



CITY OF NOVI
Administrative ePacket
August 20, 2026

Council Action/Attention

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Departmental Updates

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[Novi Weekly Road Construction Update \(8/18 - 8/24\)](#)

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For Your Information

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City of Novi - Project Status Overview

Status Summary

Novi City Council Weekly Update #79

As of:

8/19/2026

Overall
Status

In progress

PMR Previous Activities (October 2024 – August 2026)

Design

- Bi-weekly design meetings continue to occur on Mondays

Other

- Current cost estimating for the PSB is within industry standards for the Conceptual Design phase. PSB is now in Schematic Design.
- ~~PMR Owner's Meeting occurred on 8/10~~
- HED/Community Development meeting occurred on 8/13 to review landscape plan

Upcoming Activities

Governance

- City Council's remaining approvals consist of design development; furniture vendor; contractor bid packages; change orders (CO's) that exceed project contingency or program budget
- FAC to approve budget transfers between projects (for example, a budget transfer from the PSB to FS 2) and use of contingency

Design

- Approval of FS 2 and FS 3 Design Development to occur at the ~~10/12~~ 10/26 City Council meeting, with an FAC meeting to be scheduled on 10/12 ~~prior (week of 10/5?)~~
- Current timeline is aiming for Schematic Design approval of the PSB at the ~~10/12~~ 10/26 City Council meeting, with an FAC meeting on 10/12 ~~to be scheduled prior (week of 10/5?)~~
- ~~HED follow up meeting with Community Development has been scheduled for 8/13 to review and discuss FS 2 and FS 3 landscaping plan~~

Other

- The next PMR's Owner's Meeting with Novi will be on 9/14/26
- FS 2 and FS 3 site bid packages to be issued in August with award recommendation at 10/12 City Council meeting.
- Materials Testing invite-only RFP to be issued in August
- PMR to provide dashboard update in September
- City Manager to begin coordinating dates with Council for a late-October/early-November groundbreaking event at one of the fire station sites

Areas for Discussion

Site Due Diligence / Budget Items Checklist:

- City of Novi will address any necessary survey and treatment of invasive species for public safety sites

City of Novi Road Project

- Approx. \$18 million, which includes property acquisition and utilities (\$11.5 million "construction cost" for the road itself)
- ~~Council award for Road Project occurred on 8/10~~
- City pre-construction meeting to occur on 8/24.
- PMR's assumption is that it is responsible for activities within the project sites, and that utilities are available at lot line
- ~~FS 2 sewer to be discussed with city administration.~~
- City will be responsible for wetlands, contaminated soils and land clearing of the identified spoils pile at the Public Safety Building Site (if needed), and relocation and/or improvements of public utilities adjacent at Lee BeGole Drive to facilitate the road improvements and PSB project.
- PMR analyzing cost-sharing financial scenarios between Public Safety Project and Road Project activities for items listed above for FAC.

Procurement and Contracts

- Site work/land clearing for FS 2 and 3 to occur 4th Quarter 2026
- Targeting substantial completion of FS 2 and FS 3 by December 2027, with the PSB starting construction in 2028.
- PMR seeking approval of Mechanical/Electrical Commissioning and Furniture, Fixtures and Equipment (FFE) vendor in 4th Quarter 2026.

Buzz Report

August 20, 2026



Hot Topics:

- **FLOCK Camera Signs**

Earlier this week, one of our officers was on patrol overnight and noted a yard sign placed in front of one of the FLOCK cameras in the City. Code Compliance canvassed the City the following day to ensure there were no other signs illegally placed in the right-of-way.



- **Deer Population Concerns**

While residents may encounter deer in neighborhoods and some homeowners experience landscape damage, local data does not indicate that Novi has an overpopulation requiring a deer management program. During the period reviewed (January of 2025 through July 29, 2026) Novi recorded 2,101 reported crashes citywide, with 122 (approximately 6%) involving a vehicle and deer. The Novi Police Department has indicated that these numbers do not currently present a public safety concern. Deer population management is a complex issue regulated in part by the Michigan Department of Natural Resources and must consider local data, habitat, environmental impacts, public safety, and community priorities. At this time, Novi does not have a deer management program underway.

- **Start of 2026 NSRP and Associated Tree Removals**

Work for the 2026 NSP (Neighborhood Sidewalk Program) began on **Monday, July 13th, 2026**. The initial work will be contractor PPM mobilizing to begin tree removal's in previously marked and notified locations where tree removals are to occur as part of the NSP program throughout the City of Novi.

The subdivision of WESTRIDGE DOWNS work will be executed starting in September, this includes all sidewalk and tree work along WESTRIDGE LN, and GALWAY Dr.

Once the tree removals are complete contractor Major Construction Group will begin sidewalk/concrete work. The first three subdivisions that Major will be working in will be North Haven Woods, Haverhill, and Woods of Novi. Once completed in these three developments, Major will continue working through the remaining subdivisions included in this years NSP program. Sidewalk panel marking / notifications via door hangers and yard signs will occur 2-3 weeks ahead of Major beginning work, with a final notification flyer being distributed approximately one week ahead of concrete work beginning.

Community Relations, in coordination with the Department of Public Works (DPW), sent an informational letter to addresses in the following subdivisions where a tree is marked for removal to help explain the program, the reason trees are being removed, and the possibility of trees being replaced once the program is completed: North Haven Woods, Haverhill Farms, Woods of Novi, Whispering Meadows, Westridge Downs, Royal Crown Estates, Addington, Broadmoor Park, Mockingbird, Simmons Orchard, Cedarspring Estates, Settlers Creek, Camborne, and Homestead Condos.

The Sidewalk Repair Program webpage has also been updated with the latest information. You can see example of the signage and door hangers to be used on the webpage: <https://cityofnovi.org/sidewalkrepairprogram/>

Great Lakes Water Authority (GLWA) Status Update:

14 MILE TRANSMISSION WATER MAIN REPLACEMENT: **The long wait has finally come to an end, The contractor fully reopened 14 Mile Road for the full length on Tuesday, August 4th!** They will utilize temporary traffic markings for a few weeks until RCOC's pavement marking contractor can place the permanent ones. There is also a fair amount of restoration (minor grading, planting grass and replacement trees, and irrigation fixes) needed on the overall project which will be done under flag control and intermittent lane closures.

<https://www.glwater.org/14milemainproject/>

Road Construction Projects:

At City Council's request the Administrative ePacket will now include the Weekly Road Construction Updates put together by our Department of Public Works engineering team. This same information is used to update the Better Roads Ahead section of the City webpage in a more easily digestible format for the public <https://cityofnovi.org/betterroadsahead/>

Community and Economic Development Project Updates:

[Map of Development projects](#)

[Development Projects Webpage](#)

- **Sumo Japanese Grill – 42658 Grand River Ave**

With existing locations in Livonia and Canton, Sumo Japanese Grill recently opened in Novi, offering fast-casual Japanese hibachi-style meals featuring grilled chicken, steak, seafood, vegetables, rice, and noodles.

- **AG3 Labs**

AG3 Labs is a Michigan-based defense technology startup that grew out of engineering research and entrepreneurship at Michigan State University. The company has developed autonomous, low-cost drone systems for military training and counter-drone applications. In 2025, AG3 Labs was one of four global winners of the U.S. Army's xTech Counter Strike competition, earning \$350,000, and the company is now advancing to the second round of the Army's [Drone Dominance Gauntlet](#) at Fort Carson, Colorado.

- **Garner White - 27775 Novi Rd**

Gardner White is relocating its Novi showroom from West Oaks to a new location at 27775 Novi Road, opening August 20.

- **Stars + Honey**

Locally founded protein bar company is opening a manufacturing facility in Novi after expanding its distribution from direct sales to contracts with Target and Costco. Sales have grown roughly 300% over the past 14 months and the company expects \$50 million in revenues this year.

- **Townes at Haggerty** – Haggerty Road just south of 9 Mile

175 townhouses across 26 buildings are proposed on the west side of Haggerty. A public hearing was held before the Planning Commission on May 6th, for their initial review.

- **Hotels at the Adell Center**

Preconstruction meeting complete for Home 2 Suites (5 story/141 rooms), expected start any day. Working to post Financial Guarantees and Schedule preconstruction meeting for Towne Place Suites (5 story/129 guestrooms)

- **Supra Revolving Sushi** (Former Bar Louie) – 12 Mile Crossing

The space recently vacated by Bar Louie is set to become a new revolving sushi restaurant. Permits have been issued and rough inspections are underway. There is not yet a timeline for when they plan to open.

- **Central Park South** – Beck Road, South of Grand River Ave

The former Central Park Estates project has been redesigned and is being treated as a new project by planning. New multiple-family development with 106 units in a single 5-story building. The site improvements include parking on the first level of part of the building, garages, and related open spaces. Final Site Plan is now under review.

- **Providence Meadows** – Grand River Ave, West of Providence Parkway
Proposed rezoning of 31 acres from Light Industrial to High Density Multiple Family to develop 161 townhome units. At the January 14th Planning Commission meeting this project received initial feedback (no votes were taken) and went before Council on May 4th for their initial input. The applicant has resubmitted as a Rezoning/Planned Suburban Low Rise (PSLR) development with 157 units.
- **Grand-Beck Development** – Grand River east of Beck Road
Fuel station, convenience store, and Clean Express car wash to be built on a vacant parcel. Preliminary Site Plan has been approved by the Planning Commission. Final Site Plan is now under review. Estimated Completion Date: Unknown
- **Taft Knolls III** – Taft Rd, north of 10 Mile Rd
The Site plan for a Single-Family Residential Development of 13 new homes is now under construction.
- **North Eight Kitchen & Cocktails** (Former Border Cantina) – Novi Road north of Eight Mile
New restaurant by the owners of Benstein Grille in Commerce. Modified site plan with building additions and remodel has been approved by Planning Commission and Zoning Board. Interior Demolition work has commenced as of September. Permits have been issued and work is underway. *Estimated Completion Date: September 2026*
- **Novi 10** - 10 Mile and Novi Road
Staff sent the developers a draft of the PRO Agreement in early April. Comments have not received any comments back from them so far.
- **Novi Acres (FKA Station Flats)**
The owners of the property between Target and Sam's recently submitted a new Preliminary Site Plan (61 townhome units and a 6,529-square-foot retail building) under the new name of Novi Acres. The previously planned project, known as Station Flats, has been scuttled. The current project is anticipated to be before Planning Commission in July.
- **Camelot Parc/Avalon** by Village of Stonebrook
Townhomes for sale with garages, fewer units (currently zoned PSLR). The development went before City Council on July 27th meeting for final approval of their Planned Suburban Low-Rise (PSLR) Agreement and Concept plan. The associated resolution was approved 5:2.
- **El Car Wash # 2** (former Original \$6 Car Wash) - Novi Road and 96
Permits have been issued. *Estimated Completion Date: August 2026, however, they have several permits that need to be finalized.*
- **Raising Cane's Chicken Fingers** (Former Wendy's) – Novi Rd/Grand River Ave
The Louisiana-based fast food chain Raising Cane's has been approved for operation by Oakland County Health and received a Temporary Certificate of Occupancy. A final Certificate of Occupancy will be issued upon the completion of some outstanding site work. *Estimated Completion Date: [Now Open](#)*
- **Transformco (Former Sears at Twelve Oaks)**

Spaces for [a Dicks House of Sport, Round 1 Arcade and Bowling, and Primark](#). Nearly all the external work has been completed. Construction continues for all 3 future tenants. *Estimated Completion Date*: September 2026 (for Dicks House of Sport). Primark and Round One expected around December 1, 2026.

Ordinance Enforcement Updates:

- **DICE (24555 Novi Rd):** Community Development continues to work with them to clean up graffiti on the back of the building. Their plans for a car wash are set to expire very soon.

Frequently Asked Questions:

1. ***Does the City of Novi have a Policy or Ordinance regarding e-bikes/electric scooters/electric minibikes (especially on sidewalks)?***

Answer: No, The City of Novi does not *currently* have an ordinance regarding e-bikes or similar toys/vehicles. However, we are aware of the increase in such modes of transport and the safety concerns of pedestrians and non-motorized bikers sharing the sidewalk. Policy/Ordinance options regarding the matter are currently being explored.

2. **Does the City of Novi have Flock Cameras installed/in-service?**

Answer: Yes, The City has had several Flock Automated License Plate Reader (ALPR) cameras positioned at strategic roadway intersections throughout the City since the approval of their purchase and installation in 2023.

Detective Sergeant Snell recently provided a memorandum regarding their use in Novi and surrounding communities and can be reviewed [HERE](#).

Additionally, on the morning of Sunday, July 5th, Novi PD discovered someone had tampered with our Flock cameras located at southbound Novi Road at I-96 and northbound Novi Road at I-96. Based on the preliminary investigation, the damage appears to have been intentional. It appears the suspect was unsuccessful in removing the northbound camera on Novi Road, as only three of the four mounting bolts had been loosened. The southbound camera only sustained damage to its solar panel.

During a check of other Flock camera locations, officers identified another incident at the westbound Eight Mile Road and Haggerty Road location, where the mounting bolts had been loosened.



2026 WEEKLY CONSTRUCTION UPDATE

August 18 through August 24

*Please note: Any indication of a project's schedule is only an estimate.
Construction work could be delayed by many factors, such as inclement weather.



PROJECT STATUS

YELLOW	- NOT STARTED	GREEN	- ACTIVE
RED	- STOPPED OR DELAYED	BLACK	- COMPLETE

COUNTY PROJECTS

Project: **NOVI ROAD RECONSTRUCTION/REHABILITATION (8 MILE TO 9 MILE ROADS)**

Prime Contractor: Dan's Excavating, Inc.

Start: April 15, 2025

End: August 30, 2026

Consultant: RCOC - In-House Project Management

Description: See attached link to the right for RCOC construction updates [http://www.rcocweb.org/658/Novi Road 8 Mile Road to 9 Mile Road](http://www.rcocweb.org/658/Novi%20Road%208%20Mile%20to%209%20Mile%20Road)
The Road Commission for Oakland County (RCOC), in partnership with the cities of Novi and Northville, will rehabilitate and reconstruct Novi Road, from 8 Mile to 9 Mile Roads. Phase 1 - relocate utilities (DTE, Consumers, AT&T, etc.) in spring of 2025 - **COMPLETE**; Phase 2 - reconstruct the 'curve' between 8 Mile Road and Allen Drive in summer/fall of 2025 - **COMPLETE**; and Phase 3 - **rehabilitate the remainder of Novi Road from Allen Drive to 9 Mile Road, in 2026. Plans are also to add a continuous center left turn lane throughout the entire section of Novi Road as well as the installation of a High-Intensity Activated Crosswalk or HAWK pedestrian signals, located just north of Gateway Drive.**

Traffic Control/Detours: Pg 4 of 8 - Detour map attached as an appendix

Phase 3 - the contractor will maintain one-way, southbound traffic only. Northbound traffic will be detoured to Beck, 10 Mile, and back to Novi Road.

Work Status:

Construction, closure and detour started on Monday, March 30th. Although, dodging existing utilities along the southbound side slowed progress, the contractor was able to complete the storm sewer, new concrete curbing, and paving of the first two leveling courses of new asphalt. The contractor has flipped traffic onto the newly paved southbound lanes and begun removals and storm sewer installation on the northbound side. **Contractor hopes to have Novi Road reopened around Labor Day.**

Project: **BASE LINE OR 8 MILE ROAD/CSX RAILROAD BRIDGE DECK REPLACEMENT**

Prime Contractor: E.C. Karneffel Co.

Start: March 2, 2026

End: August 31, 2026

Consultant: In-House WCDPS Project Management Staff

Description: See attached link to the right for WCDPS construction updates <http://www.waynecounty.com/departments/publicservices/roads/road-construction-updates.aspx>
The Wayne County Department of Public Services (WCDPS) will be completing the final stage (Stage 3) of construction on 8 Mile Road between Haggerty and Novi Roads which is the bridge rehabilitation and bridge deck replacement at the CSX/Lake State Railway. Stage 1 was the concrete rehabilitation from Haggerty Road to just west of Meadowbrook Road. Stage 2 was completed late last year, milling the existing concrete and placing new asphalt pavement over the top from just west of Meadowbrook Road to the CSX bridge.

Traffic Control/Detours: Pg 5 of 8 - Detour map attached as an appendix

8 Mile Road will be completely closed in both directions at the CSX/Lake State Railway bridge for the full duration of the project. The detour for westbound traffic will be Haggerty Road, south to 6 Mile Road, to Beck Road, and back to 8 Mile Road. Eastbound traffic will be in the reverse.

Work Status:

The closure and construction began on Monday, March 2nd. The contractor is progressing well and expects to have the bridge reopened by Labor Day.

Project: **12 MILE ROAD REHABILITATION (NOVI ROAD TO FARMINGTON ROAD)**

Prime Contractor: Cadillac Asphalt, LLC

Start: July 13, 2026

End: October 30, 2027

Consultant: Internal RCOC Design and Inspection Staff

Description: [http://www.rcocweb.org/721/12 Mile Road Novi Road to Farmington Road](http://www.rcocweb.org/721/12%20Mile%20Road%20Novi%20Road%20to%20Farmington%20Road)
The Road Commission for Oakland County (RCOC) in cooperation with the cities of Novi and Farmington Hills will be rehabilitating 12 Mile Road from Novi Road to Farmington Road over the course of two years, in four, distinct stages (see attached 'Staging Plan'). Stage 1 will take place this summer on the concrete portion of 12 Mile Road between Novi and Meadowbrook Roads and the asphalt portion between just east of Halsted Road and Farmington Road. The plan is to repair the outer lanes first, then repair the inner lanes.

Traffic Control/Detours: Pg 6 of 8 - Staging plan attached as an appendix

The contractor will maintain at least one lane, in each direction throughout the duration of the first stage.

Work Status:

Stage 1 has been divided into two separate phases. Stage 1A started on July 14th in Farmington Hills, from just east of Halsted Road to Farmington Road milling and paving the existing asphalt along with some spot, curb repairs. Stage 1B (Novi to Haggerty Roads) started last week. The contractor continues to remove and replace existing concrete sections of roadway in the outside lanes of both bounds.

Project: **GLWA's 14 MILE TRANSMISSION WATER MAIN REPLACEMENT**

Prime Contractor: Ric-Man Construction, Inc.

Start: January 12, 2026

End: August 15, 2026

Consultant: Brown & Caldwell and DLZ Corporation

Description: <http://www.glestar.org/14miletranswaterproject/>
The Great Lakes Water Authority (GLWA) in cooperation with the Road Commission for Oakland County (RCOC) and the cities of Novi, Walled Lake, Commerce Township, Wixom, and Farmington Hills will be replacing and/or rehabilitating the 42-inch water transmission main along 14 Mile Road from roughly East Lake Drive to M-5. This construction will constitute rehabilitation of certain portions with a Carbon Fiber Reinforced Polymer (CFRP) repair, mainly through the Walled Lake and Wixom areas. All other areas will be an outright replacement pipe.

Traffic Control/Detours: N/A - Detour plans attached as an appendix

14 Mile Road (East Lake Drive to M-5) is still currently closed to eastbound traffic while maintaining westbound traffic.

Work Status:

The long wait has finally come to an end. **The contractor fully reopened 14 Mile Road for the full length, on Tuesday, August 4th.** The permanent traffic markings were also placed along the full length, except for a few stop bars and pedestrian crossings which are expected in the next week or so. There is also a fair amount of restoration (minor grading, planting grass and replacement trees, and irrigation fixes) needed on the overall project which will be done under flag control and intermittent lane closures.

Project: **2026 BRIDGE PREVENTATIVE MAINTENANCE PROGRAM - NOVI ROAD OVER THE CSX RAILROAD**

Prime Contractor: C.A. Hull Construction Company

Start: August 17, 2026

End: September 15, 2026

Consultant: Internal RCOC Design and Inspection Staff

Description: See attached link to the right for RCOC construction updates <http://www.rcocweb.org/658/Bridge-Preventative-Maintenance>
The Road Commission for Oakland County (RCOC) has developed a Preventative Maintenance Program for several of their bridges that does not warrant rehabilitation or replacement. These programs are less intrusive while also extending the usable life of the bridge which is more cost-effective in the long term. One of the bridges selected is the Novi Road bridge over the CSX Railroad tracks, just south of the Main Street/Bond Street intersection.

Traffic Control/Detours: N/A - Detour map is attached as an appendix

The County's contractor will maintain one lane in each direction for the duration of the project.

