

CITY of NOVI CITY COUNCIL

Agenda Item F
December 17, 2018

SUBJECT: Approval to award civil engineering services to AECOM for design engineering services associated with Cabot Drive from 12 Mile to 13 Mile and Lewis Drive from Cabot Drive to Haggerty Road Rehabilitation project in the amount of \$50,000.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

CITY MANAGER APPROVAL: PA

| | |
|-------------------------------|---------------------------|
| EXPENDITURE REQUIRED | \$ 50,000 |
| AMOUNT BUDGETED | \$ 57,778 |
| APPROPRIATION REQUIRED | \$ 0 |
| LINE ITEM NUMBER | 202-202.00-865.031 |

BACKGROUND INFORMATION:

The corridor along Cabot Drive from 12 Mile to 13 Mile and along Lewis Drive from Cabot Drive to Haggerty Road is comprised of several commercial businesses and is centrally located near I-96, I-696 and I-275 highways. Both roadways are currently 3-lanes with a center-turn lane. The center-turn lane is frequently used for logistical off-loading operations. Both streets' PASER rating has been steadily declining and are currently rated as a PASER 4.

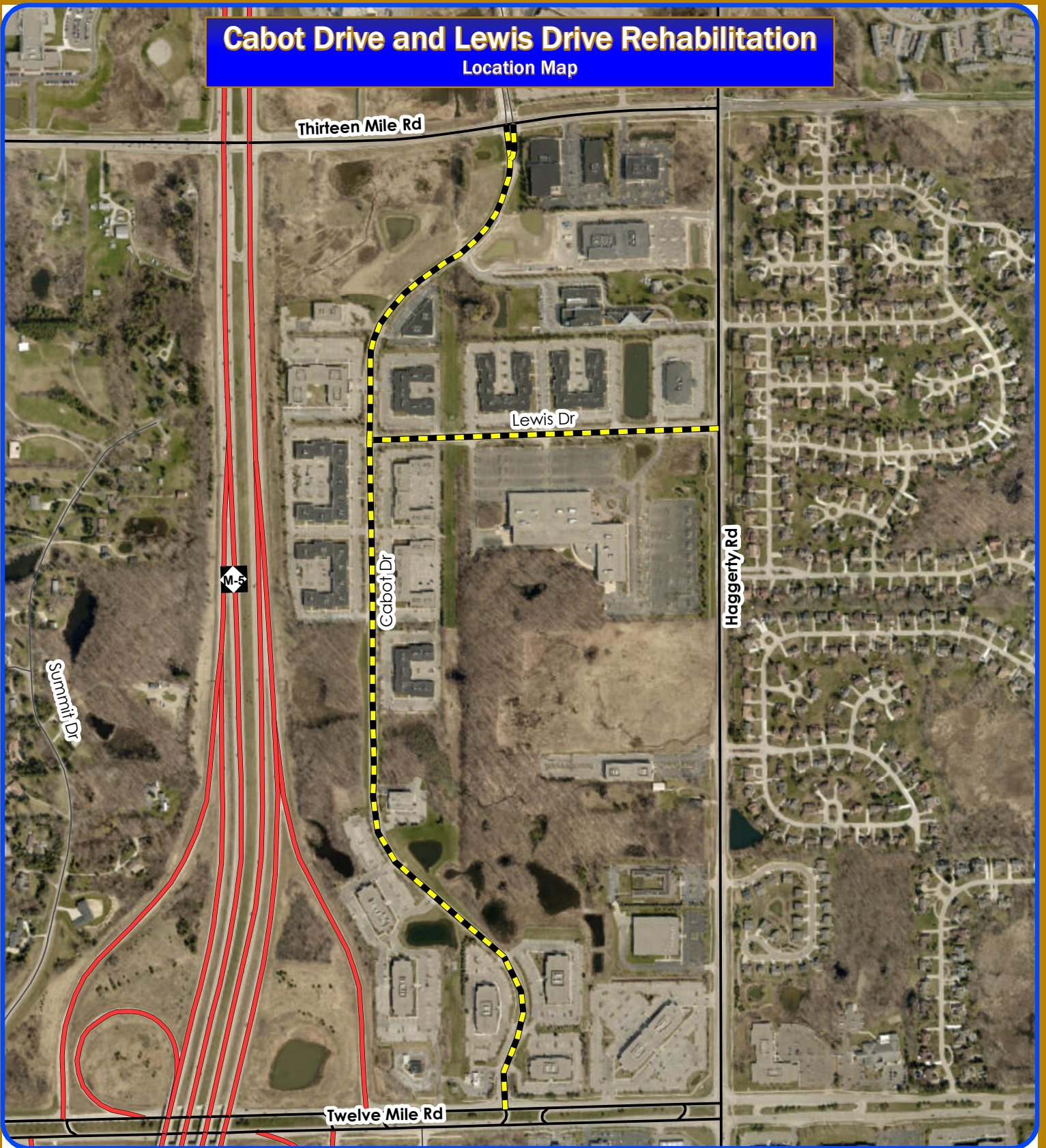
The Engineering Division recommends cold milling the existing concrete pavement, repairing the joints with asphalt, and overlaying the concrete surface with a three-inch hot mix asphalt overlay. The curbs along both roadways have some areas that are in disrepair and will be spot repaired as-needed. The existing handicap ramps at the intersection of Cabot Drive and Lewis Drive will also be upgraded to current ADA standards. The construction would improve both roadway life cycles by up to 10 years while reducing construction cost by six times when compared to a complete road reconstruction.

