



CITY of NOVI CITY COUNCIL

**Agenda Item H
July 7, 2014**

SUBJECT: Approval to award an amendment to the engineering services agreement with Spalding DeDecker Associates for additional design engineering for the Town Center Drive Reconstruction project in the amount of \$29,021.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division *RL* *BL*

CITY MANAGER APPROVAL: *[Signature]*

EXPENDITURE REQUIRED	\$ 715 Town Center (Grand River to 11 Mile) Engineering \$ 22,421 Town Center (11 Mile to Crescent) Engineering \$ 29,021 TOTAL
AMOUNT BUDGETED	\$ 67,885 Town Center (Grand River to 11 Mile) Engineering \$ 55,460 Town Center (11 Mile to Crescent) Engineering \$123,345 TOTAL
LINE ITEM NUMBER	202-202.00-805.668 Town Center (Grand River to 11 Mile) Engineering 202-202.00-805.669 Town Center (11 Mile to Crescent) Engineering

BACKGROUND INFORMATION:

This project includes improvements to Town Center Drive from Grand River to Crescent Boulevard. The design engineering was awarded to Spalding DeDecker and Associates (SDA) on August 26, 2013 in the amount of \$43,159 (8.5% of the estimated construction cost of \$182,630 for the section between 11 Mile and Crescent and 9.3% of the \$297,150 estimate for the section between Grand River and 11 Mile). The original scope for this project contemplated that the section south of 11 Mile would be reconstructed, but that the portion north of 11 Mile would only need to be rehabilitated using joint repair and slab replacement. As the design progressed through the winter, it was determined that full reconstruction would be a more cost-effective long-term treatment to maximize the life of the road. The extensive freeze/thaw action over the winter contributed to an increase in the estimated cost for rehabilitation between last summer and this spring, making full reconstruction of the roadway a more attractive alternative.

SDA is requesting additional design engineering fees for both portions of the project. For the portion between Grand River and 11 Mile, there was additional design effort (\$715) related to the configuration of the boulevard section to maximize the landscape planting areas and to maintain truck movements. For the portion between 11 Mile and Crescent, the project was partially designed as a rehabilitation project until it was determined that reconstruction was needed. Therefore, SDA has requested this amendment to include the re-design effort from the original rehabilitation to the current reconstruction (\$2,700), SDA's time to research alternative materials and repair strategies (\$3,900), and a correction to the design fee to account for the resultant overall increase in the project cost beyond the original estimate (\$21,706) to include the additional topographical survey and design effort required for a reconstruction project that would not be required for a rehabilitation project. In total, SDA is requesting an additional design fee of \$29,021.

The original engineering award for the 11 Mile to Crescent section was based on the fee curve for rehabilitation at a cost estimate of \$182,630. The revised construction cost estimate for this segment is \$524,364 and the reconstruction fee curve should be applied. The construction cost estimate for both segments combined (the complete reconstruction of Town Center) is \$923,659. Using the reconstruction fee curve with a fee of 7.1% of construction the fee would be \$65,580. SDA was originally awarded a fee of \$43,159 and requesting an additional \$29,021, for a total revised design fee of \$72,180. The difference between the fee curve and the request from SDA is \$6,600, which accounts for the re-design effort and research of alternative materials and repair strategies that was directed by staff.

This project has also provided the opportunity to incorporate some changes to the lane configuration at the intersections of Grand River and 11 Mile to improve the operation of the roadway. Additionally, the City's Non-Motorized Master Plan 2011 has designated the section of Town Center Drive between Grand River and 11 Mile as an On-Road Neighborhood Connector, and envisions bike lanes for both the northbound and southbound roadways between Grand River and 11 Mile. Therefore, this section will incorporate bike lanes and other non-motorized improvements recommended by the master plan.

It is anticipated that the project will be ready for construction soon and will be completed this fall.