Work Status:

A pre-construction meeting was held on Tuesday, August 11th. The Novi Road bridge is scheduled to start on Monday, August 24th with closure of the outside lanes first where a bulk of the work is planned.

CITY PROJECTS

Project: BECK ROAD RECONSTRUCTION (GRAND RIVER AVENUE TO 11 MILE ROAD)		
Prime Contractor: Dan's Excavating, Inc.		
Start: April 6, 2026		
End: November 1, 2026		
Consultant: AECOM-Great Lakes		
Description: Through MDOT's Local Agency Project office and federal funding program (\$3.6 Million), the City will be reconstructing and widening Beck Road from Grand River Avenue to 11 Mile Road to five lanes. The plan is to first locate and lower the existing 16-inch and 24-inch water mains in order to install a new large diameter culvert under Beck Road, just south of Heritage Drive. The contractor will begin installing a new storm sewer network along the western edge of Beck Road before construction begins on the road widening. There will also be improvements made to the signalized intersection to the hospital and ADA sidewalk upgrades throughout.		
Traffic Control/DeTours:	Pg 7 of 8	- Detour map attached as an appendix
Most of the preparatory work will be performed off the edge of the roadway. Drivers can expect to see minor lane closures or lane shifts under flag control for this work. Once the actual road work begins, Beck Road will be open to southbound traffic only; most northbound traffic will be detoured using 10 Mile, Novi Road, and Grand River Avenue. Local traffic will still be able to use northbound Beck Road north of 10 Mile, all the way to 11 Mile Road.		
Work Status: Construction of the southbound lanes or west half is now complete. Traffic has been shifted to the newly poured concrete lanes while the contractor continues with cutting the final road grade and adding stone base. Paving is likely to occur by the end of the month.		

Project: NOVI ROAD MEDIAN ISLAND CONVERSION (12 MILE TO 13 MILE)		
Prime Contractor: Merlo Construction Company		
Start: July 27, 2026		
End: September 1, 2026		
Consultant: Spalding DeDecker		
Description: The City will be providing improvements to the center median islands on Novi Road, between 12 Mile and 13 Mile Roads. Improvements will be to deconstruct the current, natural, sunken islands with newly raised, decorative concrete islands along with planter boxes for small bushes and trees.		
Traffic Control/DeTours:	N/A	- Detour map attached as an appendix
One lane of traffic in each direction (outer lanes) will be provided at all times during construction. No closures or detours are expected for this work.		
Work Status: Contractor has completed all the pavement removals and excavation of the existing soil within and around the islands. By the end of this week, the contractor plans to finish pouring new concrete curb and gutter, then starting to place the flatwork concrete in the middle of the islands.		

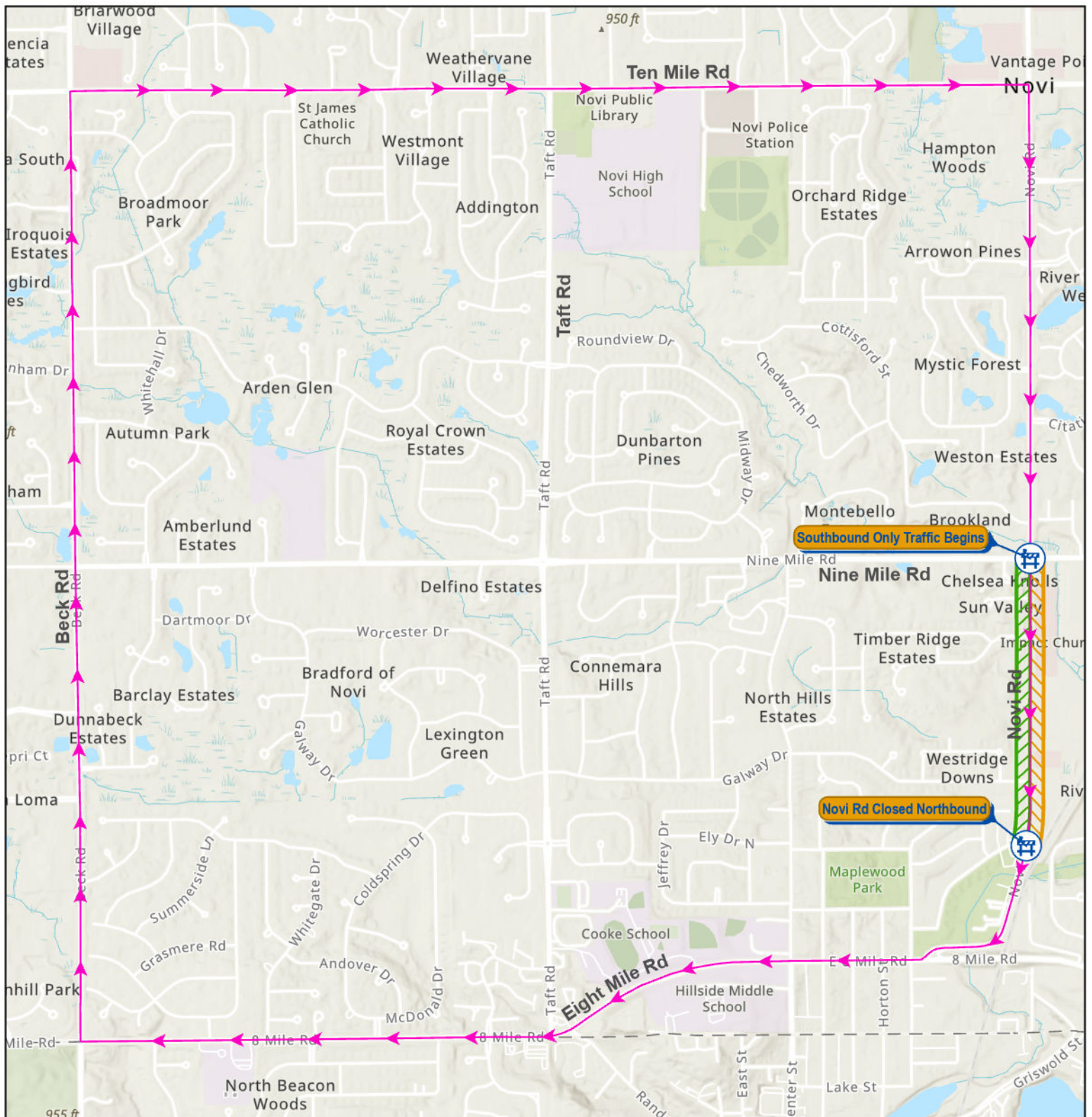
Project: VILLAGE WOOD ROAD RECONSTRUCTION (CRANBROOKE DRIVE TO HAGGERTY ROAD)		
Prime Contractor: Fanson Company, Inc.		
Start: June 8, 2026		
End: September 30, 2026		
Consultant: AECOM-Great Lakes		
Description: The City's contractor, Fanson Company, Inc., will reconstruct Village Wood Road from Cranbrooke Drive to Haggerty Road with new asphalt, concrete curb and gutter, enclosing the ditches, improved storm sewer network, and adding a new, 6-foot wide concrete sidewalk along the north side of the roadway.		
Traffic Control/DeTours:	Pg 8 of 8	- Detour map attached as an appendix
Eastbound traffic will be maintained at all times, no matter which side of the roadway is being worked on. Westbound traffic will be detoured south on Haggerty Road, west on 9 Mile Road, north on Cranbrooke Drive, and back to Village Wood Road for the duration of the project.		
Work Status: All of the new storm sewer, curbing, and final wearing course of asphalt has been installed on the south side of Village Wood Road from Cranbrooke Drive to Haggerty Road. This week the contractor will finish placing all the aggregate stone base in the westbound lanes, in preparation for new curb and gutter. Next week, the contractor will begin paving the first and second courses of new asphalt pavement.		

Project: 2026 NEIGHBORHOOD ROAD PROGRAM - ASPHALT STREETS		
Prime Contractor: Federal Paving, Inc.		
Start: September 1, 2026		
End: November 15, 2027 (Overall Program Completion)		
Consultant: OHM-Advisors		
Description: This will be the first year of a 2026-27 program whereby the City of Novi will be performing asphalt road work (full reconstruction, rehabilitation, and/or repair) in the following asphalt street developments: Vistas of Novi; Camden Court; Meadowbrook Glens; and Stonehenge subdivisions. A full list of streets will be provided on the City's 'Better Roads Ahead' web page once contracts and budgets are finalized.		
Traffic Control/DeTours:	N/A	- detour map attached as appendix
Although, no detours will be necessary for this work, local traffic and directly affected residents should expect delays in access while the contractor is working on their street or directly in front of their homes and driveways. The engineering consultant and contractor will have constant contact with each resident as construction progresses. Parking on the street will not be allowed during actual construction.		
Work Status: Bids have been received and City Council approved the award to the contractor on August 10th. A pre-construction meeting is scheduled for August 27th which will dictate the order and timing of streets for both years.		

Project: 2026 NEIGHBORHOOD ROAD PROGRAM - CONCRETE STREETS		
Prime Contractor: Koala-1 Construction Corporation		
Start: September 1, 2026		
End: November 15, 2027 (Overall Program Completion)		
Consultant: OHM-Advisors		
Description: This will be the first year of a 2026-27 program whereby the City of Novi will be performing concrete road work (full reconstruction, rehabilitation and/or repair) in the following developments: Fairfield Farms; Chase Farms; Mystic Forest; Arden Glen; Broadmoor Park; Bradford of Novi; Westmont; and Yorkshire Place. A full list of streets will be provided on the City's 'Better Roads Ahead' web page once contracts and budgets are finalized.		
Traffic Control/DeTours:	N/A	- Detour map attached as an appendix
No detours will be necessary for this work. Construction will take place on one half of the street at a time and for the most part, traffic flow will be maintained in one direction. Residents located on the half being worked on will need to find another location to park vehicles as no access will be provided during this time. The consulting engineer and contractor will be in constant contact with those affected residents.		
Work Status: Bids have been received and City Council approved the award to the contractor on August 10th. A pre-construction meeting is scheduled for August 27th which will dictate the order and timing of streets for both years.		

CITY PROJECTS

Project: CEDAR SPRING ESTATES WATER MAIN LINING		
Prime Contractor: FER-PAL Construction USA, LLC		
Start: June 15, 2026		
End: August 31, 2026		
Consultant: OHM-Advisors		
Description: The Cedar Spring Estates subdivision has experienced numerous water main breaks over the last decade due to corrosion and deterioration of the existing ductile iron pipe. Instead of a full replacement of the water main which would involve significant excavation and disturbance to the adjacent lands and roadways, the City will be undertaking a placement of a cured-in-place pipe (CIPP) lining of approximately 5,000 feet of 8-inch and 600 feet of 12-inch water main. The project will also involve the replacement of existing valves and hydrants. A temporary water service will be provided to the residents prior to and during construction.		
Traffic Control/Detours:	N/A	- Detour map attached as an appendix
Depending on the locations of work which will vary, there may be some minor lane closures, but two-way traffic will be maintained at all times.		
Work Status: All residents in Stage 1 and Stage 2 have been connected to the temporary services. All of the water main lining, CCTV, chlorination, and testing has been completed. This week, the contractor continues to replace water valves and hydrants. Project is on target for completion by to late August.		
Project: SOUTHWEST WATER MAIN LOOP (BECK, 8 MILE & NAPIER)		
Prime Contractor: TBD		
Start: September 1, 2026		
End: May 15, 2027		
Consultant: OHM-Advisors		
Description: The 2014 Water Master Plan Update identified a large area of the southwest quadrant of the City as having low or insufficient water pressure and fire protection. Therefore, this project will expand the "Island Lake Pressure District" by providing a 'looped' water main connection between 8 Mile Road, Napier Road, 10 Mile Road, and Beck Road. The project will involve constructing approximately 16,800 feet of 12-inch ductile iron water main between 8 Mile Road and 10 Mile Road, through the ITC Sports Park, along Beck Road, and Napier Road.		
Traffic Control/Detours:	N/A	- Detour map attached as an appendix
No detours will be necessary for this project, but will involve a moving or 'rolling' lane closure as the work progresses along the roadway. The lane closures will be protected along with flagging personnel.		
Work Status: Plans are currently out to bid and expect a late fall construction start.		
Project: MAIN STREET SIDEWALK, LIGHTING & ROAD IMPROVEMENTS (GRAND RIVER AVENUE TO NOVI ROAD)		
Prime Contractor: TBD		
Start: May 1, 2027		
End: August 15, 2027		
Consultant: AECOM-Great Lakes		
Description: In cooperation with the Corridor Improvement Authority (CIA), the City is moving forward with a plan to make significant improvements to the existing sidewalk, lighting, and road pavements on both the east/west and north/south portions of Main Street from Grand River Avenue to Novi Road.		
Traffic Control/Detours:	N/A	- Detour map attached as an appendix
No detours will be necessary for this project, but may involve small, distinct lane closures at the specific work areas. The lane closures will be protected with traffic cones and barrels along with flagging personnel while the work is actively in progress.		
Work Status: The City is finalizing plans and specifications with the CIA for approval and looking to go out to bid by the end of this month with construction slated for early spring of 2027.		
Project: VILLA BARR PARK CONCRETE PATHS		
Prime Contractor: Mattoli Cement Company, Inc.		
Start: June 17, 2026		
End: July 6, 2026		
Consultant: AECOM-Great Lakes		
Description: City Council requested the paving of the pathways at Villa Barr Park to increase accessibility. Concrete will be placed over the existing aggregate paths as well as providing a new concrete loop around the existing pond.		
Traffic Control/Detours:	N/A	
No detours will be necessary for this work. The park will be closed during the duration of this project which is approximately 30 to 45 days.		
Work Status: The contractor made quick and short work of this project. All of the new concrete paths have been poured and achieved proper strength on the sidewalk. The park has now been reopened to the public. The contractor also spread topsoil and straw mulch along the sides of the new path network. These newly restored areas will need time to fully grow in. We ask that the walking public please stay on the sidewalk and refrain from stepping on the newly seeded grass areas.		
Project: ITC PATHWAY AND BOARDWALK CONNECTION TO BOSCO FIELDS		
Prime Contractor: L.J. Construction Company		
Start: April 25, 2026		
End: August 31, 2026		
Consultant: AECOM-Great Lakes		
Description: Through MDOOT's Local Agency Project office and federal funding program through SEMCOG (\$230,000), the City will be constructing a pathway between the existing ITC Trail and Bosco Fields Park. Construction will involve the placement of a hot-mix asphalt shared use path from the existing ITC Trail, south of 11 Mile Road, easterly to Bosco Fields Park, connecting to Beck Road, including approximately 600 feet of a 14-foot-wide boardwalk.		
Traffic Control/Detours:	N/A	- Detour map attached as appendix
No detours or closures will be necessary for this project. A small area of the southwestern portion of Bosco Fields will be quartered-off for staging of contractor equipment.		
Work Status: All of the helical piers have been installed for the substructure of the boardwalk. Over the next couple weeks, the contractor will continue building the boardwalk. Once complete, they will begin grading and excavating the pathway at both ends of the boardwalk in preparation for new asphalt pavement.		



Novi Rd is **closed to northbound traffic** from Allen Dr to 9 Mile Rd for the duration of this project.

Northbound traffic should navigate around this closure using 8 Mile Rd to Beck Rd to 10 Mile Rd and back to Novi Rd.

- Detour Route
- CLOSED to Traffic
- OPEN to Traffic

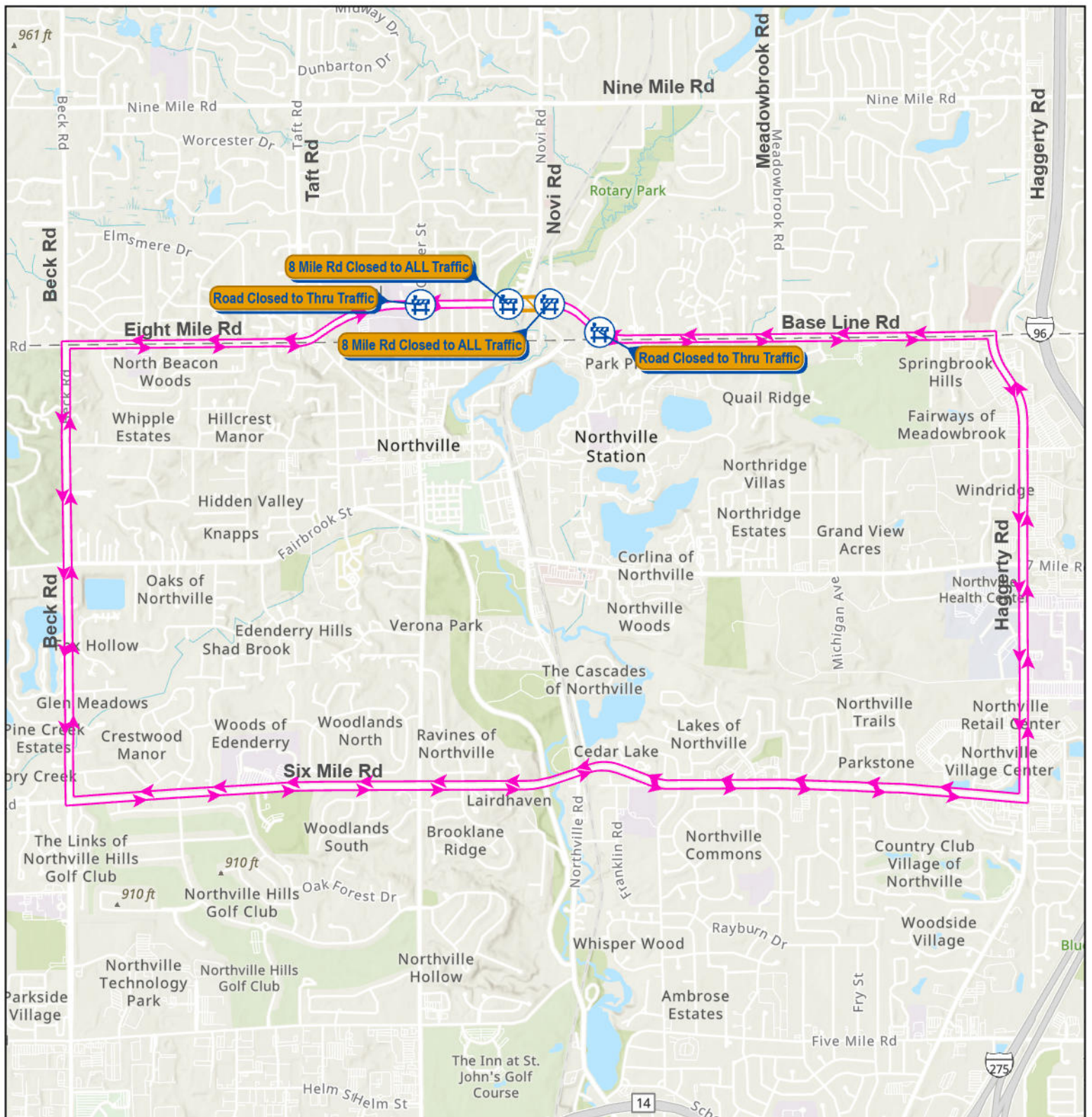


Novi Rd Reconstruction Allen Dr to Nine Mile Rd

0 750 1,500 3,000 4,500 Feet



Map Print Date: 2/24/26
Map Author: K. Blough



8 Mile Rd/Base Line Rd over the CSX railroad tracks will be **closed to ALL traffic** for the duration of the project while the bridge repairs are underway.

The designated detour is 8 Mile Rd to Haggerty Rd to 6 Mile Rd to Beck Rd back to 8 Mile Rd and vice versa.

