



CITY OF MEXICO BEACH

REQUEST FOR QUOTES: LIFT STATION PANELS REPLACEMENT

The City of Mexico Beach is requesting quotes for replacement of 18 lift station control panels. The lift stations range from 2 HP to 13 HP and range from single phase to three phase with 230/240 voltage. Specifications for the panels are attached. This quote is limited to the panels and does not include installation.

A map of the lift station locations is available at the City of Mexico Beach Public Works Building. A list of the lift stations, locations, and pump information is provided in table below. In addition, **it is encouraged that potential bidders field inspect the panels prior to providing quotes.**

All proposals must be in writing and will be received by Adrian Welle, City Clerk, by mail, FedEx or hand delivery to Adrian Welle, City Clerk at P.O. Box 13425 201 Paradise Path, Mexico Beach, Florida 32410 until 3:00 PM (central time), **January 2, 2019**. The quotes will be publicly opened at this time. Only submittals received by the stated time and date will be considered. Submittals received after the time set for the opening will be rejected and returned unopened to the submitter. All submittals shall be submitted in a sealed envelope and clearly labeled, "LIFT STATION PANELS REPLACEMENTS." Please provide one (1) original, five (5) copies of the quote. Full specifications may be obtained at <http://www.mexicobeachgov.com>. Any Addendums issued during the request for quotes advertisement period shall be posted to the above website no later than 3:00 PM (central time) December 27, 2018. Quotes shall be firm for ninety (90) days.

Questions concerning this request should be submitted in writing to the City Public Works Director, Philip Hall, at p.hall@mexicobeachgov.com no later than 2:00 PM (central time) December 26, 2018 .

The City of Mexico Beach encourages all segments of the business community to participate in its procurement opportunities, including small businesses, minority/women owned businesses, and disadvantaged business enterprises. The City does not discriminate on the basis of race, color, religion, national origin, disability, sex, or age in the administration of contracts.

The City reserves the right to waive informalities in quotes, to reject any or all quotes with or without cause, and to accept the quote that in its judgment is in the best interest of the City.

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Lift Stations Requiring Panel Replacement

Lift Station ID	Street Address	Pump 1	Pump 2
PS-2	114 S 36 th St	Homa 5 HP 240 volt / 1 phase	Homa 5 HP 240 volt / 1 phase
PS-4	101 South 29 th St	Homa 5 HP 240 volt / 1 phase	Homa 5 HP 240 volt / 1 phase
PS-8	1704 Hwy 98	Homa 5 HP 240 volt / 3 phase	Homa 5 HP 240 volt / 3 phase
PS-27	116 8 th St	Flygt 3 HP 240 volt / 3 phase	Flygt 3 HP 240 volt / 3 phase
GPS-13-6	116 8 th St	Homa 2 HP Grinder 240 volt / 1 phase	Homa 2 HP Grinder 240 volt / 1 phase
GPS-16	126 Canal Pkwy	Homa 2 HP Grinder 240 volt / 1 phase	Homa 2 HP Grinder 240 volt / 1 phase
PS-5	106 N 30 th St	Homa 3.9 HP 240 volt / 1 phase	Homa 3.9 HP 240 volt / 1 phase
PS-9	118 N 14 th St	Homa 13 HP 240 volt / 3 phase	Wilco 10 HP 240 volt / 3 phase
PS-26	201 Kendra Davis Blvd	Flygt 7.5 HP 240 volt / 3 phase	Flygt 7.5 HP 240 volt / 3 phase
PS-21	110 St Christopher St (behind the house)	Homa 13 HP 240 volt / 3 phase	Homa 13 HP 240 volt / 3 phase
PS-10	1016 N 15 th St	Homa 3.7 HP 240 volt / 3 phase	Homa 3.7 HP 240 volt / 3 phase
PS-15	57 Azalea Dr (beside house)	Homa 5 HP 240 volt / 1 phase	Homa 5 HP 240 volt / 1 phase
PS-14	124 2 nd St (across from house)	Homa 6.7 HP 240 volt / 1 phase	Homa 6.7 HP 240 volt / 1 phase
PS-13	201 Mississippi Dr (beside house)	Homa 13 HP 240 volt / 3 phase	Homa 13 HP 240 volt / 3 phase
PS-6	201 Paradise Path	Homa 5.5 HP 240 volt / 1 phase	Homa 5.5 HP 240 volt / 1 phase
GPS-12	800 N 15 th St	Homa 2 HP Grinder 240 volt / 1 phase	Homa 2 HP Grinder 240 volt / 1 phase

