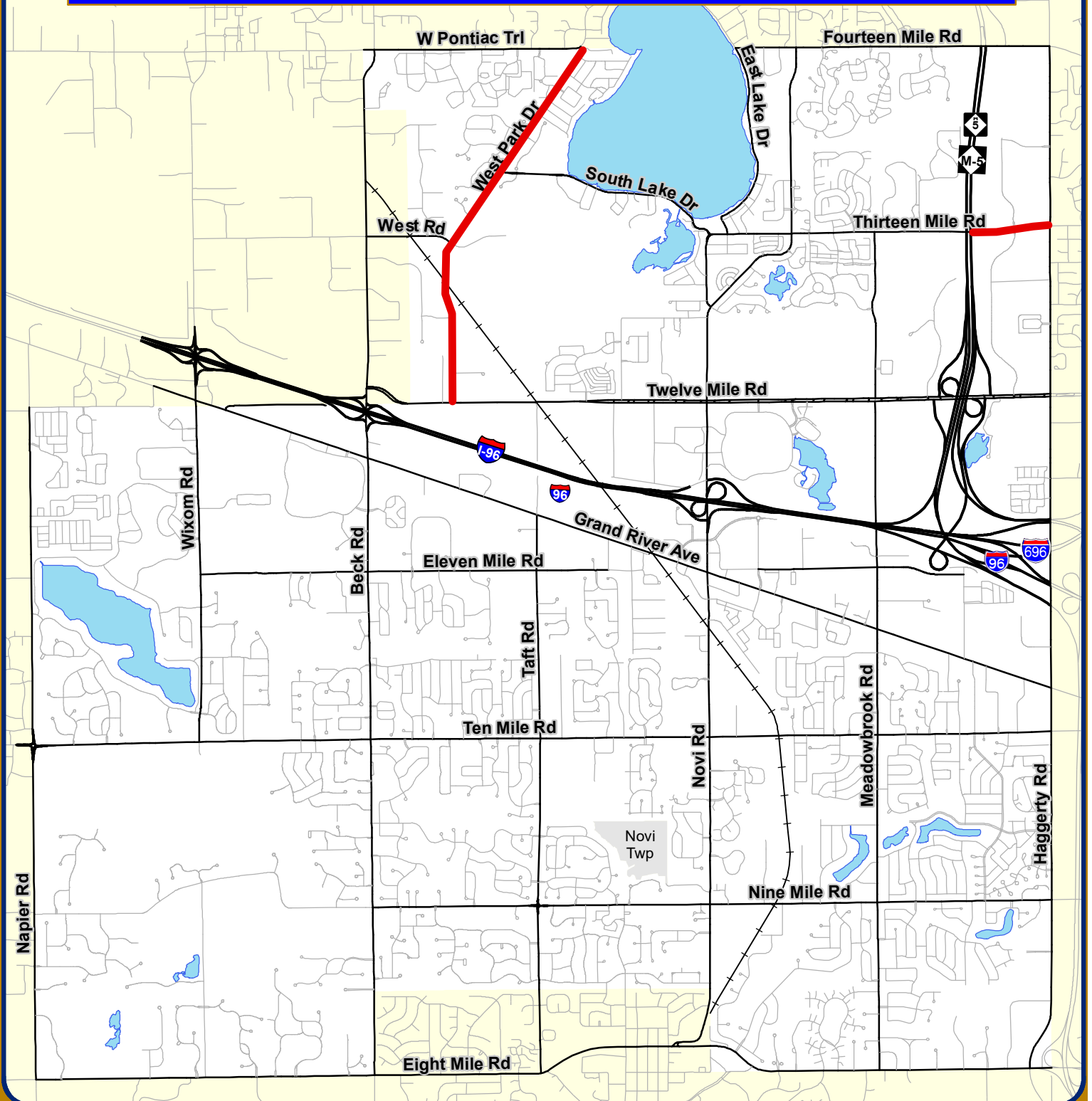


West Park Drive & Thirteen Mile Road Rehabilitation



Map Author: Runkel
Date: 7-15-24
Project: West Park, 13 Mile

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 Location



City of Novi

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

Feet
0 875 1,750 3,500 5,250
1 inch = 4,300 feet





June 6, 2024

Mr. Ben Croy
City Engineer
City of Novi - Department of Public Works
26300 Lee BeGole Drive
Novi, MI 48375

**RE: Scope of Design Services
13 Mile from M-5 to Haggerty**

Dear Mr. Croy:

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 13 Mile from M-5 to Haggerty. This almost half mile of roadway will be milled and resurfaced assuming acceptable subsurface conditions. From shoulder to shoulder the existing asphalt pavement will be milled off and given spot repairs in preparation for new asphalt pavement. The sparse curb and drive approaches may be repaired as agreed upon by City and OHM staff based on a condition assessment. Ramps at intersections appear to be compliant with the latest accessibility requirements but will be replaced if they are not. Guardrail will not be replaced unless a condition assessment deems it necessary. Noticeable drainage inefficiencies shall be rectified, in addition to any shoulder repair or ditching that is needed. No gaps in pathway or sidewalk are anticipated to be extended as developments will be required to construct across their frontage as they arrive.

