



CITY OF NOVI CITY COUNCIL
JUNE 6, 2022

SUBJECT: Consideration of approval to award engineering design services to OHM Advisors for Wixom Road Rehabilitation, from Ten Mile Road to 800 feet south of Grand River Avenue, in the amount of \$241,920.00.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

EXPENDITURE REQUIRED	\$ 241,920.00
AMOUNT BUDGETED	\$ 309,386.00 (FY 2022-23 Budget)
APPROPRIATION REQUIRED	\$ 0
LINE ITEM NUMBER	202-202.00-865.214

BACKGROUND INFORMATION:

The Wixom Road Rehabilitation project will consist of cold-milling the existing asphalt pavement and resurfacing. The road will be widened from two to three lanes between Drakes Bay Drive/Acorn Trail and Kelsey Bay Drive/Delmont Drive to provide a center left turn lane. If feasible, a new right turn lane will be constructed for southbound traffic turning right onto 10 Mile Road. Curb and gutter, sidewalk, ADA ramps, and drainage structures will be repaired or replaced as needed. A new shared use path will also be constructed on the east side of Wixom Road from the Deerfield Elementary School entrance to the southern entrance drive to Target.

In 2019, the City applied for and was awarded approximately \$1.29 million in federal funds for the project through the Oakland County Federal Aid Committee (FAC) Surface Transportation Program – Urban (STPU) to rehabilitate Wixom Road in 2023. The project is estimated to cost approximately \$3.58 million to construct. The federal funding for the project will be administered by the Michigan Department of Transportation Local Agency Program (MDOT LAP).

The attached design engineering services proposal outlines the detailed scope of services. The design fee for this project will be \$241,920 (6.25% of the estimated construction cost of \$3,584,000, plus an additional 0.50% of the estimated construction cost for grant administration). OHM Advisor's engineering fees are based on the fixed fee

schedule established in the Agreement for Professional Engineering Services for Public Projects. Design of this project would begin following award with construction expected to start in July 2023.

RECOMMENDED ACTION: Approval to award engineering design services to OHM Advisors for Wixom Road Rehabilitation, from Ten Mile Road to 800 feet south of Grand River Avenue, in the amount of \$241,920.00.

Wixom Road Rehabilitation & Center Lane Addition

Location Map



Center Left Turn Lane Addition

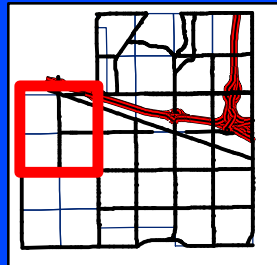
Map Author: R. Runkel
 Date: 5/20/22
 Project: Wixom Rd Rehab
 Version #: v1.0

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.

Legend

- Project Limits
- Municipal Boundary



City of Novi

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



1 inch = 1,369 feet





April 11, 2022

Mr. Jeffrey Herczeg
Director of Public Works
City of Novi - Department of Public Works
26300 Lee BeGole Drive
Novi, MI 48375

**RE: Scope of Design Services
Wixom Road Rehabilitation**

Dear Mr. Herczeg:

Per your request, the following outlines our proposed scope of services and fee to perform design services to prepare plans and specifications for the above referenced project. This summary includes our project understanding, proposed scope of work, assumptions, schedule, and fee.

PROJECT UNDERSTANDING

The project will consist of rehabilitating Wixom Road from 10 Mile Road to Grand River Avenue. The existing HMA pavement will be cold milled and resurfaced (two courses). With similar HMA pavement, the roadway will be widened from two to three lanes between Drakes Bay Drive / Acorn Trail and Kelsey Bay Drive / Delmont Drive. This curbed widening will provide a center left turn lane at Braeburn Lane and additional storage for left turns onto Acorn Trail and onto Kelsey Bay Drive. If feasible, a new right turn lane will also be constructed for SB Wixom Road at 10 Mile Road. Deteriorated curb & gutter, sidewalk, ADA ramps, and drainage structures will be replaced, localized areas of base repair and subgrade undercutting will be completed, and pavement joints & cracks will be repaired throughout the project length. Also, a new shared use path will be constructed on the east side of Wixom Road, from the Deerfield Elementary School entrance (opposite Glenwood Drive) to the southernmost Target driveway, thereby completing pedestrian connectivity within the project limits.

