

MEMORANDUM



TO: JEFFREY HERCZEG, DIRECTOR OF PUBLIC WORKS
FROM: REBECCA RUNKEL, PROJECT ENGINEER
SUBJECT: 2024 ENGINEERING DIVISION ANNUAL REPORT
DATE: MARCH 20, 2025

Novi's Engineering Division oversees the design and construction of public infrastructure improvements within the City. The Engineering Division also reviews and inspects private development projects from conception to post-construction. Engineering staff work closely with residents, consultants, local/state agencies, contractors, developers, and other City Departments to facilitate the completion of successful projects.

Engineering Division Duties

In 2024, the Engineering Division consisted of seven full-time professionals. The Engineering team reviews private development site plans, public infrastructure plans, and oversees private and public infrastructure construction.

Below are the 2024 team members and their primary responsibilities:

- Ben Croy, PE; City Engineer – responsible for overseeing the Engineering Division and serves as the City's Traffic Engineer.
- Aaron Staup; Construction Engineer – responsible for the construction phase of public infrastructure projects.
- Rebecca Runkel; Project Engineer – responsible for the design phase of public infrastructure projects.
- Humna Anjum; Project Engineer – responsible for engineering plan review and the construction phase of private development projects.
- Ben Nelson; Project Engineer - responsible for engineering plan review and the construction phase of private development projects.
- Jeff Van Curler; Engineering Technician – responsible for right-of-way permitting and inspections, and various engineering tasks as assigned.
- Milad Alesmail; Project Engineer - responsible for engineering plan review and the construction phase of private development projects.

Annual Overview

The main responsibilities of the Engineering Division are detailed in this section. The following table provides a summary of the Engineering Division's activities during 2024:

Activity	2023	2024
Grant Funding Obtained	\$287,777	\$706,354
Private Site Plan Reviews	124	121
Final Site Plan Approvals	32	25
Right-of-Way Permits Processed	208	229
Soil Erosion Permit Reviews Completed	45	57
Private Development Pre-Construction Meetings Held	13	19
Private Development Utilities Accepted	2 affidavits	5 affidavits
Private Development Streets Accepted	7 segments	1 segment
New Street Light Installations	0	1
Average PASER Rating	5.8	6.0
Number of Capital Construction Projects Substantially Completed	12	9
Dollar Value of Capital Construction Projects Substantially Completed	\$22,701,484	\$23,805,984

- **Grant Funding**

In April 2024, the City was awarded \$578,897 in Federal funding through Michigan Department of Transportation's (MDOT's) Transportation Alternatives Program (TAP) for construction of a connector pathway between the ITC Trail and Bosco Fields Park. The City also received \$127,457 in funding through Oakland County's 2024 Local Road Improvement Program that went towards the rehabilitation of 13 Mile Road between Meadowbrook Rd and M-5 (see page 7).

- **Private Development Site Plan Review**

Plan reviews for private development are completed by in-house City Engineering Staff, saving upwards of \$80,000 per year in engineering consulting fees. In 2024, the Engineering Division reviewed 121 private site plans; of which 25 final site plans were approved. Site plan submittals come in the form of pre-applications, preliminary site plans, and final site plans.

- **Private Development Construction**

The Engineering Division hosted 19 pre-construction meetings for private developments. Staff managed site inspections, legal document reviews, and responded to community inquiries. The City accepted 5 affidavits for water and/or sanitary sewer systems from developments for the year. The City accepted one public street segment from private developments in 2024.

- **Soil Erosion and Sedimentation Control Permit Review**

All full-time City engineering staff are certified for Soil Erosion and Sedimentation Control (SESC) reviews. Bringing reviews in-house saves the City anywhere from \$300 to \$800 in consultant review fees per site. Engineering staff are responsible for the review and approval of all soil erosion and sedimentation control (SESC) permits associated with site developments and public projects. There were 57 SESC permit applications reviewed for private development projects and 6 SESC permits issued for the City's public infrastructure projects.

- **Right-of-Way Permitting**

Staff reviewed 229 right-of-way applications for franchise utility installation (electric, gas, fiber), private development projects, residential driveway replacements, and other miscellaneous work in the right-of-way. The right-of-way permitting process minimizes impact to public water mains, sanitary sewer, storm sewer, ditches, roads, sidewalks and verifies that restoration within the public right-of-way is completed per City standards.