In late 2021, the City applied for and received just over \$500,000 in federal funds (STPU) to rehabilitate 13 Mile. It is our understanding that the City has budgeted additional road funds to cover the remaining cost of the project. The combined construction cost of the road rehabilitation is anticipated to be approximately \$1 million. Using these federal funds, the project must be administered through the Michigan Department of Transportation (MDOT) Local Agency Programs Unit. 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 could be administered through the MDOT LAP Unit. Additional project administration effort resulting from the federal aid process (program applications, NEPA, right-of-way certification, crash analysis, mobility analysis, GI 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 would 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 kickoff meeting with City staff and utility companies to review project objectives, prepare design criteria, and establish a specific delivery schedule.
- Implement existing utility information and record drawings for the project area.
- Perform a site review to identify elements that are sensitive which includes pavement rehabilitation techniques, geometric deficiencies, drainage features, and utility facilities within the project area.
- Perform topographic survey of the project area and prepare existing conditions plans.
- Coordinate with the Geotechnical Engineer to develop typical pavement sections for the project.
- Develop horizontal and vertical alignments of the roadway and prepare typical cross-sections for the roadway.
- Prepare program applications, preliminary design plans, special provisions, and estimate.
- Attend MDOT Grade Inspection meeting with the City and utility companies to review the plans, specifications, and estimate to address any requested revisions.
- Prepare and submit permit plan packages for permit(s).
- Prepare a 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 within the affected influence of the project in accordance with MMUTCD requirements.
- Prepare proposed preliminary schedule for work including the construction start, substantial completion, and final completion dates.
- Prepare final program applications, design plans, special provisions, and estimate.
- Address questions that may arise during the MDOT bidding process.

ASSUMPTIONS

The following summarizes our assumptions associated with this proposal:

- The City will acquire all property/right-of-way/easements need for the project in accordance with federal requirements. OHM will prepare legal descriptions/exhibits for proposed right-of-way and easements should they be required.
- Geotechnical services are anticipated to be required for design and construction of this project but are not included in our scope of work. These services will be provided by the City's Geotechnical Consultant under a separate contract.
- Historical identification services may be required for design of this project but are not included in our scope of work. These services will need to be included in a separate contract if required.
- The City will be responsible for all permit application fees and permit fees.
- We do not anticipate remediation or removal of contaminated or hazardous soils or materials.
- Development of plans for landscaping or ornamental features are not included.
- No floodplain, wetland, or stream work is expected to be required for this project.
- The addition of sidewalk or pathway throughout the entire project limits is not included in the scope of this project.
- The pavement section is expected to be satisfactory such that reconstruction will not be required.
- Relocation of municipal or private utilities is not anticipated nor included in this contract.
- The project limits will stop short of the concrete that is tied into M-5.
- No signal work is anticipated with this project as the traffic loops at M-5 are in the concrete section while Cabot and Haggerty signals appear to work by aerial detection.



SCHEDULE

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

- 50% Submittal to City – October 2024
- GI Submittal to MDOT – December 2024
- Final Package Submittal to MDOT – February 2025
- MDOT Bid Letting – May 2025
- Begin Construction – June/July 2025

FEE

Based on the use of the 'Attachment A – 2022-2027 Engineering Fees' calculation, our proposed lump sum fee to perform this work is seventy thousand five hundred thirty-two dollars and sixty-seven cents (\$70,532.67). Our fee derivation is based on the following breakdown:

	Construction Cost		Design Fee
Road Recon/Rehab Design	\$ 1,007,609.50	6.50%	\$ 65,494.62
MDOT LAP Design	\$ 1,007,609.50	0.50%	\$ 5,038.05
Total			\$ 70,532.67

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

Alex Parent, P.E.
Project Manager

Signature

Date

Printed Name

Title

Encl: Project Cost Estimates

cc: Rebecca Runkel, Project Engineer
Tim Juidici, 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: 2024-2025 FAC Estimate
LOCATION: 13 Mile Rd between M-5 and Hagerty Rd
WORK: 0.5 miles of mill and resurfacing

