

CITY OF MOBILE Oil/Water Separator Replacement - Municipal Garage City of Mobile Project No. 2022-3005-05

ADDENDUM #1

Addendum #1 items:

- Questions and answers that were received during the pre-bid meeting, by telephone, and/or by electronic mail that were due by Thursday, July 28, 2022 at 12pm.
- Sign-in sheet from pre-bid meeting
- Revised Dwg. 4090-GA1 Rev. 1
- Revised Dwg. 4090-GA2 Rev. 1
- Revised Dwg. 4090-GA3 Rev. 1

Instructions: Please acknowledge receipt of this addendum by signing this form and including it in your submittal August 3, 2022.

Acknowledgement: I hereby acknowledge receipt of Addendum 1. I understand that failure to confirm the receipt of addenda may be cause for rejection of this submittal.

Company	
Authorized Signature	
	
Date	

CITY OF MOBILE Oil/Water Separator Replacement – Municipal Garage City of Mobile Project No. 2022-3005-05

QUESTIONS/ANSWERS:

QUESTION-1: What is the engineering's estimated budget valve for this project?

ANSWER: \$180,000

QUESTION-2: The existing pumps currently in service are rated for 120V, the plans call for 230V pumps. Can you verify the available electrical service for this project?

ANSWER: 230V electrical service, see the attached revised drawings for clarification.

QUESTION-3: Do the control panel enclosures and enclosure stands need to be stainless steel?

ANSWER: Yes. The control panel enclosures shall be NEMA 4X rated Stainless Steel

QUESTION-4: Is the contractor responsible for disposal of the existing Oil Water Separators (OWS-1 & OWS-2)

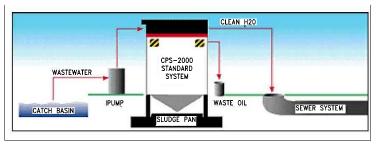
ANSWER: Yes. See DWG. 4090-GA1 Note 6

This concludes the submitted questions and answers.

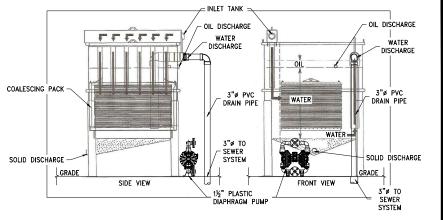


Oil/Water Separator Replacement (Municipal Garage) Pre-Bid Meeting Project No. 2022-3005-05 7/27/2022 10:00 am

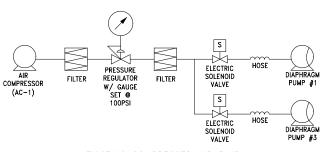
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TYP. EXISTING OIL/WATER SEPARATOR SCHEMATIC



TYP. EXISTING OIL/WATER SEPARATOR (OWS-1 & OWS-2) FOR INFORMATIONAL PURPOSES/REFERENCE ONLY



EXISTING COMPRESSED AIR P&ID

EXISTING AIR COMPRESSOR MANUFACTURER INFORMATION						
AC-#	MANUFACTURER	FLOWRATE	PUMP MODEL #	SERIAL #		
AC-1	QUINCY COMPRESSOR	35CFM @ 175PSI	QT-10	UTY710969		
		•	•	•		