GPS-11-18	530 N 15 th St	Homa 2 HP Grinder 240 volt / 1 phase	Homa 2 HP Grinder 240 volt / 1 phase
GPS-19	625 N 15 th St	Homa 2 HP Grinder 240 volt / 1 phase	Homa 2 HP Grinder 240 volt / 1 phase



SPECIFICATIONS FOR CITY OF MEXICO BEACH LIFT STATION CONTROL PANELS REPLACEMENT

CONTROL PANEL ENCLOSURE

Control panel enclosure shall be NEMA 4x 316 Stainless Steel. UL 508A Listed. All enclosures shall be coated with white polyester powder coated paint finish inside and out for heat dissipation. Locking mechanism shall be a 3-point latch. The panel thickness shall be no less than 14 gauge. All seams shall be continuously welded, and ground smooth.

JUNCTION BOX ENCLOSURE

Junction box panel shall be a Nema 4x 316 Stainless Steel. UL 508A Listed. All enclosures shall be coated with white polyester powder coated paint finish inside and out for heat dissipation.

DUPLEX CONTROL PANEL OPERAITON

Panel shall operate on 230v/1-phase or 230v/3-phase. Bidding contractors must visit the site to determine pump, and capacitor sizing prior to bidding. All panels shall be 4- float operated with a OFF, LEAD, LAG, and ALARM Float. The use of any other means of operation shall not be acceptable. Any use of printed circuit boards will not be allowed.

CONTROL PANEL (shall include but not be limited to the following)

1. Control panel shall be controlled by a DATA FLOW TCU001-1 Telemetry Control Unit, no exceptions. All necessary DATA FLOW provided wiring harnesses, battery backups, and surge suppressors shall be provided in order to maintain the DATA FLOW warranty. Any panel not using the DATA FLOW TCU001-1 pump controller shall not be accepted.
2. The control panel must meet or exceed FDEP standards.
3. Float switches shall be on intrinsically safe relays. Motor ground fault protection must by provided.
4. 12v battery backup system shall alarm the panel in case of power failure for the following conditions. High Level, Panel Intrusion, and Power Failure. Alarm horn shall be capable of 110db @ 5' and be NEMA 4x rated. All alarm lights shall be mounted within a guard and mounted to the side of the control panel enclosure. 12v battery shall be supplied with a charger.