DATE: April 29, 2024
PROJECT #: 0163-20-0110
ESTIMATOR: ARP
CHECKED BY: TJJ
CURRENT ENR: TJJ

ITEM CODE	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	COST
CATEGORY 4 - 13 MILE					
1077051	Audio Video Route Survey	LSUM	1	\$ 5,000.00	\$ 5,000.00
1100001	Mobilization, Max	LSUM	0.75	\$100,000.00	\$ 75,000.00
2040020	Curb and Gutter, Rem	Ft	800	\$ 10.00	\$ 8,000.00
2040055	Sidewalk, Rem	Syd	156	\$ 10.00	\$ 1,560.00
2047011	Pavt, Rem, Modified	Syd	1600	\$ 10.00	\$ 16,000.00
2047050	Exploratory Excavation	Ea	5	\$ 50.00	\$ 250.00
2050010	Embankment, CIP	Cyd	75	\$ 20.00	\$ 1,500.00
2050016	Excavation, Earth	Cyd	300	\$ 20.00	\$ 6,000.00
2050031	Non Haz Contaminated Material Handling and Disposal, LM	Cyd	50	\$ 75.00	\$ 3,750.00
2057021	Subgrade Undercutting Type II, 21AA	Cyd	100	\$ 75.00	\$ 7,500.00
2057021	Subgrade Undercutting, Type II, 1 by 3	Cyd	100	\$ 75.00	\$ 7,500.00
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	10	\$ 100.00	\$ 1,000.00
2080036	Erosion Control, Silt Fence	Ft	2500	\$ 5.00	\$ 12,500.00
2090001	Project Cleanup	LSUM	1	\$ 10,000.00	\$ 10,000.00
3027011	Aggregate Base, 4 inch, Modified	Syd	983	\$ 12.50	\$ 12,287.50
3027011	Aggregate Base, 8 inch, Modified	Syd	125	\$ 15.00	\$ 1,875.00
3060020	Maintenance Gravel	Ton	250	\$ 30.00	\$ 7,500.00
3077011	Shld, CI II, 6 inch, Modified	Syd	2776	\$ 15.00	\$ 41,640.00
4030010	Dr Structure Cover, Type B	Ea	1	\$ 625.00	\$ 625.00
4030025	Dr Structure Cover, Type D	Ea	1	\$ 750.00	\$ 750.00
4030040	Dr Structure Cover, Type G	Ea	2	\$ 750.00	\$ 1,500.00
4030050	Dr Structure Cover, Type K	Ea	5	\$ 750.00	\$ 3,750.00
4030065	Dr Structure Cover, Type Q	Ea	5	\$ 625.00	\$ 3,125.00
4030280	Dr Structure, Adj, Add Depth	Ft	5	\$ 250.00	\$ 1,250.00
4030306	Dr Structure, Tap, 6 inch	Ea	5	\$ 250.00	\$ 1,250.00
4037050	San Structure Cover, Adj	Ea	1	\$ 1,000.00	\$ 1,000.00
4037050	Stm Structure Cover, Adj	Ea	5	\$ 750.00	\$ 3,750.00
4037050	Wtr Structure Cover, Adj	Ea	5	\$ 1,000.00	\$ 5,000.00
4040083	Underdrain, Subgrade, Open-Graded, 6 inch	Ft	1000	\$ 12.50	\$ 12,500.00
5010002	Cold Milling HMA Surface	Syd	15342	\$ 2.50	\$ 38,355.00
5010008	Pavt for Butt Joints, Rem	Syd	250	\$ 50.00	\$ 12,500.00
5010020	Pavt Joint and Crack Repr, Det 7	Ft	1000	\$ 5.00	\$ 5,000.00
5010021	Pavt Joint and Crack Repr, Det 8	Ft	250	\$ 10.00	\$ 2,500.00
5010025	Hand Patching	Ton	75	\$ 100.00	\$ 7,500.00
5010061	HMA Approach	Ton	318	\$ 150.00	\$ 47,700.00
5012025	HMA, 4EML	Ton	1880	\$ 90.00	\$ 169,200.00
5012037	HMA, 5EML	Ton	1857	\$ 95.00	\$ 176,415.00
6020166	Conc Pavt with Integral Curb, Nonreinf, 9 inch	Syd	660	\$ 95.00	\$ 62,700.00
8020038	Curb and Gutter, Conc, Det F4	Ft	1200	\$ 25.00	\$ 30,000.00
8020050	Driveway Opening, Conc, Det M	Ft	415	\$ 30.00	\$ 12,450.00



OPINION OF PROBABLE CONSTRUCTION COST

ORCHARD, HILTZ & McCLIMENT, INC.