EXISTING TRUCK WASH CANOPY

AREA OF WORK

EXISTING OFFICE BUILDING

EXISTING 120V CONTROL PANEL POWER

EXISTING PUMP #1, TO BE REPLACED EXISTING PUMP #2, TO BE REPLACED

EXISTING CATCH BASIN #1 LOCATION

EXISTING 3"Ø DRAIN LINE

EXISTING 120V CONTROL PANEL POWER

EXISTING PUMP #3, TO BE REPLACED

EXISTING PUMP #4,

AREA OF WORK

AC-1 APPROX. LOCATION

EXISTING AIR COMPRESSOR BUILDING

EXISTING 4"Ø SEWER CLEAN OUT -

EXISTING 4"Ø SEWER CLEAN OUT

EXISTING 240V OUTLET

EXISTING OIL/WATER SEPARATOR

(OWS-2) LOCATION, SEE NOTES

EXISTING CATCH BASIN #2 LOCATION -

EXISTING 6" SEWER CLEAN OUT -

EXISTING 3"Ø _ DRAIN LINE

EXISTING OIL/WATER SEPARATOR

(OWS-1) LOCATION, SEE NOTES

EXISTING 240V PULL BOX

EXISTING CONCRETE CURB

NOTES

1. FOR INFORMATIONAL PURPOSES/REFERENCE ONLY

EXISTING OIL/WATER SEPARATOR MANUFACTURER INFORMATION								
OWS-#	MANUFACTURER	FLOWRATE (GPM)	MODEL #	SERIAL #				
0WS-1	CRAWFORD ENVIRONMENTAL CPS 2000	1 TO 25	MODEL LV	ILLEGIBLE				
0WS-2	CRAWFORD ENVIRONMENTAL CPS 2000	1 TO 25	MODEL LV	ILLEGIBLE				

	EXISTING PUMP INFORMATION							
PUMP-#	LOCATION	MANUFACTURER	FLOWRATE (GPM)	HEAD (FT)	MODEL #	OPERATION	HP/V/A	COMMENT
1	BASIN #1	PLATING INTERNATIONAL, INC.	25	15	PI40 PP-PP/TF/TF/PP	AIR	N/A	SEE NOTE 1
2	BASIN #1	LIBERTY PUMPS	65	15	LE41AV	ELECTRIC	0.4/120/12	SEE NOTE 2
3	BASIN #2	PLATING INTERNATIONAL, INC.	25	15	PI40 PP-PP/TF/TF/PP	AIR	N/A	SEE NOTE 1
4	BASIN #2	LIBERTY PUMPS	50	15	LSG202A	ELECTRIC	2.0/240/15	SEE NOTE 2

GENERAL NOTES DEMOLITION

1. CONTRACTOR SHALL DISCONNECT EXISTING 1½"\$\noting\$ PLASTIC DIAPHRAGM PUMPS (PUMP #1 & #3) FROM EXISTING COMPRESSED AIR HOSE. DISCONNECT DIAPHRAGM PUMPS FROM OIL/WATER SEPARATOR (OWS-1 & OWS-2). CONTRACTOR TO REPLACE PUMPS #1 & #3 - SEE DWG. 4090-GA2. EXISTING DIAPHRAGM PUMPS (PUMP #1 & #3) TO BE RETAINED BY THE CITY OF MOBILE FOR FUTURE USE.

- 2. CONTRACTOR SHALL DISCONNECT EXISTING 1½"\$ SUBMERSIBLE PUMPS (PUMP #2 & #4) FROM EXISTING OIL/WATER SEPARATOR (OWS-1 & OWS-2). CONTRACTOR TO REPLACE PUMP #2 & #4 SEE DWG. 4090-GA2. EXISTING SUBMERSIBLE PUMPS (PUMP #2 & #4) TO BE RETAINED BY THE CITY OF MOBILE FOR
- CONTRACTOR SHALL DISCONNECT EXISTING OIL/WATER SEPARATOR (OWS-1 & OWS-2) FROM EXISTING 3"Ø DRAIN PIPE. CONTRACTOR TO INSTALL NEW SCH. 40 PVC TYPE PIPING SEE DWG. 4090-GA2 FOR DETAILS
- 4. CONTRACTOR SHALL DISCONNECT, REMOVE AND DISPOSE OF ALL EXISTING FLEX PIPING AND ASSOCIATED FITTINGS FROM EXISTING OIL/WATER SEPARATOR (OWS-1 & OWS-2). CONTRACTOR TO INSTALL NEW FLEX PIPING AND ASSOCIATED FITTINGS SEE DWG. 4090-GA2
- CONTRACTOR SHALL DISCONNECT, REMOVE AND DISPOSE OF ALL ELECTRICAL PANELS AND CONDUIT FROM EXISTING OIL/WATER SEPARATOR (OWS-1 & OWS-2). CONTRACTOR TO INSTALL NEW CONDUIT AND ELECTRICAL DISCONNECT SEE DWG. 4090-GA2
- CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING OIL/WATER SEPARATOR (OWS-1 & OWS-2) AT A
 PERMITTED DISPOSAL LANDFILL FACILITY, IF APPLICABLE.
- 7. DEMOLITION PAY ITEM #1 INCLUDES ALL COST ASSOCIATED WITH DISCONNECTION OF ALL PUMPS, HOSES, PIPING, ETC. REQUIRED FOR REMOVING OF EXISTING OWS-1 AND OWS-2 AND ALL COST ASSOCIATED WITH DISPOSAL OF EXISTING OWS-1 & OWS-2.

