MEMO 25-10

TO: Frank Schulte, City Administrator

FROM: James Kowalski, Director of Public Services J.K

DATE: April 3, 2025

SUBJECT: Torrey Road Pump Station Contactors and Motor Protection Relays

The Torrey Road Pump Station operates three stormwater pumps that are activated during wet weather events. The motor starters, which include contactors and relays, are essential for starting and running these storm pump motors.

These contactors and relays operate at 4,800 volts. The contactor's function is to start the motors, while the relays monitor the incoming voltage to ensure proper operation. If the relays detect issues, such as voltage that is either too high or too low, they act like circuit breakers by tripping the motor to prevent damage.

Currently, the contactors and relays are 39 years old, obsolete, and no longer serviceable.

Peter Basso Associates recommend that the City of Grosse Pointe Woods contract Eaton Electrical Engineering Services & Systems (E-ESS) to modernize the existing medium-voltage motor starters for the three large pumps at the Torrey Road Pump Station. This modernization will involve replacing the protective relays and contactor mechanisms, minimizing downtime while extending the service life of the equipment.

Additionally, since both the original equipment and the replacement parts come from Eaton, utilizing their services division for this work ensures a thorough understanding of the equipment, components, and modernization process, along with access to the necessary engineering resources for the upgrade.

The city received a quote for the replacement of the contactors and motor protection relays from Eaton Corporation in Southfield, Michigan, amounting to $273,264.00.

Therefore, I am requesting that the Council authorize the replacement of the contactors and motor protection relays at the Torrey Road Pump Station by Eaton Corporation at 26201 Northwestern Hwy., Southfield, MI 48076, for a total of $273,264.00. I further recommend a contingency in an amount not to exceed $10,000.00 for any unforeseen problems should they arise. The total project cost will not exceed $283,264.00.

There are funds available in the 2024/2025 fiscal year budget in the Torrey Road Capital Improvements account no. 592-542-974.000.

I do not believe any benefit will accrue to the City by seeking further bids. This request is approved for Council consideration.

Frank Schulte, City Administrator — Date: 4-3-25

Fund Certification:

Account numbers and amounts have been verified as presented.

Steven Schmidt, Comptroller/Treasurer — Date: 4-3-25

Peter Basso Associates

MEP Engineering
Lighting Design
Commissioning
Building Technology
Sustainable Design

March 21, 2025

Anderson, Eckstein & Westrick, Inc.
27087 Gratiot Avenue,
Roseville, MI 48066

Attention: Ross Wilberding, PE
Project Manager

Subject: Torrey Road Pump Station – Medium Voltage Starter Upgrades

Ross,

Peter Basso associates recommend the City of Grosse Pointe Woods contract with Eaton Electrical Engineering Services & Systems (E-ESS) group to modernize the existing medium voltage motor starters for the three large pumps at the Torrey Road Pump Station. Modernization will consist of replacing the protective relays and the contactor mechanisms. The balance of materials (Structures, bussing, terminations) should be serviceable for the remainder of the equipment life.

Due to the criticality of the pump station, full replacement of the starters would incur significant downtime and disruption to the facility as well as additional material and labor expenses. Modernization of the key components, in place, will limit downtime while extending the service life of the equipment.

Furthermore, since the original equipment and the replacement components are both by Eaton, having this work performed by their services division ensures a deep understanding and familiarity with the equipment, components, modernization process and access to engineering resources required for the modernization.

Please let me know if you have any further questions,

Sincerely,

PETER BASSO ASSOCIATES, INC.

Scott A. Garrison

Scott A. Garrison
Principal, Chief Operations Officer

5145 Livernois, Suite 100 | Troy, MI 48098-3276 | Tel: 248-879-5666 | Fax: 248-879-0007
PeterBassoAssociates.com

Eaton Corporation
Electrical Services & Systems
26201 Northwestern Hwy
Southfield, MI 48076
Cell: 248-227-8038
Email: StevenEmmrich@eaton.com

4/2/2025

TO: Ed Hall
City of Grosse Pointe Woods
Dept. of Public Works
Ph. 313-343-2462 | Email: ehall@gpwmi.us

RE: **Proposal Number: DTK3-250402-02-SE**
Subject: Torrey Road Pump Station Ampgard Upgrades
Jobsite Location: Grosse Pointe Woods

Thank you for considering Eaton's Electrical Engineering Services & Systems (E-ESS) for your electrical solutions requirements. This proposal outlines our proposed scope of work at your Grosse Pointe Woods facility.

