



CIVIL ENGINEERS

LAND SURVEYORS

LAND PLANNERS

February 10, 2016

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

**RE: Butler Road: Right Turn Lane at Adams Road
Brewster Road: Right Turn lane at Walton Boulevard
City of Rochester Hills, Michigan
Proposal #9-B950
City File No: E14-025**

Dear Mr. Shumejko:

In response to your request, we have reviewed the project requirements relative to performing construction administration services for right turn lane improvements for Butler Road at Adams Road, and for Brewster Road at Walton Boulevard. Both of these projects are scheduled for construction in spring 2016 as a part of Rochester Hills 2016-2021 Capital Improvement Plan for street improvements. As you are aware, NFE has prepared detailed plans and specifications for this project and we are intimately familiar with the project requirements for the development of these projects.

Based on our review of the project requirements, we have identified the following scope of work required to perform construction administration services for the development of these projects:

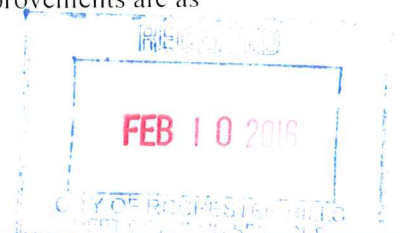
SCOPE OF WORK

1. Construction Layout

Perform construction layout services to provide the contractor and inspectors vertical and horizontal control to construct the proposed improvements in accordance with the approved plans. Due to uncertainties involved in the surveying needs of a project, NFE typically performs construction layout services on a time and materials basis. Below we have prepared an estimated budget of anticipated stakeout costs for this project. Invoices for stakeout will be charged against this budget based upon actual hours worked, as authorized, including travel time and office support, for the various classifications of personnel. Office support is also included in the budget per the job classifications, invoicing rates and anticipated hours of involvement to provide the work. Office support includes scheduling/assigning the survey crews, and developing layout coordinates. Our estimate of the survey crew work days necessary to construction stake the improvements are as follows:

Lump Sum Fee: \$5,672.00

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2. Contract Administration

Complete all work associated with the Bid Document and Contract Administration phase of the project. This phase of the project includes, but is not limited to the following task items of work:

- Prepare progress estimates for approval and contractor payment
- Prepare change orders and work authorizations as needed
- Resolve contractor disputes as may arise during the course of the project
- Resolve contractor claims for additional compensation
- Correspond and coordinate with City staff and officials throughout the project development
- Respond to Contractor's requests for information, review shop drawings and submittals
- Prepare additional drawings and hold site visits to solve problems relative to unforeseen conditions.
- Prepare regular project update summaries for City staff and officials
- Attend project meetings as necessary

Lump Sum Fee: \$7,488.00

3. Inspection and Construction Management

Complete all work associated with the Inspection and Construction Administration phase of the project. This phase of the project includes, but is not limited to the following items of work:

- Provide all construction oversight supervision to assure project is constructed in conformance with the detailed plans and specifications.
- Provide all required construction inspection services to document daily operations and quantities of work in an Inspector's Daily Report (IDR).
- Deliver required Notices of Construction to residences & businesses and coordinate with City staff/operations.
- Coordinate with Material Testing Company retained by the City to review, understand and document material related concerns. Implement corrective action plan as necessary. Documents same in an IDR.
- Meet with and address resident inquiries
- Correspond and communicate with City staff and officials throughout the project development
- Resolve construction conflicts of constructability
- Document and resolve changed field conditions
- As necessary, provide field directive orders to the contractor to resolve unforeseen conditions
- Obtain project photos that document the progress of the work
- Prepare project closeout punch list

Lump Sum Fee: \$32,160.00

4. Construction As-Builts

Prepare construction as-builts in accordance with City of Rochester Hills’s requirements for final project acceptance. As-built records shall include; new curb location and elevations; new walk locations and elevations; locations, rims and inverts of all storm sewer drainage structures; verification of pipe slopes between structures; provide dimensional ties or appropriate coordinates for all drainage structures; provide listing of pipe materials, and obtain spot elevations in appropriate locations to confirm correct grading. All work will be reflected on a CADD “as-built” drawings and submitted to the City in hard copy and electronic format.