- **Capital Improvements Program (CIP)**

Engineering staff develops and manages multiple projects relating to roads, intersections, pathways, storm water, sanitary sewer, and water distribution sections as outlined in the City's Capital Improvement Program. Preparation for each project includes detailing the project scope, justification, public benefits, and cost estimates that include any necessary right-of-way acquisition, design, geotechnical services, etc. Please refer to the list of capital projects presented beginning on Page 4.

- **Street Lighting**

Each year, engineering staff works with homeowner's associations (HOAs) and developers to facilitate the installation of street lighting by DTE Energy. The Street Lighting Policy states that the City will pay for the installation and ongoing annual costs of a single standard streetlight at each subdivision entrance on a major street. One new streetlight was added in 2024 at the Parc Vista subdivision entrance.

- **Transportation Asset Management**

The Pavement Surface Evaluation and Rating System (PASER) is one component of the City's asset management approach. PASER ratings are on a scale from 1 to 10, with 10 being the best (road does not require any maintenance) and 1 being the worst (road has failed and requires reconstruction).

The average PASER rating is an indicator of the overall condition of the road pavements within the City network. City roads are rated every two years. The last rating occurred in November 2024. Roads that are under the jurisdiction of the governing county/road agency were excluded from the evaluation. The table on the next page shows PASER ratings from the last 10 years. City roads will be rated again in fall 2026.

PASER by Year

Evaluation Year	2013	2014	2015	2017	2018	2019	2020	2022	2024
Average PASER Rating	5.9	5.6	5.6	5.5	5.5	5.5	5.8	5.8	6.0

2024 Public Projects

Neighborhood Roads Program

The Neighborhood Roads Program (NRP) consists of asphalt and concrete rehabilitation and reconstruction of local roads. AECOM assisted the Engineering Division with preparing a list of streets for the 2024 and 2025 Neighborhood Roads Program (NRP). The program is divided into two contracts: one focusing on concrete roads, and the other focusing on asphalt roads. The program was advertised as a two-year contract to lower the overall cost of bidding and design, and to lock in unit prices. The two-year contract also allows the City flexibility in scheduling the different project areas.

2024 NRP – Concrete Streets

The construction contract was awarded to Mattioli Cement Company. The project included reconstruction of the streets listed below, which were completed in 2024.

Street Segment	From	To	Treatment
Argyle St	Whitehall Dr	Broadmoor Park Ln	Full Reconstruction
Broadmoor Park Ln	Argyle St	End of Cul-de-sac	Full Reconstruction
Broadmoor Park Ln	Northumberland St	Baker St	Full Reconstruction
Whitehall Dr	White Pines Dr	Argyle St	Full Reconstruction
Venice Dr	Roma Ridge Dr	End of Cul-de-sac	Full Reconstruction

Engineering Consultant: AECOM
Construction Contractor: Mattioli Cement Company

Original Contract Price: \$ 1,018,819
Current Contract Price: \$ 1,016,909

Project Start Date: June 25, 2024
Substantial Completion Date: October 23, 2024

2024 NRP – Concrete Streets, continued

Broadmoor Park Ln & Argyle St- Before



Broadmoor Park Ln & Argyle St- After



2024 NRP – Asphalt Streets

The construction contract was awarded to Pro-Line Asphalt Paving Corporation. The project included reconstruction of the streets listed below, which were completed in 2024.

Street Segment	From	To	Subdivision
Sunday Dr	Hillside Dr	Park Place Dr	Park Place
Waterland Dr	Park Place Dr	End	Park Place
Applebrooke Dr	Roberts Rd	End	Park Place
Berwick Ct	Applebrooke Dr	End	Park Place
Vasilios Ct	9 Mile Rd	End	Vasilios Estates

Engineering Consultant: AECOM
Construction Contractor: Pro-Line Asphalt Paving Corporation