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		EXISTING SE	WER SYST	EM — D	(SS EX SS
					Cowles, Murphy, Glover & ASSOCIATES A Full Service Engineering Firm
1	REVISED-ADDED ELECTRICAL NOTES	07/29/22	MAD	JJM	
0	ISSUED FOR BID	06/27/22	MAD	JDG	DEDECTRA A LOS DELLA DILITA ENDEDIENICE
REV.	DESCRIPTION	DATE	BY	CHK'D	PERFORMANCE • RELIABILITY • EXPERIENCE

- EX SS 6"# EX SS - EX SS 6"#

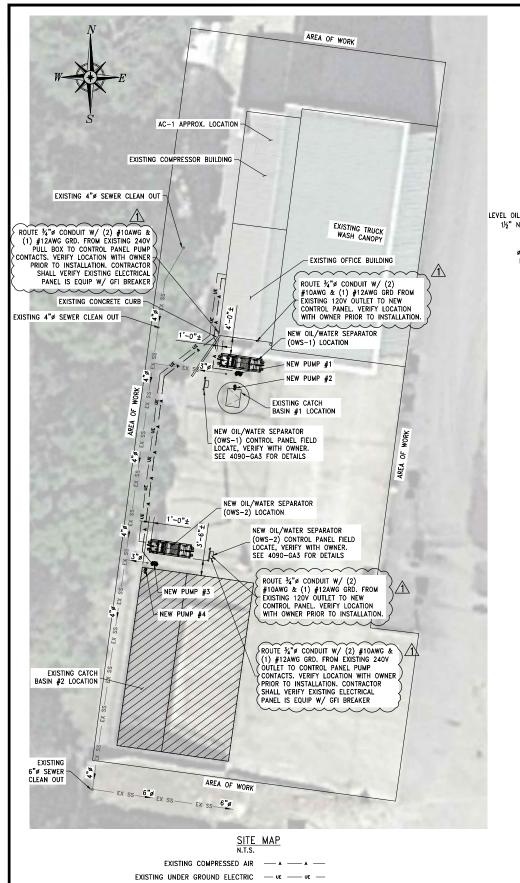
EXISTING UNDER GROUND ELECTRIC — UE — UE —

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457 St. Michael St., Mobile, AL 36602 13 Thrash Rd., LaGrange, GA 30241 11880 Cranston Dr. Ste 102, Arlington, TN 38002 Alabama (251) 433-1611 Georgia (706) 302-2831 Tennessee (901) 290-5444

CITY OF MOBILE MUNICIPAL GARAGE 770 GAYLE STREET MOBILE, ALABAMA

	EXISTING (TING GENERAL ARRANGEMENT					
SCALE AS NOTED	DRAWN BY MAD	DATE 10/21/21	SHEET OF 1				
JOB NO. 4090-21	JDG	DATE 10/21/21	drawing number 4090-GA1				



EXISTING ELECTRIC

REVISED-ADDED ELECTRICAL NOTES

O ISSUED FOR BID

EXISTING SEWER SYSTEM ---- EX SS----- EX SS----

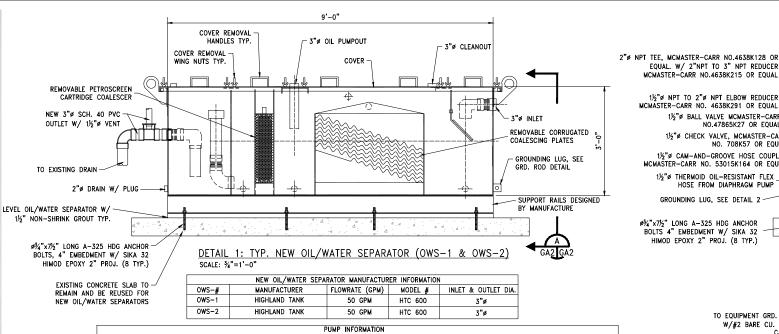
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MAD