34000 Plymouth Road, Livonia, Michigan, 48150

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

PROJECT: 2024-2025 FAC Estimate
LOCATION: 13 Mile Rd between M-5 and Hagerty Rd
WORK: 0.5 miles of mill and resurfacing

DATE: April 29, 2024
PROJECT #: 0163-20-0110
ESTIMATOR: ARP
CHECKED BY: TJJ
CURRENT ENR: TJJ

ITEM CODE	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	COST
8020057	Shld Gutter, Conc, Det 3	Ea	7	\$ 1,000.00	\$ 7,000.00
8020075	Spillway, Conc	Ft	20	\$ 55.00	\$ 1,100.00
8030030	Curb Ramp Opening, Conc	Ft	60	\$ 30.00	\$ 1,800.00
8030044	Sidewalk, Conc, 4 inch	Sft	500	\$ 5.00	\$ 2,500.00
8032002	Curb Ramp, Conc, 6 inch	Sft	900	\$ 7.50	\$ 6,750.00
8037001	Detectable Warning Surface, Modified	Ft	50	\$ 40.00	\$ 2,000.00
8060010	Shared use Path, Aggregate	Ton	42	\$ 35.00	\$ 1,470.00
8060040	Shared use Path, HMA	Ton	68	\$ 125.00	\$ 8,500.00
8070044	Guardrail Approach Terminal, Type 2M	Ea	6	\$ 4,000.00	\$ 24,000.00
8100371	Post, Steel, 3 lb	Ft	350	\$ 5.00	\$ 1,750.00
8100403	Sign, Type III, Rem	Ea	25	\$ 15.00	\$ 375.00
8100404	Sign, Type IIIA	Sft	125	\$ 15.00	\$ 1,875.00
8100405	Sign, Type IIIB	Sft	125	\$ 15.00	\$ 1,875.00
8110091	Pavt Mrkg, Polyurea, 4 inch, White	Ft	6150	\$ 1.00	\$ 6,150.00
8110092	Pavt Mrkg, Polyurea, 4 inch, Yellow	Ft	10000	\$ 1.00	\$ 10,000.00
8110093	Pavt Mrkg, Polyurea, 6 inch, Crosswalk	Ft	150	\$ 5.00	\$ 750.00
8110110	Pavt Mrkg, Polyurea, 12 inch, Crosswalk	Ft	640	\$ 7.00	\$ 4,480.00
8110113	Pavt Mrkg, Polyurea, 18 inch, Stop Bar	Ft	100	\$ 10.00	\$ 1,000.00
8110405	Pavt Mrkg, Polyurea, Lt Turn Arrow Sym	Ea	4	\$ 250.00	\$ 1,000.00
8110410	Pavt Mrkg, Polyurea, Only	Ea	10	\$ 250.00	\$ 2,500.00
8110412	Pavt Mrkg, Polyurea, Rt Turn Arrow Sym	Ea	8	\$ 250.00	\$ 2,000.00
8110417	Pavt Mrkg, Polyurea, Thru and Rt Turn Arrow Sym	Ea	2	\$ 250.00	\$ 500.00
8110450	Recessing Pavt Mrkg, Longit	Ft	16150	\$ 0.50	\$ 8,075.00
8110451	Recessing Pavt Mrkg, Transv	Sft	500	\$ 2.50	\$ 1,250.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	25	\$ 100.00	\$ 2,500.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	Ea	25	\$ 5.00	\$ 125.00
8120026	Pedestrian Type II Barricade, Temp	Ea	10	\$ 250.00	\$ 2,500.00
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	250	\$ 25.00	\$ 6,250.00
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	250	\$ 1.00	\$ 250.00
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	\$ 40,000.00	\$ 40,000.00
8120236	Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, Yellow, Te	Ft	5000	\$ 0.50	\$ 2,500.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	500	\$ 7.50	\$ 3,750.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	500	\$ 1.00	\$ 500.00
8120352	Sign, Type B, Temp, Prismatic, Spec, Furn	Sft	100	\$ 15.00	\$ 1,500.00
8120353	Sign, Type B, Temp, Prismatic, Spec, Oper	Sft	100	\$ 1.00	\$ 100.00
8120370	Traf Regulator Control	LSUM	1	\$ 10,000.00	\$ 10,000.00
8167011	Turf Establishment, Performance	Syd	2500	\$ 5.00	\$ 12,500.00
8210001	Monument Box	Ea	1	\$ 500.00	\$ 500.00
8210005	Monument Box Adj	Ea	1	\$ 500.00	\$ 500.00



**OPINION OF PROBABLE
CONSTRUCTION COST**

ORCHARD, HILTZ & McCLIMENT, INC.