Original Contract Price: \$ 1,947,719
Current Contract Price: \$ 1,947,719

Project Start Date: April 24, 2024
Substantial Completion Date: November 1, 2024

2024 NRP – Asphalt Streets, continued

Waterland Dr - Before



Waterland Dr - After



13 Mile Road Rehabilitation, Meadowbrook Road to M-5

In 2020, the City entered into a cost-share agreement with the Great Lakes Water Authority (GLWA) to reconstruct four road segments following the construction of a 54-inch transmission water main between 8 Mile Rd and 14 Mile Rd. After numerous setbacks which extended the construction timeline for the GLWA project, the City opted to complete the road rehabilitation along the 13 Mile Rd segment, between Meadowbrook Rd and M-5. A change order was issued to the paving contractor, Cadillac Asphalt, LLC, who had two open contracts with the City (Industrial Roads Rehabilitation, Taft Rd Rehabilitation). Issuing the change order to a contractor already working in the City allowed for better control of the paving quality and faster completion.

Engineering Consultant: AECOM
Construction Contractor: Cadillac Asphalt, LLC

Original Contract Price: \$ 927,466
Current Contract Price: \$ 939,601

Project Start Date: June 29, 2024
Open-to-Traffic Date: August 15, 2024

13 Mile Rd - Before



13 Mile Rd - After



Pavement Preservation Overlays

The pavement on Beck Road between 9 Mile Rd and 11 Mile Rd was in poor condition. Due to the uncertainty of the Beck Road widening project and delays in the environmental assessment process, City staff decided to issue a change order to Ajax Paving to do a thin asphalt overlay to extend the life of the pavement and improve driving conditions while waiting for the widening project to take shape. 11 Mile Rd, between Taft Rd and Beck Rd, was added to the project due to its proximity and cost effectiveness compared to a full rehabilitation, which had been in the CIP for FY 2026-27.

Engineering Consultant: AECOM
Construction Contractor: Ajax Paving

Original Contract Price: \$ 1,081,882
Current Contract Price: \$ 1,334,991

Project Start Date: August 8, 2024
Project Completion Date: August 26, 2024

Beck Rd – Before



Beck Rd – After



Wixom Road Rehabilitation, 10 Mile Rd to Grand River Ave

The City was awarded \$1.5 M in federal funds for a Wixom Road rehabilitation project through the Oakland County Federal Aid Committee (FAC) Surface Transportation Program (STP). The project consisted of cold-milling and resurfacing the asphalt pavement, a center left turn lane addition between Drakes Bay Dr/Acorn Tr and Kelsey Bay Dr/Delmont Dr, curb and gutter repairs, sidewalk gap infill and ADA improvements, and drainage structure repairs.

Engineering Consultant: OHM Advisors
Construction Contractor: Fonson Company, Inc.