 Detour Route
 CLOSED to Traffic

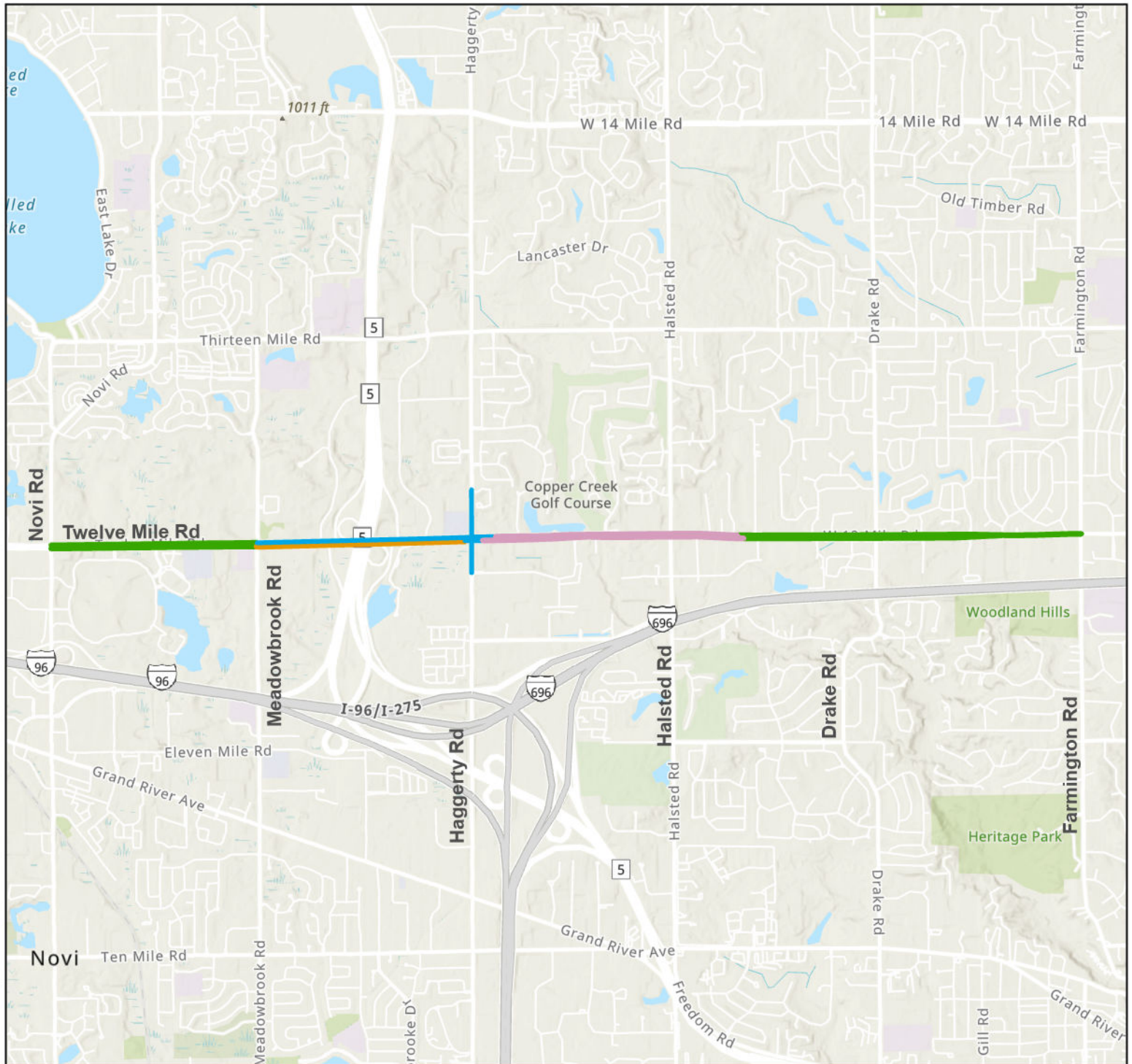


8 Mile Rd at CSX Railroad Bridge Novi Rd to Brickscape Dr

0 1,500 3,000 6,000 9,000 Feet



Map Print Date: 3/14/25
Map Author: K. Blough



Staging Plan

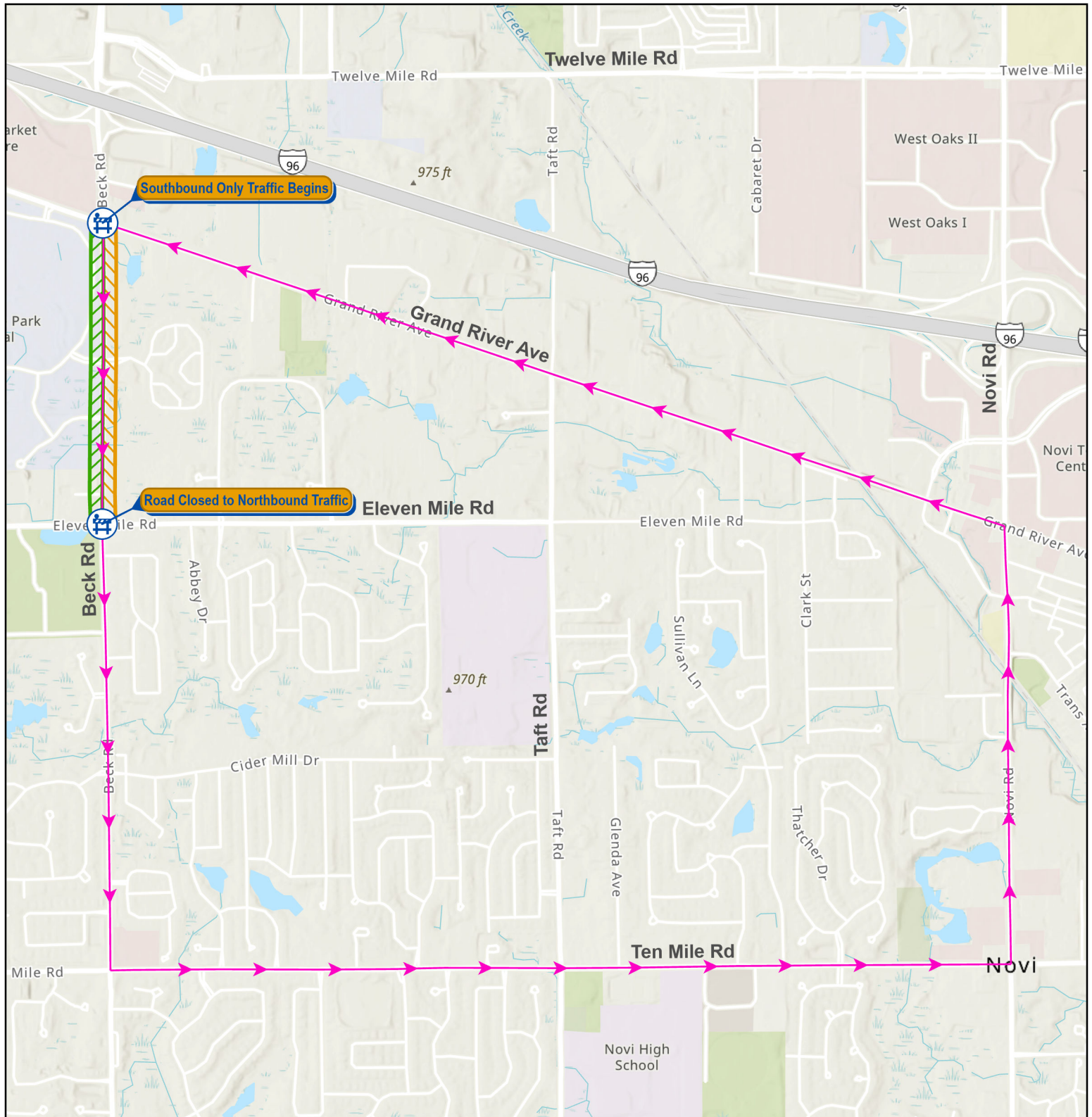
- Stage 1 (Summer 2026): Novi Rd to Meadowbrook Rd & Investment Dr to Farmington Rd
- Stage 2 (Fall 2026): Eastbound from Meadowbrook Rd to Haggerty Rd
- Stage 3 (Spring & Summer 2027): Westbound from Meadowbrook Rd to Haggerty Rd & Haggerty Rd Intersection
- Stage 4 (Fall 2027): Haggerty Rd to Investment Dr



Twelve Mile Rd Rehabilitation Novi Rd to Farmington Rd



Map Print Date: 2/24/26
Map Author: K. Blough



Beck Rd is **closed to northbound traffic** from Eleven Mile Rd to Grand River Ave for the duration of this project.

Northbound traffic should navigate around this closure using 10 Mile Rd to Novi Rd to Grand River Ave and back to Beck Rd.

-  Detour Route
-  CLOSED to Traffic
-  OPEN to Traffic

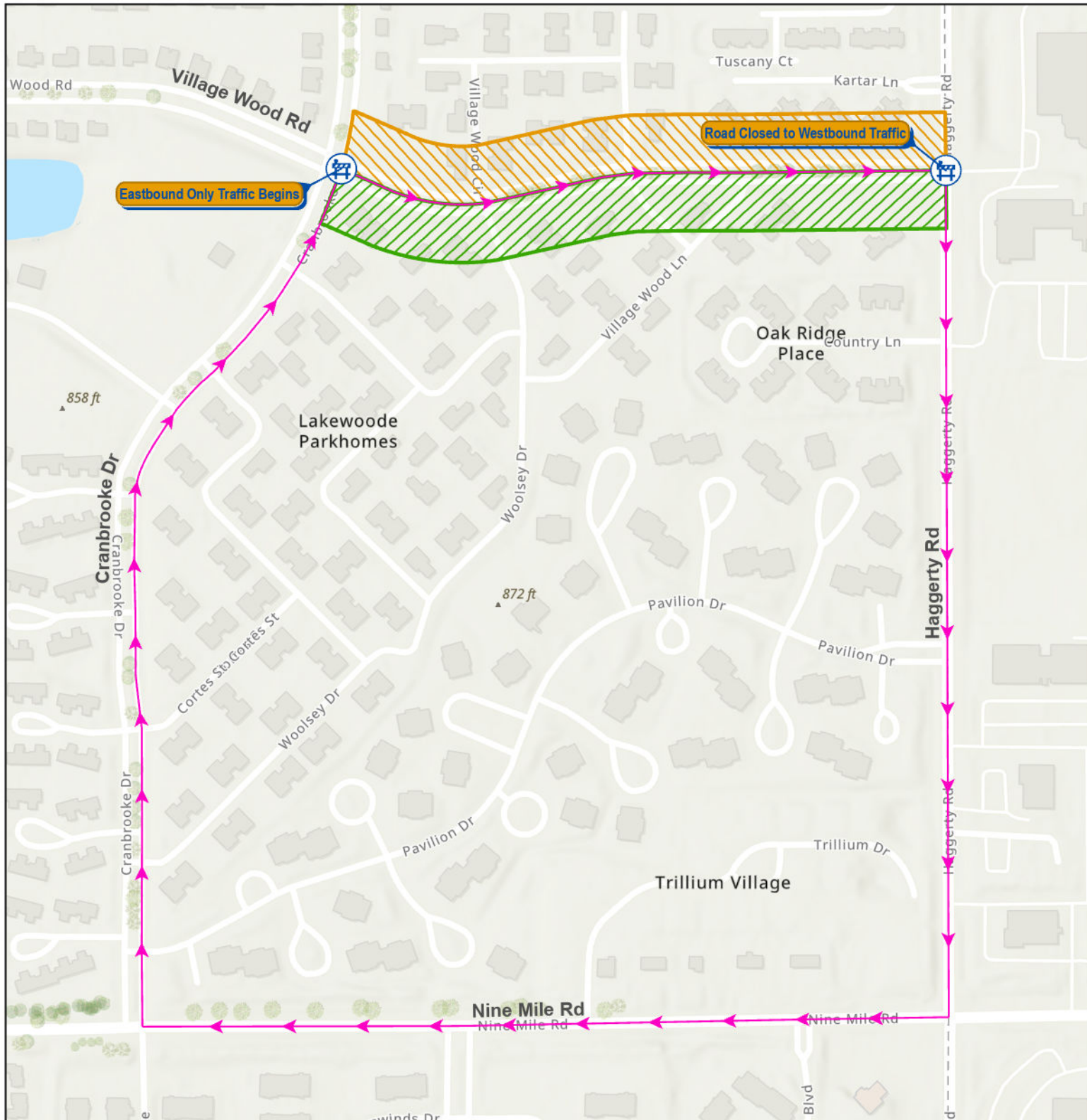


Beck Road Widening 11 Mile Rd to Grand River Ave

0 800 1,600 3,200 4,800 Feet



Map Print Date: 7/15/26
Map Author: J. Gartha



Village Wood Rd is **closed to westbound traffic** from Haggerty Rd to Cranbrooke Dr for the duration of this project.

Westbound traffic should navigate around this closure using Haggerty Rd to 9 Mile Rd to Cranbrooke Dr and back to Village Wood Rd.

-  Detour Route
-  CLOSED to Traffic
-  OPEN to Traffic



Village Wood Rd Reconstruction Cranbrooke Dr to Haggerty Rd

0 175 350 700 1,050 Feet



Map Print Date: 2/23/26
Map Author: K. Blough

MEMORANDUM



TO: VICTOR CARDENAS, CITY MANAGER
FROM: SHERYL WALSH-MOLLOY, DIRECTOR OF COMMUNITY DEVELOPMENT
SUBJECT: COMMUNITY SURVEY
DATE: AUGUST 17, 2026

Mayor and Council –

FYI on the status and plan for the Community Survey, slated to launch next month.

- Victor

The City of Novi has contracted with ETC Institute, an independent research firm that conducts community surveys for local governments, to conduct a statistically valid Community Survey.

In early September, ETC Institute will mail the survey to 4,000 randomly selected Novi households. The survey will ask residents about their experiences, priorities, and perceptions of City services, programs, and the community. The attached letter explains the purpose of the effort and will accompany the survey. Residents selected to participate will be able to complete the survey by mail or online. ETC Institute will collect and analyze responses, and report results to the City in aggregate form.

The City will also make the survey available online to all Novi residents who were not among the randomly selected households. However, responses from residents who were not part of the random sample will not be included in the statistically valid results. This provides an opportunity for broader community input while maintaining the integrity of the formal survey results.

Results are anticipated late this fall. The survey is also designed to allow the City to build on its previous community survey work. Results will be comparable with community surveys conducted through NRC/Polco in Novi between 2006 and 2022. This will allow the City to identify longer-term trends, measure changes in resident perceptions and priorities, and provide valuable context for understanding where Novi stands today.

Results are anticipated late this fall.



September 1, 2026

CITY COUNCIL

Mayor

Justin Fischer

Mayor Pro Tem

Laura Marie Casey

David Staudt

Brian Smith

Matt Heintz

Priya Gurumurthy

Aaron Martinez

City Manager

Victor Cardenas

City Clerk

Cortney Hanson

Dear Novi Resident,

We need your help in understanding what matters most to the people who call Novi home.

The City of Novi is conducting a Community Survey to learn more about residents' experiences, priorities and perceptions of City services and programs. Your feedback will help City leaders better understand the needs of our community and inform future planning and decision-making.

Your household has been randomly selected to participate in this important survey. Because households are selected at random, your participation is especially valuable. Your responses will remain confidential, and results will be reported only in aggregate form.

Please take a few minutes to complete and return the enclosed survey. A postage-paid return envelope addressed to ETC Institute is provided for your convenience. You may also complete the survey online by scanning the QR code below or visiting **cityofnovisurvey.org**.

The City selected ETC Institute, an independent research firm with extensive experience conducting community surveys for local governments across the country, to administer the survey. ETC Institute will collect, compile and analyze the responses and provide the City of Novi with a comprehensive report of the findings.

The results will provide an important snapshot of how residents view our community today and help guide the City as we work to maintain and improve the quality of life and services Novi residents value.

If you have questions about the survey, please contact Sheryl Walsh-Molloy, Director of Communications, at 248-735-5628 or swalsh@cityofnovi.org.

Thank you for taking the time to share your perspective. **Your voice matters, and your feedback will help shape the future of Novi.**

Sincerely,

Justin Fischer
Mayor

Victor Cardenas
City Manager

City of Novi

45175 Ten Mile Road
Novi, Michigan 48375
248.347.0460
248.347.0577 fax

cityofnovi.org

MEMORANDUM



TO: VICTOR CARDENAS, CITY MANAGER
FROM: SHERYL WALSH-MOLLOY, DIRECTOR OF COMMUNICATIONS
SUBJECT: MAYOR'S YOUTH FORUM – DIVERSITY & CULTURAL PROGRAMS
DATE: AUGUST 17, 2026

The Mayor's Youth Forum recently focused on **Diversity and Cultural Programs**, with students discussing what makes them feel welcome in Novi, how cultural diversity has shaped their experiences, and opportunities for the City to expand its programming and outreach.

Key Takeaways

- **Novi's diversity is viewed as a strength and a defining characteristic of the community.** Students consistently described Novi as welcoming and diverse, noting that growing up around people from different cultures has made cultural differences feel natural rather than unfamiliar.
- **Youth value both cultural connection and cross-cultural interaction.** Students appreciated opportunities to connect with people who share their cultural backgrounds but emphasized that the ability to form friendships and learn from people with very different experiences is one of Novi's greatest strengths.
- **Students see schools as a major driver of inclusion.** Teachers, student clubs and school activities were cited as important in creating an environment where students feel welcome and encouraging curiosity about other cultures. There was interest in stronger partnerships between the City and Novi Community School District on cultural programming.
- **There is interest in more opportunities for adults and families to experience cultures together.** Students suggested expanding beyond individual cultural events toward programs that intentionally bring multiple cultures together. Ideas included multicultural festivals, programming tied to cultural heritage months, and events where participants can experience several cultures at once.
- **The City could explore opportunities to promote culturally diverse businesses.** Students identified restaurants, grocery stores and specialty retailers as natural ways people experience other cultures. Suggestions included greater promotion

of culturally diverse businesses and consideration of how economic development efforts could help attract a broader range of culturally oriented businesses and retail.

- **Some cultural representations may be less visible.** Students specifically raised interest in greater awareness of smaller cultural and religious communities in Novi and opportunities to learn about cultures that may not have established school clubs or City events.
- **Recruitment and representation within City government was an important discussion.** Students were asked how Novi could attract more diversity to careers in police, fire and other City positions, as well as boards and commissions. Their suggestions centered on early exposure, visibility and relationship-building, including career presentations, internships, job shadowing, ride-alongs and introducing students to public safety and other municipal career paths while they are still in high school.
- **Keeping young people connected to Novi emerged as a broader issue.** Students noted that many leave Novi after high school for college and careers. The discussion touched on the need to consider what Novi can offer young adults in their 20s, including housing options, career opportunities and reasons to return to or remain in the community.

Overall Impression

The conversation reinforced that Novi's young residents see diversity not simply as a City initiative, but as part of the community's identity. One student offered the idea of viewing Novi as a "tapestry" rather than a "melting pot," reflecting the belief that Novi is strongest when different cultures and experiences retain their individuality while contributing to the larger community.

The next Mayor's Youth Forum is scheduled for **October 29th**.



MEMORANDUM



TO: VICTOR CARDENAS, CITY MANAGER
FROM: BEN CROY, CITY ENGINEER
SUBJECT: PCCP PIPE INSPECTION AND AFO
DATE: AUGUST 20, 2026

The City of Novi has approximately 5.8 Miles of Prestressed Concrete Cylinder Pipe (PCCP), which is a pipe material used for large diameter water mains in the 1960s and 1970s. The pipe was manufactured by a company long since defunct and has been susceptible to catastrophic failures from manufacturing defects. These kinds of breaks have occurred multiple times on the Great Lakes Water Authority's (GLWA) 14 Mile water main and have impacted the water service of seven communities. These events have helped reinforce the importance of proper inspection, maintenance and monitoring of this type of water main. Following the first series of water main breaks, GLWA and the City of Novi chose an inspection method conducted by Xylem (fka Pure Technologies), which involves passing specialized equipment (Pipe Diver) through the live main to identify specific defects and water leaks. Refer to the attached presentation provided to City Council at the August 12, 2019, meeting for further information regarding this inspection methodology.

Given the most recent breaks GLWA has experienced and the unpredictability of these failures, GLWA has decided to improve on the reliance/resilience by adding continuous monitoring capabilities using Acoustic Fiber Optics (AFO). AFO installed within the water main can detect leaks, wire breaks (the primary indicator of deterioration in PCCP) and identify impact and vibration from construction activities. AFO will instantaneously provide notification of such events through Xylem and a monitoring dashboard available to staff. It provides real-time data of the pipe's condition, and if the data collected raises any concerns, plans can be implemented with the goal of addressing concerns prior to failure of the water main.