Scope of Work

Eaton will provide the necessary field service personnel, tools, materials, and approved test equipment to perform the following work as described below.

1. Provide, Test and Install a replacement Ampgard Contactor (includes the following)
   a) SLW 430 CONTACTOR, 4800V, With 2KVA Control Power Transformer
   b) Standard Eaton EESS acceptance testing of contactor.
   c) Extraction of existing Ampgard Starter and installation of new contactor.

2. Provide and install Qty. (1) EMR-3000 Retro-Fit kit to replace existing IQ-1000II Protective relay Includes the following:
   a) EESS to come to the site to gather existing relay settings.
   b) Power System Engineering to develop new Relay setting file for EMR-3000 based on IQ-1000II settings.
   c) Installation and testing of new EMR-3000 Relays

A comprehensive engineering report including findings, test data, and recommendations will be furnished after completion of work.

Pricing

To provide the services as described in the scope of work above, Eaton would charge:

Item	Description	Price Customer Net
001	Provide and install Qty. (3) EMR-3000 Retro-Kit kits	$66,045.00
002	Provide, Test and Install Qty. (3) replacement Ampgard Contactors	$207,219.00
	Total Price:	**$273,264.00**

Price for the above scope of work is based on performing site work on a weekday-day turn. If the work cannot be performed during regular working hours (6am-5pm) or must be performed on weekends or holidays, you must contact us to adjust the price accordingly.

Clarifications and Exceptions

1. This proposal was prepared based upon Eaton's understanding of the documentation and discussions listed in Eaton Scope of Work. If a change to the system functionality, hardware and/or software is to be used, or scope of work is presented to Eaton, then Eaton will respond by issuing an addendum to this proposal describing the impact on the schedule and cost of the system or work additions or subtractions.
2. If a job is cancelled, delayed, rescheduled, or postponed 5 days or less prior to scheduled service, Eaton reserves the right to assess a charge of 35% of the purchase order value or actual costs, plus a 15% handling charge (whichever is greater)
3. Delays and stand-by time beyond the control of Eaton, extras, and authorized additional work will be charged in accordance with the Eaton's Electrical Engineering Services & Systems Price List PL02700001E.
4. Eaton has not included any applicable sales tax in this proposal
5. Disposal of existing Ampgard contactor is the customers responsibility.
6. Existing fuses will be reused. If new fuses are needed or spares are requested, they will be quoted separately
7. All testing will be performed per Eaton standard testing guidelines unless otherwise specified.
8. All device settings to be supplied by others and power system studies are not included
9. This service is weather permitting if this is outdoor equipment.
10. No time/labor included for site specific training meetings/classes/videos. If required, additional charges will apply and will be billed separately from this proposal
11. Informal Training on customer equipment is included in this proposal
12. Power monitoring and Automation is not included in this proposal
13. Drawings and updated submittals are not included in this proposal
14. 3rd party UL inspection not included. Requirements for UL listed components are the responsibility of the end user.

Delivery

Schedule: The scheduling of work will be mutually agreed upon between the customer and Eaton. Three weeks advance notice is required for scheduling.

Equipment: Equipment shipment will be F.O.B. point of origin and is estimated (as of the date of this proposal) at 20-26 weeks after receipt of an order and all necessary technical information. Estimated shipment dates subject to change.

Safety Clarifications

1. Eaton will not perform work activities in situations where the proper level of PPE is not practical. At no time will work be performed when the arc-flash exposure levels are above 40 cal/cm2.
2. To establish an electrically safe work condition, the customer is to provide an up-to-date site electrical one-line diagram(s) for lockout/tagout purposes showing all sources of power.

