



March 6, 2024

City of Rochester Hills
1000 Rochester Hills Dr.
City of Rochester Hills, MI 48309-3033

Attn: Tracey Balint, P.E.
Public Utilities Engineering Manager

Re: Avon Industrial Drive Water Main Replacement (City File: E23-014)
Proposal for Construction Engineering Services

HRC Job No.20220852

Dear Mrs. Balint:

Per your request, HRC has prepared this scope of work for the construction engineering services for the Avon Industrial Drive Water Main Replacement project. Based on information provided by the City, this scope of work includes construction staking/layout, full-time on-site construction observation, materials testing, and construction administration. The construction is anticipated to be awarded to Bidigare Contractors, Inc., who was the lowest bidder. The project's construction cost is estimated at \$2,277,489.00 based on bid tabulation from February 29, 2024.

HRC's scope of work is as follows. The tasks below are also included in the estimated hours and costs shown on the spreadsheet summary.

Key Assumptions:

HRC's scope of work is based on the following:

- Schedule – Based on the Progress Schedule, the anticipated start date will be mid-April 2024 with the project substantial completion by August 2024. HRC has estimated 16 weeks of full-time on-site observation.
- Staff – HRC has included one primary office contact for this project and one primary field/observation staff for this task.

Contract Administration

HRC will provide complete construction contract administration including the preparation of regular pay applications, meeting minutes, and engineering oversight. HRC staff will advise and consult project objectives, manage Contract changes and modifications, and interpret Contract Documents throughout construction. HRC will document all field activities and track construction progress in Inspector's Daily Reports (IDRs). HRC staff understands the urgency of matters that come up during construction and will be available to respond quickly to any questions. HRC will review, coordinate and process all pay requests and develop the pay application documentation throughout the project. HRC will also issue documentation to memorialize Substantial Completion, Final Completion, and Final Payment.

Construction Engineering

HRC will attend regular progress meetings and provide additional design support as needed during the project. HRC design staff will review shop drawing submittals and make field visits at important stages in construction to review the work completed. HRC will work with the City and Contractor for the water main replacement construction and will complete a final walkthrough with the Contractor to determine substantial completion and develop a punch list for work yet to be finalized. HRC will maintain record drawings throughout construction and will develop final as-built drawings to document all changes from the final design.

Construction Layout / Staking

HRC has included and can provide construction staking and layout for underground utilities and pavement rehabilitation as required to complete the Project. Typical re-staking, including occasional contractor damage, is included.

Material Quality Control Program

HRC has included and can provide on-site materials testing services for the backfill of all excavations, concrete compressive strength testing of concrete restraint blocks, and density testing of asphalt pavements. All materials testing work will be performed at our Materials Testing Laboratory in Troy, MI. It is assumed that all hydrostatic and bacteriological testing for the water main systems will be completed by the Contractor with assistance from City staff.

On-Site Observation

HRC has included and can provide full-time on-site construction observation including a lead on-site observer. HRC would also include an experienced field supervisor working closely with the on-site team to assist when needed. HRC's field team will record daily construction activities and document pay items, measurements, and progress and communicate daily with the Project Engineer. The lead on-site observer can be supported by an additional observer during major work and while the Contractor has multiple crews working on different aspects of the project..

HRC's CE Team

Mr. Bradley Shepler, PE, will be overseeing the overall project to ensure the city's expectations are met and to assist with communication and staffing and will be responsible for communication efforts with the City and the stakeholders impacted by construction. He will remain involved throughout construction and will assist the construction team as needed with potential design changes and provide background and design history to ensure the construction proceeds as intended and designed.

Upon City request, HRC will provide a primary field representative who has experience with pressure reducing valve and underground utility construction. HRC anticipates a second field representative may be needed to assist the primary field representative through portions of the project. This is expected due to the expedited schedule, the substantial amount of work to be completed in that timeframe and the potential for multiple crews in the project area completing secondary tasks. HRC will always have at least one full-time construction observer onsite when construction is active, and the contractor is working. HRC will also provide a construction supervisor to review the project as required.

HRC is ready to begin this job immediately upon construction contract award. HRC is proposing to complete this work for a not to exceed cost of \$298,700. This will be invoiced on a time and material basis based on approved rates and in accordance with our contract with the City of Rochester Hills. Please see the attached spreadsheet for more detailed information about the budgetary derivation of our costs.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,
HUBBELL, ROTH & CLARK, INC.



Charles E. Hart, P.E.
Vice-President

Attachment: A – Hours and Costs for Construction Engineering Services

pc: City of Rochester Hills; B. Fritz, P. Davis, L. Luedeman
HRC; D. Mitchell, B. Shepler, J. Darnall, File

Recommended by:
CITY OF ROCHESTER HILLS

Bill Fritz, P.E., DPS Director

Date: _____

Approved by:
CITY OF ROCHESTER HILLS

Bryan K. Barnett, Mayor

Date: _____

ATTACHMENT A
City of Rochester Hills
Hours / Costs for Construction Engineering Services - March 4, 2024
Avon Industrial Park Water Main Replacement

Task Description	Senior Associate	Staff Engineer	Lead Constr. Observer	Constr. Supervisor	Survey Crew (2 person)	Testing Engineer	Testing Technician	Total By Task
Contract Administration	120	200						320
Construction Engineering	80	400		20		20		520
Project Closeout Activities	20	80						100
Const Layout / Staking		20			120			140
Full-Time Observation (assumes 16 weeks full-time observation)			880	80				960
Materials Testing						40	200	240
Total Hours by Classification	220	700	880	100	120	60	200	2280

	Hours	Billable Hourly Rate	Direct Cost
Senior Associate	220	\$175.00	\$ 38,500.00
Staff Engineer	700	\$125.00	\$ 87,500.00
Lead Constr. Observer	880	\$120.00	\$ 105,600.00
Constr. Supervisor	100	\$150.00	\$ 15,000.00
Survey Crew (2 person)	120	\$230.00	\$ 27,600.00
Testing Engineer	60	\$125.00	\$ 7,500.00
Testing Technician	200	\$85.00	\$ 17,000.00
Sub total - Direct Hours / Labor	2280		\$ 298,700.00

Total Construction Engineering Costs \$ 298,700.00