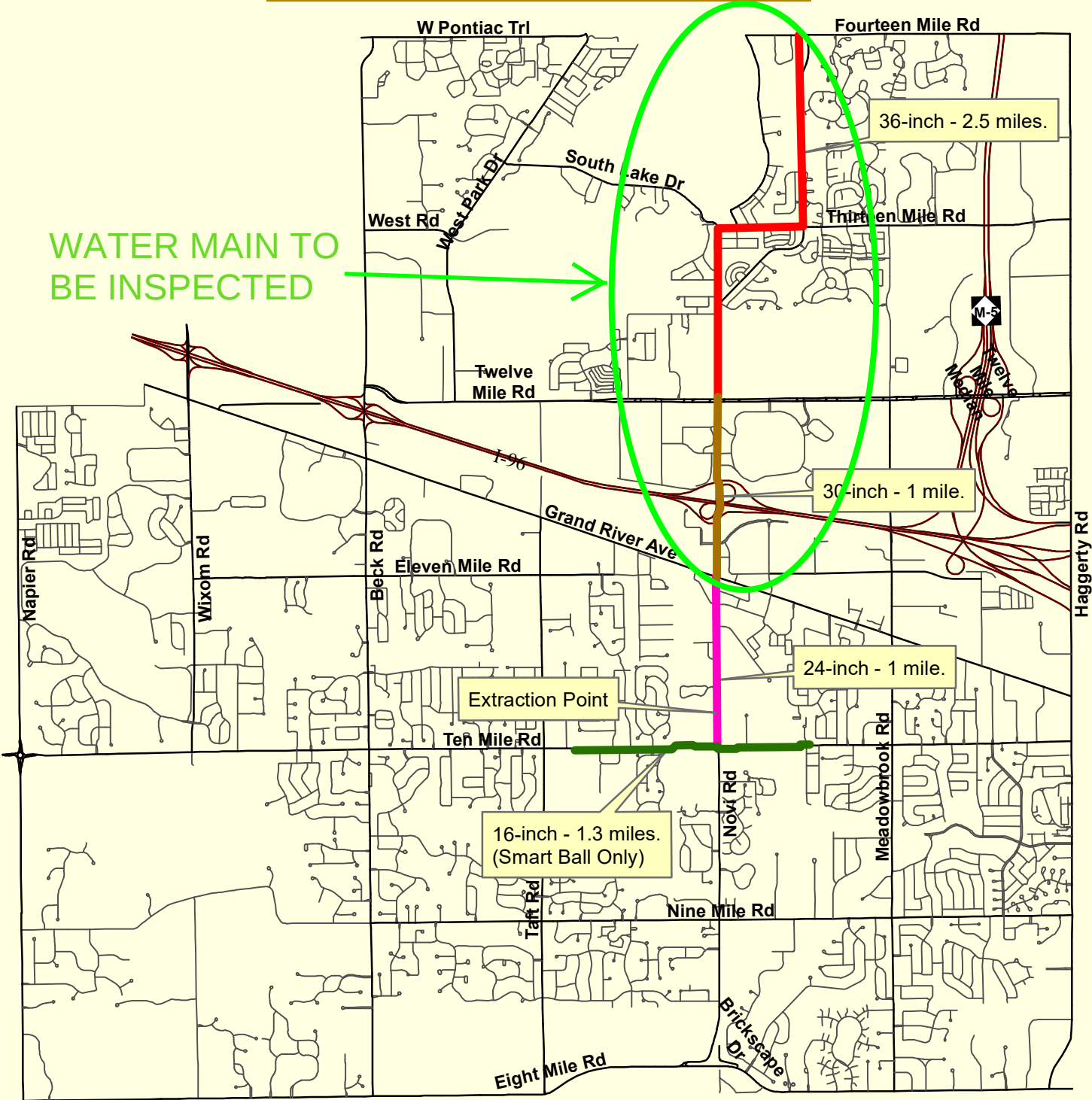
Novi's previous inspection completed in 2020 and 2024 (resulting in one complete inspection of Novi's PCCP) identified four specific areas of concern, which were repaired in 2024 using the Carbon Fiber Reinforced Polymer repair method (CFRP). Due to the growing concern regarding the viability of the existing PCCP main, installation of the AFO in the larger 36 and 30-inch PCCP pipe along Novi Road (14 Mile and Grand River which

includes crossing under I-96), would be a proactive approach to avoid major water service interruptions. This concept was discussed at the June 1, 2026, Finance and Administration Committee meeting. Staff were already in contact with Xylem after the GLWA breaks in fall of 2025 and spring of 2026 and began to develop a scope to install AFO. Xylem has provided the attached proposal for installation of 3.4 miles of AFO followed by continuous monitoring over the next ten years. Xylem offered two payment options; 1) purchase of the AFO equipment, with annual fees for monitoring and equipment warranty, or 2) leasing of the AFO equipment that covers all maintenance, monitoring, and warranty work. This second option avoids purchase of equipment which will eventually be obsolete and is the preferred option.

Prior to the AFO installation, the PCCP pipe will be inspected using the Pipe Diver. Reinspection is necessary to establish a baseline condition status prior to beginning the monitoring period. Another insertion point will need to be installed for the Pipe Diver, involving the replacement of an existing valve with a compatible tee/valve. This work can be done as part of the ongoing valve maintenance program already in progress. The pipe reinspection is ~\$750K and the leasing of the AFO is ~\$300K per/year for 10 years, so the total cost in year 1 is ~\$1M. An agenda item for this recommended program will be on the August 31, 2026 City Council Meeting for consideration.

City of Novi

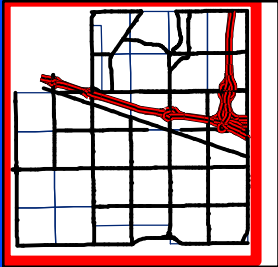
PCCP Transmission Mains



Map Author: Croy
Date: August 2019
Project:
Version #: v3.0

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.



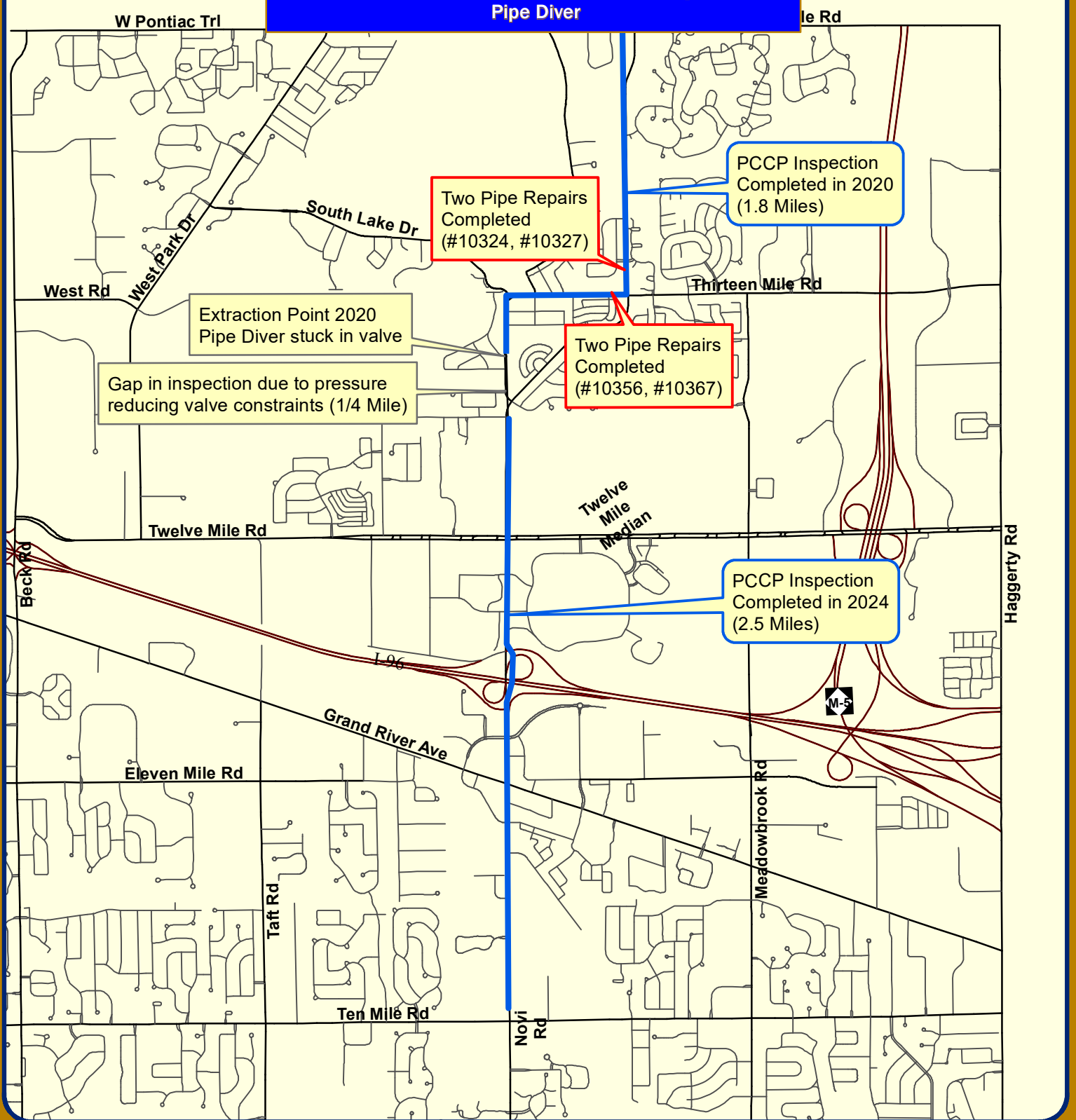
City of Novi

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



PCCP Transmission Main Inspection

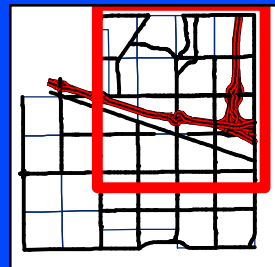
Pipe Diver



Map Author: Croy
Date: August 2024
Project: PCCP Inspection
Version #: v2.0

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City of Novi

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

Feet
0 600 1,200 2,400 3,600
1 inch = 2,936 feet



Department of Public Works Water and Sewer Division

Pre-Stressed Concrete Pipe Assessment and Inspection Program 2019



Pre-Stressed Concrete Cylinder Pipe from GLWA Break 14 Mile Main Break



PCCP Overview



- PCCP is commonly found in water mains
- PCCP can range in size from 16" to 20' diameter
- A prestressed wire is wrapped helically around the pipe providing resistance to internal pressure and external loads
- Designed to handle high pressures



Types of PCCP Failures

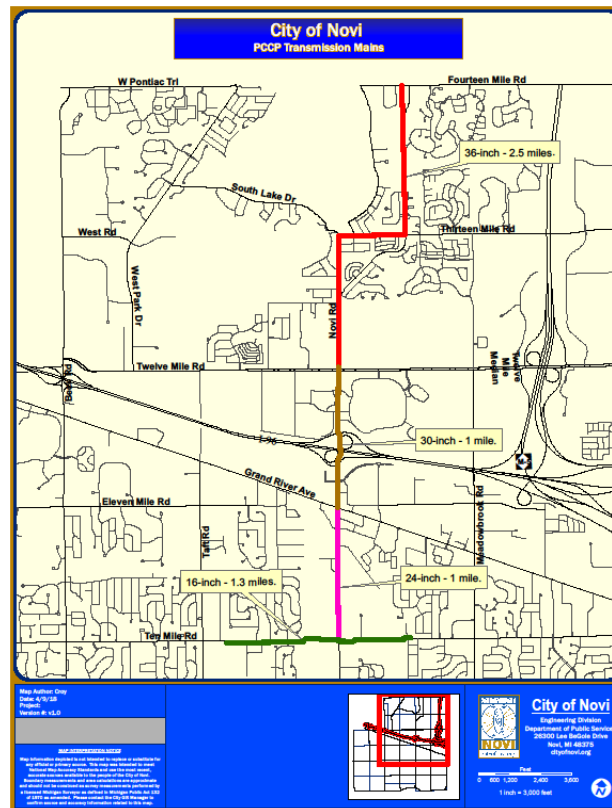
Corrosion



Hydrogen Embrittlement



City has 2.5 Miles of 36", 1 Mile of 30", 1 Mile of 24" and 1.3 Mile of 16" PCCP water main. This is the primary water service for the majority of Novi.



Our goal is to reduce your capital expenditures by focusing repair/rehab/replacement on bad pipe



PCCP Inspection Toolbox

- Transient pressure monitoring
- Leak and air pocket detection (Smart Ball)
- Structural pipe wall inspections - counting wire breaks (Pipe Diver)
 - Electromagnetics
 - Visual and Sounding
 - Forensic investigation and design review
 - Structural assessment
 - Remaining useful life
- Acoustic fiber optic (AFO) monitoring for wire breaks – (Option)



In-line Acoustic Leak & Gas Pocket Detection



- Free Swimming/
Non-Tethered
Hydrophone
- Technology
- Locates leaks and
gas pockets in
transmission or force
mains
- Launch and retrieve
in live flow through
- 4" openings

Structural Pipe Inspection

External



Diameter: Any
Pipe segments
excavated to
springline
Manned system

Free-Swimming



Diameter: 16"+
Pipeline In Service
Free swimming
*SONAR
*CCTV recording

PCCP Pipe Inspection Proposal

- SmartBall – Identification and location of any leaks and/or air pockets in the pipeline as well as ARV installation recommendations.
- PipeDiver - Identification and location of the estimated number of broken prestressing wire wraps within each PCCP pipe section inspected.
- Xylem will also provide transient pressure monitoring and structural modeling (FEA curves) to determine the significance of any defects detected.
- Pure Technologies typically provides a presentation summarizing draft results to stakeholders to facilitate review of the draft report.

Summary

- Budgeted in 2019-2020 FY
- Scheduled to start fall 2019
- Preventive and proactive maintenance with the goal to prevent a catastrophic failure
- Failures result in \$\$\$ and loss of service
- Projects can be planned and more cost effective with control of service maintained
- Same program GLWA just completed first phase of inspection





Proposal for

Acoustic Fiber Optic PCCP Pipeline Monitoring
36 and 30-inch Novi Road PCCP Transmission
Main

SoundPrint[®] AFO

June 18, 2026

Ben Croy
City Engineer
City of Novi Department of Public Works

RE: Acoustic Fiber Optic PCCP Pipeline Monitoring

Dear Mr. Croy:

Pure Technologies U.S. Inc., a Xylem brand, is pleased to offer our services to the City of Novi (Novi) for monitoring the Novi Road PCCP transmission main. The project scope includes monitoring of approximately 3.4 miles of 36 and 30-inch diameter prestressed concrete cylinder pipe (PCCP) potable water pipeline. The planned length for the installation will begin at station 6+20 and end at Station 58+92 near the end of the 30-inch PCCP. We propose using our SoundPrint® Acoustic Fiber Optic (AFO) pipeline monitoring system to identify and locate individual wire breaks and leaks in the pipeline in near real-time. In order to define a baseline condition prior to beginning monitoring, Pure Technologies also proposes to conduct a wall condition assessment prior to the AFO system deployment.

Globally, Pure Technologies has monitored more than 1,000 miles of pipeline and offers a dedicated long-term support team with extensive SoundPrint AFO experience as well as pipeline condition assessment experts to help utilities better understand the AFO results.

Pure Technologies is a recognized industry leader in the inspection, assessment, and management of pressurized water and wastewater pipelines, having built a reputation of providing state-of-the-art and innovative solutions. Pure Technologies has more than 200 engineers and scientists dedicated to this purpose, many of which have taken leadership roles in the industry's recent initiatives to assess pressurized pipelines experts across the nation.



Evan Biedenbach
Business Development Manager
Pure Technologies U.S. Inc.
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evan.biedenbach@xylem.com



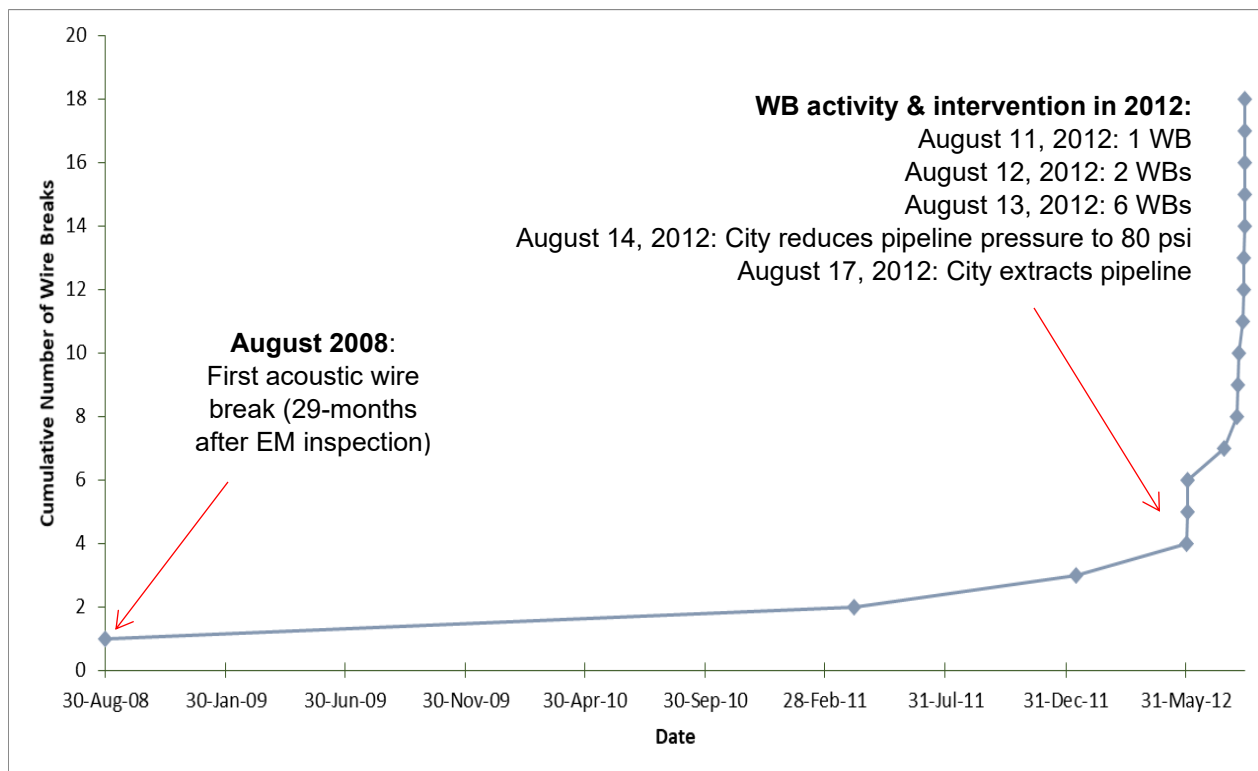
Mike Garaci
Director, Business Development Manager
Pure Technologies U.S. Inc.
416-574-4446
mike.garaci@xylem.com

Continuous Monitoring for Managing PCCP

Prestressed concrete cylinder pipe (PCCP) is a robust and economical option, and therefore common choice, for large diameter water transmission pipelines. While PCCP has a proven track record of low distress rates, when a pipe does fail it does so in a sudden and catastrophic manner, causing owners and communities millions of dollars in system failures, emergency repairs, and potential pipeline replacement.

Historically, electromagnetic (EM) inspections have been used to identify broken wires in PCCP. Although EM inspections allow us to evaluate the current distress and related structural integrity of each pipe at the time of the inspection, they do not provide actionable data with respect to any potential continuation of broken prestressing wires. While Pure Technologies can utilize existing data from EM inspections to perform a statistical analysis to project future wire breaks and remaining useful life of pipes, such an approach has inherent risk associated with the time between periodic EM inspections.

The difficulty in trying to predict a reasonable re-inspection schedule that is both cost effective and provides reliable data is that the wires on prestressed concrete cylinder pipe do not fail in a linear regression. Rather, wires breaks tend to occur in an exponential regression as they near failure, with a resulting failure of the pipe within a short duration once the exponential regression initiates. The figure below demonstrates the typical exponential regression of wire breaks on PCCP in a water transmission main that was trending towards failure. This pipe was being continuously monitored 24/7 at the time, utilizing Pure Technologies' SoundPrint® acoustic fiber optic (AFO) monitoring system.



When the pipe experienced a significant increase in wire break activity, the client was immediately notified and the pressure in the line was reduced until it could be shut down for excavation, validation, and repair/replacement—avoiding the loss of service to customers as well as a potentially catastrophic rupture resulting in collateral damage requiring emergency response.