Original Contract Price: \$ 5,046,141
Current Contract Price: \$ 5,185,659

Project Start Date: March 4, 2024
Open-to-Traffic Date: November 1, 2024

Wixom Rd - Before



Wixom Rd - After



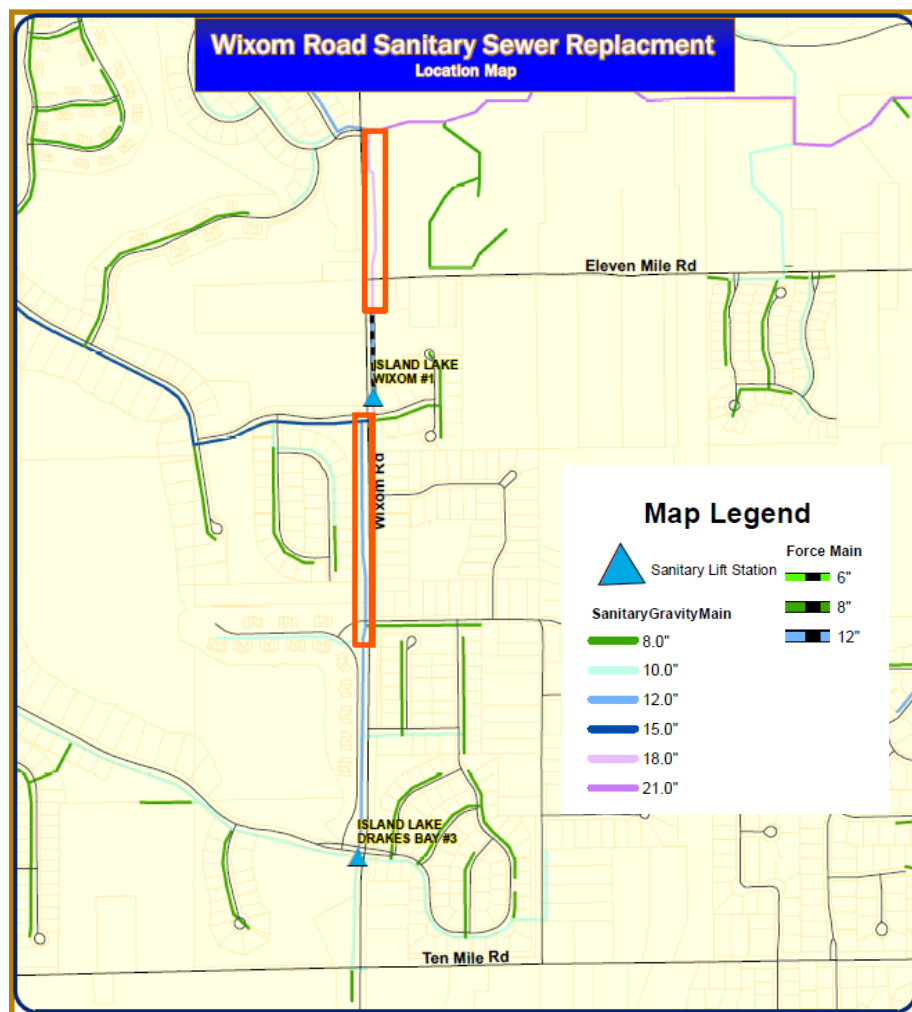
Wixom Road Sanitary Sewer Replacement and Drakes Bay/Wixom Road Pump Station Reconstruction

Two sections of sanitary sewer between the Drake's Bay lift station and Lanny's lift station were identified in the 2014 Sanitary Sewer Capacity Assessment as having insufficient capacity to handle current and future flow rates. This project replaced 1,200 feet of 18-inch diameter sewer with 21-inch diameter sewer, and 1,600 feet of 12-inch sewer with 15-inch sewer to increase capacity. Pipe bursting was used where possible to avoid further disruption to area residents. Additionally, the sanitary pumps and generators in the Drake's Bay and Wixom pump stations were replaced to better handle the flow rates.

Engineering Consultant: Spalding DeDecker
Construction Contractor: Pamar Enterprises, Inc.

Original Contract Price: \$ 5,553,937
Current Contract Price: \$ 5,408,928

Project Start Date: July 17, 2023
Open-to-Traffic Date: April 17, 2024



2024 Neighborhood Sidewalk Repair Program

Following the completion of the pilot sidewalk repair program in Meadowbrook Glens, the Engineering Division, with the help of AECOM, developed a plan for a second program. The second program repaired sidewalks in five subdivisions: Chase Farms, Willowbrook Farms, Bristol Corners, Yerkes Manor, and Westminster Village. Sidewalk panels were evaluated for cracking, deflections, and surface deterioration, and were replaced based on the criteria of having a $\frac{3}{4}$ -inch deflection or greater, 25% or more surface cracking/deterioration, or as deemed necessary by the engineer. Additionally, trees adjacent to sidewalks were evaluated for pruning or removal.

Engineering Consultant: AECOM

Construction Contractor: Hartwell Cement Company

Original Contract Price: \$ 435,038

Current Contract Price: \$ 497,117

Project Start Date: August 13, 2024

Substantial Completion Date: December 14, 2024

Bristol Corners



Jessica's Splash Pad

Jessica's Splash Pad was opened on May 25, 2024, at Bosco Fields Park (Beck Road south of 11 Mile Rd). The splash pad honors former FOX 2 meteorologist and Novi resident, Jessica Starr-Rose, who died in 2018. Novi's City Council, PRCS, and DPW worked together with the Starr-Rose Family and the Novi Parks Foundation to bring the project to fruition. The 4,500 square foot splash pad includes a recirculating water system, a new restroom and changing facility with a 20-ft x 20-ft mechanical room, a pedestrian bridge, a concrete plaza with shade structures and seating, and landscaping/fencing.

