ZEELAND
Board of Public Works

REQUEST FOR PROPOSALS

150 HP VARIABLE FREQUENCY DRIVE REPLACEMENT

AND SERVICE DISCONNECT INSTALLATION

Zeeland Board of Public Works
Water Department

RFP Issue Date	10/26/2026
Site Visit / Questions Due	11/20/2026
Proposal Due	4pm 12/1/2026
Project Contact	Jason Postma, Water Operations Manager jpostma@zeelandbpw.com
Completion Date	6/30/2027
Proposal	Mail to 350 E Washington Zeeland MI 49464 or Email jpostma@zeeland bpw.com

Turnkey replacement of the existing pump VFD, including a new upstream service disconnect, installation, programming, startup, commissioning, training, and documentation.

ZEELAND
Board of Public Works

1. PROJECT INFORMATION

Project	150 HP VFD Replacement and Service Disconnect Installation
Owner	Zeeland Board of Public Works - Water Department
Purpose	Solicit proposals for a complete, turnkey VFD replacement
Issue To	Qualified electrical / controls contractors and VFD integrators
Proposal Due	12/1/2026

Zeeland Board of Public Works (BPW) is requesting proposals from qualified contractors to replace an existing 150 HP Variable Frequency Drive (VFD) serving a critical municipal water pumping application. The project also includes furnishing and installing a new service disconnect on the line side of the VFD. The selected contractor shall provide a complete and operational system.

2. PROJECT BACKGROUND

The existing VFD is a Danfoss VLT AQUA Drive FC-202 supplying a 150 HP, 460 V, three-phase Baldor Reliance motor. Zeeland BPW intends to replace the existing drive with current-production equipment that is properly sized and configured for the existing pump and motor application. The project is intended to improve reliability, serviceability, safe isolation of the drive, and long-term support for this critical water system asset.

3. EXISTING EQUIPMENT

The following information is provided for proposal development. The selected contractor remains responsible for field verification of existing conditions before ordering equipment.

Existing VFD

Parameter	Existing Equipment
Manufacturer	Danfoss
Product Line / Series	VLT AQUA Drive / FC-202
Part Number	134H6622
Rated Power	110 kW / 150 HP
Input	3-phase, 380-480 VAC, 50/60 Hz, 204/183 A
Output	3-phase, 0-Vin, 0-590 Hz, 212/190 A

Enclosure	Type 1 / IP21
SCCR	100 kA at 380-480 V

Existing Motor

Parameter	Existing Equipment
Manufacturer	Baldor Reliance
Type	Super-E Motor
Horsepower	150 HP
Voltage / Phase / Frequency	460 VAC / 3-phase / 60 Hz
Full Load Amperage	169 A
Speed	1,785 RPM
Duty / Enclosure	Continuous / TEFC
Service Factor	1.15

4. SCOPE OF WORK

The selected contractor shall provide all labor, equipment, materials, programming, coordination, and technical services necessary for a complete turnkey installation. At a minimum, the proposal shall include:

1. Field verify the existing VFD, motor, electrical service, controls, available space, conduit, conductors, disconnecting means, and site conditions before ordering equipment.
2. Furnish one new 150 HP VFD suitable for the existing 460 V, three-phase pump motor and municipal water pumping service. A approved equivalent may be proposed.
3. Furnish and install a new service disconnect upstream (line side) of the VFD to provide a local means of isolating incoming power for maintenance, troubleshooting, and emergency response. The disconnect shall be properly rated for the electrical service and available fault current and shall be lockable in the OFF position for lockout/tagout.
4. Verify compatibility of the proposed VFD and disconnect with the existing motor, electrical service, pump controls, instrumentation, remote start/stop controls, and SCADA/control interfaces.
5. Remove the existing VFD and components made obsolete by the replacement work and dispose of them as directed by Zeeland BPW.
6. Install the new service disconnect and VFD, including required mounting hardware, conductors, conduit modifications, terminations, control wiring, communication components, and ancillary electrical components.

7. Configure and program the VFD for the existing pump and motor application and transfer or recreate operating parameters required for proper system operation.
8. Perform startup, testing, and commissioning; verify motor rotation, normal operating range, local and remote controls, alarms, interlocks, shutdowns, and applicable communications.
9. Coordinate all shutdowns with Zeeland BPW Water Department staff. The proposal shall identify the anticipated outage duration and steps proposed to minimize disruption.
10. Contractor staff will have 1-2 hour of on-site safety and compliance training prior to work start date.
11. Provide manufacturer-authorized startup assistance when required to maintain the full equipment warranty.
12. Provide operator training, updated drawing and final documentation at project completion.

5. MINIMUM VFD REQUIREMENTS

- 150 HP rating for variable-torque pumping service
- 460 VAC nominal, three-phase input and output
- 60 Hz application and compatibility with the existing 150 HP motor
- Suitable for municipal water pumping service
- Automatic restart capability and adjustable acceleration/deceleration
- Motor overload, over/undervoltage, phase-loss, ground-fault, and overtemperature protection
- Programmable digital and analog inputs/outputs
- Local operator interface/display with Hand-Off-Auto or equivalent functionality
- Fault and alarm history
- Adjustable minimum and maximum operating frequencies
- PID control capability
- Ability to interface with existing facility controls
- Current-production equipment with readily available manufacturer parts and technical support

The proposer shall identify the manufacturer and exact model number offered. Any proposed equivalent shall clearly identify differences from the existing Danfoss equipment and demonstrate compatibility with the existing application.