The photographs below were taken of the excavated and exposed pipe and associated wire break regression shown above.



Excavation



Damage evident



Inspecting the damage



Wire Breaks



Damage concentrated in 9' section



Damage

AFO monitoring systems have also documented increased wire break activity associated with the depressurization and re-pressurization of a PCCP water main, further demonstrating that pressure and flow management are important to effective management of water mains. Given the exponential degradation of low to moderate PCCP, as well as good pipes experiencing an initiation of wire breaks, static EM inspections do not provide an understanding as to how active wire breaks are occurring, or how rapidly they will continue to degrade.

Pure Technologies proposes to mitigate risk associated with potential failure of pipe and extend the remaining useful service life of the Novi Road PCCP water transmission main through the design, furnishing and installation of a permanent and continuous acoustic fiber optic monitoring system to detect and record wire breaks in near real time for each prestressed concrete cylinder pipe.

SoundPrint® AFO Overview

Most structural failures in PCCP result from a breakdown of the exterior mortar coating leading to corrosion or hydrogen embrittlement of the prestressing wire wraps. This breakdown causes incremental wire break damage that continues to grow until the pipe eventually ruptures. A continuous pipeline monitoring system can help detect, record, and locate acoustic events associated with leaks and the breaking of prestressing wires.

- Wire breaks are the primary indicator of deterioration in prestressed concrete pipelines; early detection is key to preventing failures and operational disruptions.
- Leak detection is an effective complement that helps utilities address additional failure modes, such as leaking features, damage from third parties, and issues at the pipe joint.
- Other anomalous events due to third parties, such as construction activity, can indicate disruptions or operational deficiencies to the system.

With near-real-time data collection pipeline owners are empowered to proactively manage their assets with greater confidence, reducing the risk of dangerous and expensive failures and unplanned operational expenses.

The SoundPrint® Acoustic Fiber Optic monitoring system detects and locates these wire breaks, leaks, and other threats. SoundPrint AFO is a proven solution that leverages more than 20 years of experience to reliably and continuously monitor wire breaks in PCCP, the primary indicator of degradation in this pipe type. With this advanced warning system and a dedicated support team, utilities can determine the condition of critical pipelines and take preventive action to avoid large-scale failures.

The SoundPrint AFO acoustic monitoring system consists of a data acquisition system (DAQ) connected to single-mode optical fibers that are bundled in a reinforced “AFO cable.” Lasers are used to project light down the fibers and the DAQ system monitors reflections generated by the acoustic activity in the pipeline.

The acoustically sensitive SoundPrint AFO cable acts as a sensor throughout its length of deployment; the source of the noise activity (i.e., wire breaks or leaks) is never further away than a pipe diameter as shown in **Figure 1**. With the distinctive high frequency noise signature generated by a wire break or leak and the sensor’s proximity, the SoundPrint AFO system reliably detects and locates anomalies in near real time. To detect leaks the SoundPrint AFO system records the entire line periodically instead of waiting for a trigger, based on changes from the baseline scan established at commissioning, the system is able to identify leaks as small as five gallons per minute. Up to 12.5 miles (20 km) of pipeline can be monitored from a single DAQ location and 25 miles (40 km) from a dual DAQ.

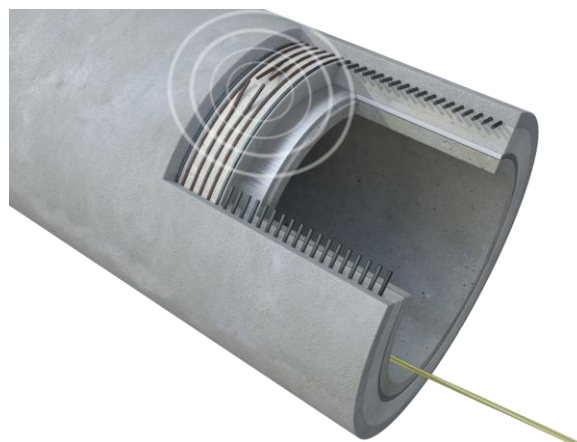


Figure 1: Acoustic Fiber Optic cable detects the energy released when a prestressing wire fails

Wire break and leak events are located along the fiber optic cable and are then mapped to a pipeline location by our expert data analysts. Upon classification of the event, the pipeline operator receives an email alert of the event with details being available on a GIS-based website. This precise and prompt knowledge of the deterioration of individual pipes within a pipeline allows operators to optimize their capital budget and maximize the life of their assets. Near-real-time data collection empowers pipeline owners to proactively manage their assets with greater confidence, reducing the risk of dangerous and expensive failures and unplanned operational expenses.

Implementing a SoundPrint AFO monitoring system features two distinct project phases:

- **Installation of the system**, often paired with an electromagnetic (EM) inspection to establish a baseline of deterioration, will typically take from three to six months from the notice to proceed and will conclude with the system commissioning.
- **Monitoring and Warranty** will commence once the system is commissioned and will continue for as long as the operator desires the service.

Electromagnetic Baseline Inspection with PipeDiver PCCP Inspection

Concrete core compression and structural strength of a PCCP, such as the Novi Road PCCP transmission main, comes from tension in the pipe's prestressing wire wraps. When wire wraps break and core compression is lost, the pipe can yield under its internal pressure and can fail in a quick and catastrophic manner. An electromagnetic (EM) inspection can identify where prestressing wire wraps have broken and can allow for proactive management of PCCP prior to failure.

The project scope detailed in this proposal leverages our PipeDiver® inspection platform with EM technology to inspect the current condition of the Novi Road PCCP transmission main for broken wire wraps.

The best way to proactively manage any pipeline is to better understand its health using proven condition assessment solutions combined with advanced analysis. A comprehensive condition assessment of PCCP water pipeline involves deploying inspection tools to accurately assess the health of the buried infrastructure along with advanced engineering analysis to provide a clearer understanding of risks that inform short- and long-term repair and replacement strategies. We propose a condition assessment initiative for Novi.

1. **Inline Wall Inspection** identifies and locates broken wire wraps to provide a critical baseline for pipe degradation. The PipeDiver® platform is a free-swimming condition assessment tool that is easy to deploy and operates while the pipeline remains in service. This will update the baseline inspection data to current condition before installing the AFO System in the transmission main.

PipeDiver

The PipeDiver platform, as shown in **Figure 1**, provides accurate, detailed pipe wall condition data to inform proactive management decisions. Pure Technologies' industry-leading, patented EM technology can locate groups of as few as five broken wire wraps along the length of the pipe. Dig

sheets are provided alongside the PipeDiver report to help Novi accurately locate any pipe in question.

The PipeDiver platform is flexible, offering a number of insertion and extraction options to meet various operational requirements. While the tool can be inserted into a live pipeline under pressure, it is more commonly inserted through a depressurized appurtenance. Extraction options also vary and include nets or grates to stop the tool. The tool can be extracted through a depressurized appurtenance or retrieved at a reservoir, chamber, or tank.

As the platform travels through the pipeline, field crews track the tool from above ground at regular intervals. The PipeDiver platform's flexible design allows it to navigate valves and bends in the pipeline. The tool can also travel long distances in a single deployment.

An overview of the PipeDiver platform inspection process is shown in **Figure 2**.

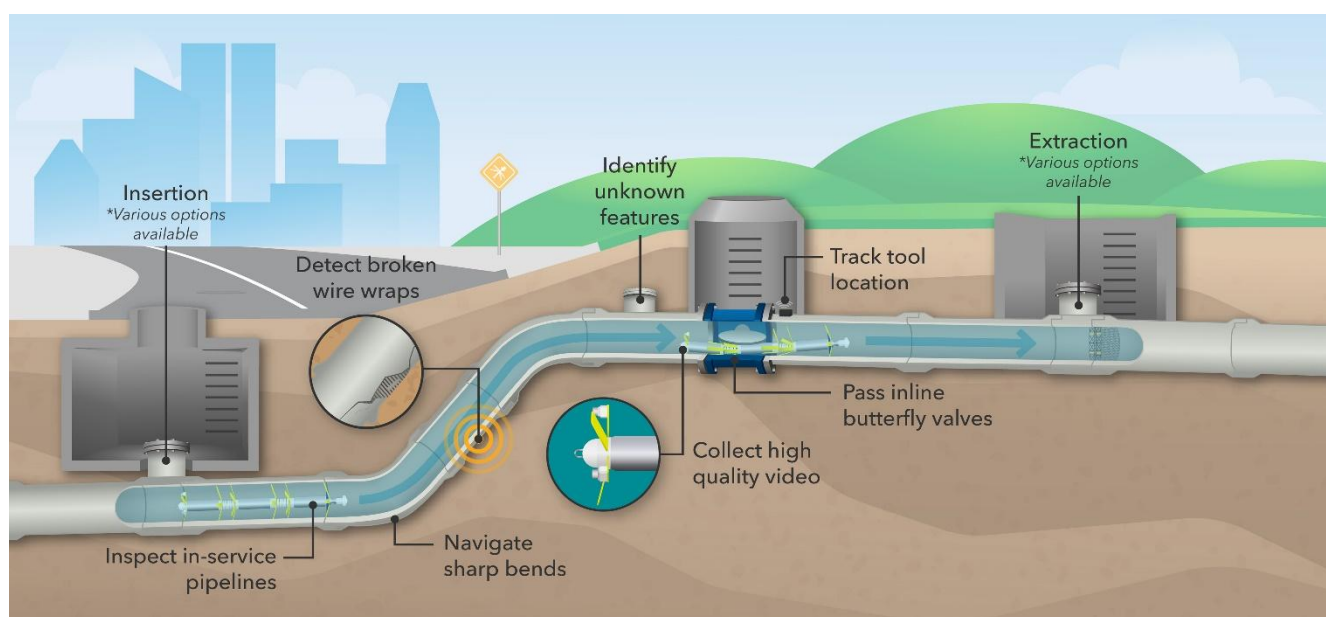


Figure 1: PipeDiver Inspection Overview

PureRobotics Inspection

The PureRobotics platform consists of a modular tethered robotic vehicle capable of numerous configuration options for inspection of small, medium, and large diameter depressurized PCCP pipelines. The vehicle traverses the pipe using independently operable tracks to offer inspection deployments greater than one mile from an access point. A trained operator navigates the vehicle and controls a high-definition pan-tilt-zoom camera with high-intensity LEDs for visual inspection. Simultaneously, an electromagnetics technician monitors electromagnetic (EM) data live and can direct a closer look at visual anomalies that may correlate with collected data. High-definition video and two sets of EM data (forward and reverse pass) are recorded for detailed post inspection analysis. Analysts then identify, quantify, and locate areas of broken prestressing wire wraps.

From our experience successfully inspecting pipelines with the PureRobotics inspection platform, we have identified key factors for success for robotic inspections to minimize risk and downtime associated with the inspection.

An overview of the PureRobotics platform inspection process is shown in **Figure 3**.

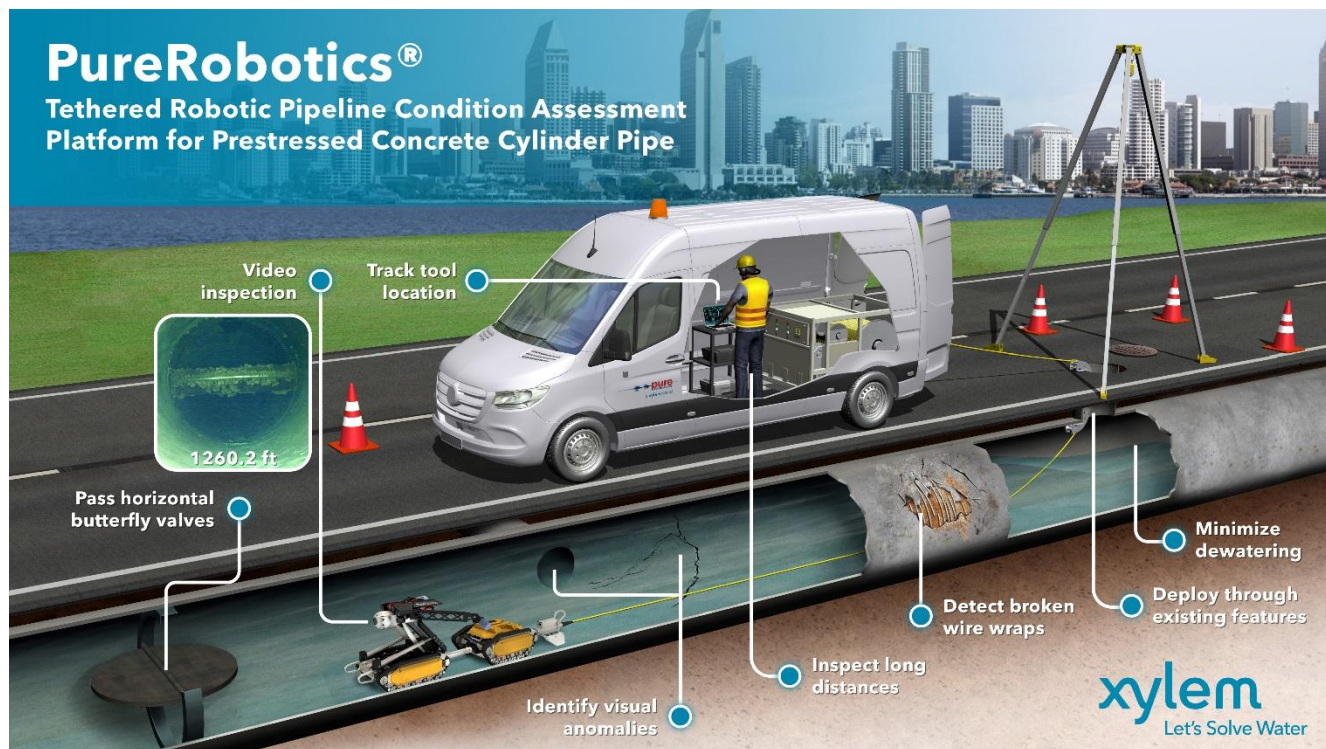


Figure 3: PureRobotics Inspection Platform

SoundPrint AFO System Deployment

The planning process allows Pure Technologies to identify features of the site or the pipe which could prevent a successful deployment and to put steps in place to mitigate the potential risk. We will request from you as much information as possible about the pipeline during our planning process. Based on this information and a preliminary site visit, we will provide you with a detailed Project Planning Document (PPD) prior to commencing our work for your review and feedback.

Once a notice-to-proceed is received, Pure Technologies will begin an iterative design process to optimize the AFO system to the given pipeline that includes the following activities:

- Review all available information on the pipeline and layout a preliminary design.
- Perform a site visit to review suitability of critical locations and meet with client operations staff to discuss any additional considerations.
- Revise system design and develop drawing package and installation plan.
- Submit to Novi for review and comment.
- Develop and submit final revisions.

The PPD will describe execution of the installation process and any necessary support (equipment and personnel) needed to ensure the safe progression of the inspection or deployment team through portions of the pipeline. The planning document improves preparation and communications with all

involved parties and is an important aspect of a successful project. Pure Technologies is dedicated to meeting our clients' needs and will work with Novi to fulfill all submittal requirements.

Installation Approach

The AFO cable can be installed in either a fully dewatered pipeline or into a flowing and operational pipeline. In order to meet Novi's goals, a live installation is proposed for this project.

Live Installation Methodology. The primary advantages of the live installation method with a fully operating pipeline include not requiring the line to be taken out of service or requiring personnel to enter the pipeline. However, the method cannot be used in extremely high or low flow conditions, in pipelines with numerous bends, or where chambers are not suitable or cannot be modified for wet installation.

Additional clearance considerations are required to mount temporary pressure stacks for the installation equipment on top of the AFO plumbing stacks. These consist of DN80 (75 mm)/3-inch Victaulic pipes mounted to the Victaulic nipple on top of the blow out preventer. Typically, 10 ft (3 m) overhead clearance from a stack is required for the Victaulic piping and associated hardware being inserted. As most chambers will not have this unless the taps are under an existing access, an 8-inch (200 mm) core through the chamber lid centered directly above the tap will be required.

Installing and extracting fiber optic cable into and out of a live pipeline is a complex task with many elements:

2. Insert a parachute attached to a string into a live line at the upstream end of a cable run.
3. Allow the flow of the water to carry the parachute downstream to be removed at the extraction site.
4. Catch and extract the parachute downstream.
5. Attach the AFO cable to the string at the upstream location.
6. Set up a hydraulic winch downstream, known as a capstan, to attach to the string and pull the cable into the pipeline.

System Calibration and Commissioning

Each DAQ is built and tested in a Pure Technologies production facility prior to delivery to site, then disassembled to ship the sensitive components. Onsite, technicians will remount all the DAQ hardware on the rack and connect the wiring harnesses and the newly installed fiber optic cable. Once assembled and started up, the monitoring specialist team will remotely test and calibrate the full system to monitor the connected AFO cable.

The SoundPrint AFO system determines the location of an event based on its distance along the fiber from the DAQ. Commissioning impacts are performed in order to relate this location to a specific pipeline station and pipe stick. Each commissioning impact requires a minimum of five strikes at each location, to provide redundancy and to eliminate extraneous results. At a minimum, impacts will be completed at all splice points.

As the AFO cable is only anchored at the splice points, any additional slack that remained in the line due to friction during the installation will slowly shift downstream with the flow of water. This slack will

negatively affect the map accuracy, as well as introduce the risk of cable movement wearing the cable jacket at a higher rate. Following the completion of the installation, and refill of the pipeline for dry installs, Pure Technologies will remobilize approximately 4 weeks later to re-tension the cable and update the map. Once this activity is complete, the tension will be rechecked as required during annual maintenance visits.

System Installation Deliverables

- Project Planning Document that outlines the specific extents and locations, by pipe station, of the AFO monitoring system. Extents are based both on locations to be monitored as well as locations of access structures for the installation of the cable and placement of the DAQ unit.
- A review of the record drawings and other documents, including previous inspection and monitoring projects to identify locations of concern. The results of our review of existing hydraulic monitoring and modeling data will be included.
- A description of civil and electrical work required for DAQ site. The site will be chosen based on access to the main and simplicity of the required work to enable DAQ placement. We anticipate that property owned or controlled by Novi will be available for this purpose and that no easement or property acquisition is required.
- Description of permitting needs and requirements.
- System Drawing Package (before installation).
- Installation plan describing the field schedule of cable installation, DAQ placement and any logistical needs associated with the AFO installation.
- Client Manual documenting system installation including details of DAQ placement and cable installation, system calibration, and quality control measures taken during installation and commissioning. This manual will also document monitoring and communications protocols such as wire break notifications and monitoring reports.
- As built system drawings, after installation is complete.

Novi should review and provide comments or approval of the PPD and System Drawing Package prior to mobilization.

System hardware components will be delivered to an agreed upon location for installation on the pipeline, prior to the mobilization of the installation team.

SoundPrint AFO Monitoring and Warranty

Monitoring

Once the cable installed, DAQ is placed and commissioned, the AFO system will commence monitoring the pipeline. This activity is facilitated by a team of Monitoring Specialists and Data Analysts working together to ensure that the system is performing to the expected standards and delivering actionable data back to the client.

To ensure that the SoundPrint AFO monitoring system is functioning properly, several automated system tests are incorporated into the standard operation of the system. A simulated wire break

sound is used to ensure that events are not mistakenly classified as wire breaks. Automated system tests are performed to optimize the sensitivity of the system based on the site-specific pipeline noise conditions.

Given the sensitivity of the system, processing and analysis of data is accomplished in two phases. The first phase is automated and takes place within the DAQ system, whereby hardware and software filters are applied to incoming raw data. By analyzing the characteristics of events of interest, the filters can be configured to reject most acoustic events that are not of interest. This reduces the quantity of data requiring secondary processing. Secondary processing utilizes a combination of automated and manual analysis and classification.

The DAQ uses the AFO cable to identify acoustic events, saves the event data, and transfers relevant data to the Pure Technologies data analysis team. When an event has been analyzed and classified as a wire break or a leak, an email notification is sent to concerned parties with the time and location information. The data will also be available on the web-based PipeView Portal, accessible only to Novi.

Notifications

Notification and communication protocols will be determined and documented in the Client Manual delivered at the end of the installation phase. Typically, during monitoring wire break activities are posted to the PipeView Portal within one business day of each event and sent to Novi via email notifications. Standard notifications include wire break alert, three pipe alarm, and finite element analysis (FEA) alarm.