06/27/22 MAD JDG

Cowles, Murphy, Glover

& ASSOCIATES
A Full Service Engineering Firm



	PUMP INFORMATION							
PUMP-#	LOCATION	MANUFACTURER	FLOWRATE (GPM)	HEAD (FT)	MODEL #	OPERATION	HP/V/A	COMMENT
1	BASIN #1	VERSAMATIC OR APPROVED EQUAL	25	15	E40PP5T559A	AIR	N/A	NEW
2	BASIN #1	LIBERTY PUMPS OR APPROVED EQUAL	50	15	LSG202A	ELECTRIC	2.0/240/15	NEW
3	BASIN #2	VERSAMATIC OR APPROVED EQUAL	25	15	E40PP5T559A	AIR	N/A	NEW
4	BASIN #2	LIBERTY PUMPS OR APPROVED EQUAL	50	15	LSG202A	ELECTRIC	2.0/240/15	NEW

CONTRACTOR SHALL PROVIDE AND INSTALL NEW OIL/WATER SEPARATORS (OWS-1 & OWS-2). NEW OIL/WATER SEPARATORS (OWS-1 & OWS-2) SHALL BE PLACED AT THE SAME LOCATION AS THE EXISTING. BASIS OF DESIGN: HIGHLAND TANK HTC 600 ALTERNATE MANUFACTURERS: OIL WATER SEPARATOR TECHNOLOGIES AND MERCER INTERNATIONAL INC, OR APPROVED EQUAL

- 1. CONTRACTOR SHALL LEVEL NEW OIL/WATER SEPARATORS (OWS-1 & OWS-2) WITH 11/2" MIN. NON-SHRINK GROUT. SEE SPECIFICATION SECTION 91000.01.
- 2. CONTRACTOR SHALL INSTALL REQUIRED FITTINGS TO NEW OIL WATER SEPARATORS (OWS-1 & OWS-2) AS SHOWN.
- CONTRACTOR SHALL CONNECT NEW 1½" Ø PLASTIC DIAPHRAGM PUMP (PUMP #1) TO NEW OIL/WATER SEPARATOR (OWS-1). CONTRACTOR SHALL
 INSTALL NEW THERMOID OIL-RESISTANT FLEX HOSE BETWEEN THE DIAPHRAGM PUMP OUTLET AND OIL/WATER SEPARATOR.
- 4. CONTRACTOR SHALL CONNECT NEW 1½" SUBMERSIBLE PUMP (PUMP #2) TO OIL/WATER SEPARATOR (OWS-1). CONTRACTOR SHALL INSTALL NEW 11/2" FLEX HOSE BETWEEN THE SUBMERSIBLE PUMP OUTLET AND OIL/WATER SEPARATOR.
- 5. CONTRACTOR SHALL CONNECT NEW 11/2" & PLASTIC DIAPHRAGM PUMP (PUMP #3) TO NEW OIL/WATER SEPARATOR (OWS-2). CONTRACTOR SHALL INSTALL NEW 1½"Ø THERMOID OIL—RESISTANT FLEX HOSE BETWEEN THE DIAPHRAGM PUMP OUTLET AND OIL/WATER SEPARATOR.
- 6. CONTRACTOR SHALL CONNECT NEW 1½" & SUBMERSIBLE PUMPS (PUMP #4) TO NEW OIL/WATER SEPARATOR (OWS-2). CONTRACTOR SHALL INSTALL NEW 1½" & FLEX HOSE BETWEEN THE SUBMERSIBLE PUMP OUTLET AND OIL/WATER SEPARATOR.
- 7. CONTRACTOR SHALL CONNECT NEW OIL/WATER SEPARATOR (OWS-1 & OWS-2) TO EXISTING 3" DRAIN. ALL NEW DRAIN PIPING TO BE PVC SCHEDULE 40 - SEE DETAIL 1
- 8. CONTRACTOR SHALL SUPPLY AND INSTALL REQUIRED CONDUIT, FITTINGS AND CONDUCTORS TO CONNECT NEW OIL/WATER SEPARATOR (OWS-1 & OWS-2) CONTROL PANELS TO EXISTING ELECTRICAL POWER FEED.
- 9. OWS-1 & OWS-2 PAY ITEMS #2 & #3 INCLUDE ALL COST ASSOCIATED WITH PURCHASING NEW OIL/WATER SEPARATOR (OWS-1 & OWS-2).
- 10. NEW PUMPS (#1, #2, #3, #4) PAY ITEM #4 INCLUDES ALL COST ASSOCIATED WITH PURCHASING NEW PUMPS (#1, #2, #3, #4) THAT CONTRACTOR
- 11. PIPE/FITTINGS/HOSES/ETC. PAY ITEM #5 INCLUDES ALL COST ASSOCIATED WITH PURCHASING NEW DRAIN PIPE, FITTINGS, HOSES, COUPLINGS, AND VALVES ASSOCIATED WITH INSTALLATION OF NEW EQUIPMENT; AS REQUIRED TO HAVE NEW NEW OIL/WATER SEPARATORS (OWS-1 & OWS-2)
- 12. ELECTRICAL PAY ITEM #6 INCLUDES ALL COST ASSOCIATED WITH PURCHASING FITTINGS, CONDUIT, CONDUCTORS AND DISCONNECTS ASSOCIATED WITH INSTALLATION OF NEW EQUIPMENT. REFERENCE DWG. 4090-GA3
- 13. INSTALLATION PAY ITEM #7 INCLUDES ALL COST ASSOCIATED WITH THE INSTALLATION OF NEW OIL/WATER SEPARATORS (OWS-1 & OWS-2). NEW PUMPS (#1, #2, #3, #4), ELECTRICAL, AND PIPE/FITTINGS/HOSES/ETC; AS REQUIRED TO HAVE NEW NEW OIL/WATER SEPARATORS (OWS-1 &