Engineering Consultant: OHM Advisors
Construction Contractor: DeAngelis Diamond Construction

Original Contract Price: \$ 1,931,416
Current Contract Price: \$ 2,096,004

Project Start Date: June 12, 2023
Substantial Completion Date: July 27, 2024



Meadowbrook Commons Pickleball Courts and Parking Expansion

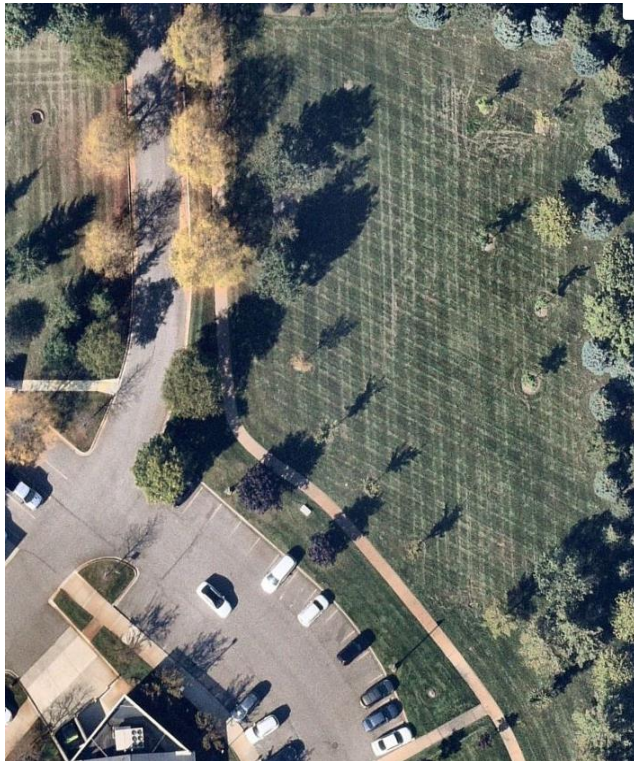
Due to the growing popularity of pickleball, the PRCS department sought opportunities to construct more pickleball courts in Novi. PRCS received a \$150,000 grant from the Oakland County Senior Centers Grant Program for development of pickleball courts at Meadowbrook Commons Activity Center. Four pickleball courts were constructed at the northeast corner of the property, and included benches, shade canopies, and walkways from the parking lot. Additionally, the main parking lot was expanded to accommodate more vehicles. The project was bid together with the Wildlife Woods Pickleball Courts and Parking Expansion project.

Engineering Consultant: Spalding DeDecker
Construction Contractor: T&M Asphalt Paving, Inc.

Original Contract Price: \$ 550,924
Current Contract Price: \$ 539,972

Project Start Date: April 9, 2024
Substantial Completion Date: July 18, 2024

Before



After



Wildlife Woods Pickleball Courts and Parking Expansion

Wildlife Woods was home to Novi's first four pickleball courts, which were constructed in 2020. Due to frequent use and growing popularity of pickleball, PRCS decided to add an additional four courts to Wildlife Woods. The parking lot at Wildlife Woods was also expanded to accommodate more visitors. The project was designed and bid out in conjunction with the Meadowbrook Commons Pickleball Courts and Parking Expansion project.

Engineering Consultant: Spalding DeDecker
Construction Contractor: T&M Asphalt Paving, Inc.

Original Contract Price: \$ 565,227
Current Contract Price: \$ 580,278

Project Start Date: July 19, 2024
Substantial Completion Date: November 11, 2024

Pickleball Court Construction at Wildlife Woods



Meadowbrook Lake Streambank Stabilization and Dredging

Meadowbrook Lake, in the Meadowbrook Lake subdivision, receives surface water from two inlet tributaries at the north end of the lake. Sediment had built up at both tributaries, leading to the formation of sediment 'islands' in the lake. Hydraulic dredging of 7,000 cubic feet of sediment at the inlets was done, along with 230-feet of streambank stabilization of the Middle Rouge channel leading into the lake south of Chattman Road. The channel had experienced significant erosion, so the streambanks along both sides of the channel were re-graded with installation of rip-rap, coir blocks, soil lifts, and native vegetation.

Engineering Consultant: OHM Advisors
Construction Contractor: M-K Construction Co, Inc.