Wire Break Alert Emails provide the details of a wire break event and include snapshots from the PipeView portal showing information for the affected pipe. All the information from the email is immediately available on the Portal by clicking on the link at the bottom of the email and logging in.

The **Three Pipe Alarm** is generated when three wire breaks are identified and reported on any of three adjacent pipes within 24 hours. This is meant to identify concerning activity in a concentrated area.

A **Finite Element Analysis Alarm** is generated when an FEA curve exists for the class of pipe, and the total number of wire breaks exceeds 80% of Yield Limit at operating pressure.

A **Leak Detection Alert** is generated when a leak signature is detected above the established baseline set at the time of commissioning. Details of the leak will be provided on the PipeView Portal, and Novi will be notified as soon as they are detected. Levels of detectability will vary depending on pressure and size of leak.

External Acoustic Anomalies notification (i.e., events of interest) and their locations related to nearby construction events or activities in the vicinity or directly impacting the pipeline are reported the next business day.

A pipe section that is highly distressed or has seen an increase in the rate of wire breaks can be classified as a “pipe of concern.” Events on these pipes will draw increased scrutiny from Pure Technologies’ analysis team; resulting notifications will draw attention to the concern.

PipeView Portal

Pure Technologies' web-based PipeView Portal is an asset management platform displaying map-based pipeline data allowing users to access up-to-date data on the pipeline and associated inspection, monitoring and assessment results. Developed from utility records including GIS data and as-built drawings, the interactive map displays pipes, joints, and features such as valves, manholes, and reducers.

Each pipe is associated with attributes such as year installed, diameter, material, rehabilitation or replacement dates, and depth of cover, along with inspection and monitoring results. Pipes can be color-coded by material, Finite Element Analysis (FEA) state, monitoring status, or inspection date as selected by the user. Optionally, other data such as pipe risk or condition data could be migrated into the portal from external sources. Inspection data is displayed along the length of the pipeline. Map layers can be turned off or on; more granular details are displayed as the user zooms in on the map.

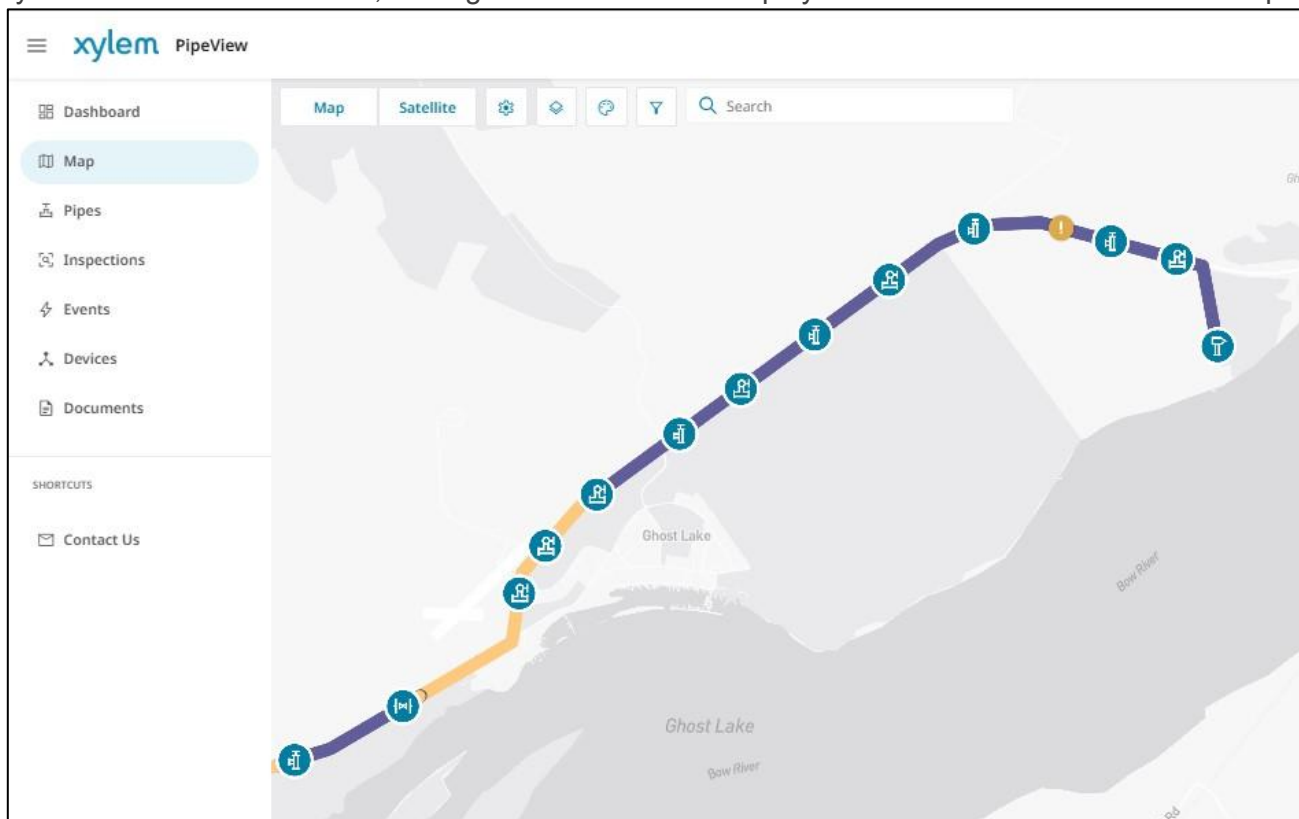


Figure - 2. PipeView Portal Map View

The **PipeView Portal Dashboard** provides a quick glimpse at pipeline statistics such as pipes by material or by inspection type, as well as detailed data on pipeline attributes and inspection and monitoring results.

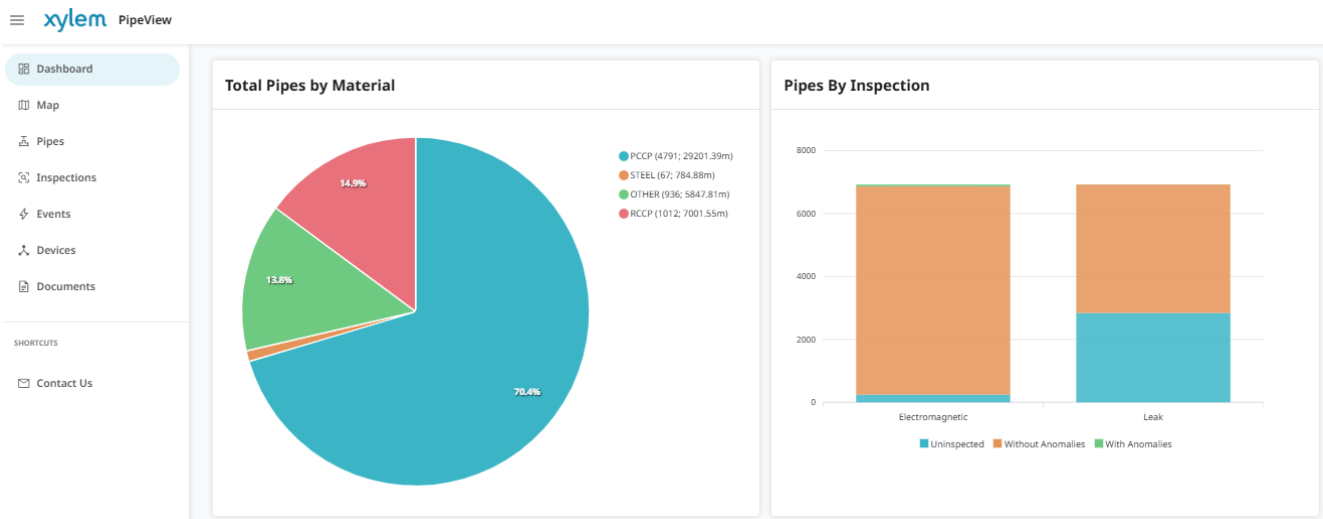


Figure 2. PipeView Dashboard View

The **Pipe Details** page includes information on pipe attributes, inspection types and dates, an FEA curve, wire break trends, operating pressures, elevations, and repairs or replacements. The **Inspection Details** page shows inspections performed on the pipeline along with date, tool, and results. For continuous monitoring installations, the **Devices** page provides information on data acquisition units and the **Events** page details wire breaks and leak events. Records on all detailed pages can be filtered and sorted to support asset management and project planning decisions.

Optionally, users can also access related files such as inspection reports, plans, or videos from an independent shared file repository through this portal.

SoundPrint System Warranty Services

System warranties are provided for the first year of operation with the option to extend long term. The warranty allows Pure Technologies to respond rapidly to onsite equipment issues and ensure system longevity via regular preventative maintenance and as-needed upgrades.

During the regular monitoring of the site, the AFO Monitoring Specialists may identify issues requiring an onsite presence. After exhausting possibilities for identifying and resolving the issues remotely, the Monitoring Specialist will request a qualified technician to visit the site for troubleshooting and remediation.

On an annual basis, Pure Technologies will coordinate with Novi to schedule the maintenance visit. The maintenance for each AFO system addresses four items:

- DAQ maintenance: Inspect, test, and upgrade as required for all DAQ components
 - Any DAQs placed onsite for monitoring are Pure-owned assets, and will be maintained in good working order by Pure, upgraded as needed.
- Cable integrity checks: Test fiber optic cable with optical time domain reflectometer to identify light loss which can negatively affect the monitoring

- Hardware maintenance: Check plumbing stacks for corrosion and leaks, re-tension the AFO cable to extend system life
- System recalibration: Check that the mapping of the fiber optic cable to the pipeline is accurate to ensure quality location information

Novi Responsibilities

It is expected that the activities listed below will be completed by Novi. Requirements will be determined in more detail during the inspection planning process.

- Provide information about the pipeline during the planning stage including, but not limited to, plan and profile drawings, lay sheets, shop drawings, manufacturing details, and details of access structures and appurtenances – if available.
- Designate a site for the DAQ unit with access to the transmission main and electrical supply and provide access to the DAQ site during the monitoring period.
- Ensure the access chambers are available for the duration of the monitoring period.
- Obtain any required legal right-of-entry on the property and notify landowners of access required.
- Provide support personnel during the inspection for locating the access structures, traffic control, valve operation, pump operation, and other support as necessary.
- Provide Pure Technologies with the typical flow velocities and pressures for pipeline operation, and the expected minimum and maximum values for each. If this data is unavailable, Pure Technologies would like the opportunity to verify flow velocities recommended prior to performing the inspection.
- Provide and maintain safe and reasonable access to all work sites throughout the inspection and obtain permits as required.
- Prepare and/or modify existing pipeline fittings and structures as indicated by Pure Technologies to accommodate insertion and extraction of the equipment as outlined in the Planning Document.
- Render confined space areas safe for the services, including lockout tagout of pumps, valves and motors; dewatering chambers and vaults to permit movement of persons and equipment; and vector and rodent control as necessary.
- Excavate, dewater, shore up, and/or provide scaffolding of job area and other civil activity as necessary in compliance with Occupational Safety and Health Administration and local standards and regulations.
- For live pipeline installations, operate the pipeline in a manner that will achieve the minimum required flow velocity indicated in the Planning Document throughout the inspection.

- Conduct any civil activities required to provide access into the pipeline, including, but not limited to excavation, tapping, shoring, valve and pump operation, maintenance of traffic, provisions for rope support, as well as other activities providing access to the necessary valves and appurtenances identified as being critical to the performance of the project. In the instance these services cannot be carried out by Novi, Pure Technologies can procure these additional services on your behalf.

Project Schedule

The preliminary schedule for the installation of this AFO monitoring system is as follows:

Project Schedule	
Task	Timing
Site visit	Within 2- 4 weeks following Notice to Proceed (NTP)
Project Planning Document (PPD)	4 weeks after receipt of NTP (includes baseline inspection and AFO System Design)
Baseline Inspection	4-6 weeks following PPD approval
System Hardware Delivery	Minimum of 90 days following PPD approval
Monitoring Commences	Minimum of 120 days following PPD approval

Proposed Fee and Payment Schedule

Option 1: AFO System Purchase with Baseline Inspection

AFO Components/Equipment				
Category	Unit	Unit Rate	Quantity	Total
SoundPrint AFO Single Data Acquisition Unit (Standalone)	each	\$260,335.00	1	\$260,335.00
AFO cable supply: 4-fiber (Standard)	per foot	\$5.14	20,143	\$103,532.58
Splice Point and Internal Hardware	per splice point	\$15,296.00	13	\$198,848.00
Subtotal AFO Components/Equipment				\$562,718.02
AFO Installation				
Category	Unit	Unit Rate	Quantity	Total
Project Setup, Design Meetings and Coordination	each DAQ system	\$80,850.00	1	\$80,850.00
Installation of AFO cable (< 2 miles)	per foot	\$28.03	10,560	\$295,996.80
(next 2 miles) >2 to 4 miles	per foot	\$23.23	7,532	\$174,968.36
Standby Rate	per crew day	\$11,550.00	TBD	TBD
Subtotal AFO Installation				\$551,815.16

AFO Monitoring				
Category	Unit	Unit Rate	Quantity	Total
Year 1 - Standard monitoring services (wire break, leak detection)	per year per foot	3.67	20,143	\$73,924.81
Monitoring Fee with 2.7% Annual Inflation Adjustment				
Year 1	Year 2	Year 3	Year 4	Year 5
\$73,924.81	\$75,920.78	\$77,970.64	\$80,075.85	\$82,237.9
Year 6	Year 7	Year 8	Year 9	Year 10
\$84,458.32	\$86,738.69	\$89,080.63	\$91,485.81	\$93,955.93
Subtotal AFO Monitoring (10-year Term)				\$750,741.55
AFO Extended Warranty and Maintenance (After Year 1)				
Category	Unit	Unit Rate	Quantity	Total
Warranty for Single Data Acquisition Unit and System Components	per year per DAQ system	\$48,681.00	1	\$48,681.00
Annual Inspection and Maintenance	per year	\$11,330.00	1	\$11,330.00
Annual Maintenance with 2.7% Annual Inflation Adjustment				
Year 1	Year 2	Year 3	Year 4	Year 5
Included	\$11,330.00	\$11,635.91	\$11,950.08	\$12,272.73
Year 6	Year 7	Year 8	Year 9	Year 10
\$12,604.09	\$12,944.40	\$13,293.90	\$13,652.84	\$14,021.47
Optional Annual Warranty with 2.7% Annual Inflation Adjustment				
Year 1	Year 2	Year 3	Year 4	Year 5
Included	\$48,681.00	\$49,995.39	\$51,345.27	\$52,731.59
Year 6	Year 7	Year 8	Year 9	Year 10
\$54,155.34	\$55,617.53	\$57,119.20	\$58,661.42	\$60,245.28
Subtotal Annual Maintenance (10-year Term)				\$113,705.42
Subtotal AFO Extended Warranty (10-year Term)				\$488,552.02
Baseline PCCP EM Inspection Required Prior to AFO Installation				
Category	Unit	Unit Rate	Quantity	Total
PipeDiver PCCP EM Baseline Inspection	lump sum	\$514,367.42	1	\$514,367.42
Pure Robotics PCCP EM Baseline Inspection	lump sum	\$240,400.00	1	\$240,400.00
Subtotal PCCP EM Baseline Inspection				\$754,367.42

Option 1 Payment Schedule

AFO Components/Equipment		
Description	Price	Invoicing Period
SoundPrint AFO Single Data Acquisition Unit (Standalone)	\$260,335.00	Upon delivery to the City
AFO cable supply: 4-fiber (Standard)	\$103,532.58	Upon delivery to the City
Splice Point and Internal Hardware	\$198,848.00	Upon installation

AFO Installation		
Description	Price	Invoicing Period
Project Setup, Design Meetings and Coordination	\$80,850.00	Upon submittal of the AFO System Design Document
Installation of AFO cable	\$470,965.16	Upon installation completion
AFO Monitoring and Warranty		
Description	Price	Invoicing Period
Year 1 Monitoring and Warranty		
Monitoring Services	\$73,924.81	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Warranty and Maintenance	Included	
Year 2 Monitoring and Warranty		
Monitoring Services	\$75,920.78	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Maintenance and Optional Warranty	Per monthly rate	
Year 3 Monitoring and Warranty		
Monitoring Services	\$77,970.64	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Maintenance and Optional Warranty	Per monthly rate	
Year 4 Monitoring and Warranty		
Monitoring Services	\$80,075.85	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Maintenance and Optional Warranty	Per monthly rate	
Year 5 Monitoring and Warranty		
Monitoring Services	\$82,237.9	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Maintenance and Optional Warranty	Per monthly rate	
Year 6 Monitoring and Warranty		
Monitoring Services	\$84,458.32	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Maintenance and Optional Warranty	Per monthly rate	
Year 7 Monitoring and Warranty		
Monitoring Services	\$86,738.69	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Maintenance and Optional Warranty	Per monthly rate	
Year 8 Monitoring and Warranty		
Monitoring Services	\$89,080.63	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Maintenance and Optional Warranty	Per monthly rate	
Year 9 Monitoring and Warranty		
Monitoring Services	\$91,485.81	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Maintenance and Optional Warranty	Per monthly rate	
Year 10 Monitoring and Warranty		
Monitoring Services	\$93,955.93	Upon commissioning of the system, Payable Month 1 of the Quarter, net 30 days
Maintenance and Optional Warranty	Per monthly rate	

Baseline PCCP EM Inspection				
Category	Unit	Unit Rate	Quantity	Total
PCCP EM Baseline Inspection	\$754,367.42	15% - Project Planning Document Submittal 80% - Upon completion of the Inspections per inspection platform 5% - upon submittal of the Draft Report		

Proposed Fee and Payment Schedule

Option 2: AFO System Lease with Baseline Inspection Under one Mobilization

AFO Monitoring		
Description	Price	Invoicing Period
Year 1 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days
Year 2 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days
Year 3 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days
Year 4 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days
Year 5 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days
Year 6 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days
Year 7 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days
Year 8 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days
Year 9 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days
Year 10 Monitoring Services	\$337,000.00	Upon commissioning of the system, \$84,250.00 payable Month 1 of the Quarter, net 30 days

Notes and Assumptions

- Pricing is based on available information provided to date and based on a 10-year binding term. All travel, shipping and related expenses are included.
- Pricing includes furnishing and installing of a four (4) fiber cable that has an NSF approved protective coating. Additional fibers can be provided at an additional fee should the City wish to incorporate said fibers to accommodate communications or other applications.
- Pricing for Option 2 is based on a Subscription Based Pricing Model, whereby Pure Technologies maintains ownership and responsibility for furnishing and installing all AFO

equipment. In turn, Pure Technologies will also be responsible for monitoring and maintenance of the AFO system throughout the duration of the proposed 10-year agreement term.

- Installation fees shall be billed upon completion of tasks as outlined in unit pricing schedule.
- Monitoring fees shall be billed in advance on a quarterly basis as outlined in the Payment Schedule
- Year 1 warranty is included with installation; after Year 1 warranty fees shall be billed on a quarterly basis.
- Pricing as it appears in this proposal is applicable for 180 days. An inflationary increase of 2.7% has been applied to all pricing year upon year for the 10-year monitoring term. Subsequent monitoring years will be subject to CPI annual increase and negotiated prior to the start of the new term.
- Pure Technologies reserves the right to adjust pricing if the annual CPI inflation rate is greater than 2% above the 5-year mean.
- A charge of 25% of the Project Setup, Design Meetings and Coordination may apply should the work be delayed by Novi within two weeks prior to agreed mobilization date. A project delayed into the next calendar year may incur a price increase in the amount of the local Consumer Price Index.
- A stand-by charge of \$10,000 per day will apply if the installation project is delayed by others after mobilization.
- Pure Technologies' liability and insurance for this project are standard as detailed in the Standard Terms & Conditions included with this proposal. Standard Terms and Conditions for monitoring are included in Appendix B.
- All taxes, levies, duties, tariffs and other governmental charges, and any incremental increases thereto, shall be paid by Novi. Pure Technologies reserves the right to adjust pricing and schedule of the affected goods to reflect any impact resulting from tariffs not already included in the proposed pricing. Pure Technologies is not obligated to deliver the goods and/or services until an agreement on the new price and/or schedule has been reached.