5. All panels shall have a 100-amp reverse service generator receptacle. Generator service shall be activated with interlocking breakers ensuring that the line breaker cannot be activated with the generator receptacle is in use. All receptacles shall be supplied so that there is a uniformity between all the panels allowing for a minimum amount of parts needed to connect a panel to a generator.
6. Motor and control circuit breakers shall be sized accordingly to the pump requirements. Breakers shall be NEC rated. Breakers shall be accessible through the inner door without opening in the inner door.
7. Motor starters shall be sized according to the application, and overloads provided with each set of contactors. The overloads must be solid state.
8. For single phase panels, all capacitors and relays must be sized accordingly to the single-phase pumps in service.
9. Panels shall be supplied with a control circuit transformer as needed. Transformer shall be correctly sized to operate two (2) 115v GFI 15-amp convenience receptacles. One (1) receptacle shall be located within the panel and one (1) mounted to the inner door.
10. All panels shall be equipped with seal leak detection, and thermal overloads shutdown protection
11. Panels shall be equipped with a phase monitor, or voltage monitor as required.
12. All panels shall have lightning arrestors.
13. The control panel shall have surge capacitor protection included within the panel to protect the unit from damaging transient voltage surge.
14. Non-resettable elapsed time meter, reading in hours and tenths, shall be provided for each pump motor and mounted on the inner-door. Meters shall be Hour Meters and shall be rectangular flush panel mount designed to fit into tight locations. All can withstand IP54 environmental rating (requires use of gasket.)
15. Control panels must be equipped with an anti-condensation heater.
16. Control panels must have LED interior lighting for visibility in night operations.
17. All panels must have switches mounted to the inner door for alarm test-off-on, and intrusion off-on.
18. Each pump is to be provided with a thermal alarm relay and an oil tight red pilot light to indicate the condition. Terminal blocks shall be provided for connection the normally closed thermal sensing contact located in each motor winding temperature shall cause the thermal alarm relay to shut down the pump motor and turn on the High Temperature red alarm pilot light a general alarm to indicate the same. The thermal alarm shall automatically reset and restore pump operation upon the thermal contact resetting when the thermal condition of the windings is back to normal due to the pump shutdown. The alarm shall also reset after a power failure or if control power is interrupted for any reason.
19. Each pump shall be provided with a seal failure alarm relay and an oil tight amber pilot light to indicate the condition. The relay shall be a liquid sensing induction type relay and have a secondary circuit wired to terminals, for each pump, to be connected to the moisture sensing probe in each pump seal chamber.

If probe senses moisture, the seal failed relay shall turn on the Seal Failed alarm pilot light to indicate same. The pump shall not be taken out of service by the seal failed alarm but must be scheduled for maintenance or replacement of the failed seal as soon as possible to reset the alarm. The pump shall remain fully operational with the alarm on.

20. Alternator shall be solid-state octal plug-in type with output contacts rated 10 amps @ 120 vac.

The Alternator shall provide automatic sequencing of the two loads and have led indicators showing the next pump in the sequence.

21. All panels must have engraved labels displaying the lift station number, and emergency contact information mounted to the door, and clearly visible.

22. Pilot lights shall be of the heavy duty oil-tight and be as manufactured by Square D-Class 9001 type K. All pilots shall be mounted on the inner-door and be supplied as follows:

- Pump Run (2)-Green
- Seal Fail (2)-Red
- High Level (1)-Red

23. RPM Zelio plug-in relays and sockets provide a comprehensive selection of relays responding to the most demanding standards at 15 A. Some of the features include:

- Spring return test button for testing the contacts (standard)
- Green LED indication of relay status (depending on version)
- Mechanical indication of relay status (standard)
- Plug-in protection module to protect against electrical spike

JUNCTION BOX

Below every control panel supplied there shall be a supplied junction box to prevent sewer gas from entering the control panel.

Junction boxes shall have terminal strips for connection of the pumps, and floats.

Poured epoxy seals offs shall be installed between the panel and the junction box.

Under no circumstances shall the junction boxes be field installed. Junction boxes must be poured and sealed from the manufacturer before shipping.

TELEMETRY SYSTEM

The control panel manufacturer shall supply a telemetry system with each panel and shall include 5-years of monitoring services in the control panel price.

All pricing shall include installation, and start-up of the telemetry system. Pricing shall also include any items required for the telemetry system to function. (Ex. Antennas, towers, etc.)

The telemetry system shall be capable of monitoring pump run, high level, power failure, pump hours, seal failure, thermal failure. The system shall communicate this information back to a central location in the public works building, or via a cell phone app. System must be able to start, run, and stop pumps remotely.

PANEL STARTUP

The panel supplier shall start up each panel. Startup dates shall be coordinated with the City of Mexico Beach.

The panel supplier shall ensure that all single-phase pumps are pulling the correct amperage across the run windings and start windings of each motor. The supplier shall bring additional sized run capacitors to adjust any amperage discrepancies with the pumps.

Start-up reports shall be provided to the City of Mexico Beach stating that each panel is operating as designed.