Lump Sum Fee: \$2,456.00

5. Reimbursable Expenses

Reimbursable expenses including costs involving the reproduction of drawings, specifications, presentation boards, etc. required by the project, except those utilized by NFE in the development of the project will be invoiced based on time and materials in accordance with the attached fee schedule.

Lump Sum Fee: 500.00

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

<u>WORK</u>	<u>ESTIMATED FEE</u>
Construction Layout	\$5,672.00
Contract Administration	\$7,488.00
Inspection & Construction Management	\$32,160.00
As-Builts	\$2,456.00
Reimbursable Expenses	\$500.00
TOTAL NOT-TO-EXCEED AMOUNT:	<u>\$48,276.00</u>

We submit the following cost breakdown as evidence of our expected costs associated with performing construction administration services for this project:

CONSTRUCTION LAYOUT

<u>Classification</u>	<u>Description of Work</u>	<u>Estimate Hours</u>	<u>Hourly Rate</u>	<u>Amount</u>
2 Person Survey Crew	Construction Layout	32	\$139.00	\$4,448.00
Engineering Technician III	Coordinate Preparation	10	84.00	840.00
Survey Coordinator	Scheduling	4	96.00	384.00
Subtotal Construction Layout				\$5,672.00

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CONTRACT ADMINISTRATION

<u>Classification</u>	<u>Description of Work</u>	<u>Estimate Hours</u>	<u>Hourly Rate</u>	<u>Amount</u>
Associate	Contract Administration	48	100.00	4,800.00
Engineer II	Shop Drawing Review & Estimate Preparation	16	78.00	1,248.00
Principal	Project Oversight	12	120.00	<u>1,440.00</u>
Subtotal Construction Administration:				\$7,488.00

INSPECTION & CONSTRUCTION MANAGEMENT

<u>Classification</u>	<u>Description of Work</u>	<u>Estimate Hours</u>	<u>Hourly Rate</u>	<u>Amount</u>
Senior Inspection Technician	Site Inspection	400	\$ 68.00	\$27,200.00
Associate	Field Review and Oversight	40	100.00	4,000.00
Principal	Review & Coordination	8	120.00	<u>960.00</u>
Subtotal Inspection & Construction Management:				\$32,160.00

ASBUILTS

<u>Classification</u>	<u>Description of Work</u>	<u>Estimate Hours</u>	<u>Hourly Rate</u>	<u>Amount</u>
2 Person Survey Crew	Construction Layout	8	\$139.00	\$1,112.00
Engineering Technician III	Coordinate Preparation	16	84.00	1,344.00
Subtotal As-Builts:				\$2,456.00

REIMBURSABLES

Blueprinting, delivery charges, etc.	<u>\$ 500.00</u>
Subtotal Reimbursables: \$ 500.00	

TOTAL NOT-TO-EXCEED AMOUNT: \$48,276.00

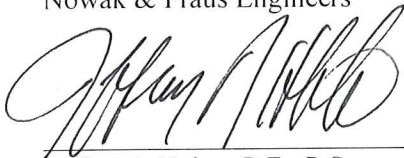
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Please be advised that invoices will be based on actual hours and work required as approved by your office and the not-to-exceed amount will not be exceeded unless authorized by our office. We look forward to working with you on this important project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

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

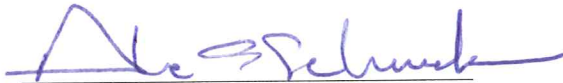
Sincerely,
Nowak & Fraus Engineers



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

Date: February 10, 2016

Recommended By:
CITY OF ROCHESTER HILLS



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

Date: 2/23/16

Approved By:
CITY OF ROCHESTER HILLS

Bryan K. Barnett, Mayor

Date: _____