Pricing Exclusions

- Cancellation Fee: If for any reason the City elects to cancel the AFO monitoring agreement in advance of completing the 10-year contract commitment (lease option), a Cancellation Fee to recover sunk costs will apply in accordance with the Cancellation Table presented below:

Cancellation Fee Table	
Contract Year Ending	Cancellation Fee
1	\$1,660,437.00
2	\$1,604,138.00
3	\$1,540,698.00
4	\$1,469,213.00
5	\$1,388,661.00
6	\$1,297,894.00
7	\$1,195,615.00

Cancellation Fee Table	
Contract Year Ending	Cancellation Fee
8	\$1,080,365.00
9	\$950,498.00
10	\$200,000.00

- \$200,000 demobilization fee shall apply at the end of the 10-year contract should the AFO monitoring not be renewed at end of term for removal of the system from the City's pipeline. See cancellation Fee Table.
- the City to discuss options. The City will need to furnish a concrete pad for a standalone DAQ or furnish a protective structure with conditioned air in which the DAQ can be installed. ***The City will also need to run power to the DAQ unit (requires one (1) 15-amp circuit and one (1) 20-amp circuit for each DAQ unit.***
- Installation of entry/exit stacks with BOP does not include any logistical support or civil work required to access and prepare the existing manways for the entry/exit stacks and BOP's, nor does it include installation of any interconnecting conduit to bypass in-line valve locations. Bypasses for the AFO cable at in-line valves will require a 4-inch PVC buried conduit between the upstream and downstream access manways.
- Federal, State or Local taxes are not included.
- If additional services are required by the City that are outside the scope of this contract, a mutually agreed change order will be required. Such services might include locating and verifying pipes of interest or pipes to be repaired/replaced, assisting the City with the removal and re-installation of the AFO cable in conjunction with repairs, etc. Such services are addressed under Additional Services.
- Pricing excludes providing safe access to the pipeline and appurtenances, including but not limited to pipeline and vault dewatering and ventilation, access roads, and access to client facilities housing Pure Technologies equipment.
- Safe access to the pipeline and appurtenances, including but not limited to pipeline and vault dewatering and ventilation, access roads, and access to client facilities housing Pure Technologies equipment.

Appendix A: AFO Technology

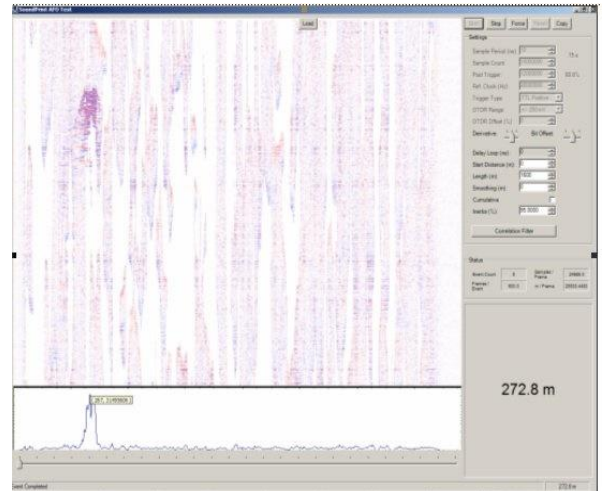
The SoundPrint AFO system will detect, record, and locate acoustic events associated with the breaking of prestressing wires or leaks found in Prestressed Concrete Cylinder Pipe (PCCP). SoundPrint AFO is a patented acoustic monitoring system that consists of a data acquisition system (DAQ) connected to single-mode optical fibers. The optical fibers are bundled in a reinforced cable. Lasers are used to project light down the fiber and the DAQ system monitors reflections generated by the acoustic activity in a pipeline.

Since the SoundPrint AFO cable is acoustically sensitive, it acts as a continuous sensor throughout its length of deployment; the furthest distance the sensor (optical fiber) is from a noise event (i.e. wire break or leak) is one pipe diameter. Given the sensor's proximity to the wire break and the distinctive high frequency noise signature generated by a wire break or leak, the SoundPrint AFO system reliably detects and records events as they occur in near real-time.

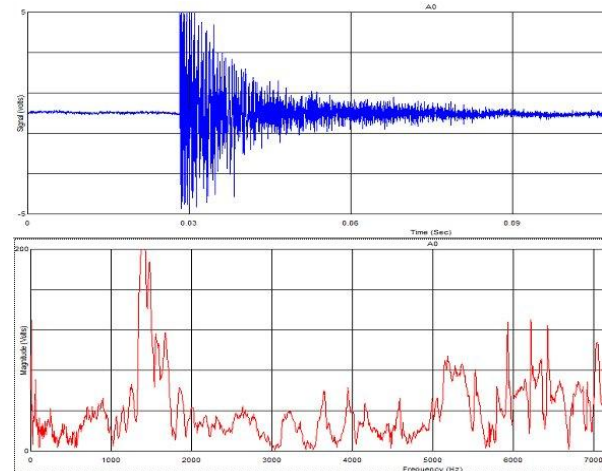
The location of events is determined using an optical time-domain reflectometry (OTDR) technique. This technique, utilizing an ultra-high-speed analog-to-digital conversion, allows location accuracy of +/- 1.5m distances.

Given the sensitivity of the system, processing and analysis of data is accomplished in two phases. The first phase is automated and takes place within the DAQ system, whereby hardware and software filters are applied to incoming raw data. By analyzing the characteristics of events of interest, the filters can be configured to reject most acoustic events that are not of interest. This reduces the quantity of data requiring secondary processing. Secondary processing utilizes a combination of automated and manual analysis and classification.

The DAQ identifies acoustic events along the AFO cable, saves the event data, and transfers relevant data to Pure Technologies central server for analysis. When an event has been analyzed and classified as a wire break, an email notification is sent to concerned parties with the time and location information within one business day. The data will also be available on the PipeView Portal.



The location of an event as determined by the OTDR system. The distance of the event from the DAQ is shown in the bottom right-hand box.



Acoustic information acquired by the DAQ system. Time domain (top) and frequency spectrum acquired by interferometric system

System Components

AFO systems can be broken up into four primary categories: the DAQ, the fiber optic cable, and the pipeline entry and exit details, and in-pipe hardware known as cable protection. The systems are designed for an operating life exceeding 20 years under normal operating conditions, with a maximum

flow rate of 10 ft/s (3 m/s) and a maximum pressure of 250psi (17 bar). Pipelines which operate outside of these ranges should consult Pure Technologies for further options.

Data Acquisition System

Up to 12.5 miles (20km) of pipeline can be monitored from a single DAQ location and 25 miles (40km) from a dual DAQ. Site communication will be provided and maintained by Pure Technologies. The standard DAQ must be placed in a secure, dry space, with no loud background noise. Two independent 15-amp, 120-volt electrical circuits are required for the DAQ and the free-standing AC unit. Standard DAQs are intended for placement inside vaults, pumping stations, or other existing structures.



Standard DAQ and AC

Fiber Optic Cable

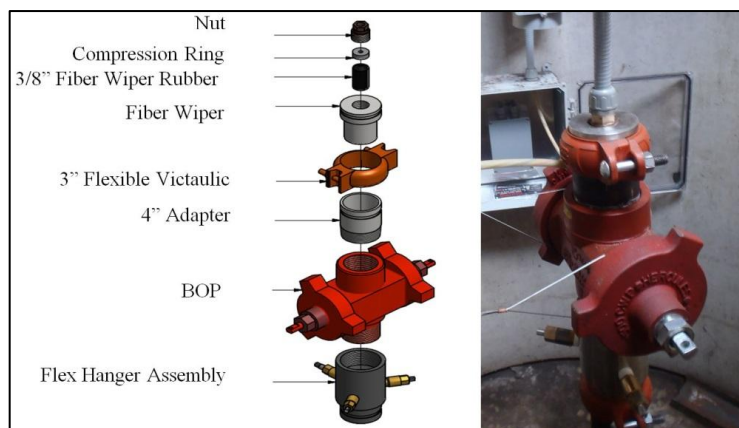


AFO cable in pipe

The fiber optic cable installed inside the pipeline is a custom cable manufactured specifically for use inside potable water lines. The standard cable contains four single mode fibers - an acoustic fiber, a locating fiber, and two spares - with an outer diameter of 0.41 inch (10.3mm). Larger cables are available with six, eight, and ten fibers for non-standard applications.

Entry and Exit Details

The cable enters and exits the pipeline via a plumbing stack, connected to the pipeline via a client-furnished connection typically with an isolation valve. Three-inch (75 mm) full port isolation valves with flanged or NPT connections are preferred, though, 2-inch (50 mm) connections and smaller may be acceptable for dry installations – consult Pure Technologies for further information. The entry into the pipeline is protected by a flexible stainless-steel tube which is held in place in the plumbing stack and passes through the client connection.



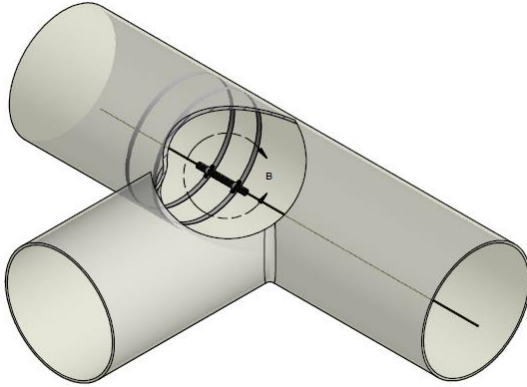
Standard AFO plumbing stack



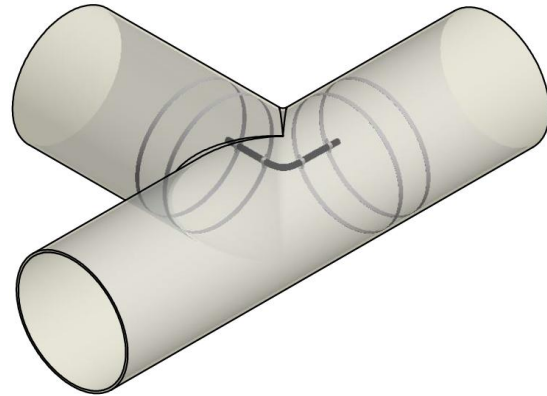
Cable protection into pipe

Cable Protection

Cable protection may be required at features such as bends, tees, wyes, bottom blow-offs, and outlets to prevent cable damage. This is achieved by installing stainless steel expansion hoops and attaching flexible stainless-steel tubing.



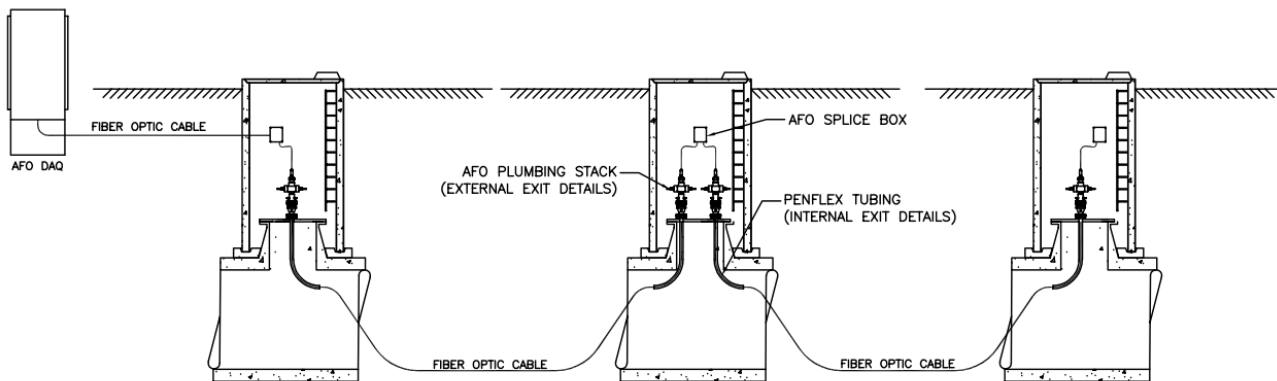
Standard outlet protection - Hoops



Standard outlet protection - Tubing

Installation Process

The AFO cable is installed in the pipe in a number of individual runs. Run boundaries are delineated by splice points outside of the pipeline and are typically determined by valve locations on the pipeline



Typical AFO system layout

and maximum distance criteria. The AFO cable can be installed in either a fully dewatered pipeline or into a flowing and operational pipeline.

Installation in a Dewatered Pipeline

The AFO cable can be installed once the pipe has been removed from service and completely dewatered. The AFO team members perform the installation by completing the following tasks:

1. Cable is spooled into the pipe at the insertion point as a technician guides the fiber into the chamber protecting it from any kinks or abrasive surfaces.

2. Technicians manually pull the cable through the pipe to the designated exit chamber.
3. The cable is routed out of the pipe through Pure Technologies' standard plumbing stack at client-furnished connections.
4. Stainless steel flexible tubing protects the AFO cable from sharp edges as it transitions out of the pipeline or at sharp bends and outlets (when required).
5. Once all runs are installed, the cable is spliced together to create one continuous length.



Cable installation staging



Bend protection in-pipe



AFO Cable splice point

Installation in a Live Pipeline

In some instances, Pure Technologies can install the entirety of the AFO cable into a live pipeline under standard operating conditions by completing the following tasks:

1. Install insertion and extraction plumbing stacks including flexible stainless-steel tubing where the cable enters and exits the pipeline.
2. Insert a parachute attached to a string into the pipeline.
3. Allow the flow to pull the string downstream through the pipeline.
4. Extract the parachute and string at a downstream exit point.
5. Pull the AFO cable into the pipeline using the string.
6. Once all runs are installed, the cable is spliced together to create one continuous length.



Parachute preparation



Feeding cable into the pipeline



Capstan winch pulling string/cable

Method Comparison

Primary advantages of the wet installation method include not requiring the pipeline to be taken out of service or personnel to enter the pipeline. However, the method cannot be used in extremely high or low flow conditions, in pipelines with numerous bends, or where chambers are not suitable or cannot

be modified for installation. Pipelines with features requiring additional cable protection may require a hybrid installation approach for maximum system life.

Dry installations provide more design options, with the ability to install cable protection in-pipe. Features such as outlets, wyes, and sharp bends can utilize stainless steel expansion hoops and tubing to route the cable safely, while wet installations may require tapping on either side of these features and external cable routing. Dry installations are also more predictable, with more variables under control of the installations team reducing unexpected delays.

Timelines for both methods are similar, with approximately one day per run of installation time, and runs up to 15,000 feet (4572m) in length for wet installations and 10,000 feet (3048m) for dry installations – though typically broken down into more manageable shorter lengths.

Site Preparation and Support

Pure Technologies provides the labor to install, calibrate, and commission the AFO system. Peripheral labor and support can be provided by the client, a third-party contractor, or directly by Pure Technologies. Initial discussions will review responsibilities for tasks such as:

- Dewatering (dewatered installations only)
- Ventilation
- Permits and traffic control
- Tapping and modifications to the pipeline as may be required for the installation
- Modifications to the chambers as may be required for the installation
- Trenching and conduit for routing of fiber optic cable outside the pipeline as may be required for the installation
- Top support for confined space entry
- Rope support for work inside pipeline, if necessary
- Emergency rescue services

Monitoring Works

Once installed and commissioned, the AFO system will commence monitoring the pipeline. This is facilitated by a team of Monitoring Specialists and Data Analysts working together to ensure that the system is performing to the expected standards and delivering actionable data back to the client.

Monitoring System Operation

To ensure that the SoundPrint AFO monitoring system is functioning properly, several automated system tests are incorporated into the standard operation of the system..

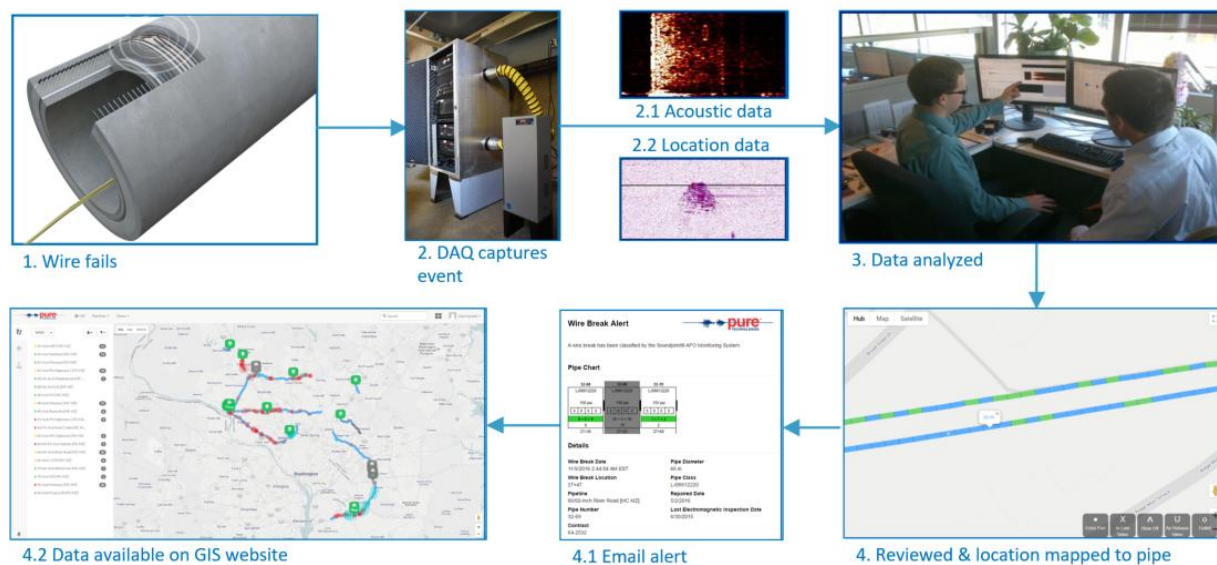
The DAQ knows when it has a system test and looks for it amongst the other noise events that are triggering the monitoring system. In the case that the DAQ cannot find a system test, an alarm is generated by the system. In the case that the DAQ misses a number of system tests consecutively (the setting is site-specific, but is always set to either two or three), the system automatically reboots

itself. An email alarm is sent to alert the Monitoring Specialist. The system is then manually checked to ensure that the issue has been corrected with the automatic reboot. In addition to acoustically testing the SoundPrint AFO monitoring system, the AFO cable is also physically tested by a daily mechanical stimulation of the cable.

Furthermore, each business day morning the DAQ is remotely checked by an AFO Monitoring Specialist to ensure proper function of the system. In addition to completing the standard site check procedure to verify that all vital components are operating correctly, daily statistics from the site (reported automatically at midnight daily) are also reviewed to ensure that the system is operating at an adequate level of sensitivity. The system uptime is rated daily based on the number of tests captured by the system that pass all criteria required to identify and locate actual wire break events.

Data Analysis

All data recorded by the DAQ that passes through the onsite digital data filters is transferred to Pure Technologies' data analysis group for review. The analysts review and classify each event within one business day, with automated alarms identifying concerning trends and allowing for even quicker responses to specific pipes of concern.



AFO Data Flow Diagram

System Warranty

System warranties are provided for the first year of operation with the option to extend long term. The warranty allows Pure Technologies to respond rapidly to onsite equipment issues and ensure system longevity via regular preventative maintenance and as needed upgrades. The following sections break down the works typically taking place on a warranted system.

As Needed Works

During the regular monitoring of the site, the AFO Monitoring Specialists may identify issues requiring an onsite presence. After exhausting possibilities for identifying and resolving the issues remotely, the

Monitoring Specialist will request a qualified technician to visit the site for troubleshooting and remediation.

Annual Maintenance

On an annual basis, Xylem will coordinate with the client to schedule the maintenance visit. The maintenance for each AFO system addresses four items:

- **DAQ maintenance:** Inspect, test, and upgrade as required for all DAQ components
- **Cable integrity checks:** Test fiber optic cable with optical time domain reflectometer to identify light loss which can negatively affect the monitoring
- **Hardware maintenance:** Check plumbing stacks for corrosion and leaks, re-tension the AFO cable to extend system life
- **System recalibration:** Check that the mapping of the fiber optic cable to the pipeline is accurate to ensure quality location information

Appendix B: Standard Terms and Conditions for Leak Detection and Monitoring

(to be updated upon selection of Option 1 or 2)

PURE TECHNOLOGIES U.S. INC.

SOUNDPRINT® AFO MONITORING CONTRACT

THIS AGREEMENT made as of Click or tap to enter a date. (the "Effective Date").