In 2019, the City applied for and received approximately \$1.29 million in Federal funds (STPU) to rehabilitate Wixom Road in 2023. It is our understanding the City has budgeted matching road funds for 2023 construction. Construction of the project is anticipated to cost approximately \$3.58 million.

The Federal funding for the project must be administered through the Michigan Department of Transportation Local Agency Program (MDOT LAP). The City should be aware that the Federal Aid process is much longer than a City-administered project, and typically requires a minimum of six months from the initial submittal to MDOT to the award of a construction contract. The plans for this project will be developed in accordance with MDOT guidelines such that the project can be administered through MDOT's LAP Unit. Additional project administration effort required for the Federal Aid process (e.g., program applications, NEPA, right-of-way certification, crash analysis, mobility analysis, G.I. Meeting, etc.) have been included in this scope. Please note that the normal bidding services provided to the City will not be completed since this project will be going through the Federal Aid process in which the project will be bid through MDOT.



SCOPE OF SERVICES

The following outlines our work plan to accomplish the scope of services for this project as noted above:

- Organize and attend a kick-off meeting with City staff to review project objectives, prepare design criteria, and confirm the delivery schedule.
- Perform a topographic survey of the project area and prepare drawings of the existing conditions.
- Obtain existing utility information from record drawings and depict them on the plans. Identify potential conflicts. If they are unavoidable, coordinate with the utility owner for relocation.
- Perform a site review to confirm the proposed pavement rehabilitation method and to identify any deficiencies in the existing geometrics or drainage features.
- Coordinate with the geotechnical engineer (under separate contract with the City) to develop the proposed pavement typical section.
- Prepare roadway plans including typical cross-sections, horizontal alignments, and vertical profiles.
- Prepare plans, special provisions, and estimates at each milestone: Base, Preliminary (G.I.), and Final.
- Attend review meetings after each milestone submittal with the City, utility companies, and MDOT.
- Prepare the Maintenance of Traffic (MOT) plan. We anticipate the MOT plan will be developed in coordination with City staff and input from project stakeholders.
- Develop pavement marking and signing plans for the project limits in accordance with the MMUTCD.
- Coordinate with RCOC on issues that affect their roadways or traffic signals.
- Complete and submit the Program Application for Local Agency Projects (form 0260) and the Local Agency Environmental Clearance Form (form 5323).
- Collaborate with Commonwealth Heritage Group to complete a SHPO application and submit it to the State of Michigan.
- Prepare and submit all required permit applications on behalf of the City.
- Prepare the Progress Clause including the start of work, substantial completion (approved-for-traffic), and final contract completion dates.
- Address any questions that arise during the MDOT bidding process.

ASSUMPTIONS

The following summarizes our assumptions associated with this proposal:

- The anticipated POB is the north pavement edge of 10 Mile Road. The anticipated POE is the visible pavement change to concrete about 800 feet south of the center of Grand River Avenue.
- The plans will be prepared using MicroStation Connect and OpenRoads. If AutoCAD files are desired by the City for their electronic records, the drawings will be converted and provided at the end of the design phase.
- The City will be responsible for all permit application fees and permit fees.
- Neither right-of-way acquisition nor consents-to-grade will be required for this project.
- No improvements are proposed to the large culvert for the tributary to the Novi Lyon Drain (Island Lake) under Wixom Road about 450 feet south of 11 Mile Road. However, the guardrail at this culvert location will be upgraded if necessary.
- No improvements are proposed to the large culvert under Wixom Road about 250 feet north of 11 Mile Road. However, the guardrail at this culvert location will be upgraded if necessary.
- Water main and sanitary sewer design is not included in this proposal. Other than adjustment of hydrants, manhole covers, and gate well covers, no other municipal utility work is anticipated for this project.
- Wetland mitigation is not anticipated on this project.
- Design of streetscape improvements, landscaping, and ornamental features is not included in this proposal.



- Geotechnical services will be required for design and construction of this project but are not included in OHM's scope of work. These services will be provided by the City's geotechnical consultant under a separate contract.
- Historical services will be required but are not included in OHM's scope of work. These services will be provided by Commonwealth Heritage Group under a separate contract.
- Remediation or removal of hazardous contaminated soils or materials is not anticipated on this project.