34000 Plymouth Road, Livonia, Michigan, 48150

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

PROJECT: 2024-2025 FAC Estimate
LOCATION: 13 Mile Rd between M-5 and Hagerty Rd
WORK: 0.5 miles of mill and resurfacing

DATE: April 29, 2024
PROJECT #: 0163-20-0110
ESTIMATOR: ARP
CHECKED BY: TJJ
CURRENT ENR: TJJ

ITEM CODE	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	COST
8210010	Monument Preservation	Ea	1	\$ 500.00	\$ 500.00
8210020	Protect Corners	Ea	1	\$ 500.00	\$ 500.00
8230422	Water Shutoff, Adj, Case 2	Ea	5	\$ 250.00	\$ 1,250.00
8237001	Sprinkler Line	Ft	500	\$ 5.00	\$ 2,500.00
8237050	Irrigation Control Box, Relocate	Ea	1	\$ 500.00	\$ 500.00
8237050	Irrigation Control Box, Replace	Ea	1	\$ 500.00	\$ 500.00
8237050	Sprinkler Head, Relocate	Ea	10	\$ 50.00	\$ 500.00
8237050	Sprinkler Head, Replace	Ea	10	\$ 50.00	\$ 500.00
SUBTOTAL FOR CATEGORY 4 - 13 MILE					\$ 1,007,609.50
TOTAL OPINION OF PROBABLE CONSTRUCTION COST =					\$ 1,007,609.50



June 6, 2024

Mr. Ben Croy
City Engineer
City of Novi - Department of Public Works
26300 Lee BeGole Drive
Novi, MI 48375

**RE: Scope of Design Services
West Park Drive from 12 Mile to Pontiac Trail**

Dear Mr. Croy:

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 West Park Drive from the 12 Mile to Pontiac Trail. The south half of the project from 12 Mile to West Road will be milled and resurfaced assuming acceptable subsurface conditions. From curb to curb the existing asphalt pavement will be milled off and given spot repairs in preparation for new asphalt pavement. Curb and drive approaches may be repaired as agreed upon by City and OHM staff based on a condition assessment. Sidewalk and pathway repairs are not expected to occur but ramps at intersections will be replaced to the latest accessibility requirements. Any noticeable drainage inefficiencies shall be rectified as well. The north half of the project from West Road to Pontiac Trail will consist of the repair of the roadway using a 'crush and shape' operation. The existing pavement will be pulverized and compacted to serve as base material for a new asphalt pavement section. This type of operation causes the road elevation to rise so it is only applicable to road sections without curb like the section from West Road to Pontiac Trail. The rise in road elevation will also cause impact to adjacent drive approaches and drainage patterns. The design will aim to limit the impacts on these adjacent elements. Again addressing pedestrian facilities, the north half of West Park Drive will undergo sidewalk ramp repair at intersections for accessibility requirements but is not anticipated to contain addition of filling in sections of the corridor missing sidewalk or pathway.

In late 2021, the City applied for and received approximately \$1.77 million in federal funds (STPU) to rehabilitate West Park Drive. It is our understanding that the City has budgeted additional road funds to cover the remaining cost of the project. The combined construction cost of the road rehabilitation is anticipated to be approximately \$4 million. Using these federal funds, the project must be administered through the Michigan Department of Transportation (MDOT) Local Agency Programs Unit. 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 could be administered through the MDOT LAP Unit. Additional project administration effort resulting from the federal aid process (program applications, NEPA, right-of-way certification, crash analysis, mobility analysis, GI 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 would be bid through MDOT.

OHM Advisors®

2365 PONTIAC RD, SUITE 201
AUBURN HILLS, MICHIGAN 48326

T 248.751.3100
F 248.287.4201

OHM-Advisors.com



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 kickoff meeting with City staff and utility companies to review project objectives, prepare design criteria, and establish a specific delivery schedule.
- Implement existing utility information and record drawings for the project area.
- Perform a site review to identify elements that are sensitive which includes pavement rehabilitation techniques, geometric deficiencies, drainage features, and utility facilities within the project area.
- Perform topographic survey of the project area and prepare existing conditions plans.
- Coordinate with the Geotechnical Engineer to develop typical pavement sections for the project.
- Develop horizontal and vertical alignments of the roadway and prepare typical cross-sections for the roadway.
- Prepare program applications, preliminary design plans, special provisions, and estimate.
- Attend MDOT Grade Inspection meeting with the City and utility companies to review the plans, specifications, and estimate to address any requested revisions.
- Prepare and submit permit plan packages for permit(s).
- Prepare a 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 within the affected influence of the project in accordance with MMUTCD requirements.
- Prepare proposed preliminary schedule for work including the construction start, substantial completion, and final completion dates.
- Prepare final program applications, design plans, special provisions, and estimate.
- Address questions that may arise during the MDOT bidding process.