The attached *Design Engineering Services* proposal, as executed by City Consulting Engineers, AECOM, outlines the scope of services in more detail. AECOM has agreed to lower their design fee rate to 4.22% (previously 5.00%) for road rehabilitation since the project will not require complete design plans. The design cost of the project is \$50,000 (4.22% of the estimated construction cost of \$1,185,495). The Engineering Division has reviewed the scope of services proposal and recommends approval.

RECOMMENDED ACTION: Approval to award civil engineering services to AECOM for design engineering services associated with Cabot Drive from 12 Mile to 13 Mile and Lewis Drive from Cabot Drive to Haggerty Road Rehabilitation project in the amount of \$50,000.

Cabot Drive and Lewis Drive Rehabilitation

Location Map



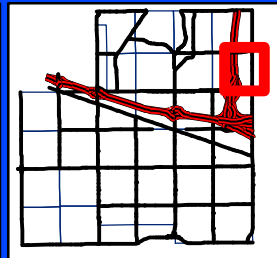
Map Author: Joseph Akers
 Date: November 28, 2018
 Project: Cabot and Lewis Drive
 Version #: 1

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 232 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.

 Rehabilitation



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



1 inch = 696 feet





November 20, 2018

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

Reference: **Proposal for Engineering Services
Cabot Drive and Lewis Drive Rehabilitation**

Dear Mr. Akers,

AECOM is pleased to submit this proposal for the above referenced project. We understand that the project includes the rehabilitation of Cabot Drive from 12 Mile Road to 13 Mile Road and Lewis Drive from Cabot Drive to Haggerty Road. The work includes cold milling the existing concrete pavement, repairing the existing concrete pavement joints with asphalt and a 3 inch HMA overlay. ADA upgrading of sidewalk ramps and rehabilitation of existing drainage structures is also included as required.

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. Upon completion of this task, we will move forward with the surveying and preliminary design.

Survey and Base Plans

The intent of this task is to provide topographic survey and base mapping as needed for the proposed design work. We anticipate that a full topographic survey will not be required for this project. Base drawings will be created using the aerial photos supplemented by the field survey data and a 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 and *geotechnical* investigations. Base plans will include the results of the survey information, utility information from response to our solicitations, and a preliminary estimate.

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.

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.



Mr. Joseph Akers
November 20, 2018
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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 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 that the following schedule can be maintained:

| | |
|-------------------------------|-------------------|
| Notice To Proceed with Design | November 27, 2018 |
| Preliminary Plans Submittal | February 15, 2019 |
| Final Plans Submittal | March 1, 2019 |
| Advertise for Bids | March 17, 2019 |
| Open Bids | April 10, 2019 |
| Contract Award | April 22, 2019 |
| Begin Construction | July 1, 2019 |
| End Construction | August 28, 2019 |

Estimated Cost of Construction and Design Fees

The attached estimate show the construction cost for the project.