L		OIL/WATER SEPARATOR (OWS-1 & OWS-2) MAINTENANCE SCHEDULE						
	MON	MONTHS PROCEDURE		COMMENTS				
	6	12	PROCEDURE	COMMENTS				
ſ	Х	Х	INSPECT OIL/WATER SEPARATOR	IF SEDIMENT EXCEEDS A 12-INCH DEPTH OR IF AN OIL LAYER IS PRESENT A CLEANING MUST OCCUP				
ſ		Х	CLEAN OIL/WATER SEPARATOR	DISPOSE CONTENTS OF THE CLEANING IN ACCORDANCE TO CITY OF MOBILE WASTE REGULATIONS				
		Х	CLEAN REMOVABLE COALESCING PLATES	DISPOSE CONTENTS OF THE CLEANING IN ACCORDANCE TO CITY OF MOBILE WASTE REGULATIONS				
		Х	CLEAN PETROSCREEN CARTRIDGE COALSCER	DISPOSE CONTENTS OF THE CLEANING IN ACCORDANCE TO CITY OF MOBILE WASTE REGULATIONS				

*FOR CITY OF MOBILE PUBLIC WORK INFORMATION ONLY

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CITY OF MOBILE MUNICIPAL GARAGE

770 GAYLE STREET MOBILE, ALABAMA

HOSE FROM DIAPHRAGM PUMP	SUBMERSIBLE PUMP
GROUNDING LUG, SEE DETAIL 2	SUPPORT RAILS DESIGNED BY MANUFACTURE
#½"x7½" LONG A-325 HDG ANCHOR BOLTS 4" EMBEDMENT W/ SIKA 32 HIMOD EPOXY 2" PROJ. (8 TYP.)	LEVEL OIL/WATER SEPARATOR W/ 1½" NON-SHRINK GROUT TYP.
SECTION A 3/4"=1'-0" GA2 C	EXISTING CONCRETE SLAB TO
TO FORMANT COD LIVE	
W/#Z BARE CU. GRD. — CONNEC	GLR-C GRIDLOK STOR BY BURNDY 9C34 OR EQUAL
3/4" x clad GR	10'-0" CU. D. ROD
DETAIL 2: GRD. ROD CO NTS	DNNECTION

3'-0"