6. SERVICE DISCONNECT REQUIREMENTS

- Installed on the line side of the new VFD
- Properly rated for system voltage, load, and available fault current
- Suitable enclosure rating for the installation environment
- Lockable in the OFF position for Zeeland BPW lockout/tagout procedures
- Installed in an accessible location coordinated with Zeeland BPW
- Labeled to clearly identify the equipment served

7. ELECTRICAL AND INSTALLATION REQUIREMENTS

The contractor shall field verify all conditions and is responsible for confirming voltage, available fault current and required SCCR, conductor sizing, overcurrent protection, disconnect type and rating, enclosure rating, mounting requirements, heat dissipation/ventilation, clearances, and control/communication requirements.

All work shall comply with applicable electrical codes, manufacturer requirements, and Zeeland BPW safety requirements. Contractor is responsible for permit and inspection fees.

8. STARTUP, COMMISSIONING, AND TRAINING

- Verify electrical connections and motor nameplate parameters
- Program the VFD and verify motor rotation
- Test the system through the normal operating speed range
- Verify local and remote controls, alarms, fault conditions, interlocks, and applicable communications
- Provide final VFD parameter list and startup/commissioning record
- Provide basic operator training covering normal/manual operation, alarms, fault reset, basic troubleshooting, and emergency shutdown

9. DOCUMENTATION AND WARRANTY

- Manufacturer's operation and maintenance manual
- Final VFD parameter list
- Startup and commissioning documentation
- Manufacturer and contractor technical support contacts
- Manufacturer equipment warranty and contractor workmanship warranty
- Warranty start date and any available extended warranty options
- Updated drawings/ asbuilt

10. PROPOSAL REQUIREMENTS

Proposals shall be clear, complete, and organized so Zeeland BPW can evaluate both technical approach and total project value. Include the following:

- Company name, address, primary contact, phone, and email
- Manufacturer and exact model of proposed VFD and service disconnect
- Description of the proposed installation and project approach
- Statement confirming field verification of existing conditions
- Equipment lead time
- Earliest available installation date
- Estimated installation duration and anticipated shutdown duration
- Startup and commissioning approach
- Warranty information
- Relevant experience with VFD installations of similar size and application
- Any assumptions, exclusions, substitutions, or exceptions to this RFP
- Itemized pricing and total turnkey project cost

11. PROPOSAL PRICE

Provide a lump-sum turnkey price supported by the following breakdown. Any work or equipment excluded from the proposal shall be clearly identified.

Item	Proposed Cost
VFD and associated equipment	$_____
Service disconnect and associated equipment	$_____
Electrical materials	$_____
Installation labor	$_____
Programming / startup / commissioning	$_____
Training and documentation	$_____
Other	$_____
TOTAL PROJECT COST	**$_____**

12. SCHEDULE AND COORDINATION

Because this VFD serves critical water system equipment, all shutdown and installation activities shall be coordinated with Zeeland BPW Water Department staff. The proposer shall identify equipment lead time, anticipated outage duration, installation duration, and total project duration. Work shall not proceed until the shutdown schedule is approved by Zeeland BPW.

13. EVALUATION OF PROPOSALS

Zeeland BPW intends to select the proposal determined to provide the best overall value. Evaluation may consider:

- Compliance with this RFP and completeness of proposal
- Equipment quality, suitability, and compatibility
- Contractor qualifications and relevant experience
- Technical approach and understanding of the work
- Manufacturer support, serviceability, and parts availability
- Equipment lead time and proposed project schedule
- Anticipated shutdown duration
- Warranty
- Total project cost

Zeeland BPW reserves the right to accept or reject any or all proposals, waive informalities, request clarification, negotiate scope or price, and select the proposal determined to be in the best interest of the utility.

ZEELAND
Board of Public Works

14. SITE VISIT, QUESTIONS, AND CLARIFICATIONS

Proposers are responsible for understanding existing site conditions. Site visits shall be coordinated with Zeeland BPW. Questions or requests for clarification shall be submitted to the project contact by the date listed in the RFP schedule. Any formal clarification or change to this RFP may be issued by addendum. Proposers shall acknowledge receipt of all addenda in their final proposal.

15. PROPOSAL SUBMITTAL

Submit the complete proposal by the date and method identified by Zeeland BPW. Late proposals may not be considered. The proposal shall remain valid for at least 60 days unless otherwise stated by the proposer.

16. PROPOSER ACKNOWLEDGMENT

Company	_____
Authorized Representative	_____
Signature	_____
Date	_____
Addenda Acknowledged	_____

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APPENDIX A - EXISTING EQUIPMENT PHOTOS

Photos are provided for reference only. The selected contractor shall field verify all existing conditions and dimensions.



Existing VFD installation



Existing VFD nameplate



Existing pump motor



Existing motor nameplate