SCHEDULE

The following outlines our anticipated schedule milestones for main tasks related to this work:

- June 2022 Submit Base Plans to the City
- July 2022 Submit Preliminary (G.I.) Plans for City review
- August 2022 Submit Preliminary (G.I.) Plans, special provisions, and estimate to MDOT LAP
- October 2022 Submit Final Plans, special provisions, and estimate to MDOT LAP
- January 2023 MDOT LAP Letting Date
- April 2023 Construction Begins

FEE

Based on the above outlined scope of services and assumptions, our proposed lump sum fee to perform this work is two hundred forty-one thousand nine hundred twenty dollars (\$241,920.00). Our fee derivation is based on the following breakdown:

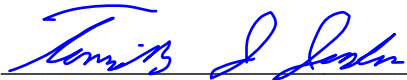
	Construction Cost *		Design Fee
Road Plans, Specs, & Estimates	\$ 3,584,000.00	6.25%	\$ 224,000.00
MDOT LAP Administration	\$ 3,584,000.00	0.50%	\$ 17,920.00
Total =			\$ 241,920.00

* Current estimate attached.

Thank you for the opportunity to be of service. If you have any questions or require additional information, please contact us. We look forward to working with you on this project.

Sincerely,
OHM Advisors

Authorization to Proceed



 Timothy J. Juidici, P.E.
 Principal-in-Charge

 Signature Date

 Printed Name Title

Encl: Project Cost Estimate

cc: Ben Croy, City Engineer
Kirk Cox, OHM
Alex Parent, OHM



OPINION OF PROBABLE CONSTRUCTION COST

ORCHARD, HILTZ & McCLIMENT, INC.

34000 Plymouth Road, Livonia, Michigan, 48150

Telephone: (734) 522-6711 FAX: (734) 466-4557

PROJECT: Wixom Road Rehabilitation
 LOCATION: City of Novi
 WORK: Mill, resurface, and widen about 2 miles of Wixom Rd,
from 10 Mile Rd to Grand River Ave

