

**CITY OF NOVI CITY COUNCIL
DECEMBER 16, 2019**

SUBJECT: Approval to award contract services to AECOM Great Lakes, Inc. for an Environmental Assessment of Beck Road from Six Mile Road to Pontiac Trail, in the amount of \$62,500.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

EXPENDITURE REQUIRED	\$ 62,500
AMOUNT BUDGETED	\$ 62,500
APPROPRIATION REQUIRED	\$ 0
LINE ITEM NUMBER	202-202.00-816.045

BACKGROUND INFORMATION: The Cities of Novi and Wixom recently awarded federal grant writing services to Hanka Advisor, LLC to assist in obtaining federal funding for the widening and improvement of Beck Road from Six Mile Road to Pontiac Trail. One of the grants Hanka Advisor will pursue is the BUILD (Better Utilizing Investments to Leverage Development) grant through the U.S. Department of Transportation. An Environmental Assessment (EA) of the project area and Cost-Benefit Analysis (CBA) to ensure the economic value outweighs the cost of the project are required for the grant submittal.

In 2018, AECOM prepared an update to the 2006 Beck Road Scoping Study, which looked at long-term improvement options for Beck Road from Eight Mile Road to Grand River Avenue. Long-term improvement options identified in the study update include a five-lane roadway option, a 20-foot median boulevard option, and a 25-foot median boulevard option. Traffic capacity and cost were comparable for each option, with the total cost of each improvement estimated around \$30 Million. Executing an EA was identified as the next step in the Beck Road widening project.

The Beck Road Environmental Assessment will include seven primary tasks:

1. Development of a purpose and need statement- scoping, document review, public involvement/public hearing, data collection, traffic analysis, current and future land use analysis.

2. Development of alternatives – required as part of the Environmental Assessment.
3. Impact Assessment – air quality assessment, hazardous waste potential, wetland assessment and noise analysis.
4. Cost Estimates
5. Preparation of an Environmental Assessment Document
6. Public Involvement
7. Preparation of a Finding of No Significant Impact document

