



# CITY of NOVI CITY COUNCIL

**Agenda Item 3**  
**July 9, 2018**

**SUBJECT:** Approval to award design engineering services to AECOM Great Lakes, Inc., for the Flint Street Realignment and Reconstruction project in the amount of \$111,357.54.

**SUBMITTING DEPARTMENT:** Department of Public Works, Engineering Division

**CITY MANAGER APPROVAL:** 

<b>EXPENDITURE REQUIRED</b>	<b>\$ 111,357.54</b>
<b>AMOUNT BUDGETED</b>	<b>\$ 170,740 FY 2017-18 Rollover</b>
<b>APPROPRIATION REQUIRED</b>	<b>N/A</b>
<b>LINE ITEM NUMBER</b>	<b>203-203.00-865.261</b>

## BACKGROUND INFORMATION:

The realignment and reconstruction of Flint Street is part of the Capital Improvement Program (CIP) for FY 2019-20. Flint Street is the third of four road construction phases to complete the southwest quadrant of the ring road around the Grand River Avenue and Novi Road intersection. The work includes extending the road to the west and acquiring the necessary right-of-way and easements. The existing gravel road will be replaced with an asphalt road with concrete curb and gutter. Flint Street will include two eleven-foot-wide lanes and an eight-foot parking lane with a six-foot sidewalk along the south side of the roadway.

The Oakland County Board of Commissioners recently approved Flint Street for funding under the 2018 Pilot Local Road Improvement Program (LRIP). The LRIP program supports road construction projects that improve the economic development of the local communities. The Oakland County Board of Commissioners will provide the City reimbursement of \$244,897.00 when this project is completed.

The attached Design Engineering Services proposal, as executed by AECOM, outlines the scope of services in more detail. The design fee rate per the Exhibit B Fee Curve Schedule (as part of the City's general Engineering Services Contract with AECOM) is \$106,667.54 (6.5% of \$1,641,039 estimated construction cost). The base fee includes preparation of up to five (5) legal descriptions; however, seven (7) additional legal descriptions are anticipated in the amount of \$4,690 (\$670 each).

The Engineering Division has reviewed the scope of services proposal and recommends approval.

**RECOMMENDED ACTION:** Approval to award design engineering services to AECOM Great Lakes, Inc., for the Flint Street Realignment and Reconstruction project in the amount of \$111,357.54.



# Flint Street Realignment and Reconstruction

Location Map



Map Author: Joseph Akers  
 Date: July 9, 2018  
 Project: Flint Street  
 Version #: 1.1

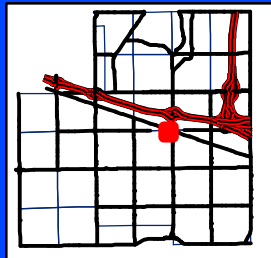
Amended By:  
 Date:  
 Department:

**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.

## Legend

 Proposed Road Alignment



## City of Novi

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



1 inch = 167 feet





June 18, 2018

Mr. Joseph Akers  
City of Novi  
Field Services Complex  
26300 Lee Begole Drive  
Novi, MI 48375

**Reference: Proposal for Engineering Services  
Flint Street Reconstruction Project**

Dear Mr. Akers,

AECOM is pleased to submit this proposal for the above referenced project for the realignment and reconstruction of Flint Street between Novi Road and Grand River Avenue.

A study dated January 29, 2015 was completed by AECOM for this project. Since completion of the study a new development has been proposed for the area on the southwest side of Flint Street. Some changes to the previous project concept were proposed by the developer and accepted by the City. Major features of the project include:

- HMA roadway is to include two eleven foot wide through lanes
- An eight foot parking lane is to be provided for the center portion of the roadway where feasible
- A six foot sidewalk is to be included on the south side
- A ten foot wide HMA non-motorized path is to be provided on the north side adjacent to the creek
- Dedicated left turn and right turn lanes will be provided for the approaches to Grand River Avenue and Novi Road. Turn lanes for driveways to the new development are not included.
- Curb and gutter with enclosed storm will be provided along with subgrade underdrains
- A new mast arm signal is to be needed for the Grand River Avenue/Flint Street Intersection
- Signals modifications are required at the Flint Street/Novi Road Intersection
- Replacement of the large culvert under Flint Street just west of Novi Road will be done with a separate project
- Easements or right of way will be needed from approximately twelve parcels
- An existing detention pond south of Grand River Avenue will need to be reconfigured to allow for the realigned roadway
- Several joint utility poles will require relocation for the realignment of Flint Street.
- The proposed box culvert under Flint Street west of Novi Road will be replaced as part of a project that also includes streambank stabilization along the Middle Rouge River. This project will be completed early in 2019 before this project begins.
- Right of way and/or easements are required from twelve separate properties

The following tasks will be completed for the project:

#### **Initial Meeting and Scope Verification**

The intent of this task is to meet with the City and verify the limits and scope of work for the project. A full topographic survey will be required for the project. Upon completion of this task, we will move forward with the surveying and preliminary design.