3. For electrical outages requiring utility isolation, the customer and utility shall coordinate lockout/tagout requirements with Eaton in a written plan of execution.
4. Customer shall be responsible to perform all switching. Any requirement of Eaton for perform switching will require customer signature and a minimum of two Eaton personnel. Additional charges will apply.
5. The customer supplied Arc-Flash study along with their labeled equipment to meet NFPA 70E requirements will be used to determine the Personal Protective Equipment (PPE) required to perform the work required for this proposal. When a current study and labeling is not available, the time required to determine the proper PPE will be an adder at the current rate per hour, unless included within the Eaton scope of work.

Customer Responsibilities

1. Providing free access to equipment within their facility.
2. Ensuring that all equipment is available upon arrival of Eaton personnel, including removal from service to permit continuous progression of work. Delay time in making equipment available will be treated as an extra.
3. Identifying site contact for this project.
4. Coordinating all outages and perform all switching to de-energize and isolate equipment to be serviced.
5. Ensuring that all circuits to be de-energized have been clearly identified and that all plant personnel and downstream operations are aware of the required outage date, time and duration. This includes maintaining power to vital or necessary plant equipment and processes during the performance of this scope of work.
6. Providing a copy of the past maintenance records to Eaton personnel.
7. Providing manufacturers maintenance manuals upon arrival of Field Engineer(s).
8. Supplying a complete set of electrical plans, including the plant single-line diagram, specifications, and any pertinent change orders to Eaton before commencement of work.
9. Supply a suitable and stable source of power for operation of test and motorized equipment at each test site when normal power is removed or authorize Eaton to obtain a source of auxiliary power, Eaton shall specify requirements. Any non-standard generators rentals will result in a price adder to this proposal.
10. Providing a place to receive and unload replacement equipment, test equipment or other supplies.
11. Providing special tools supplied by equipment manufacturers.

Safety Training of Eaton Field Personnel:

1. All Eaton field personnel received training to meet or exceed NFPA 70E requirements, and appropriate personal protective equipment (PPE) have been issued.
2. The customer is responsible to ensure that any supporting plant personnel have also be fully trained in electrical safety and provided with the appropriate personnel protective equipment.

Stand-by Time

1. Stand-by time is defined as Eaton time spent on-site waiting for personnel or access to equipment necessary to perform the required steps for the service work outlined within this proposal.
2. Under the terms of this proposal, stand-by time is not included within the Scope of Work.
3. Stand-by or delays that are outside the immediate control of Eaton will be charged separately at published services rates plus any applicable expenses.

Proprietary and Confidential Information

This submittal contains Eaton proprietary and confidential information, which may only be used by the addressee to evaluate and respond to this submittal. By accepting this submittal from Eaton, the addressee agrees to not use this submittal, or any information contained herein, in any manner adverse to Eaton's interests; to keep in confidence the submittal and all information contained; and to not disclose to any third party or publish this submittal, any portion thereof, or any information contained herein without Eaton's prior written consent.

Terms and Conditions

Any order arising out of this offer will be governed by the conditions contained in Eaton Selling Policy 25-000 dated September 1, 2021 or other mutually agreed upon terms and conditions by both parties, in writing. This offer is valid for 30 days from date of issue unless otherwise extended, modified, or withdrawn, in writing, by Eaton Corporation. Payments are due and payable net within thirty (30) days from the date of each invoice. A 3% surcharge will be added to all credit card transactions except where prohibited.

To accept this proposal, please:

1. Issue a Purchase Order to your Preferred Eaton Distributor
2. Reference: **DTK3-250402-02-SE**

Acceptance of proposal signature: _____

A hardcopy of the purchase order must be received by Eaton prior to service being scheduled.

Should there be any further questions or needs, please contact at any time. It is a privilege to have this opportunity to be of service. Eaton's Electrical Services & Systems looks forward to working with you on this project.

Sincerely,

Steven Emmrich(DTK3)
Steven Emmrich(DTK3)
StevenEmmrich@eaton.com
248-227-8038
Service Sales Engineer
Eaton Corporation
Electrical Services and Systems

Eaton Services Links

- Eaton Electrical Services Line Card
- Power Systems Engineering line card
- Switchgear Modernization Options
  - Low Voltage Replacement Circuit Breakers
  - Low Voltage Retro fill
  - Medium Voltage Replacement Circuit Breakers
- Customer Training
- Arc flash Safety Solutions
- Arc flash Reduction