Original Contract Price: \$ 1,999,454
Current Contract Price: \$ 2,042,085

Project Start Date: November 15, 2023
Substantial Completion Date: March 16, 2024

Streambank – Before



Streambank – After



Meadowbrook Lake – Before Dredging



Meadowbrook Lake – After Dredging



Lakeshore Park Parking Lot Expansion

Lakeshore Park's 10-mile trail network starts at the end of the park's access road. The trails are frequently used by mountain bikers and hikers. The Motor City Mountain Biking Association (MCMBA) has plans to add a changing facility at the trailhead. In advance of the MCMBA project, PRCS staff requested the reconfiguration of the back parking lot. The existing cul-de-sac was removed and additional parking spaces were added to better accommodate visitors to the park.

Engineering Consultant: AECOM
Construction Contractor: True North Asphalt

Original Contract Price: \$ 270,116
Current Contract Price: \$ 264,870

Project Start Date: May 7, 2024
Substantial Completion Date: May 24, 2024

Completed Parking Improvements



13 Mile Road and Novi Road Water Main Replacement

A 2019 inspection of the City's 36-inch prestressed concrete cylinder pipe (PCCP) water transmission main revealed structural deficiencies in four pipe segments. In spring of 2024, the identified segments were lined with carbon fiber reinforced polymer (CFRP). An 8-inch water main was also installed across 13 Mile Rd, just east of Novi Rd to provide additional redundancy. Following the lining portion of the project, staff noticed leaking from a 30-inch butterfly valve at the intersection of 13 Mile Rd/South Lake Dr/Old Novi Rd. The valve will be replaced in early 2025.

Engineering Consultant: AECOM

Construction Contractor: LGC Global, Inc.

Original Contract Price: \$ 1,360,150

Current Contract Price: \$ 1,772,619

Project Start Date: December 19, 2023

Substantial Completion Date: April 15, 2025



Distribution System Material Inventory (DSMI)

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) required all communities complete a Distribution System Material Inventory (DSMI) to determine if any lead or galvanized water service lines exist in the system. At OHM's recommendation, City staff decided to use an existing contract for the work, which was publicly bid by the City of Livonia. It was determined that there are no lead service lines present in the City's water system.

Engineering Consultant: OHM Advisors

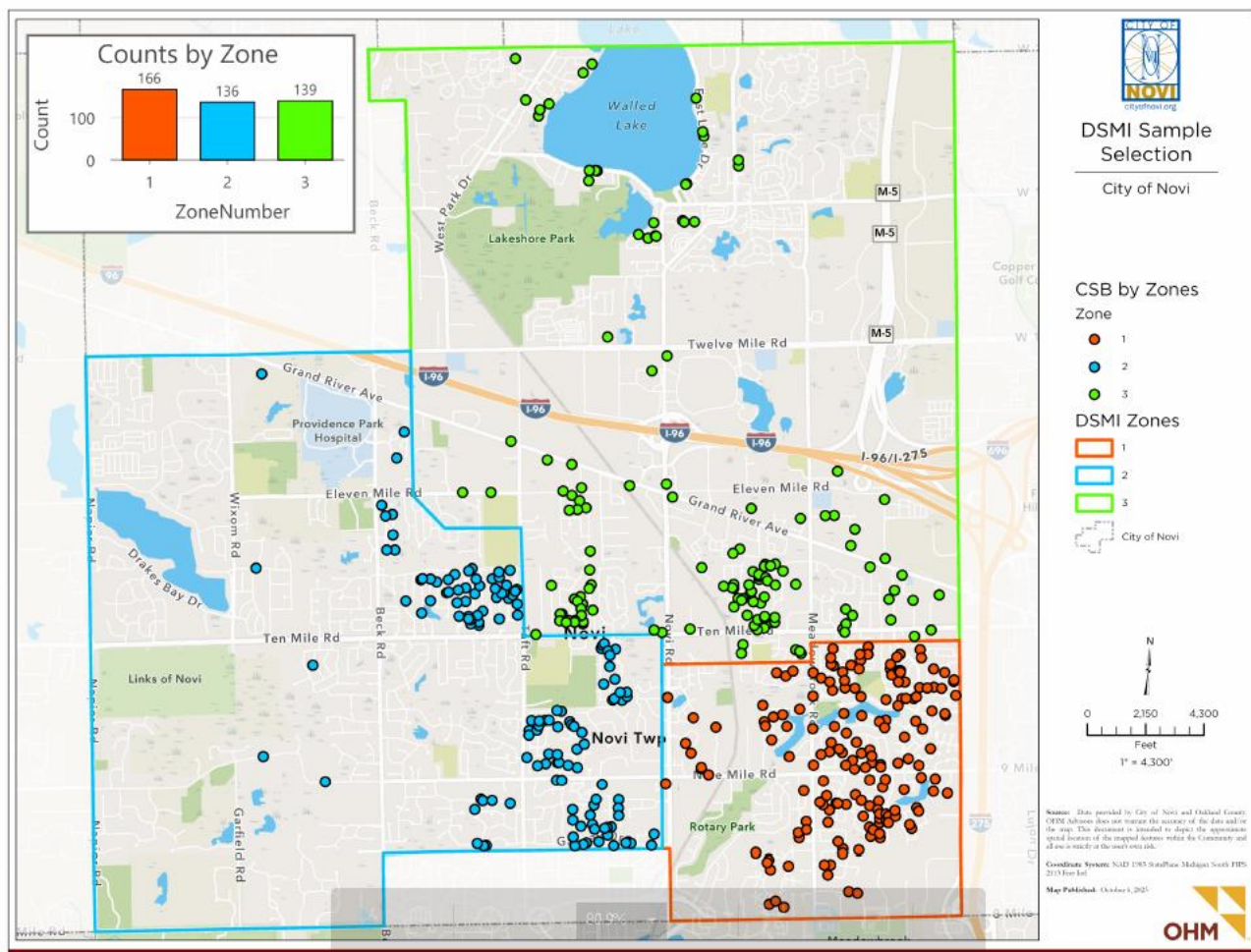
Construction Contractor: Underground Infrastructure Services/Duke's Root Control, Inc.