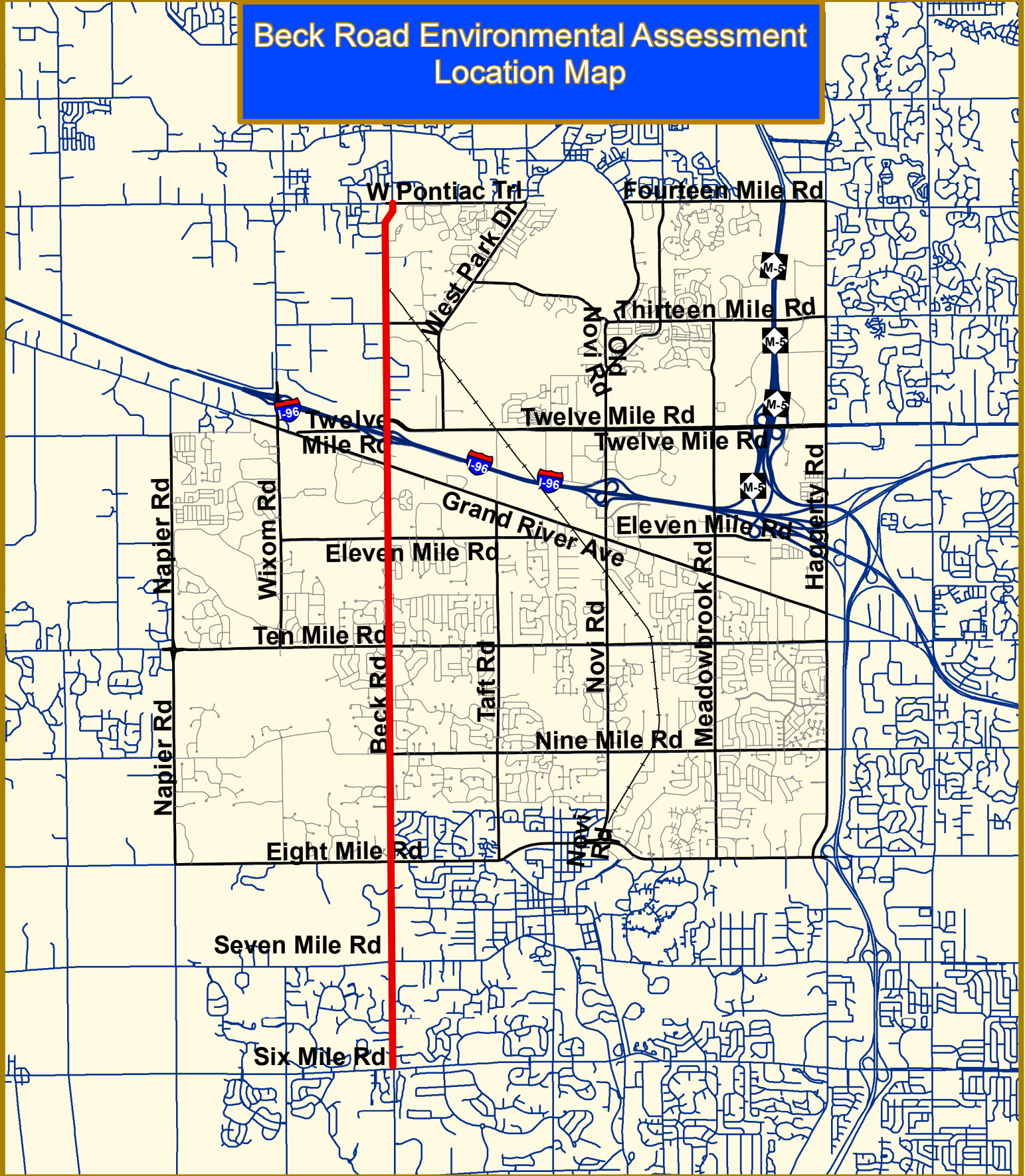
A detailed scope of services is included in the packet for review and reference.

The fixed fee schedule established in the Agreement for Professional Engineering Services for Public Projects does not include a fee curve for Environmental Assessments. AECOM is proposing a lump sum fee of \$105,000 to complete the EA and \$20,000 to complete a Cost-Benefit Analysis (CBA), for a total of \$125,000. AECOM's proposal is enclosed and includes the project scope and fees. Novi is splitting the total costs equally for the EA and CBA with the city of Wixom, therefore Novi's share is \$62,500.

The schedule will not be formalized until a project initiation meeting takes place with all involved agencies.

RECOMMENDED ACTION: Approval to award contract services to AECOM Great Lakes, Inc. for an Environmental Assessment of Beck Road from Six Mile Road to Pontiac Trail, in the amount of \$62,500.

Beck Road Environmental Assessment Location Map



Map Author: Rebecca Runkel
Date: 12-5-19
Project: Beck Rd EA
Version #: 1.0

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.

Project Limits



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

0 1,100 2,200 4,400 6,600
Feet

1 inch = 6,251 feet





December 10, 2019

Mr. Jeff Herczeg
City of Novi
Field Services Complex
26300 Lee Begole Drive
Novi, MI 48375

**Reference: Proposal for Environmental Assessment for
Beck Road from 6 Mile road to Pontiac Trail including New Bridge over CSX Railroad
Cities of Novi, Northville and Wixom; Oakland County, Michigan**

Dear Mr. Herczeg,

AECOM is pleased to submit this proposal for the above referenced project. AECOM has completed several Environmental Assessments, similar to Beck Road, for agencies across Michigan. We are excited about this project, as many AECOM employees live near and routinely travel the Beck Road corridor.