Design fee is 4.22% of Construction cost for Roadway Rehabilitation.

$$4.22\% \times \$1,185,000 = \$50,000.00.$$

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
Cabot & Lewis Dr - Cold Mill & 3" HMA Overlay
Preliminary Estimate of Cost
8/26/2018

| Item No. | Item Description | Unit | Quantity | Unit Price | Total Cost |
|----------|---------------------------------|------|----------|---------------|-----------------|
| 1 | Mobilization (10%) | LS | 1 | \$ 107,772.30 | \$ 107,772.30 |
| 2 | Pre-Construction Audio-Visual | LS | 1 | \$ 1,500.00 | \$ 1,500.00 |
| 3 | Cold Milling, Conc Surface | Syd | 34,182 | \$ 8.00 | \$ 273,454.16 |
| 4 | Joint Repair | Ft | 27,207 | \$ 6.00 | \$ 163,242.00 |
| 5 | Silt Fence | Ft | 500 | \$ 5.00 | \$ 2,500.00 |
| 6 | Curb and Gutter Inlet Filter | Ea | 61 | \$ 120.00 | \$ 7,320.00 |
| 7 | HMA, 5E3 | Ton | 6,486 | \$ 75.00 | \$ 486,449.31 |
| 8 | Sidewalk, Rem | Syd | 170 | \$ 10.00 | \$ 1,700.00 |
| 9 | Sidewalk Ramp, Conc, 6 inch | Sft | 1,485 | \$ 9.50 | \$ 14,107.50 |
| 10 | Detectable Warning Surface | Ft | 50 | \$ 55.00 | \$ 2,750.00 |
| 11 | Dr Structure Cover | Ea | 61 | \$ 750.00 | \$ 45,750.00 |
| 12 | Dr Structure Cover, Adj, Case 1 | Ea | 61 | \$ 450.00 | \$ 27,450.00 |
| 13 | Point Up Drainage Structure | Ea | 31 | \$ 300.00 | \$ 9,300.00 |
| 14 | Reconstruct Drainage Structure | Ft | 61 | \$ 200.00 | \$ 12,200.00 |
| 15 | Permanent Signing | LS | 1 | \$ 5,000.00 | \$ 5,000.00 |
| 16 | Permanent Pavement Markings | LS | 1 | \$ 5,000.00 | \$ 5,000.00 |
| 17 | Maintaining Traffic | LS | 1 | \$ 10,000.00 | \$ 10,000.00 |
| 18 | Surface Restoration | LS | 1 | \$ 10,000.00 | \$ 10,000.00 |
| | | | | | |
| | Subtotal Construction Items | | | | \$ 1,185,495.27 |
| | Miscellaneous Items (10%) | | | | \$ 118,549.53 |
| | | | | | |
| | Total Construction Cost | | | | \$ 1,304,044.80 |
| | | | | | |
| | Design Engineering | LS | 4.22% | | \$ 50,000.00 |
| | Inspection (Crew Days) | Day | 100 | \$700.00 | \$ 70,000.00 |
| | Contract Administration | LS | 3.00% | | \$ 39,121.34 |
| | Materials Testing | LS | 2.00% | | \$ 26,080.90 |
| | | | | | |
| | Total Estimated Cost | | | | \$ 1,489,247.04 |

Estimate Assumptions:

New covers and adjustment of all drainage structures, point up on half of the structures, 2' of reconstruction for half of the structures
Installation of new ADA ramps at Lewis & Haggerty, and at Cabot & 12 Mile Rd.
3" of 3E3 and 2" of 5E3
Square yards of asphalt overlay consistent with estimate provided by Cadillac Asphalt
Used 100% Transverse joints and 50% Longitudinal Joints for joint repair.
The fix in this estimate is based on the repair type proposed by Cadillac Asphalt