ASSUMPTIONS

The following summarizes our assumptions associated with this proposal:

- The City will acquire all property/right-of-way/easements need for the project in accordance with federal requirements. OHM will prepare legal descriptions/exhibits for proposed right-of-way and easements should they be required.
- Geotechnical services are anticipated to be required for design and construction of this project but are not included in our scope of work. These services will be provided by the City's Geotechnical Consultant under a separate contract.
- Historical identification services may be required for design of this project but are not included in our scope of work. These services will need to be included in a separate contract if required.
- The City will be responsible for all permit application fees and permit fees.
- We do not anticipate remediation or removal of contaminated or hazardous soils or materials.
- Development of plans for landscaping or ornamental features are not included.
- No floodplain, wetland, or stream work is expected to be required for this project.
- The addition of sidewalk or pathway throughout the entire project limits is not included in the scope of this project.
- The pavement section from 12 Mile to West Road is expected to be satisfactory such that a greater repair such as reconstruction will not be required.
- Relocation of municipal or private utilities is not anticipated nor included in this contract. The only anticipated utility work would be minor storm sewer work.



SCHEDULE

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

- 50% Submittal to City – September 2024
- GI Submittal to MDOT – November 2024
- Final Package Submittal to MDOT – January 2025
- MDOT Bid Letting – April 2025
- Begin Construction – May/June 2025

FEE

Based on the use of the 'Attachment A – 2022-2027 Engineering Fees' calculation, our proposed lump sum fee to perform this work is two hundred sixty-five thousand nine hundred ninety-five dollars and forty-one cents (\$265,995.41). Our fee derivation is based on the following breakdown:

	Construction Cost		Design Fee
Road Recon/Rehab Design	\$ 3,940,672.75	6.25%	\$246,292.05
MDOT LAP Design	\$ 3,940,672.75	0.50%	\$ 19,703.36
Total			\$265,995.41

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

Alex Parent, P.E.
Project Manager

Signature

Date

Printed Name

Title

Encl: Project Cost Estimates

cc: Rebecca Runkel, Project Engineer
Tim Juidici, 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: 2024-2025 FAC Estimate
LOCATION: East of Beck between 12 Mile and Pontiac Trail
WORK: 2.4 miles of road rehabilitation of which the first curbed mile is mill and resurface and the remaining 1.4 is crush and shape.