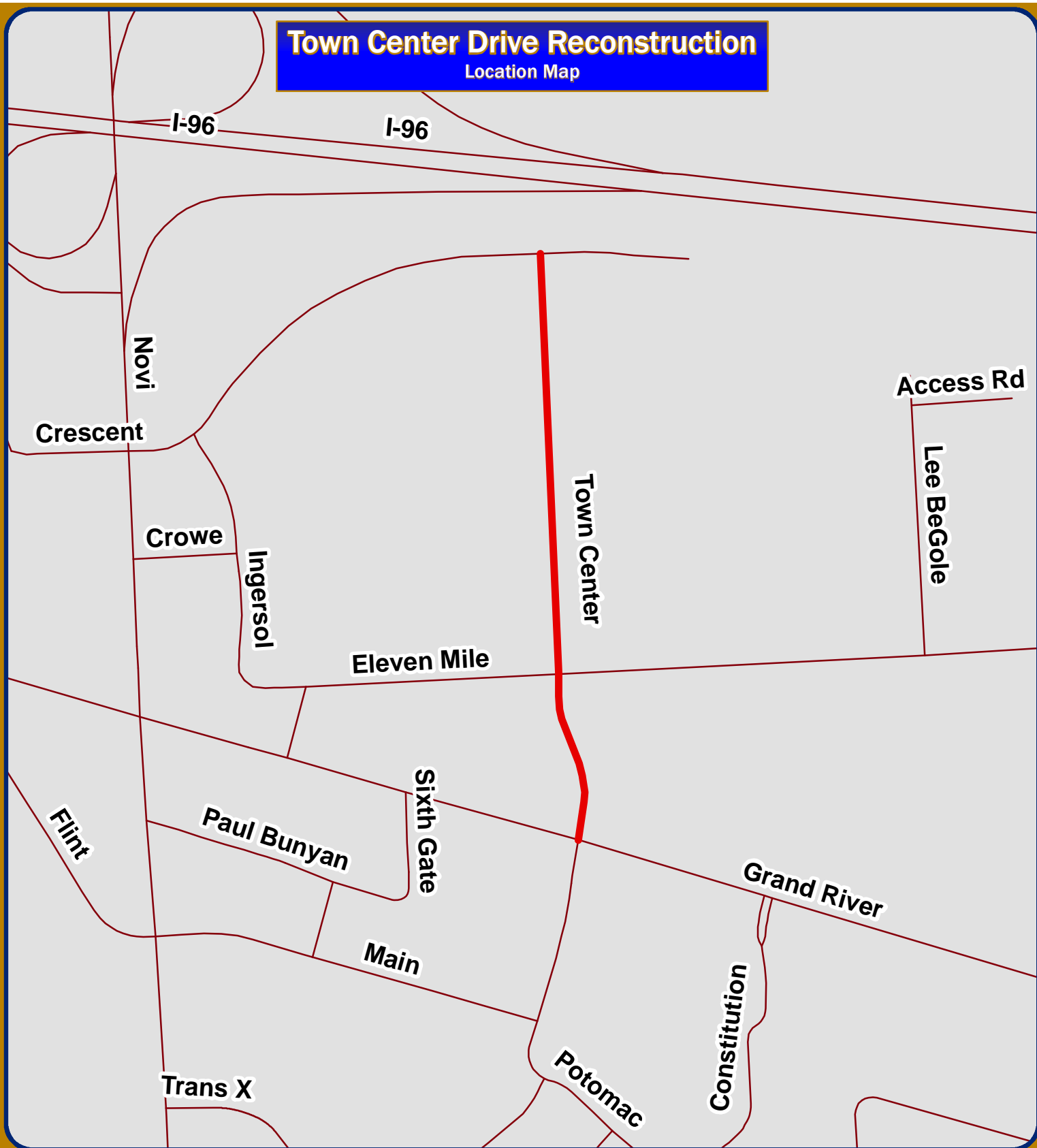
RECOMMENDED ACTION: Approval to award an amendment to the engineering services agreement with Spalding DeDecker Associates for additional design engineering for the Town Center Drive Reconstruction project in the amount of \$29,021.

	1	2	Y	N
Mayor Gatt				
Mayor Pro Tem Staudt				
Council Member Casey				
Council Member Fischer				

	1	2	Y	N
Council Member Margolis				
Council Member Mutch				
Council Member Wrobel				

Town Center Drive Reconstruction

Location Map



Map Author: Croy
Date: 6/24/14
Project: Town Center Drive Reconstruction
Version #: v2.0

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.



1 inch = 500 feet



City of Novi

Engineering Division
Department of Public Services
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org

Authorization for Additional Services # 1

Project: **Engineering Services for** Design of the
Reconstruction of Town Center Drive

Date: 6-20-14

Description of Additional Services

See attached memo

Original scope of work:

[Provide itemized list of tasks related to scope change, and provide cost associated with each task]

- See attached memo
-
-

Amount authorized for original scope: \$43,159.00

Proposed scope of work:

[Provide itemized list of tasks related to scope change, and provide cost associated with each task]

- See attached memo
-
-

Proposed budget amount for new scope: \$72,180.00

Based on the revised scope of services, we request authorization for an increase of \$29,021.00 to the amount authorized under the previous scope of services.

Spalding DeDecker Associates, Inc.

