission, optimize, support, and enhance the operation of your treatment facility.

Labor Classification	Standard Rate	Overtime Rate
	Mon-Fri	Evenings, anytime over 8hrs/day and holidays
In-House Programming Support	\$150/hr	\$270/hr
Technical Services	\$160/hr	\$240/hr
Engineer/ Project Manager	\$170/hr	\$255/hr
Onsite Controls/ Instrumentation	\$180/hr	\$270/hr
Travel Time (To and from site)	As per above rates	

NOTES

- Minimum charge for a service call is 4 hrs
- Overtime is defined as any hours over 8 hrs per day
- Rates apply from the time the employee departs the shop/office until return (includes time required to obtain materials and equipment)
- All rates in USD
- Rates do not include tax.

Charge	Rate
Ground Travel	\$0.60/mile
Per Diem (if meals are not provided)	\$100/day
Travel and Living (hotel, car rental)	Cost + 20%
Rental Equipment	Cost + 20%
3 rd Party Contractors	Cost + 20%
Consumables	Cost + 20%

To contact SiCBLOX Technical Services

Email: sicbloxservice@ovivowater.com
 Telephone: (512) 652-5848
 Hours of Operations: 8:00am – 5:00pm (Monday- Friday, CST)

Attachment 5

CAW432: Port Hadlock - External Change #10 - Onsite Support Cost Breakdown

*based off 2023 Field Service Rate Sheet

Client Reimbursement Rate	20%	applied to Hotel, Car, and Flights
Trips	3	assume 3x week of onsite support
Days/Trip	5	assume no weekend work
Total Hours	120 hrs	40hrs/wk * 3wks
Total Overtime	30 hrs	assumed 10hr days, thus 2hrs of OT per day
Standard Hourly Rate	180 \$/hr	as per 2023 rate sheet
Standard Overtime Rate	270 \$/hr	as per 2023 rate sheet
Per Diem	100 \$/day	as per 2023 rate sheet
Hotel	222 \$/night	\$185/night + 20%
Car	150 \$/day	\$125/day + 20%
Flight	1656 \$/trip	\$1380/flight + 20%

Cost for Normal Hours	\$ 21,600.00	=	120hrs * \$180/hr
Cost for Overtime	\$ 8,100.00	=	30hrs * \$270/hr
Total Per Diem	\$ 1,500.00	=	\$100/day * 5days * 3trips
Total Hotel	\$ 3,330.00	=	\$185/night * 5days * 3trips * (1+20%)
Total Car	\$ 2,250.00	=	\$125/day * 5days * 3trips * (1+20%)
Total Flights	\$ 4,968.00	=	\$1380/flight * 3trips * (1+20%)

Total:	\$ 41,748.00
Round up	\$ 7.00

Final Total: \$ 41,755.00 For 3 weeks of pre-paid onsite support