The following tasks will be completed for the project:

TASK 1 - DEVELOP A PURPOSE AND NEED STATEMENT FOR THE ACTION

The Purpose and Need Statement for the action describes the condition that the action is to address. The Purpose and Need Statement is used to evaluate alternatives to determine the action that best addresses the purpose and meets the needs. Examples include providing system continuity, alleviating traffic congestion and improving safety.

A Purpose and Need Statement will be developed for the project and presented to the Cities for approval.

A. PROJECT INITIATION AND SCOPING

AECOM will attend a Scope Verification Meeting with the Cities prior to contract authorization in order to finalize the project goals and objectives, scope, data requirements, schedule, and deliverables. This meeting will also identify any further data requirements. AECOM proposes to hold this meeting with representatives of the Michigan Department of Transportation (MDOT) and Federal Highway Administration (FHWA). It is important to have these two agencies involved at the beginning of the project in order to have a full understanding of the requirements and to prevent any surprises that could delay the project.

B. DATA AND DOCUMENT REVIEW

Once authorized to proceed, AECOM will review any documents provided by the Cities and other data that is immediately available for use in the study. AECOM will also submit a memorandum to the Cities outlining additional data needs. At a minimum, right-of-way standards, right-of-way maps, tax maps, existing land use plans, local planning and zoning data, previous studies, crash data, and traffic count data will be necessary. AECOM is also familiar with the Novi and Oakland County GIS system and can easily map the study area and obtain data.

C. PUBLIC INVOLVEMENT

Steps will be taken to engage the public throughout the study process. A minimum of two (2) meetings are recommended. Additionally, project materials can be made available to the Cities for uploading onto the internet, such as draft and final reports, project contact information, project schedule, etc.

C.1 Preliminary Findings Public Meeting

A public meeting is recommended upon completion of preliminary findings. The public will be notified of the meeting through websites and other platforms including social media. This initial meeting will enable the public and businesses the opportunity to develop an understanding of the problem and to inform them of the study schedule and opportunities for future involvement. The meeting will allow the public to review the existing (2020) and design year (2040) traffic analyses, preliminary cross-section schematics, and preliminary access management recommendations. All participants will be asked to provide questions and comments at the meeting.

The issues and concerns raised at this meeting will provide the basis for recommending improvements. It is envisioned that the meeting will include a brief presentation by AECOM staff and City representatives of the goals of the project and preliminary technical findings. AECOM will develop all exhibits and presentation materials, as well as handouts for the meeting. Wall maps will be positioned to easily allow participants to view the preliminary schematics. These materials will be prepared in a graphically pleasing method that will also allow the information to be easily understood. Parcel information in the corridor obtained through GIS will be developed and postcards will be sent to residents along the corridor. Attendance at this meeting will be recorded and serve as the basis for the development of a contact list for future information. Interim E-Newsletters will be distributed to interested parties as directed. AECOM will prepare the meeting notes and distribute paper and electronic copies to the Cities for their distribution and documentation.

C.2 Public Hearing

The Public Hearing will occur after taking into consideration comments from the Cities and public meeting participants. Once changes to the report are incorporated, the Draft Environmental Assessment will be formally presented to the public. The public hearing will also include an open house format that allows the public to view wall-size maps and ask one-on-one questions. The public and businesses will be invited to attend this meeting through direct notification as with the initial meeting and direct contact (letter or e-mail) from the list of attendees. As with the initial meeting, AECOM will develop all exhibits and presentation materials as well as handouts for the meeting. Wall maps will be positioned to easily allow participants to view the preliminary schematics. These materials will be prepared in a graphically pleasing method that will also allow the issues to be easily conveyed.

Comments from the public hearing will be recorded and included with the final Environmental Assessment.

D. ADDITIONAL DATA COLLECTION

AECOM will collect the additional data deemed necessary for successful completion of the project. The following data collection items will most likely be necessary.