DATE: April 29, 2024
PROJECT #: 0163-20-0110
ESTIMATOR: ARP
CHECKED BY: TJJ
CURRENT ENR: TJJ

ITEM CODE	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	COST
CATEGORY 3 - W. PARK					
1077051	Audio Video Route Survey	LSUM	1	\$ 5,000.00	\$ 5,000.00
1100001	Mobilization, Max	LSUM	3	\$100,000.00	\$ 300,000.00
2040020	Curb and Gutter, Rem	Ft	4250	\$ 10.00	\$ 42,500.00
2040055	Sidewalk, Rem	Syd	1440	\$ 10.00	\$ 14,400.00
2047011	Pavt, Rem, Modified	Syd	5604	\$ 10.00	\$ 56,040.00
2047050	Exploratory Excavation	Ea	15	\$ 50.00	\$ 750.00
2050010	Embankment, CIP	Cyd	1377	\$ 20.00	\$ 27,540.00
2050016	Excavation, Earth	Cyd	5508	\$ 20.00	\$ 110,160.00
2050031	Non Haz Contaminated Material Handling and Disposal, LM	Cyd	150	\$ 75.00	\$ 11,250.00
2057021	Subgrade Undercutting Type II, 21AA	Cyd	300	\$ 75.00	\$ 22,500.00
2057021	Subgrade Undercutting, Type II, 1 by 3	Cyd	300	\$ 75.00	\$ 22,500.00
2080012	Erosion Control, Check Dam, Stone	Ft	500	\$ 40.00	\$ 20,000.00
2080020	Erosion Control, Inlet Protection, Fabric Drop	Ea	50	\$ 100.00	\$ 5,000.00
2080036	Erosion Control, Silt Fence	Ft	5000	\$ 5.00	\$ 25,000.00
2090001	Project Cleanup	LSUM	1	\$ 10,000.00	\$ 10,000.00
3020050	Aggregate Base, Conditioning	Syd	2817	\$ 2.50	\$ 7,042.50
3027011	Aggregate Base, 4 inch, Modified	Syd	6793	\$ 12.50	\$ 84,912.50
3027031	Aggregate Base, Modified	Ton	1000	\$ 40.00	\$ 40,000.00
3050002	HMA Base Crushing and Shaping	Syd	30715	\$ 3.75	\$ 115,181.25
3050010	Material, Surplus and Unsuitable, Rem, LM	Cyd	1000	\$ 10.00	\$ 10,000.00
3050015	Salv Crushed Material, LM	Cyd	1000	\$ 10.00	\$ 10,000.00
3060020	Maintenance Gravel	Ton	2250	\$ 30.00	\$ 67,500.00
3077011	Shld, CI II, 6 inch, Modified	Syd	8707	\$ 15.00	\$ 130,605.00
4030010	Dr Structure Cover, Type B	Ea	5	\$ 625.00	\$ 3,125.00
4030050	Dr Structure Cover, Type K	Ea	25	\$ 750.00	\$ 18,750.00
4030065	Dr Structure Cover, Type Q	Ea	5	\$ 625.00	\$ 3,125.00
4030280	Dr Structure, Adj, Add Depth	Ft	15	\$ 250.00	\$ 3,750.00
4030306	Dr Structure, Tap, 6 inch	Ea	10	\$ 250.00	\$ 2,500.00
4037050	San Structure Cover, Adj	Ea	5	\$ 1,000.00	\$ 5,000.00
4037050	Stm Structure Cover, Adj	Ea	15	\$ 750.00	\$ 11,250.00
4037050	Wtr Structure Cover, Adj	Ea	5	\$ 1,000.00	\$ 5,000.00
4040083	Underdrain, Subgrade, Open-Graded, 6 inch	Ft	3000	\$ 12.50	\$ 37,500.00
5010002	Cold Milling HMA Surface	Syd	24133	\$ 2.50	\$ 60,332.50
5010008	Pavt for Butt Joints, Rem	Syd	750	\$ 50.00	\$ 37,500.00
5010020	Pavt Joint and Crack Repr, Det 7	Ft	2000	\$ 5.00	\$ 10,000.00
5010021	Pavt Joint and Crack Repr, Det 8	Ft	500	\$ 10.00	\$ 5,000.00
5010025	Hand Patching	Ton	175	\$ 100.00	\$ 17,500.00
5010061	HMA Approach	Ton	616	\$ 150.00	\$ 92,400.00
5012013	HMA, 3EML	Ton	6592	\$ 85.00	\$ 560,320.00
5012025	HMA, 4EML	Ton	6637	\$ 90.00	\$ 597,330.00



OPINION OF PROBABLE CONSTRUCTION COST

ORCHARD, HILTZ & McCLIMENT, INC.

34000 Plymouth Road, Livonia, Michigan, 48150

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

PROJECT: 2024-2025 FAC Estimate
LOCATION: East of Beck between 12 Mile and Pontiac Trail
WORK: 2.4 miles of road rehabilitation of which the first curbed mile is mill and resurface and the remaining 1.4 is crush and shape.

