



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

October 23, 2020

Mr. Allan E. Schneck, P.E.
Director, Department of Public Services
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

**RE: Hamlin Road – Crooks to Adams – City File T.B.D.
City of Rochester Hills, Michigan
Proposal #9-D293**

Dear Mr. Schneck:

In response to your request, we have reviewed the project requirements relative to development of plans and specifications for the Hamlin Road Reconstruction Project. This project is scheduled for construction in 2021 as a part of the Rochester Hills Capital Improvement Program. We understand that time is of the essence regarding the design development for these projects, and our office will work towards meeting all expected time frames in completing our work. To that end, this proposal is to accommodate the design development process through the bidding phase of the project. The proposal for Phase 1 Services – Pre-engineering has been provided to you under separate cover.

It is expected that that Hamlin Road will be reconstructed with all new pavement and concrete curb and gutter together with other required improvements. The proposed length of improvements is approximately 4,620 feet long within a 120-foot-wide right-of-way. The current pavement section consists of a boulevard section with 7 crossovers. The proposed work will be completed in accordance with the latest City of Rochester Hills engineering standards and specifications for paving. The CIP estimate for this project is determined at \$4,080,000.

Based on our review of the project requirements, we have identified the following scope of work required to develop the project and advance it to the construction phase. Elements of the project which have previously been authorized are detailed in *italics*:

SCOPE OF WORK

PHASE I SERVICES – PRE-ENGINEERING (previously authorized, for reference only)

- *Perform all field investigation and survey services required to support the full design development of the project. Field investigation and survey services will include the following:*
 - *Perform required field survey of the project development area and prepare existing condition drawings consistent with Rochester Hills requirements.*
 - *Perform ROW Survey to field locate and identify ROW limits. Certify ROW boundary line as necessary.*

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- *The addresses of existing businesses/houses within the project limits shall be identified on the plan drawings.*
- *Existing underground utilities shall be located and identified, including rim elevations and pipe inverts.*
- *Existing spot grades shall be obtained at 50-foot intervals for road edges and centerline, centerline of driveways and driveway edges, road intersection PC's, and other locations needed for design.*
- *All existing trees and improvements within the right-of-way and immediately adjacent to the right-of-way, shall be located and identified.*
- *Perform field engineering analysis to identify construction constraints, conditions and make engineering assessment of current conditions to support design initiatives.*

PHASE II SERVICES – PRELIMINARY ENGINEERING

- Prepare preliminary construction plans in accordance with City requirements. Construction plans to include the following:
 - Cover sheet, including location map
 - Existing Condition Plans including plan and profile
 - Existing and proposed roadway cross sections
 - Preliminary Paving Plans (Plan view and profiles as required) including utility adjustments/extensions
 - Preliminary Typical Detail sheet with existing and proposed cross-sections.
 - Standard Detail Sheet(s)
 - Preliminary Traffic Maintenance Plan (concept and/or narrative)
 - Preliminary Permanent Signing Plans
- Plan sheets will be drawn to a scale of 1"=30' horizontal and 1"=5' vertical. Quantity lists will be provided on each plan sheet
- Identify and develop concepts for innovation that will highlight the City's renowned "Innovation Park".
- Identify work items consistent with MDOT Standard Specifications for Construction and prepare preliminary Engineer's Opinion of Construction Cost.
- Coordinate project development with the City and other permitting agencies as required for project permits.
- Identify potential utility conflicts and coordinate with utility companies to resolve utility conflicts.
- Attend project design review meeting to present preliminary design and obtain critical feedback from City staff and departments.
- Attend public hearings, City Commission meeting, etc. as requested

PHASE III SERVICES – FINAL ENGINEERING

- Prepare final construction plans in accordance with City requirements. Construction plans to include the following:
 - Existing Condition Plans
 - Final Paving Plans (Plan view and profiles as required) including utility adjustments/extensions
 - Final Typical Detail Sheet with existing and proposed Cross-Sections.
 - Standard Detail Sheet
 - Final Traffic Maintenance Plan
 - Final Permanent Signing Plans
- Identify work items consistent with MDOT Standard Specifications for Construction and prepare final Engineer’s Opinion of Construction Cost.
- Coordinate project development with the City and permitting agencies, as required for project permits. Apply for and obtain all required permits from permitting authorities.
- Prepare construction bid documents including modified Rochester Hills boiler plate, standard specifications for construction
- Submit 90% complete final design package to City for final review and comments.
- Make all necessary changes to final design documents and assist City with project bidding process
 - Review submitted bids for completeness and accuracy and prepare a bid tabulation sheet
 - Review references and prepare a letter recommending award to the desired contractor
- Attend project meetings as required to develop final design consistent with City requirements. Based on the work outlined above, we submit the following engineering fee for your approval:

Based on the work outlined above, we submit the following engineering fee for your approval:

<u>WORK</u>	<u>ESTIMATED FEE</u>
<i>Phase I – Pre-Engineering Services (authorized under separate proposal) and for reference only</i>	\$38,692.00
Phase II – Preliminary Engineering Services	\$121,200.00
Phase III – Final Engineering Services	\$128,160.00
Reimbursable Expenses	\$1,500.00
TOTAL NOT-TO-EXCEED AMOUNT:	<u>\$289,552.00</u>

The work will be undertaken in accordance with our professional services agreement dated August 5, 2020 and we will proceed with the design work upon your authorization and complete the required construction documents within the following design development schedule:

Pre-Engineering Phase	Completed by November 30, 2020
Preliminary Engineering Phase	Completed by January 18, 2021
Final Engineering Phase	Completed by March 1, 2021
Permits	Completed by March 1, 2021
Bid Package Complete	Completed by March 5, 2021
Bids Received	April, 2021

We submit the following cost breakdown as evidence of our expected costs associated with the design of the project:

PHASE I – PRE-ENGINEERING

<u>Classification</u>	<u>Description of Work</u>	<u>Estimate Hours</u>	<u>Hourly Rate</u>	<u>Amount</u>
2 Person Survey Crew	Topographic Survey	96	\$139.00	\$13,344.00
Woodlands/Wetlands Mgr.	Tree Survey	60	106.00	\$ 6,360.00
Engineering Tech III	Topographic Survey	132	84.00	\$11,088.00
Engineer II	Field Review/Investigation	60	78.00	\$ 4,680.00
Associate	Field Review & Coordination	20	100.00	\$ 2,000.00
Principal	Coordination	6	120.00	\$ 720.00
Subtotal Phase I				\$38,192.00

REIMBURSABLES

Blueprinting, delivery charges, etc. \$ 500.00

Subtotal Reimbursables: \$ 500.00

****Subtotal Phase I: \$38,692.00**

*** Please note, the above Pre-Engineering phase was previously detailed in a separate proposal for Phase I Services - is already authorized and is only included as reference in order for total over-all project costs for complete PE related to this project "*

PHASE II – PRELIMINARY ENGINEERING

<u>Classification</u>	<u>Description of Work</u>	<u>Estimate Hours</u>	<u>Hourly Rate</u>	<u>Amount</u>
Engineering Tech. III	Prepare Const. Drawings in CAD	400	\$ 84.00	\$33,600.00
Engineering Tech. III	Prepare Exhibits	80	84.00	6,720.00
Project Engineer	Design of Improvements	320	96.00	30,720.00
Associate Engineer II	Design of Improvements, etc.	140	100.00	14,000.00
	Quantities & Cost Estimate, etc.	120	78.00	9,360.00
Principal Electrical Design	Review & Coordinate As needed for overall development	40	120.00	4,800.00
		1	LSUM	\$7,000.00
Landscape architect / Planner	As needed for overall development and design assistance	1	LSUM	<u>\$15,000.00</u>
Subtotal Phase II:				\$121,200.00

PHASE III – FINAL ENGINEERING

<u>Classification</u>	<u>Description of Work</u>	<u>Estimate Hours</u>	<u>Hourly Rate</u>	<u>Amount</u>
Engineering Tech. III	Prepare Const. Drawings in CAD	380	\$ 84.00	\$31,920.00
Project Engineer	Design of Improvements	340	96.00	32,640.00
Associate Engineer II	Design, Specifications, etc.	128	100.00	12,800.00
	Quantities & Cost Estimate, etc.	200	78.00	15,600.00
Principal Electrical Design	Review & Coordinate As needed for overall development	60	120.00	7,200.00
		1	LSUM	\$8,000.00
Landscape Architect / Planner	As needed for overall development and design assistance	1	LSUM	<u>\$20,000.00</u>
Subtotal Phase III:				\$128,160.00

REIMBURSABLES

Blueprinting, delivery charges, etc.	\$1,500.00
Subtotal Reimbursables: \$1,500.00	

TOTAL NOT-TO-EXCEED AMOUNT: \$289,552.00

Mr. Allan E. Schneck, P.E.
City of Rochester Hills – City File No: T.B.D.
Proposal #9-D293
October 23, 2020
Page 6

Please be advised that invoices will be based on actual hours and work required as approved by your office and the not-to-exceed amount will not be exceeded unless authorized by our office. We look forward to working with you on this important project for the City.

If you have any questions or require further information, please feel free to contact me.

Sincerely,
Nowak & Fraus Engineers



Jeffrey J. Huhta, P.E., P.S.
Managing Partner

Date: _____

Recommended By:
CITY OF ROCHESTER HILLS

Allan E. Schneck, P.E., DPS Director

Date: _____

Approved By:
CITY OF ROCHESTER HILLS

Bryan K. Barnett, Mayor

Date: _____