D.1 Existing Average Daily Traffic

Using Average Daily Traffic (ADT) information provided by the Cities, AECOM will examine existing traffic volumes within each of the corridors. Additional counts may be necessary and will be collected by AECOM. Historical counts will be examined in order to investigate further growth for each of the following segments along Beck Road:

- 6 Mile Road to 8 Mile Road
- 8 Mile Road to Grand River
- Grand River to 12 Mile Road
- 12 Mile Road to Pontiac Trail

Color graphics will be prepared depicting existing Average Daily Traffic by segment.

D.2 Peak Hour Turning Movement Counts

Morning and afternoon peak-hour turning movement counts will be collected by AECOM (if the Cities do not possess any recent turning movement counts) at the primary intersections with Beck Road.

The existing morning and afternoon peak-hour turning movement counts will be portrayed on a color graphic together with the Level of Service of each individual turning movement.

D.3 Crash Analysis

AECOM will collect crash analysis data from the Cities and perform an analysis of this data to characterize the number and character of crash accidents.

E. TRAFFIC ANALYSIS

E.1 Existing (2020) Link Capacity Analysis

Capacity and Level of Service analyses will be completed using the existing ADT values and peak-hour turning movements. Average Daily Traffic volumes will be compared with link capacity (two-lane, four-lane, etc.) in order to develop a volume-to-capacity (v/c) ratio for each segment of the four primary segments of Beck Road listed in Task D.1. The existing v/c ratios will be depicted on the same graphic showing ADT by segment.

E.2 Existing (2040) Intersection Capacity Analysis

The methods of the Highway Capacity Manual will be used to determine existing peak-hour delay and Levels-of-Service at the primary intersections in the corridor. At unsignalized intersections, the Level of Service will be calculated for each traffic movement that must yield the right-of-way. At signalized intersections, the Level of Service will be calculated for each movement, together with an overall intersection Level of Service. The corridor will be simulated using Synchro software in order to more closely examine intersection operations. The peak-hour Level of Service information will be depicted on the same graphic as the peak-hour traffic volume information in order to easily compare the volume and Level of Service of each movement in the corridor. The final report will include tables of peak-hour volume, delay, and Level of Service at each intersection.

E.3 Traffic Projections

Design-year (2040) traffic volumes will be developed in coordination with the Southeast Michigan Council of Governments (SEMCOG) and consistent with the SEMCOG transportation model. This planning model will assist in determining ADT projections by link and corresponding v/c ratios for a No-Build Alternative and a five-lane/boulevard alternative. Growth factors consistent with 2040 ADT values projected by the model will then be applied to the existing (2020) peak-hour turning movement counts at each intersection in order to prepare design year (2040) peak-hour turning movement projections. Detailed sub-area traffic modeling will not be completed for the project.

E.4 No-Build Alternative Analysis

The No-Build Alternative assumes no capacity improvements to the existing Beck Road facility other than committed improvements (if any). The methods of the HCM will be followed to determine delay and Level of Service for each intersection turning movement during design year (2040) peak hours for the No-Build Alternative.

E.5 Five-lane/Boulevard Alternative Analysis

As in Task E.4, the methods of the HCM will be followed to determine delay and Level of Service for each intersection turning movement during design year (2040) peak hoAECOM for the five-lane/boulevard alternative.

The corridor will also be simulated using Synchro software in order to examine the operations of the corridor in a more detailed fashion.

F. ACCESS TO ADJOINING LAND USE

The land use maps provided by the Cities will be reviewed to determine areas of potential development. Future plans will be discussed with local planning officials to determine if any official revisions to these plans are pending. Tax maps will be used to create an overlay file of the Beck Road corridor that can be plotted on aerial photography. Parcels with a common owner or owners will be highlighted. AECOM will graphically identify any “hot spot” locations—potential motorist conflict locations that are a result of poor access management such as driveways with inadequate offset or “left-turn lock-up” situations.