1½"ø THERMOID

FLEX HOSE FROM

OIL-RESISTANT

OWS-1 & OWS-2 PUMP SYSTEM DESCRIPTION

TWO PUMPS SHALL BE INCORPORATED INTO THE DESIGN OF EACH NEW OIL/WATER SEPARATOR (OWS-1 & OWS-2), PRIMARY PUMP (PUMP #1 OR #3) 25 GPM AIR DIAPHRAGM PUMP WITH A NC (NORMALLY CLOSED) SOLENOID VALVE, AND FLOAT SWITCH. SECONDARY PUMP (PUMP #2 OR #4) 50 GPM ELECTRIC GRINDER PUMP W/ AUTOMATIC FLOAT SWITCH.

SEQUENCE OF OPERATION

EQUAL, W/ 2"NPT TO 3" NPT REDUCER MCMASTER-CARR NO.4638K215 OR EQUA

1½"ø NPT TO 2"ø NPT ELBOW REDUCER MCMASTER-CARR NO. 4638K291 OR EQUAL

1½"ø CAM-AND-GROOVE HOSE COUPLER MCMASTER-CARR NO. 53015K164 OR EQUAL

1½"ø THERMOID OIL-RESISTANT FLEX

11/2" Ø BALL VALVE MCMASTER-CARR

11/2" Ø CHECK VALVE, MCMASTER-CARR NO. 708K57 OR FOUAL

- 1. PUMP #1 OR #3 SHALL OPERATE WITH AN H-O-A SWITCH LOCATED ON THE CONTROL PANEL.
- A. OFF MODE PUMP #1 OR #3 SHALL BE OFF (SOLENOID VALVE CLOSED)
- B. HAND MODE PUMP #1 OR #3 SHALL RUN UNTIL THE SWITCH IS PLACED INTO OFF OR AUTO.
- C. AUTO MODE (NORMAL OPERATION LOCATION) PUMP #1 OR #3 SHALL BE OFF (SOLENOID VALVE CLOSED) UNTIL THE FLOAT SWITCH LOCATED IN CATCH BASIN REACHES HIGH WATER POSITION.
- HIGH WATER POSITION- SOLENOID VALVE SHALL OPEN AND ALLOW PUMP #1 OR #3 TO BEGIN OPERATING; PUMP #1 OR #3 SHALL OPERATE UNTIL FLOAT SWITCH RETURNS LOW WATER POSITION.
- . LOW WATER POSITION- SOLENOID VALVE SHALL RETURN TO THE CLOSED POSITION AND PUMP #1 OR #3 SHALL BE OFF.
- 2. PUMP #2 OR #4 SHALL OPERATE WITH AN H-O SWITCH LOCATED ON THE CONTROL PANEL.
- A. OFF MODE (NORMAL OPERATION LOCATION) PUMP #2 OR #4 SHALL BE OFF
- B. HAND MODE PUMP #1 OR #3 SHALL BE OFF AND REMAIN OFF; PUMP #2 OR #4 SHALL BE OFF UNTIL THE AUTOMATIC FLOAT SWITCH LOCATED IN CATCH BASIN REACHES HIGH WATER
- HIGH WATER POSITION- PUMP #2 OR #4 TO BEGIN OPERATING, PUMP #2 OR #4 SHALL OPERATE UNTIL FLOAT SWITCH RETURNS TO LOW WATER POSITION.
- . LOW WATER POSITION- PUMP # 2 OR #4 SHALL BE OFF AND H-O SWITCH SHALL BE PLACED IN
- 3. OIL/WATER SEPARATOR (OWS) SHALL BE EQUIPPED WITH THREE (3) ALARMS.
- HIGH WATER LEVEL
- HIGH OIL LEVEL
- HIGH-HIGH OIL LEVEL
- A. HIGH WATER LEVEL- IF WATER LEVELS INSIDE OF OWS REACH HIGH WATER LEVELS ALL PUMPS (PUMP #1 OR #3 & PUMP #2 OR #4) SHALL BE OFF.
- B. HIGH OIL LEVEL- IF OIL LEVELS INSIDE OF OWS REACH HIGH OIL LEVEL AN INDICATOR LIGHT LOCATED ON THE CONTROL PANEL SHALL ILLUMINATE AND BE FOLLOWED BY AN ALARM.
- C. HIGH-HIGH OIL LEVEL- IF OIL LEVELS INSIDE OF OWS REACH HIGH-HIGH WATER LEVEL AN INDICATOR LIGHT LOCATED ON THE CONTROL PANEL SHALL ILLUMINATE AND ALL PUMPS (PUMP #1 OR #3 & PUMP #2 OR #4) SHALL BE OFF.

