



CIVIL ENGINEERS
LAND SURVEYORS
LAND PLANNERS

November 21, 2018

Mr. Paul G. Shumejko, P.E., PTOE
Transportation Engineer
City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

**RE: School Road Paving from John R Road 1700 Feet Easterly to Existing Pavement
City of Rochester Hills, Michigan
Proposal #9-C674 (Additional Service Request No: 1)
City File No: E18-011**

Dear Mr. Shumejko:

In response to your request, we have reviewed the project requirements relative to development of plans and specifications for John R Road Improvements in conjunction with the School Road Paving Project. As you are aware, you have requested NFE provide schematic design for lane widening and other John R. Road right-of-way improvements. This proposal is for including this work in the overall scope for the referenced School Road improvements.

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:

SCOPE OF WORK

PHASE I SERVICES – PRE-ENGINEERING

- 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:
 - Supplement Spalding DeDecker Associates field survey by obtaining additional survey information 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.
 - The addresses of existing 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.

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- All existing trees and improvements within the right-of-way and immediately adjacent to the right-of-way, shall be field verified and as needed, located and identified.
- Coordinate geotechnical investigation and analysis. Develop pavement cross section from geotechnical pavement design recommendations.
- Perform field engineering analysis to identify construction constraints, conditions and make engineering assessment of current conditions to support design initiatives.
- Conduct a utility inspection and investigation of the existing storm sewer system within the influence of the roadway areas to be improved.

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
 - Preliminary Traffic Maintenance Plan (concept and/or narrative)
 - Preliminary Permanent Signing Plans
- 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 Road Commission for Oakland County, as required for project permits.
- Identify potential utility conflicts and coordinate with utility companies to resolve utility conflicts.
- Identify proposed permanent and temporary easement areas for construction and assist the City with easement acquisition by preparing easement exhibits and sketches. Securing ROW and easements will be by others.
- Attend project design review meeting to present preliminary design and obtain critical feedback from City staff and departments.

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
 - Final Pavement Marking 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 Road Commission for Oakland County, 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:

<u>WORK</u>	<u>ESTIMATED FEE</u>
Phase I – Pre-Engineering Services	\$3,056.00
Phase II – Preliminary Engineering Services	\$2,384.00
Phase III – Final Engineering Services	\$3,408.00
TOTAL NOT-TO-EXCEED AMOUNT:	<u>\$8,848.00</u>

The work will be undertaken in accordance with our City engineering professional services agreement dated March 31, 2015 and we will proceed with the design work upon your authorization and complete the construction documents within the following design development schedule:

Pre-Engineering Phase	Completed within 3 weeks of authorization
Preliminary Engineering Phase	Completed within 5 weeks of authorization
Final Engineering Phase	Completed within 7 weeks of authorization
Permits	Completed within 10 weeks of authorization

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

PHASE I

<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	8	\$139.00	\$1,112.00
Engineering Tech III	Topographic Survey	16	84.00	1,344.00
Associate	Field Review & Coordination	6	100.00	600.00
Subtotal Phase I				\$3,056.00

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	16	\$ 84.00	\$1,344.00
Associate	Design of Improvements, etc.	8	100.00	800.00
Principal	Review & Coordinate	2	120.00	<u>240.00</u>
Subtotal Phase II:				\$2,384.00

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	16	\$ 84.00	\$1,344.00
Associate	Design, Specifications, etc.	12	100.00	1,200.00
Engineer II	Quantities & Cost Estimate	8	78.00	624.00
Principal	Review & Coordinate	2	120.00	<u>240.00</u>
Subtotal Phase III:				\$3,408.00

TOTAL NOT-TO-EXCEED AMOUNT: \$8,848.00

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: November 21, 2018

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: _____