Conceptual access management recommendations will be developed and displayed on aerial photography for each alternative. The conceptual recommendations will incorporate access management standards (as defined in the MDOT Access Management Guidebook) unless retrofit conditions cannot meet the standard—which is likely considering the corridor is highly developed. The recommendations will depict potential driveway relocation and/or consolidation, shared driveway opportunities, cross-access connections, and front or rear service drives.

AECOM will map and assess access to transit and non-motorized facilities as part of this task. Specific land uses that generate or rely on these modes will be identified.

TASK 2 - DEVELOP ALTERNATIVES FOR CONSIDERATION

A description and discussion of alternatives under consideration is required for development of the EA. Alternatives to the proposed action include the preferred alternative, the no-action alternative and up to one other under consideration by the Cities.

Cross-section schematics for the five-lane/boulevard alternative will be developed for the Beck Road corridor based on the number of lanes required to provide an acceptable peak-hour Level of Service under design year (2040) conditions, along with sidewalks, transit stops and non-motorized paths. Proposed roadway cross-sections will be developed following City design standards and will be overlaid on aerial photography in plan view. Each schematic will depict the required right-of-way, proposed intersection treatment, and treatments for non-motorized and transit modes. The schematics will be evaluated based on traffic operations, estimated construction cost, constructability, and adjacent land use.

AECOM will identify a preferred cross-section in consultation with the Cities, considering costs, environmental impacts, traffic operations and safety, non-motorized transportation and transit compatibility, and aesthetics.

TASK 3 - ASSESSMENT OF IMPACTS

A discussion of the social, economic and environmental impacts for each alternative under consideration will be developed. The level of analysis will be sufficient to identify both impacts and appropriate mitigation measures. The following list includes those categories of impact that will require a more in-depth analysis. This scope assumes that there are no impacts related to Section 106 (historic) properties or endangered species.

Air Quality

Air quality assessment will address two requirements: Transportation Conformity and CO hot-spot analysis. The Transportation Conformity analysis will be obtained from the SEMCOG. AECOM will conduct a study to examine project-level CO emissions.



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Hazardous Wastes

Background research field review of the corridor to determine the potential for hazardous waste sites will be completed. The Environmental Protection Agency's (EPA) Comprehensive Environmental Response, Compensation and Liability System (CERCLIS) list will be reviewed. AECOM will obtain an Environmental Data Resources, Inc. (EDR) report to accurately and completely inventory CERCLA sites.

Wetlands

If any wetlands are found in the study process, AECOM will conduct a wetland delineation of the project area in accordance with the 1987 US Army Corps of Engineers Manual and the Michigan Department of Environmental Quality (MDEQ) Guidance documents. Flagging of wetland boundaries will be performed using "Wetland" pin flags and these locations will be surveyed using a sub-meter Global Positioning System (GPS). AECOM will collect necessary data to determine the wetland functions and values using professional judgment. Wetlands found within the study area will be classified according to the US Fish and Wildlife Services' System, "Classification of Wetlands and Deep Water Habitats of the United States" (Cowardin *et al.*, 1979).

AECOM will prepare a detailed wetland report that describes and classifies the identified wetlands as described in the above paragraph. This report will document the presence and extent of wetland areas, the methodology used, and the wetland delineation findings. In addition, the report will include relevant documentation including field data sheets, wetland delineation mapping, and photographs.

AECOM will attend a regulatory agency field meeting to verify the wetland boundaries; note any changes to the boundaries associated with the agency field review and write up meeting minutes.

Noise

AECOM will review all alternates developed and traffic conditions to complete the highway noise quality analysis. A field investigation will be conducted to determine noise sensitive areas and identify existing activities. The selection will be coordinated with the air analysis. Ambient measures will be taken and classified traffic counts made where required. Site and weather conditions, as well as all sources of noise will be noted. Copies of property owner contact letters with owner's approval will be provided by SHA.