Mr. Joseph Akers  
June 18, 2018  
Page 2

### **Survey and Base Plans**

The intent of this task is to provide topographic survey and base mapping as needed for the proposed design work. A full topographic survey is anticipated to be needed. Base drawings will be created using the survey data, supplemented by aerial photos and a detailed field review of the site.

AECOM will prepare base plans (30%-40% complete) to identify the major design features. These plans will also be used to further the utility investigation and resolution of potential conflicts. Base plans will include the results of the survey information, utility information from response to our solicitations, and a preliminary estimate.

### **Utilities**

AECOM will obtain existing utility data with a design ticket through the MISS DIG system. In addition, AECOM will distribute the base plan design set to the utility companies that have indicated that they have facilities in the project area. We will incorporate the additional information that utility companies provide to AECOM into the plan set. AECOM will coordinate needed utility relocation work for the joint poles along Flint Street as needed. The cost of the relocation work, if any, is assumed to be paid directly by the City.

Water main and sanitary sewer may be needed for the new development on the south side of Flint Street. The design and construction of these improvements is assumed to be done by the developer. Some minor utility cover adjustments may be needed as part of this project and will be included in the designs included.

### **Preliminary Plans**

Incorporating the information obtained from the above tasks, we will prepare the preliminary plan set (90%) in accordance with City requirements. This submittal will include items such as the typical cross sections, materials/quantities and details. A Project Manual and preliminary updated cost estimate will also be prepared and submitted.

### **Right of Way and Legal Descriptions**

The right of way/easement descriptions will be developed based upon the proposed design and submitted concurrently with the Preliminary Plans. AECOM will assist City of Novi Engineering staff in completing the ROW and easement acquisition needed for the project. AECOM will obtain the needed title commitments/appraisals. The cost of title commitments and appraisals is assumed to be paid or reimbursed by the City and this cost is not included in our fee.

### **Permits**

Permits will be required for the project from the Road Commission for Oakland County and may be required from the Michigan Department of Environmental Quality and the Oakland County Water Resources Commission. AECOM will prepare and submit all needed permit applications and supporting information.

The design and construction cost estimate include use of a hydrodynamic separator to improve storm water quality prior to discharge. Design and construction of a detention basin is not anticipated to be needed and not included.

### **Final Plans and Proposal**

Incorporating comments from the City, AECOM will develop the final plans submittal, including the plan set, Project Manual, and cost estimate.

### **Advertising and Award**

We will respond to any final comments received from the City and submit the Advertisement for Bids to the City for publication. Contract Documents will be made available to bidders by AECOM. AECOM will respond to bidder



Mr. Joseph Akers  
June 18, 2018  
Page 3

inquiries during the advertising period and prepare addenda as required. Following the bid opening AECOM will submit the Bid Tabulation and a letter with recommendations regarding contract award

### Construction

AECOM will provide full time inspection, contract administration, and staking as required for the project.

### Schedule

We anticipate the following schedule can be maintained for the project.

Notice To Proceed	June 19, 2018
Base Plans	August 10, 2018
Preliminary Plans	September 28, 2018
Legal Descriptions	September 28, 2018
Final Plans	November 30, 2018
Advertise for Bids	April 29, 2019
Open Bids	May 21, 2019
Contract Award	June 3, 2019
Begin Construction	July 1, 2019
Complete Construction	November 15, 2019

Please note that the construction schedule is dependent upon the completion of the separate project for the culvert construction, right of way acquisition, and permit approvals. The schedule for the roadway project also will need to be coordinated with the site construction planned along Flint Street.

### Estimated Cost of Construction and Design Fees

The attached estimate shows the construction cost for the project is \$1,641,039.

The base design fee (using the Engineering Fee Chart for Roadway Reconstruction) is 6.50% of construction cost. Twelve legal descriptions are required. The base fee includes preparation of up to five legal descriptions. Seven additional legal descriptions are anticipated at \$670 each.

Base Fee 6.50% x \$1,641,039 = \$106,667.54  
7 additional easements @ \$670 = \$ 4,690.00

We understand that fees for construction phase services will be determined after a construction contract is awarded. Please contact me if you have any questions or wish to discuss this submittal.

Sincerely,

AECOM Great Lakes, Inc.