Original Contract Price: \$ 261,712

Current Contract Price: \$ 179,232

Project Start Date: March 25, 2024

Project Completion Date: June 25, 2024



Other Agency Projects

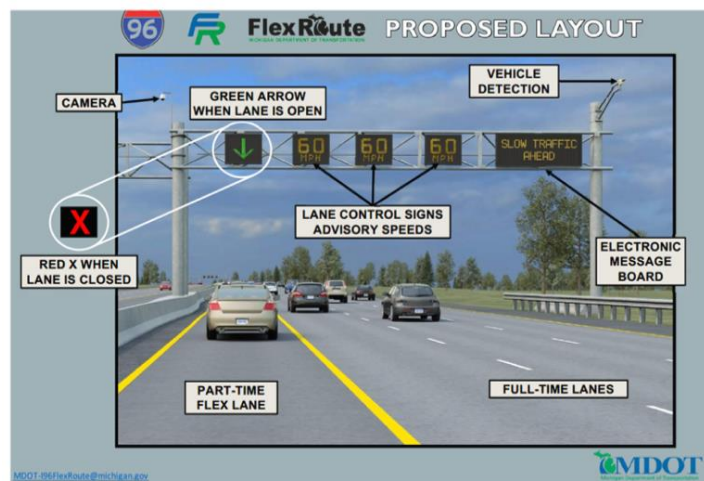
The City of Novi shares the responsibility of maintaining the roads inside the city limits with its neighbors, the Road Commission for Oakland County (RCOC), and Wayne County. The City is also a crossroads for state highways under the jurisdiction of the Michigan Department of Transportation (MDOT). A summary of state and/or county road projects that occurred in 2024 is as follows:

- **Great Lakes Water Authority (GLWA) 54-Inch Water Transmission Main Loop**
GLWA started work in 2022 on construction of a 54-inch transmission water main to interconnect two existing transmission mains at 14 Mile Rd and 8 Mile Rd. The project was completed in October 2024.

