



SPALDING DEDECKER ASSOCIATES, INC.

905 South Boulevard East • Rochester Hills • Michigan 48307 • Tel 248 844 5400 • Fax 248 844 5404

City of Rochester Hills

Firewood & Falcon Drive Reconstruction and Pathway – Walton to Tienken Project Scope and Proposed Fee

November 26, 2012

Spalding DeDecker Associates, Inc. (SDA) is pleased to have been selected to provide design services for the reconstruction of Firewood Drive and Falcon Drive, from Walton to south of Tienken. The following sections summarize our understanding of the project intent, and the scope of services SDA will provide for this project.

Overview and Understanding of Requested Services

Firewood Drive begins at Walton Road, and runs northerly through the Hunter's Creek subdivision. The roadway name changes to Falcon Drive at Cedar Shake Drive, and remains so for the northerly 1,400' of the overall length of 4,950' to Tienken Road.

Within these limits, there are two existing traffic circles, one at Raintree Drive and the other at Coachwood Lane. Both of the circles are to be gapped out of the proposed pavement improvements. Falcon Drive from Tienken to north of the traffic circle was recently reconstructed, so the northerly work limit is just south of this traffic circle. Accounting for the gapped out portions, the project roadway length is approximately 4,090' long.

The job includes the full replacement of the existing pavement, which varies and includes asphalt pavement with gravel shoulders, concrete with shoulders, and concrete with integral curb and gutter. The intent is to replace all of the roadway with a full-depth asphalt pavement section, with concrete curb and gutter in the area with storm sewer, and retaining the gravel shoulders with ditches in the remainder.

An 8' wide pedestrian pathway is proposed to be added along the west side of Firewood Drive, for an approximate length of 3,570'. All existing and proposed sidewalk ramps at street crossings will be upgraded to ADA standards regarding slope and detectable warning surfaces. A pedestrian crossing at the playground between Rose Brier and Stone Tree is proposed as well.

We are proposing to perform full topographic survey for the entire project length instead of just the reconstruction area, obtaining survey through the existing traffic circles. Should the project scope be expanded to include work on the circles the survey will already be in hand, otherwise it will be supplied to the City and can be used in a future design project.

Summary of Primary Project Components

- Remove existing concrete or asphalt pavement and replace with asphalt pavement
- Place 8' wide pedestrian pathway along the west side of the road
- Evaluate and improve drainage in open ditch segments, relocate ditches as needed for proposed pathway

Engineering Consultants

Infrastructure • Land Development • Surveying

Proposed Scope of Services

SDA will provide the following survey and road design services to achieve the goals described and summarized above.

Provided or performed by SDA

- Topographic Survey – SDA will perform complete topographic survey for the project from right-of-way to right-of-way, which will include the entire roadway from Walton to Tienken, side street approaches, and existing sidewalk / pathway. The survey data will correspond to the State Plane Coordinate System Michigan, South Zone-6401, using NAD83, NAVD88 datum.
- Preliminary Report – following generation of the existing topography base drawings and preliminary cross sections, SDA will provide options and recommendations for the cross section elements, potential geometric improvements, placement of the non-motorized pathway, and hydraulic analysis for ditch modifications. Following a review of the report with the City, SDA will proceed with formal plan preparation.
- Preliminary Plans – Plans will be prepared showing existing and proposed typical cross sections, with profiles for the roadway and pathway; maintaining traffic plans; and supporting details and notes.
- Plan Review – Plans and specifications will be submitted to the City at approximately 75% completion, for review and comments to be received at a review meeting.
- Final Plan Preparation – Plans and specifications / contract documents will be finalized and prepared for advertising. SDA will generate specifications for unique work or pay items, and Soil Erosion and Sedimentation Control (SESC) plans and permit application will be submitted for the Oakland County Water Resources Commissioner (WRC) permit.
- Bidding Phase – SDA will assist the City with responding to Contractor inquiries or preparation of any addendum. If paper bidding documents are to be made available by SDA, we will charge bidders individually.
- Bid Opening and Award – SDA will review submitted bids, prepare bid tabulations, review references, and recommend award.

To be provided or performed by the City:

- Geotechnical – the City has an existing geotechnical consultant on-call who will perform the required pavement cores and soil borings, and provide a pavement design(s).
- Specifications – the City will provide the contract book “front end” which includes the general provisions and conditions, bond requirements, etc.
- The City will place the advertisement, and bidding documents will be made available in PDF format on the Michigan Inter-governmental Trade Network (MITN).
- Request for additional services if SDA will be performing construction engineering services or generating as-constructed drawing.
- Provide payments for applicable permit application fees.

Construction Cost Review

The City provided SDA with a project overview sketch as well as programmed project budget information from the 2013-2018 Capital Improvement Plan. Based on our review of the project, actual costs associated with the recent reconstruction of nearby Rain Tree Drive, and accounting for an inflation reduction to 2013 dollars, the programmed amount appears to be adequate.