Sean Kelsch, PE  
Vice-President

**CITY OF NOVI**  
**Flint Street Reconstruction - Alternative 1A**  
**Probable Estimate of Cost**  
**6/15/2018**  
**Flint Street Reconstruction**

Item No.	Item Description	Unit	Quantity	Unit Price (\$)	Item Cost (\$)
1	Pre-Construction Audio-Visual	LS	1	\$ 2,000.00	\$ 2,000.00
2	Maintaining Traffic	LS	1	\$ 50,000.00	\$ 50,000.00
3	Tree Protection	Each	20	\$ 50.00	\$ 1,000.00
4	Pavt, Rem	Syd	100	\$ 4.00	\$ 400.00
5	Sidewalk, Rem	Syd	170	\$ 4.00	\$ 680.00
6	Curb and Gutter, Rem	Ft	300	\$ 2.50	\$ 750.00
7	Clearing	Acre	0.50	\$ 7,500.00	\$ 3,750.00
8	Subgrade Undercutting, Special	Cyd	500.00	\$ 50.00	\$ 25,000.00
9	Roadway Grading	Sta	19	\$ 3,500.00	\$ 66,500.00
10	Silt Fence	Ft	2,500	\$ 1.50	\$ 3,750.00
11	Curb and Gutter Inlet Filter, After Paving	Ea	18	\$ 100.00	\$ 1,800.00
12	Aggregate Base, 21AA, 10 inch	Syd	9,150	\$ 11.00	\$ 100,650.00
13	Aggregate Base, 21AA, 6 Inch (Bike Path/Sidewalk)	Syd	3,450	\$ 8.50	\$ 29,325.00
14	HMA, Bike Path (Assume 4 inch)	Ton	433	\$ 85.00	\$ 36,805.00
15	HMA, 3E3 (5 inches)	Ton	2,180	\$ 85.00	\$ 185,300.00
16	HMA, 5E3 High Stress (2 inches)	Ton	840	\$ 95.00	\$ 79,800.00
17	HMA Approach (Driveways)	Ton	235	\$ 110.00	\$ 25,850.00
18	Sewer, 12 inch, Tr Det B	Ft	990	\$ 30.00	\$ 29,700.00
19	Sewer, 15 inch, Tr Det B	Ft	275	\$ 33.00	\$ 9,075.00
20	Sewer, 18 inch, Tr Det B	Ft	420	\$ 45.00	\$ 18,900.00
21	Sewer, 24 inch, Tr Det B	Ft	425	\$ 55.00	\$ 23,375.00
22	Videotaping Sewer Pipe	Ft	2,110	\$ 1.00	\$ 2,110.00
23	Dr Structure, 48 inch dia	Ea	25	\$ 1,100.00	\$ 27,500.00
24	Hydrodynamic Separator	Ea	1	\$ 26,000.00	\$ 26,000.00
25	Dr Structure Cover	Ea	25	\$ 500.00	\$ 12,500.00
26	Underdrain, 6 inch	Ft	3,750	\$ 5.25	\$ 19,687.50
27	Utility Adjustments	LS	1	\$ 5,000.00	\$ 5,000.00
28	Culvert End Sections	Ea	2	\$ 500.00	\$ 1,000.00
29	Curb and Gutter, Conc, Det F4	Ft	3,900	\$ 18.00	\$ 70,200.00
30	Sidewalk, Conc, 4 inch	Sft	9,605	\$ 5.00	\$ 48,025.00
31	Sidewalk Ramp, Conc, 8 inch	Sft	1,300	\$ 6.00	\$ 7,800.00
32	ADA Detectable Warning Plate - New Construction	Ft	160	\$ 80.00	\$ 12,800.00
33	Slope Restoration, Type B	Syd	7,000	\$ 3.50	\$ 24,500.00
34	Permanent Signing	LS	1	\$ 6,000.00	\$ 6,000.00
35	Permanent Pavement Markings	LS	1	\$ 10,000.00	\$ 10,000.00
36	Detention Pond Relocation	LS	1	\$ 150,000.00	\$ 150,000.00
37	Traffic Signal Work	LS	1	\$ 250,000.00	\$ 250,000.00
38	Mobilization	%	10%		\$ 136,753.25
39	Miscellaneous Items	%	10%		\$ 136,753.25
<b>Construction Total</b>					<b>\$ 1,641,039.00</b>
Contingencies					% 10.00% \$ 164,103.90
Design Engineering*					% Fee 6.50% \$106,667.54
Legal Descriptions not included in Design Fee					Each 7 \$ 670.00 \$4,690.00
Geotechnical Investigation					LS 1 \$ 14,000.00 \$14,000.00
Inspection (Crew Days)					CD 75.00 \$700.00 \$52,500.00
Contract Administration*					% Fee 5.50% \$90,257.15
Materials Testing					LS 1.00 \$ 22,000.00 \$22,000.00
<b>Total Estimated Cost</b>					<b>\$ 2,095,257.58</b>

Estimate Assumptions:

- \* Notes:
- Does not include ROW Costs
- Does not include utility relocation or utility expansion costs
- Does not include landscaping or lighting cost
- Signal cost assumes full mast arm signal at Grand River Ave. and signal modifications at Novi Rd.
- Detention pond relocation scope requires further study
- Does not include detntion /retention ponds other than modifications to existing pond
- Includes 10 foot HMA Bike Path on north side and 6 foot sidewalk on south side.