DATE: 04/11/2022
 PROJECT #: 0163-18-0130
 ESTIMATOR: KAC
 CHECKED BY: ARP
 CURRENT ENR: KBC

ITEM CODE	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	COST
CATEGORY 1 - PARTICIPATING					
1100001	Mobilization, Max	LSUM	1	\$ 311,000.00	\$ 311,000.00
2040020	Curb and Gutter, Rem	Ft	5500	\$ 10.00	\$ 55,000.00
2040055	Sidewalk, Rem	Syd	1230	\$ 10.00	\$ 12,300.00
2047011	Pavt, Rem, Modified	Syd	500	\$ 15.00	\$ 7,500.00
2047050	Exploratory Excavation	Ea	10	\$ 50.00	\$ 500.00
2050010	Embankment, CIP	Cyd	820	\$ 20.00	\$ 16,400.00
2050016	Excavation, Earth	Cyd	3690	\$ 20.00	\$ 73,800.00
2050031	Non Haz Contaminated Material Handling and Disposal, LM	Cyd	100	\$ 75.00	\$ 7,500.00
2057021	Subgrade Undercutting Type II, 21AA	Cyd	200	\$ 75.00	\$ 15,000.00
2057021	Subgrade Undercutting, Type II, 1 by 3	Cyd	200	\$ 75.00	\$ 15,000.00
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	50	\$ 100.00	\$ 5,000.00
2080036	Erosion Control, Silt Fence	Ft	1000	\$ 5.00	\$ 5,000.00
2090001	Project Cleanup	LSUM	1	\$ 10,000.00	\$ 10,000.00
3027011	Aggregate Base, 4 inch, Modified	Syd	9000	\$ 13.00	\$ 117,000.00
3060020	Maintenance Gravel	Ton	100	\$ 50.00	\$ 5,000.00
4030010	Dr Structure Cover, Type B	Ea	5	\$ 625.00	\$ 3,125.00
4030025	Dr Structure Cover, Type D	Ea	10	\$ 750.00	\$ 7,500.00
4030050	Dr Structure Cover, Type K	Ea	20	\$ 750.00	\$ 15,000.00
4030065	Dr Structure Cover, Type Q	Ea	5	\$ 625.00	\$ 3,125.00
4030306	Dr Structure, Tap, 6 inch	Ea	10	\$ 250.00	\$ 2,500.00
4037050	San Structure Cover, Adj	Ea	15	\$ 1,000.00	\$ 15,000.00
4037050	Stm Structure Cover, Adj	Ea	100	\$ 750.00	\$ 75,000.00
4040083	Underdrain, Subgrade, Open-Graded, 6 inch	Ft	2000	\$ 13.00	\$ 26,000.00
5010002	Cold Milling HMA Surface	Syd	42900	\$ 3.00	\$ 128,700.00
5010008	Pavt for Butt Joints, Rem	Syd	150	\$ 50.00	\$ 7,500.00
5010020	Pavt Joint and Crack Repr, Det 7	Ft	20000	\$ 5.00	\$ 100,000.00
5010021	Pavt Joint and Crack Repr, Det 8	Ft	10000	\$ 10.00	\$ 100,000.00
5010025	Hand Patching	Ton	2000	\$ 125.00	\$ 250,000.00
5010061	HMA Approach	Ton	210	\$ 150.00	\$ 31,500.00
5012025	HMA, 4EML	Ton	6340	\$ 100.00	\$ 634,000.00
5012037	HMA, 5EML	Ton	5580	\$ 105.00	\$ 585,900.00
8020038	Curb and Gutter, Conc, Det F4	Ft	6240	\$ 25.00	\$ 156,000.00
8020050	Driveway Opening, Conc, Det M	Ft	630	\$ 30.00	\$ 18,900.00
8030030	Curb Ramp Opening, Conc	Ft	500	\$ 30.00	\$ 15,000.00
8030044	Sidewalk, Conc, 4 inch	Sft	5500	\$ 5.00	\$ 27,500.00
8032002	Curb Ramp, Conc, 6 inch	Sft	5500	\$ 8.00	\$ 44,000.00
8037001	Detectable Warning Surface, Modified	Ft	500	\$ 40.00	\$ 20,000.00
8077050	Post, Mailbox, Remove and Reset	Ea	20	\$ 150.00	\$ 3,000.00
8100371	Post, Steel, 3 lb	Ft	440	\$ 5.00	\$ 2,200.00
8100402	Sign, Type III, Erect, Salv	Ea	2	\$ 40.00	\$ 80.00



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ORCHARD, HILTZ & McCLIMENT, INC.

34000 Plymouth Road, Livonia, Michigan, 48150

Telephone: (734) 522-6711 FAX: (734) 466-4557

PROJECT: Wixom Road Rehabilitation
 LOCATION: City of Novi
 WORK: Mill, resurface, and widen about 2 miles of Wixom Rd,
 from 10 Mile Rd to Grand River Ave

