

March 29, 2023

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

Attn: Paul Davis, P.E.  
City Engineer / Deputy DPS Director

Re: Avon Industrial Drive Road Improvements  
Proposal for Design Engineering Services

HRC Job No.20220852

Dear Mr. Davis:

We are pleased to offer this proposal to perform design engineering services for the Avon Industrial Drive Improvements. HRC will complete this work in accordance with our existing Engineering Service Agreement and the following project specific information.

**Project Description:**

The City's Capital Improvement Plan (CIP) has road improvements scheduled for Avon Industrial Drive for 2024 with an estimated total project cost of \$1.75M through the City's Major Road Fund. The proposed pavement improvement is anticipated to include full depth removal and replacement of approximately 2,600 feet of Avon Industrial Drive and 370 feet of Star Court. The planned improvements are based on recent field reviews of the roadway with City and HRC staff, as well as a preliminary geotechnical investigation completed by TEC. HRC reviewed this information, developed options for the new roadway section, and provided a budget-level construction cost estimate with which this proposal is based.

This roadway improvement project will be bid locally in close coordination but as a separate project from the City's Avon Industrial Drive Watermain Replacement Project. These projects will be designed, bid and built in order to have the roadwork begin soon after the watermain work to have both completed in 2024.

The anticipated project scope involves:

- Reconstruction of existing HMA roadway
- Replacement of concrete curb and gutter with new underdrain
- Minor modifications to the existing storm water drainage, as required
- Review existing reports or videos of the existing sanitary and storm sewers to determine if any open-cut repairs should be included with the project
- Structure adjustment and reconstructions as required
- Rehabilitation of approaches within the ROW, as required
- Permitting through RCOC, OCWRC (SESC) and MDOT, as required
- Coordination and communication with existing property owners, including meetings to review the maintenance of traffic plans, options, and special considerations for access and routing to businesses

Delhi Township  
2101 Aurelius Rd.  
Suite 2A  
Holt, MI 48842  
517-694-7760

Detroit  
535 Griswold St.  
Buhl Building, Ste 1650  
Detroit, MI 48226  
313-965-3330

Grand Rapids  
1925 Breton Road SE  
Suite 100  
Grand Rapids, MI 49506  
616-454-4286

Howell  
105 W. Grand River  
Howell, MI 48843  
517-552-9199

Jackson  
401 S. Mechanic St.  
Suite B  
Jackson, MI 49201  
517-292-1295

Kalamazoo  
834 King Highway  
Suite 107  
Kalamazoo, MI 49001  
269-665-2005

Lansing  
215 S. Washington SQ  
Suite D  
Lansing, MI 48933  
517-292-1488

Geotechnical investigation and soil borings will be provided through the City and HRC will coordinate their efforts and review all findings.

### **Scope of Services:**

#### Topographic Survey:

HRC will perform the topographic survey and establish the existing ROW and parcel boundaries.

General limits are:

- Avon Industrial Drive and Star Court: ROW Limits, approximately 3,000 ft
- Survey all utility structures and poles, including ATT, watermain, sanitary and storm sewers. This includes collecting invert and condition information at all watermain, sanitary and storm manholes.
- Survey and tag trees in accordance with the City's requirements
- Intersections will be surveyed approx. 50 ft beyond the spring points of the radii and driveways will be surveyed 5 to 10 ft beyond the ROW.
- Detailed grading survey as required for sidewalk ADA improvements and driveways

#### Design Documents:

Documents will be prepared for a bid opening in the spring of 2024 to ensure the project will be constructed and completed in 2024. HRC will review and coordinate the bid letting with the City, but this is expected to be as early as February (to bid concurrently with the watermain project) or it could be bid several months after. The benefits and risks for the timing of bidding both projects will be investigated and HRC will provide the City options and supporting information, along with a recommendation. HRC proposes the following approximate schedule, assuming both projects are designed and bid together. This will be reviewed and finalized at the project kickoff meeting that will be schedule upon authorization.

- Authorization: Spring 2023
- Topographic Survey & Utility Mapping Complete: June 2023
- Base Plans, Prelim Cost Estimate & Business / Resident Coordination Meeting: August 2023
- Prepare & Submit Preliminary Plans: September 2023
- Prepare & Submit Final Plans: November 2023
- Prepare & Submit Bid Documents: January 2023
- Bid Letting & Award: February 2024

#### Miscellaneous Design Elements:

As shown in Attachment A, HRC has included several key tasks throughout the design phase to prepare the overall budget for this proposal. HRC will prepare the plans, specifications, and construction cost estimates for the roadway work. This will include removal, plan and profile sheets as required. HRC has assumed a new vertical alignment may be necessary but ideally it will follow the existing alignment with any required corrections to improve drainage flow and running slopes. We anticipate only minor changes to the horizontal alignment of the roadway, if required. In addition to the items noted herein and in Attachment A, HRC will also prepare the following plans and design elements:

- SESC plans

- Maintenance of Traffic (MOT) plans, including specific conditions that may be warranted for maintaining access to businesses.
- Detailed grading design for ADA sidewalk ramps, as required
- Detailed grading for intersections
- Driveway grading and Slope Stake Line (SSL) layout
- Permanent signing & pavement marking plans
- Storm sewer improvements (i.e. new lateral sewers or additional catch basins at low points) that will connect to the existing sewer system. HRC anticipates that water treatment devices may be included with the project but that detention or infiltration elements will not be required.
- Review existing reports and televised records of the existing sewers and include repairs that may require open cuts of the roadway

Utility Coordination:

HRC will request utility data from the companies, including municipal utilities, in the project area and add the necessary line work in plan and profile to the plans. HRC will include additional depth information to be provided by the respective utility companies and will schedule and attend meetings to coordinate existing information and potential conflicts. HRC has assumed that sanitary sewers and leads will not require substantial design work and has not included detailed design and permitting of these facilities in this scope of work. The City's watermain will be placed, as noted previously, as a separate design and construction project that will be carefully coordinated and scheduled to compliment the road project.

For clarity, the following items are not included as part of our proposal:

- Construction engineering services for contract administration, observation or other construction related services necessary for the completion of the project.
- New street lighting design
- Design of new irrigation or specialty signs (provisions for protecting/replacing existing irrigation will be included)
- New traffic signal design or upgrades to existing traffic signals
- Sanitary sewer or water main design
- ROW / easement documents and acquisitions
- HRC assumes the existing drainage outlets are adequate and new trunkline / outlet sewers will not be required
- HRC has not included the design of storm water detention or infiltration prior to out letting to the existing system
- HRC has not included any sewer televising but will review existing or city-provided records to determine if any repairs should be included in the project.

Jake Darnall, P.E. will be HRC's Project Manager for the Avon Industrial Drive Road Project based on his experience working with City staff and managing comparable projects. This will ensure successful coordination with the City's watermain project and many of the key HRC staff will assist in both projects, with discipline-specific supporting engineers, familiar with the City's preferences, standards, and staff leading those design efforts. Charles Hart, P.E. will provide project oversight, staffing coordination, and communication as required to ensure a successful project.

HRC's road design team has extensive experience working on comparable roadway reconstruction projects, including ones in commercial areas where access during construction will be carefully considered and coordinated. The project team will also communicate regularly with Dan Mitchell and Brad Shepler to ensure the project is coordinated successfully and that the City's expectations are met.

HRC is ready to begin this job immediately and be prepared for construction to be completed in 2024. HRC is proposing to complete this work for a not to exceed cost of \$158,773.90. 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 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

City of Rochester Hills; Bill Fritz  
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 Preliminary Engineering Services - March 29, 2023**  
**Avon Industrial Drive Improvements**

Task Description	Principal QA/QC	Sr. Associate and ROW Mgr	Associate	Proj Engr	Staff/ Grad Eng	Designer	Survey Office Super	Sr. Party Chief	Inst. Person	Total By Task
Topographic Survey & Property Lines			4		8	24	32	90	90	248
Meetings & Preparation		4	16	24	24	16				84
Typ Section, Alignment Design	1		8	24	60	40				133
Base Plans and Utility Mapping & Coord	1	4	12	24	50	50				141
Prepare Permit Applications/Plans			2	16	24	24				66
Maintenance of Traffic (MOT) / Access Planning & Coord	8	2	4	24	40	40				118
Prepare Preliminary Plans	16	16	24	60	120	120				356
Prepare Final Plans	8	8	12	30	60	60				178
<b>Total Hours by Classification</b>	34	34	82	202	386	374	32	90	90	1324

	Hours	Hourly Rate*	Direct Cost
Principal	34	\$ 150.00	\$ 5,100.00
Sr. Associate, ROW Manager	34	\$ 179.80	\$ 6,113.20
Associate	82	\$ 140.07	\$ 11,485.74
Project Engineer	202	\$ 123.54	\$ 24,955.08
Staff/ Graduate Engineer	386	\$ 110.20	\$ 42,537.20
Designer / Sr. CAD Tech	374	\$ 120.06	\$ 44,902.44
Survey Office Supervisor	32	\$ 142.97	\$ 4,575.04
Sr. Survey Party Chief	90	\$ 125.28	\$ 11,275.20
Survey Instrument Person	90	\$ 87.00	\$ 7,830.00
<b>Sub total</b>	1324	<b>Total HRC Costs</b>	\$ 158,773.90

\* Estimated for project budgeting. Individual rates will be billed in accordance with HRC's contract with the City