Requested by:


Cheryl Gregory, Vice President

Date:

6-20-14

CITY OF NOVI

Reviewed by:


Brian Coburn, Engineering Manager

Date:

6/24/14

Approved by:


Rob Hayes, Director of Public Services

Date:

6/24/14

Approved by:

Sue Morianti, Purchasing Manager

Date:



City of Novi
Town Center Drive Reconstruction
Grand River Ave to Crescent Blvd
Project Scope Revised
June 17, 2014

As Spalding DeDecker Associates, Inc. (SDA) developed the design plans in conjunction with the City's Engineering staff, the initial scope for the rehabilitation of Town Center Drive from Grand River Avenue to Crescent Boulevard has evolved. The following sections summarize the changes in the scope of the project work as well as SDA's scope of services.

Overview of Revised Scope of Work and Services

Grand River to 11 Mile Road – From Grand River Avenue to 11 Mile Road, the roadway is a boulevard section with two- to three-lanes in each direction. Based on the City's non-motorized master plan, on-road bike lanes are proposed to be added to both north and south bound roadways in this segment. The construction estimate has been refined during the development of preliminary plans, and has increased \$102,145.00 due to aggregate base costs, the addition of a geogrid interlayer, additional curb and gutter construction, and sidewalk improvements. This segment was initially estimated as a full reconstruction, and remains unchanged with this update.

11 Mile Road to Crescent Boulevard – This segment was originally proposed to be rehabilitated, including joint repairs and full-depth slab replacements. Several drive approaches were proposed to be replaced and some segments of the existing sidewalk which have heaved or are broken were to be replaced.

After investigating the pavement surface in Spring 2014 and considering options for rehabilitation, it was determined that it was better long-term value for the City to reconstruct this section. The reconstructed pavement section will include new concrete curb and gutter, full-depth HMA pavement, 12-inch aggregate base, geogrid reinforcement, and 6-inch underdrain the length of the project. Sidewalk ramps will be upgraded to current ADA standards.

Proposed Scope of Services

SDA will provide design phase services to achieve the goals described and summarized above. This section will describe and summarize the services.

Design Phase Services

- Topographic Survey – Additional pick-up survey will be performed to collect cross section data and confirm location of recently reconstructed light poles. During construction phase, our surveyors must measure and offset the existing top of curb elevations from which the Contractor can establish the new section.

- Final Plan Preparation – SDA will modify the Preliminary Design Plans (Feb. 2014) to reflect the new typicals, plans and profile sheets for the proposed reconstruction. The maintenance of traffic special provision and staging plans will be updated. The Engineer's estimate will be finalized, and contract documents will be submitted to the City for final review.
- Project Advertisement and Bidding – The plans and project manual will be made available to Contractors, and SDA will review submitted bids and provide a recommendation for award. This service was included in the original scope of service and remains unchanged with this update.

Construction Cost Estimate and Proposed Fees

Based on our pre-qualification status with the City, engineering design fees are based on a percentage of the pre-design construction cost estimate. The fee percentage used depends on the type of services to be provided based on the proposed work. For the segment of Town Center Drive between Grand River and 11 Mile, the reconstruction cost is now estimated at \$399,295. For the segment from 11 Mile to Crescent Circle, a design fee has been calculated in accordance with the "road reconstruction" rates, based on a construction cost estimate of \$524,364. The total reconstruction cost of this project is now \$923,659, for which the design fee may be calculated at 7.1%.

<u>Segment</u>	<u>Original Construction Estimate</u>	<u>Original Design Fee Rate</u>	<u>Original Auth. Design Fee</u>	<u>Revised Construction Estimate</u>	<u>Revised Design Fee Rate</u>	<u>Revised Auth. Design Fee</u>
Grand River to 11 Mile	\$297,150	9.30%	\$27,635	\$399,295	7.1%	\$28,350
11 Mile to Crescent Blvd	\$182,630	8.50%	\$15,524	\$524,364	7.1%	\$37,230
Total	\$479,780		\$43,159	\$923,659		\$65,580
				Increase in design fee:		\$22,421

Although the revised fee rate (7.1%) is based on the total reconstruction of Town Center, design was initially undertaken for the rehabilitation of the segment between 11 Mile and Crescent Circle. Design effort was expended preparing typical cross sections, quantities, and design details for the proposed rehabilitation prior to arriving at the preferred reconstruction option. The effort spent toward the initial rehabilitation strategy was **\$2,700.00**.

In addition to the revised design services described above, SDA performed an engineering analysis and researched alternative materials and repair strategies for the 11 Mile to Crescent Boulevard segment. The research aided the City in evaluating materials for roadway rehabilitation options in determining the best value repair strategy. The fee to perform the engineering analysis and research is **\$3,900.00**.

The total change in fee for the revised engineering services for the entire project is **\$29,021.00**, bringing the total design fee to \$72,180.00. Please don't hesitate to contact me if you have any questions or comments regarding this submittal.

Kindest Regards,

SPALDING DEDECKER ASSOCIATES, INC.



Cheryl Gregory, P.E.
Director of Engineering Services