DATE: April 29, 2024
PROJECT #: 0163-20-0110
ESTIMATOR: ARP
CHECKED BY: TJJ
CURRENT ENR: TJJ

ITEM CODE	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	COST
5012037	HMA, 5EML	Ton	6637	\$ 95.00	\$ 630,515.00
8010005	Driveway, Nonreinf Conc, 6 inch	Syd	191	\$ 60.00	\$ 11,460.00
8017011	Driveway with Integral Curb, Nonreinf Conc, 9 inch	Syd	901	\$ 80.00	\$ 72,080.00
8020031	Curb and Gutter, Conc, Det D2	Ft	750	\$ 30.00	\$ 22,500.00
8020038	Curb and Gutter, Conc, Det F4	Ft	4250	\$ 25.00	\$ 106,250.00
8020057	Shld Gutter, Conc, Det 3	Ea	10	\$ 1,000.00	\$ 10,000.00
8030030	Curb Ramp Opening, Conc	Ft	400	\$ 30.00	\$ 12,000.00
8030044	Sidewalk, Conc, 4 inch	Sft	2500	\$ 5.00	\$ 12,500.00
8032002	Curb Ramp, Conc, 6 inch	Sft	12960	\$ 7.50	\$ 97,200.00
8037001	Detectable Warning Surface, Modified	Ft	200	\$ 40.00	\$ 8,000.00
8060010	Shared use Path, Aggregate	Ton	600	\$ 35.00	\$ 21,000.00
8070044	Guardrail Approach Terminal, Type 2M	Ea	4	\$ 4,000.00	\$ 16,000.00
8077050	Post, Mailbox, Remove and Reset	Ea	20	\$ 150.00	\$ 3,000.00
8100371	Post, Steel, 3 lb	Ft	1500	\$ 5.00	\$ 7,500.00
8100403	Sign, Type III, Rem	Ea	100	\$ 15.00	\$ 1,500.00
8100404	Sign, Type IIIA	Sft	500	\$ 15.00	\$ 7,500.00
8100405	Sign, Type IIIB	Sft	500	\$ 15.00	\$ 7,500.00
8110091	Pavt Mrkg, Polyurea, 4 inch, White	Ft	17750	\$ 1.00	\$ 17,750.00
8110092	Pavt Mrkg, Polyurea, 4 inch, Yellow	Ft	27350	\$ 1.00	\$ 27,350.00
8110093	Pavt Mrkg, Polyurea, 6 inch, Crosswalk	Ft	500	\$ 5.00	\$ 2,500.00
8110113	Pavt Mrkg, Polyurea, 18 inch, Stop Bar	Ft	500	\$ 10.00	\$ 5,000.00
8110405	Pavt Mrkg, Polyurea, Lt Turn Arrow Sym	Ea	17	\$ 250.00	\$ 4,250.00
8110410	Pavt Mrkg, Polyurea, Only	Ea	20	\$ 250.00	\$ 5,000.00
8110412	Pavt Mrkg, Polyurea, Rt Turn Arrow Sym	Ea	8	\$ 250.00	\$ 2,000.00
8110417	Pavt Mrkg, Polyurea, Thru and Rt Turn Arrow Sym	Ea	3	\$ 250.00	\$ 750.00
8110450	Recessing Pavt Mrkg, Longit	Ft	45100	\$ 0.50	\$ 22,550.00
8110451	Recessing Pavt Mrkg, Transv	Sft	1000	\$ 2.50	\$ 2,500.00
8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	Ea	200	\$ 100.00	\$ 20,000.00
8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Ope	Ea	200	\$ 5.00	\$ 1,000.00
8120026	Pedestrian Type II Barricade, Temp	Ea	50	\$ 250.00	\$ 12,500.00
8120035	Channelizing Device, 42 inch, Fluorescent, Furn	Ea	1000	\$ 25.00	\$ 25,000.00
8120036	Channelizing Device, 42 inch, Fluorescent, Oper	Ea	1000	\$ 1.00	\$ 1,000.00
8120140	Lighted Arrow, Type C, Furn	Ea	4	\$ 500.00	\$ 2,000.00
8120141	Lighted Arrow, Type C, Oper	Ea	4	\$ 1.00	\$ 4.00
8120170	Minor Traf Devices	LSUM	1	\$ 40,000.00	\$ 40,000.00
8120236	Pavt Mrkg, Wet Reflective, Type NR, Paint, 4 inch, Yellow, Te	Ft	10000	\$ 0.50	\$ 5,000.00
8120350	Sign, Type B, Temp, Prismatic, Furn	Sft	1500	\$ 7.50	\$ 11,250.00
8120351	Sign, Type B, Temp, Prismatic, Oper	Sft	1500	\$ 1.00	\$ 1,500.00
8120352	Sign, Type B, Temp, Prismatic, Spec, Furn	Sft	500	\$ 15.00	\$ 7,500.00
8120353	Sign, Type B, Temp, Prismatic, Spec, Oper	Sft	500	\$ 1.00	\$ 500.00
8120370	Traf Regulator Control	LSUM	1	\$ 10,000.00	\$ 10,000.00



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DATE: April 29, 2024
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ESTIMATOR: ARP
CHECKED BY: TJJ
CURRENT ENR: TJJ

ITEM CODE	DESCRIPTION	UNIT	TOTAL	UNIT PRICE	COST
8167011	Turf Establishment, Performance	Syd	7500	\$ 5.00	\$ 37,500.00
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
8210020	Protect Corners	Ea	5	\$ 500.00	\$ 2,500.00
8230422	Water Shutoff, Adj, Case 2	Ea	10	\$ 250.00	\$ 2,500.00
8237001	Sprinkler Line	Ft	1500	\$ 5.00	\$ 7,500.00
8237050	Irrigation Control Box, Relocate	Ea	1	\$ 500.00	\$ 500.00
8237050	Irrigation Control Box, Replace	Ea	1	\$ 500.00	\$ 500.00
8237050	Sprinkler Head, Relocate	Ea	50	\$ 50.00	\$ 2,500.00
8237050	Sprinkler Head, Replace	Ea	50	\$ 50.00	\$ 2,500.00
SUBTOTAL FOR CATEGORY 3 - W. PARK					\$ 3,940,672.75
TOTAL OPINION OF PROBABLE CONSTRUCTION COST =					\$ 3,940,672.75