AECOM will conduct the acoustical analysis using the latest version of FHWA's Traffic Noise Model (TNM), including model calibration, determination of predicted noise levels, impacts, and preliminary abatement analysis and feasibility of mitigation in accordance with 23 CFR. A Technical Noise Report, including rationale for assumptions, conclusions and recommendations for mitigation will be prepared. AECOM will prepare and submit two (2) preliminary draft copies of the Noise Technical Analysis Report and five (5) copies of the final report after a selected alternate is chosen. AECOM will also prepare the Noise Analysis Section of the Environmental Documentation for the study.

Displacements

AECOM will prepare an assessment of potential displacements for each alternative under consideration for evaluation and comparison. A right of way relocation plan will also be prepared.

Section 4(f) Evaluation

Section 4(f) Evaluation will be required. A Section 4(f) is required to analyze impacts to parks related to road improvements.

TASK 4 - COST ESTIMATES

AECOM will prepare cost estimates of the alternatives under consideration.



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TASK 5 - PREPARE ENVIRONMENTAL ASSESSMENT

This project is anticipated to result in a Finding of No Significant Impact (FONSI) for the Environmental Document. AECOM Corporation will provide the following services:

Prepare the EA and FONSI in accordance with the CEQ regulations, 23 CFR 771, FHWA Technical Advisory 6640.8A.

The document will provide a detailed discussion of preliminary alternatives developed, including a No-Build Alternate, and one additional alternative, as well as reasons why alternatives were dropped, carried forward or modified. The document will also provided justification why options to avoid/minimize impacts to environmental resources are not prudent and feasible and summarize the appropriate technical analyses.

TASK 6 - PUBLIC INVOLVEMENT

As previously discussed, AECOM will assist in conducting the public involvement activities for the completion of the EA. This includes coordination letters with agencies, residents and interested parties, publication of meeting notices and preparation and conducting a Public Hearing on the EA.

AECOM will be responsible for preparing agenda, meeting notes, handouts and graphics for up to three meetings with the Cities. In addition to the Public Hearing, AECOM will provide one informational public meeting as requested.

AECOM will be responsible for collecting and compiling all correspondence and comments from the public for inclusion in the Environmental Assessment.

TASK 7 - PREPARE FINDING OF NO SIGNIFICANT IMPACT

AECOM will reformat the EA document, consistent with the format for a FONSI and include any supplemental information, as directed.

AECOM will summarize all public hearing testimony and any comments received on environmental issues related to the analyses performed by your firm, and develop substantive responses if required.

AECOM will prepare document covers, graphics and tables (black and white only unless otherwise directed) for inclusion in the FONSI, as required.

AECOM will submit three hard copies of the preliminary version of the FONSI document along with the electronic file on computer disk to the Cities. AECOM will revise the FONSI as required to address comments, and return a revised version, with any changes to the document highlighted, within two weeks of receipt of comments. Following revision, three hard copies of the FONSI will be prepared for submission to FHWA.

AECOM will address any comments that FHWA may have on the FONSI and submit an errata sheet, along with five hard copies of the final version along with electronic file on computer disk within two weeks of receipt of final comments from FHWA.

Upon approval of the FONSI by FHWA, AECOM will reproduce ten copies of the final version of the document and circulate the FONSI.



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Schedule

We will formalize the schedule at the Project Initiation Meeting based on discussion with MDOT and FHWA.

Estimated Cost of Fees

An Environmental Assessment does not fit within the typical fee curves provided by the City of Novi. AECOM proposes a lump sum fee of \$105,000 to complete the Environmental Assessment and \$20,000 to complete the associated Cost/Benefit Analysis, for a contract total of **\$125,000**.

Please contact me if you have any questions or wish to discuss this submittal.

Sincerely,

AECOM Great Lakes, Inc.

A handwritten signature in blue ink that reads "Sean Kelsch".

Sean Kelsch, PE
Vice-President