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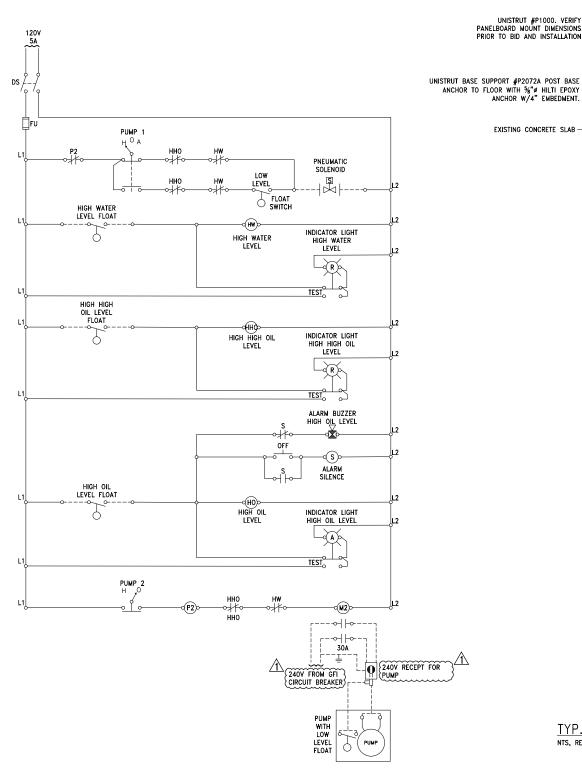
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SCALE AS NOTED	DRAWN BY MAD	DATE 10/21/21	SHEET OF 1
JOB NO. 4090-21	CHECKED BY JDG	DATE 10/21/21	drawing number 4090-GA2

OWS-1 & OWS-2 PUMP SYSTEM DESCRIPTION

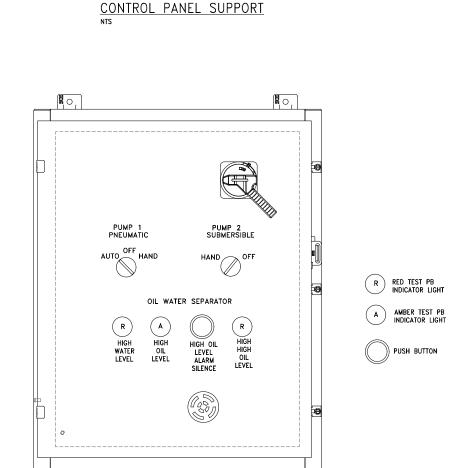
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SEQUENCE OF OPERATION

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OIL/WATER SEPARATOR (OWS-1 & OWS-2) PUMP CONTROL DIAGRAM



NEW OWS

UNISTRUT #P1000 SUPPORT. VERIFY PANELBOARD MOUNT DIMENSIONS PRIOR TO BID AND

ISO VIEW

ANCHOR BOLTS

TYP. OIL/WATER SEPARATOR PUMP CONTROL LAYOUT NTS, REFERENCE DWG. 4090-GA2 FOR LOCATION OF OWS-1 & OWS-2 CONTROL PANELS

FRONT VIEW

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1	REVISED-ADDED ELECTRICAL NOTES	07/29/22	MAD	JJM
0	ISSUED FOR BID	06/27/22	MAD	JDG
REV.	DESCRIPTION	DATE	BY	CHK'D

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CITY OF MOBILE MUNICIPAL GARAGE 770 GAYLE STREET MOBILE, ALABAMA

NEW OWS CONTROL PANEL

2'-6"

UNISTRUT #P1000. VERIFY

EXISTING CONCRETE SLAB -

OIL WATER PUMP CONTROL DIAGRAM AS NOTED 11/21/21 JJM HECKED B 4090-GA3 4090-21 11/21/21 JDG