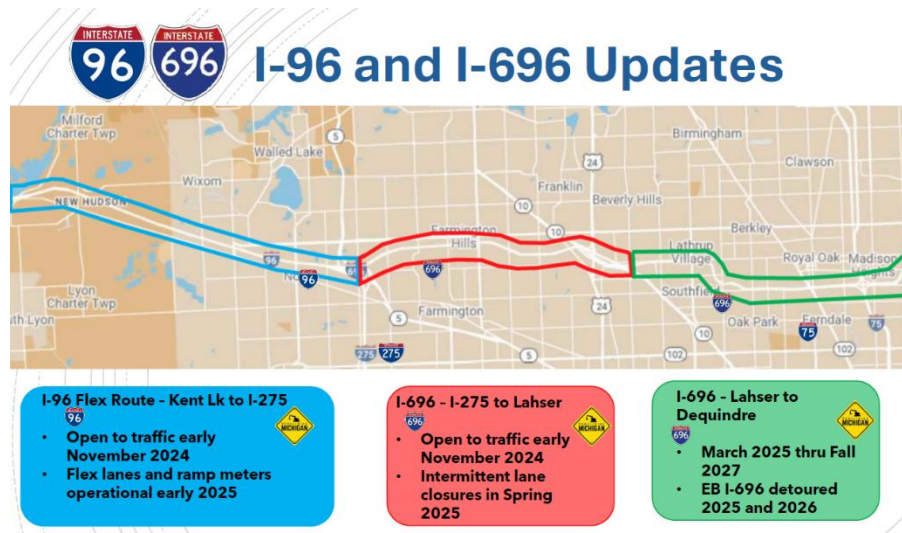
GLWA Construction on Meadowbrook Road



- Grand River Avenue, Napier Rd to Wixom Rd Resurfacing (RCOC)**
 This project included major resurfacing and an extension of the center left-turn lane. Construction started in 2023 and was completed in 2024.
- Baseline Road Concrete Pavement Replacement (8 Mile Rd), CSX Railroad to Orchard Hill Place (Wayne County DPS)**
 Phase 1 - Completed 0.87 miles of concrete replacement along with curb ramp work and guardrail replacement from Orchard Hill Place to Woodcreek Blvd.
 Phase 2 - Completed a concrete pavement mill and asphalt overlay from Woodcreek Blvd to the CSX Railroad bridge.
 Phase 3 - Replacement of the bridge deck for the CSX Railroad under 8 Mile during the spring/summer of 2025.
- I-96 Flex Route (MDOT)**
 In 2022, MDOT began construction on a flex lane and ramp metering on I-96 between Kent Lake Road and the 1-275/1-696/M-5 interchange. The flex lane will allow for median shoulders to be used as an additional lane during peak travel times, special events, maintenance activities, and incidents/crashes. The project was completed in November 2024.



- **Rebuilding Michigan I-696 Project, 1-275 to Lahser Road (MDOT)**
The reconstruction project started in late 2022 and will continue through 2025.



2025 Construction Projects in the City of Novi

The following projects are expected to start or continue construction during 2025:

- **2025 NRP Concrete Streets** – Construction spring/summer 2025
- **2025 NRP Asphalt Streets** – Construction spring/summer 2025
- **2024 CPM** – Chip seal streets, construction spring 2025
- **Nine Mile Road Rehabilitation, Meadowbrook Rd to Haggerty Rd** – Construction spring 2025
- **Meadowbrook Road Rehabilitation, 10 Mile Rd to 11 Mile Rd** – Construction summer 2025
- **Monticello/East Lake Drive Storm Sewer Improvements** – spring 2025 construction
- **Orchard Hills and Leavenworth Detention Basin Improvements** – potential summer/fall 2025 construction
- **13 Mile Road Rehabilitation, M-5 to Haggerty Rd** – summer/fall 2025 construction
- **West Park Drive Rehabilitation, 12 Mile Rd to Pontiac Trl** – potential summer/fall 2025 construction
- **Novi Road Rehabilitation, 8 Mile Rd to 9 Mile Rd, RCOC** – reconstruction between 8 Mile Rd and Allen Dr is planned to start fall 2025. The second phase, rehabilitation between Allen Dr and 9 Mile Dr, will occur in 2026.
- **Novi Road Bridge Preventative Maintenance, over CSX Railroad, RCOC** – TBD 2025
- **Base Line Road (8 Mile Road) CSX Railroad Bridge, Wayne County** – deck replacement and bridge rehabilitation expected to start late 2025.
- **Seeley Drain Culvert Replacement, Haggerty Road between 13 and 14 Mile Roads**