Deliverables, Proposed Fee, and Schedule

SDA will design and prepare plans utilizing AutoCad Civil 3D 2011 (or later) following City standards, or where a standard does not exist following SDA or MDOT standards. Plans will be prepared to be full scale when plotted at 24-inch by 36-inch. Plans will generally be submitted for review in PDF format, with hard copies plotted if requested.

Plans could be prepared in log format (letter-size plans) if desired, but based on the scope of the proposed project we do not recommend this format. The City will be provided with the topographic survey and design file for future design in the vicinity of the traffic circles.

Our proposed budget (maximum fee) to perform the survey and complete design for the reconstruction of Firewood / Falcon Drive and Pathway is \$103,564. The actual fees charged by SDA will be hourly, not to exceed the budget amount, based on the hourly rates submitted with our three-year engineering agreement. A copy of the rates in effect are attached, as well as a breakdown of the hours estimated to be required for the project.

The proposed budget also includes preparation for and presentation at up to two public information meetings, and preparation of four easement descriptions and exhibits for pathway or grading work within the subdivision common areas.

Survey will begin following award by City Council, and design will begin shortly after. Assuming a January 2013 award, we propose the following schedule:

- Jan 2013 – Award by council
- Jan - Feb 2013 – survey
- Feb - April 2013 – design of base and preliminary plans
- April 2013 – Final plans and specifications complete, project advertised
- May 2013 – Bid opening
- June - Oct 2013 – Construction

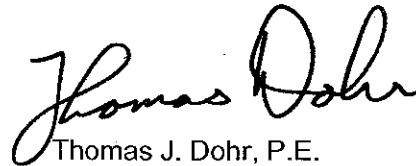
Please contact me if you have any questions or comments regarding this submittal, or require additional information on any of our proposed services.

Kindest Regards,

SPALDING DEDECKER ASSOCIATES, INC.



David P. Eno, P.E.
Transportation Project Manager



Thomas J. Dohr, P.E.
Client Representative

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Project: Firewood Drive & Falcon Drive

Date: 11/26/2012

Design Fee Basis (based on 2011-2013 Rochester Hills hourly rates)

Staff Classification	Hourly Rate (\$)	Hours by Plan Phase			Total Fee (\$)
		Base	Preliminary	Final	
Project Manager	115.00	64	40	24	14,720.00
Sr. Surveyor	95.00	40		20	5,700.00
One-person crew	90.00	96			8,640.00
Two-person crew	130.00	40			5,200.00
Lead Design Engineer	92.00	96	120	64	25,760.00
Traffic Engineer	98.00	24	40	24	8,624.00
Hydraulics Engineer	105.00	24	40	24	9,240.00
CADD Technician	85.00	128	64	64	21,760.00
Department Manager	140.00	16	8	4	3,920.00
Total Hours (all phases):		1064	Total Proposed Fee Budget: \$		103,564.00

Note - Fee based upon scope letter with the same date as listed above. Fee does not include soliciting or retaining any other professional services (geotechnical, etc.).

City of Rochester Hills Hourly Basis Fee Ranges Effective January 1, 2011 to December 31, 2013*

PROFESSIONAL SERVICES

Where it is agreed that fees for our services will be based upon the time worked on the project with a "Not-to-Exceed" limit, such fees (which include overhead and profit) will be computed for the actual personnel performing the work in the following range:

Classification	Hourly Rate Range
Engineering Services:	
Project Manager	\$99.00 - \$115.00
Senior Project Engineer +	\$80.00 - \$105.00
Project Engineer +	\$78.00 - \$92.00
Engineer +	\$70.00 - \$83.00
Designer +	\$62.00 - \$90.00
Drafter/Engineering Assistant +	\$53.00 - \$73.00
Operation & Maintenance Specialist +	\$54.00 - \$80.00
Department Manager	\$115.00 - \$140.00
Traffic Engineering Services:	
Professional Traffic Engineer +	\$85.00 - \$98.00
Traffic Engineer +	\$70.00 - \$83.00
Survey Services:	
Professional Surveyor +	\$99.00 - \$115.00
Sr. Project Surveyor +	\$85.00 - \$95.00
Mapping Specialist +	\$65.00 - \$75.00
Technician/Surveyor Assistant +	\$48.00 - \$70.00
One-Person Survey Crew (w/ Robotic Equipment) +	\$90.00
Two-Person Survey Crew +	\$110.00 - \$130.00
Construction Engineering Services:	
Contract Administrator / Resident Project Representative +	\$70.00 - \$98.00
Office Technician +	\$42.00 - \$65.00
Lead Inspector +	\$60.00 - \$72.00
Inspector +	\$58.00 - \$69.00
Inspector +	\$58.00 - \$69.00
Soil Erosion Inspection Services:	
Soil Erosion Inspector (Stormwater Operator) +	\$58.00 - \$69.00
Environmental Services:	
Registered Landscape Architect +	\$100.00
The fee for an expert witness shall be \$220.00 per hour.	
+ Overtime work will be charged at a rate equal to 1.3 times the indicated rate. "Overtime" is time worked in excess of 8 hours per day	
*Hourly Basis Fee Ranges to be adjusted for the 4 th and 5 th year.	



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City of Rochester Hills
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PR11-071