DATE: 04/11/2022
 PROJECT #: 0163-18-0130
 ESTIMATOR: KAC
 CHECKED BY: ARP
 CURRENT ENR: KBC

ITEM CODE	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	COST
8100403	Sign, Type III, Rem	Ea	30	\$ 15.00	\$ 450.00
8100405	Sign, Type IIIB	Sft	300	\$ 15.00	\$ 4,500.00
8110091	Pavt Mrkg, Polyurea, 4 inch, White	Ft	2450	\$ 1.00	\$ 2,450.00
8110092	Pavt Mrkg, Polyurea, 4 inch, Yellow	Ft	25730	\$ 1.00	\$ 25,730.00
8110093	Pavt Mrkg, Polyurea, 6 inch, Crosswalk	Ft	1740	\$ 5.00	\$ 8,700.00
8110110	Pavt Mrkg, Polyurea, 12 inch, Crosswalk	Ft	3360	\$ 8.00	\$ 26,880.00
8110113	Pavt Mrkg, Polyurea, 18 inch, Stop Bar	Ft	140	\$ 10.00	\$ 1,400.00
8110405	Pavt Mrkg, Polyurea, Lt Turn Arrow Sym	Ea	14	\$ 250.00	\$ 3,500.00
8110410	Pavt Mrkg, Polyurea, Only	Ea	16	\$ 250.00	\$ 4,000.00
8110412	Pavt Mrkg, Polyurea, Rt Turn Arrow Sym	Ea	7	\$ 250.00	\$ 1,750.00
8110414	Pavt Mrkg, Polyurea, School	Ea	2	\$ 500.00	\$ 1,000.00
8110417	Pavt Mrkg, Polyurea, Thru and Rt Turn Arrow Sym	Ea	1	\$ 250.00	\$ 250.00
8110450	Recessing Pavt Mrkg, Longit	Ft	28180	\$ 1.00	\$ 28,180.00
8110451	Recessing Pavt Mrkg, Transv	Sft	6530	\$ 3.00	\$ 19,590.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	100	\$ 100.00	\$ 10,000.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	100	\$ 5.00	\$ 500.00
8120026	Pedestrian Type II Barricade, Temp	Ea	40	\$ 250.00	\$ 10,000.00
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	500	\$ 25.00	\$ 12,500.00
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	500	\$ 1.00	\$ 500.00
8120140	Lighted Arrow, Type C, Furn	Ea	2	\$ 500.00	\$ 1,000.00
8120141	Lighted Arrow, Type C, Oper	Ea	2	\$ 1.00	\$ 2.00
8120170	Minor Traf Devices	LSUM	1	\$ 119,000.00	\$ 119,000.00
8120236	Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, Yellow, Te	Ft	25000	\$ 1.00	\$ 25,000.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	500	\$ 8.00	\$ 4,000.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	500	\$ 1.00	\$ 500.00
8120352	Sign, Type B, Temp, Prismatic, Spec, Furn	Sft	130	\$ 15.00	\$ 1,950.00
8120353	Sign, Type B, Temp, Prismatic, Spec, Oper	Sft	130	\$ 1.00	\$ 130.00
8167011	Turf Establishment, Performance	Syd	2100	\$ 5.00	\$ 10,500.00
8210001	Monument Box	Ea	2	\$ 500.00	\$ 1,000.00
8210005	Monument Box Adj	Ea	2	\$ 500.00	\$ 1,000.00
8210010	Monument Preservation	Ea	2	\$ 500.00	\$ 1,000.00
CATEGORY 3 - NON-PARTICIPATING					
1077051	Audio Video Route Survey	LSUM	1	\$ 5,000.00	\$ 5,000.00
3027011	Aggregate Base, 4 inch, Modified	Syd	260	\$ 13.00	\$ 3,380.00
5010061	HMA Approach	Ton	90	\$ 150.00	\$ 13,500.00
8060010	Shared use Path, Aggregate	Ton	720	\$ 35.00	\$ 25,200.00
8060030	Shared use Path, Grading	Ft	1840	\$ 10.00	\$ 18,400.00
8060040	Shared use Path, HMA	Ton	400	\$ 125.00	\$ 50,000.00
8167011	Turf Establishment, Performance	Syd	4200	\$ 5.00	\$ 21,000.00
8237001	Sprinkler Line	Ft	2000	\$ 5.00	\$ 10,000.00
8237050	Irrigation Control Box, Relocate	Ea	2	\$ 500.00	\$ 1,000.00



OPINION OF PROBABLE CONSTRUCTION COST

ORCHARD, HILTZ & McCLIMENT, INC.

34000 Plymouth Road, Livonia, Michigan, 48150

Telephone: (734) 522-6711 FAX: (734) 466-4557

PROJECT: Wixom Road Rehabilitation
LOCATION: City of Novi
WORK: Mill, resurface, and widen about 2 miles of Wixom Rd,
from 10 Mile Rd to Grand River Ave

DATE: 04/11/2022
PROJECT #: 0163-18-0130
ESTIMATOR: KAC
CHECKED BY: ARP
CURRENT ENR: KBC

ITEM CODE	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	COST
8237050	Irrigation Control Box, Replace	Ea	2	\$ 500.00	\$ 1,000.00
8237050	Sprinkler Head, Relocate	Ea	100	\$ 50.00	\$ 5,000.00
8237050	Sprinkler Head, Replace	Ea	100	\$ 50.00	\$ 5,000.00
SUBTOTAL FOR CATEGORY 1 - PARTICIPATING					\$ 3,254,492.00
SUBTOTAL FOR CATEGORY 3 - NON-PARTICIPATING					\$ 158,480.00
Contingency (5%)					\$ 171,028.00
TOTAL OPINION OF PROBABLE CONSTRUCTION COST =					\$ 3,584,000.00