BETWEEN:

PURE TECHNOLOGIES U.S. INC., a corporation incorporated under the laws of the State of Delaware, with its principal office located at 989 Corporate Blvd., Suite F, Linthicum Heights, MD 21090 ("**Pure**")

AND:

City of Novi ("Customer"), with its principal office located at **26300 Lee BeGole Dr. Novi, MI 48375.**

The Customer agrees to purchase and Pure agrees to sell the services specified below ("Services") in relation to the operation of the Acoustic Fiber Optic monitoring system ("AFO System") installed at the location specified below ("Site") for the fee stipulated below ("Service Fee") and in accordance with Schedule "A" AFO Standard Terms and Conditions excluding Article IV contained therein.

SITE

36 and 30-inch Novi Road PCCP Transmission Main from Station 6+20 to Station 58+92.

SERVICES

Under the terms of this agreement Pure shall provide the Customer with the following:

1. Continuous 24-hour monitoring of acoustic events of the Customers pipeline at the specified Site. The AFO System will be operational for a period of not less than 95% aggregate time on an annual basis, excluding power outages or other events outside Pure's control. The percentage of the time the system is operational is the successful percentage of the simulated verifications that are played by the system once per hour every day.
2. Remote operation of the AFO System to enable continuous recording of acoustic events. This includes: hourly simulated verifications, daily remote site checks, and an annual site visit.
3. Continuous downloading of data from the on-site SoundPrint® Data Acquisition system (DAQ) to Pure's central server and event classification by Pure's data processing department, provided that there is continuous regular operation of internet communication with the site.
4. Detect and locate wire breaks and leaks with a resolution of one (1) pulse of light from the Range Sensing Unit (RSU) within the DAQ, a length of one (1) meter three (3) feet [**choose one based on client**]. Location accuracy is plus or minus one frame along the fiber optic cable, which is then mapped to the pipe using Pure's standard field location protocols, a copy of which is

available upon request. The Customer acknowledges that the AFO system is designed to detect certain energy transmissions through Prestressed Concrete Cylinder Pipe (PCCP) and that most wire breaks and leaks generate at least enough energy to be recorded by the AFO monitoring system. In the rare case that a wire break does not exhibit properties below 10 kHz, the wire breaks may not be detected or located. Leaks less than 5 gallons per minute, may not be detected or located.

5. E-mail notification to designated Customer representatives of wire breaks and leaks within one (1) business day of event occurring. This assumes continuous regular operation of the internet to allow data to be transferred from the AFO System for analysis.
6. Notification to the Customer within one business day of the location and extent of the activity of any abnormal activity detected with the monitoring system.
7. Daily updating of wire break and leak events on password protected Client Access section of the PipeView website. Pure will provide the Customer 24/7 online access to the following historical information: time date, location, pipe number, and stationing of all wire break and leak events, conditional upon continuous regular internet operation. User generated reports in .pdf format summarizing the time and location of wire breaks detected by the SoundPrint® AFO system will be available on demand to Customer's authorized users.
8. Remote support for onsite activities during the identification and repair of one (1) contiguous pipe section per year, including the necessary remapping. Onsite support and remote support for additional identifications and repairs are not included and shall be negotiated on a case by case basis as required.
9. Provision and installation of software upgrades useable with the installed AFO System, as they become available. No equipment upgrades are included in this contract.
10. Offsite storage of backup data at a secure third party data storage facility.

For certainty, the Services do not include repair or replacement of any AFO System components. An optional Limited Extended Warranty Agreement for the monitoring equipment is available, if signed before the expiry of the original warranty for such equipment.

CUSTOMER OBLIGATIONS

The Customer is to provide on-site liaison personnel who will have access to the DAQ and can provide information and feedback to Pure's call center personnel.

SERVICE FEE (to be updated upon selection of Option 1 or 2)

The service fee for the duration of this agreement is based on a unit rate of \$ /ft./year

ENTER PERIOD	ENTER LENGTH PER MILE/FEET	PRICE
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Payable quarterly in advance.

The term of this agreement shall end on [Click or tap to enter a date.] after which the agreement can be renegotiated by mutual consent of both parties.

IN WITNESS, WHEREOF, the duly authorized representatives of the parties have executed this agreement on the date first written below.

Executed this Click or tap here to enter text. day of Click or tap here to enter text., 2025.

PURE TECHNOLOGIES U.S.INC.	[Insert Name of Customer]
By: _____	

Name: **Click or tap here to enter text.**
Title: **Click or tap here to enter text.**

Name: **Click or tap here to enter text.**
Title: **Click or tap here to enter text.**

LIMITED EXTENDED WARRANTY AGREEMENT

In consideration of the understandings of the parties hereto, and intending to be legally bound hereby, the parties hereto agree as follows:

Limited Extended Warranty

Pure hereby agrees to provide the Customer with a limited extended warranty, hereinafter called the "Extended Warranty", for the AFO System described in the SoundPrint® AFO Technical Support Contract. The terms and conditions referenced in Schedule "A" shall apply to the Extended Warranty Agreement, except that the period in Article IV shall be extended from what is specified therein to [Insert Date] after which the agreement can be renegotiated by mutual consent of both parties.

Payments

The Customer hereby agrees to pay Pure the sum of \$ Click or tap here to enter text. annually for the purchase of this Limited Extended Warranty Agreement.

Executed this Click or tap here to enter text. day of Click or tap here to enter text., 2025.

IN WITNESS, WHEREOF, the duly authorized representatives of the parties agree to the extended warranty as presented in the Extended Warranty Agreement.

PURE TECHNOLOGIES U.S. INC.

By:

[Insert Name of Customer]

By:

Name: **Click or tap here to enter text.**

Title: **Click or tap here to enter text.**

Name: **Click or tap here to enter text.**

Title: **Click or tap here to enter text.**

REFUSAL OF EXTENDED WARRANTY AND UNIT RATE REPAIR COSTS

By refusing the terms of the Extended Warranty presented herein, the Customer acknowledges and agrees to bear the full cost to repair or replace any equipment required to maintain operation of the AFO System as per the unit rate costs herein. A Pure AFO Technician is required to perform all maintenance and repairs of the AFO System. After troubleshooting has occurred, Pure shall notify the Customer of the required repairs and provide a cost estimate to be reviewed and approved in writing prior to commencing any work.

Prices for components and parts not listed below, including fiber optic cable, will be provided as required.

Mobilization to SiteCost + 15%
Includes cost for hotel, rental car, flights and per diems

Onsite Technician Daily Rate\$1,760/day
Remote Support Daily Rate\$1,540/day

Component	Price*
Acoustic Locator RSU Assembly for Single Data Acquisition Unit (PN1022669)	\$91,773
Acoustic Locator RSU Assembly for Dual Data Acquisition Unit (PN1022670)	\$170,147
Acoustic Sensor SSU Assembly for Single Data Acquisition Unit (PN1022667)	\$55,517
Acoustic Sensor SSU Assembly for Dual Data Acquisition Unit (PN1022668)	\$106,016
Computer Assembly for Single Data Acquisition Unit (PN1022743-03)	\$62,142
Computer Assembly for Dual Data Acquisition Unit (PN1022743-05)	\$96,860
Site Computer, Standard Base, No cards (PN1012289)	\$26,626
Spectrum OTDR Card (PN1100840)	\$29,855
Data Acquisition Card PCI 16-Inputs (PN1009829)	\$3,852
5A DC Power Supply Assembly (PN1022741R1)	\$10,764
Power Supply UPS (PN1022929)	\$3,059
PDU (PN1021875)	\$1,224
Relay Box Assembly (PN1022708R1)	\$4,056
SCU-TR MKIV Assembly (PN1022639R1)	\$15,296
Air Conditioner (PN1007761)	\$3,875
Keyboard, Monitor, Mount Drawer, Touchpad (PN1009772)	\$1,654
Fiber Stretcher (PN1009820)	\$8,905
Marker Box Round Style (PN1002733)	\$1,371
Fiber Jumper Diamond Connectors Red (PN1009788)	\$680
APC Adaptor (PN1007847)	\$34
Fiber Mirror, Gold Tipped Small Pigtail (PN1009789)	\$61

***Prices shown are for 2026 and shall increase annually on January 1 based on the Consumers Price Index. All prices include shipping.**

****in most cases failed units have some salvage value that will be credited to the repair cost.**

IN WITNESS, WHEREOF, the duly authorized representatives of the parties refuse the extended warranty presented herein, and accept the unit rate repair costs presented above.

Executed this **Click or tap here to enter text.** day of **Click or tap here to enter text.**, 2025.

PURE TECHNOLOGIES U.S. INC.

By:

[Insert Name of Customer]

By:

Name: **Click or tap here to enter text.**

Title: **Click or tap here to enter text.**

Name: **Click or tap here to enter text.**

Title: **Click or tap here to enter text.**

**Schedule “A” to the Pure Technologies U.S. INC.
SoundPrint® AFO Monitoring Contract dated
[Click or tap to enter a date.](#)**

AFO SYSTEM STANDARD TERMS AND CONDITIONS

ARTICLE I - RISK OF LOSS

Unless otherwise specified by Seller, delivery and transfer of risk of loss for shipments to Customer will be made Ex Works (Incoterms 2020), Pure’s plant or distribution center. Title will pass when risk of loss transfers.

ARTICLE II - AFO SYSTEM MAINTENANCE

The Customer shall use reasonable commercial efforts to keep the AFO System secure from vandalism, loss of power, environmental hazards (including lightning, flood, water overflow) and other damage.

The Customer shall provide Pure with such access to the AFO System as may be reasonably requested by Pure to complete the required maintenance procedures.

ARTICLE III - CONFIDENTIAL INFORMATION

The Customer acknowledges that the AFO System and associated documentation, including without limitation, all software, and the makeup and configuration of the equipment and its method of operation, and the training documents, constitutes valuable confidential information of Pure and/or its licensors. Unless otherwise required by Federal or Provincial Laws, the Customer shall maintain all confidential information as strictly confidential and neither use nor discuss any of it without Pure’s written approval. The Customer acknowledges the software and all copies thereof, in whole or in part, is and shall at all times remain the sole and exclusive property of Pure and/or its licensors and that Pure has all right, title and interest therein.

The Customer agrees that wrongful disclosure of any of the confidential information may cause irreparable harm to Pure, and that Pure’s remedies at law may be inadequate and, therefore, Pure shall be entitled to obtain an injunction to enforce the provisions of this agreement.

The Customer acknowledges that all data generated by the AFO System is subject of copyright protection. The data shall be owned jointly by Pure and the Customer. The Customer shall have an irrevocable right and license to retain and use a copy of data generated from the AFO System for the Customer’s application in regards to the operation and maintenance of the Customer’s buildings in which the equipment is situated, which right and license shall include the right to disclose such information and results to its agents, and employees.

The obligations of the parties with respect to confidentiality shall survive the termination of this Agreement.

ARTICLE IV - WARRANTY

Pure warrants any new AFO System components which it supplies and installs for a period of one (1) year commencing on the date of commissioning as follows:

1. All components contained inside of the DAQ under standard power conditions defined in the initial purchase and sale agreement.

2. All Air Conditioning units and associated components under manufacturer's specified operating conditions.
3. All junction boxes and associated hardware and conduit exposed to conditions as presented to Pure at the time of commissioning.
4. All pipeline fittings and associated components.
5. All K2 jacketed fiber optic cable that has been damaged during normal pipeline operating conditions.
6. All labor costs to repair or replace damaged or defective parts.
7. All labor costs associated with commissioning, remapping and software adjustments following the repair of any fiber optic cable.

This Warranty requires that suitable and timely access be provided to Pure by the Client to the AFO System, and that a Client representative can be contacted and available to be present on site within one business day.

Under the Warranty, Pure agrees to, at its option and at the Customer's sole and exclusive discretion, either replace or repair defective Equipment or, in case of defective service, to repeat the agreed service. The express warranty granted above shall extend only to the Customer and not to the Customer's agents or representatives. All other warranties are hereby specifically disclaimed by Pure. Pure shall not be responsible for any incidental or consequential damages arising from any breach of warranty. Any misuse, improper installation, or tampering with the AFO System shall void this warranty.

This Warranty is not transferable, except upon the written approval of Pure, in its sole discretion. This Warranty does not cover and shall be void for (a) defects or damages resulting from fire or theft, (b) defects, damages, or loss resulting from intentional misuse, abuse, neglect, or alterations by, or directed by, the Customer, and (c) defects or damages resulting from service or repair by anyone other than Pure.

The parties hereto acknowledge and agree that this Warranty is not and will not be a warranty on the fitness of any pipeline or structure monitored by the AFO System.

Warranty Exclusions: Pure's warranty does not apply to the following:

1. Damage to the fiber optic cable sustained during pipeline operating condition outside standard operating conditions. This would include but not be limited to; pipeline inspections or assessments by vendors other than Pure, valve throttling, sediment flushing, chemical treatment of lines, or increase in flow velocity beyond the potential maximum velocities presented to Pure at the time of commissioning.
2. Damage to the fiber optic cable as a result of human intervention or error by the Customer's staff or third party contractors. Any act of vandalism to the DAQ, junction boxes, pipeline fittings or fiber optic cable.
3. Any atmospheric or corrosive environments outside of standard operating norms not presented to Pure at the time of commissioning.
4. Fiber optic cable that is not K2 jacket.
5. Pure is not responsible for the costs associated with dewatering, ventilating or preparing a pipeline for shutdown to repair any damage to the fiber optic cable or associated hardware inside of the pipeline.
6. Pure is not responsible for the costs associated with confined space permitting and top support staffing as well as any traffic control associated with a shutdown to repair any damage to the fiber optic cable or associated hardware.

ARTICLE V - LIMITATION OF MONITORING

The parties acknowledge that some forms of background or other noises, or any continuous noise generation may affect the ability of the AFO System to detect and/or classify events and may mask wire breaks so that they cannot be detected or recorded by the AFO System.

These noises may be caused by events such as impacts directly on the pipeline, pipeline appurtenance, or other pipeline feature which will temporarily cause the AFO System to be unable to detect and/or classify events. The data must be monitored and processed to provide meaningful information to the Customer. The parties acknowledge that the placement of the fiber optic cable required by the AFO System is crucial to the AFO System's functionality and any movement or interference with the fiber optic cable without Pure's written consent may affect the ability of the AFO System to record, identify and locate wire failures or other acoustic events. If the Customer engages unqualified personnel to repair or maintain the AFO System or uses unsuitable parts or if anyone or anything moves, obstructs or interferes with the placement of the fiber optic cable, the AFO System performance may be affected and the warranty in Article IV shall not be applicable to the extent and for such time as such activities adversely affect the performance of the AFO System or render the AFO System inoperative. Where such movement, obstruction or interference occurs and if requested by the Customer Pure shall use reasonable commercial efforts to repair the AFO System at the Customer's expense. Pure acknowledges that various monitoring agencies may provide monitoring services under their own terms and if any such agencies are used, the Customer acknowledges that Pure is not responsible for the services provided by any such monitoring agency. Pure is not providing engineering services under this agreement. Pure suggests the Customer have the Customer's professional engineering advisors available to review any reports provided from the AFO System and other issues concerning the structural integrity of the site.

Pure and the Customer acknowledge that component or software failure may interrupt operation of the AFO System. Where such component or software belongs to Pure, or Pure and Customer have a maintenance agreement regarding it, Pure agrees to make reasonable commercial efforts to resume operations as soon as possible.

ARTICLE VI - LIMIT OF LIABILITY

Notwithstanding anything to the contrary contained herein, in no event shall Pure be liable to the Customer for any lost profits, lost savings or other incidental, special or consequential damages arising out of the use, misuse or inability to use the AFO System, including without limitation the software or equipment, whether such damages are sought by the Customer or any other party, even if Pure has been advised of the possibility of such damages.

Pure's liability to the Customer in respect of any and all claims which arise from any act or omission of Pure following the expiration of the insurable period shall be limited to an amount no greater than the annual Technical Support and Monitoring fee, if applicable.

Internet communications for the AFO System are critical to the monitoring operation and are provided and maintained by the Customer. The parties acknowledge without the ability for Pure to communicate with the AFO System through the internet, it can affect the ability of the AFO System to detect and/or classify events.

ARTICLE VII - GOVERNING LAW

This Agreement shall be construed in accordance with, and the rights of the parties governed by, the laws in force in the State of Maryland and the parties agree to irrevocably attorn to the jurisdiction of the courts of the State of Maryland and further agree that any proceedings shall only be taken in respect of this Agreement in

such courts.

ARTICLE VIII - FORCE MAJEURE

Neither party hereto shall be liable to the other, for any failure of or delay in the performance of its obligations hereunder nor be deemed to be in breach of this Agreement, if such failure or delay has arisen from "Force Majeure". For the purpose of this Agreement "Force Majeure" shall mean any cause not reasonably in the control of Pure or the Customer as the case may be, including, without limitation, acts of God, strikes, lockouts, or other industrial disturbances, acts of the public enemy, wars, blockades, insurrections, riots, pandemics, epidemics, landslides, earthquakes, fires, storms, floods, high water, wash outs, inclement weather, power failure, telecommunications disruption or failure, orders or acts of civil or military authorities, civil disturbances, or explosions.

Where either party hereto is prevented from carrying out its obligations hereunder due to Force Majeure, such obligations so far as they are affected by Force Majeure shall be suspended during the operation of any such event of Force Majeure. The party prevented from carrying out its obligations hereunder due to Force Majeure shall where practical, make reasonable efforts to give notice of the occurrence of such Force Majeure to the other party hereto.

ARTICLE IX - ASSIGNMENT AND AMENDMENT

Pure shall have a right to assign this contract subject to the Customer's written consent, which consent shall not be unreasonably withheld. This Agreement is assignable by the Customer providing that the Customer has previously secured Pure's written consent, which consent shall not be unreasonably withheld. This Agreement will in all other respects be binding upon the parties and their respective successors and assigns.

Only a written instrument signed by both of the parties may amend this Agreement.

ARTICLE X - INDEMNIFICATION

Subject to Limits of Liability, Pure will defend the Customer against a claim that the entire system, as furnished, and, if used strictly in accordance with the written instructions provided by Pure, infringes a valid, enforceable Canadian or United States patent or copyright and Pure will pay resulting costs, damages and attorney's fees finally awarded, provided that:

- (a) the Customer promptly notifies Pure in writing of the claim or threatened claim.
- (b) the claim is solely based on the Customer's use of the AFO System as furnished and used strictly in accordance with Pure's written instructions;
- (c) the Customer provides all assistance and co-operation Pure may reasonably require in the defense of the action or claim; and
- (d) Pure has sole control of the defense and all related settlement negotiations.

If such a claim occurs, Pure may, at its sole option, either: (a) attempt to make the AFO System non-infringing; or (b) attempt to obtain a license to use the rights from the party complaining of the unauthorized or unlawful use; or (c) provide the Customer with a generally similar system; or (d) refund to the Customer the charges or fees attributable to the module in relation to which the infringement is complained of and require the Customer to cease use of the infringing module and return the infringing module to Pure.

Pure shall have no obligation to defend the Customer or to pay costs, damages or attorney's fees for any claim

based on any acts of the Customer which exceed the terms of the license granted to the Customer by this Agreement or are based upon modifications created by the Customer or on its behalf or, from combination of the AFO System or any part thereof with any equipment, software, processes or technology of others or from use of the AFO System other than in strict accordance with Pure's written instructions therefore.

The provisions set out in this section, state the entire obligation of Pure with respect to infringement of any industrial or intellectual property rights.

ARTICLE XI - LIMITATION OF ACTIONS

Pure and the Customer agree that if a dispute resolution mechanism is not successful in resolving a dispute under this Agreement or any Schedule, any legal action must be commenced within two years of the date of the cause of action complained of.

ARTICLE XII - NOTICES

All notices provided for hereunder shall be in writing and shall be deemed to be given: (a) when delivered to the individual, or to an officer of the relevant party to which the notice is directed, or (b) five (5) days after the same has been deposited in the Canada Post or United States Postal Service mail, sent certified or registered mail with return receipt requested, postage prepaid and addressed as provided in this Section, or (c) when delivered by an overnight delivery service with receipt acknowledged and with all charges prepaid by the sender addressed as provided in this Section, or (d) when sent by facsimile on the next business day following the day the facsimile is sent, provided an electronic confirmation of complete transmission to the recipient's facsimile number is received by the sender. Notices shall be directed as follows: (a) If to Pure, at the address for Pure noted at the commencement of this Agreement, (b) If to the Customer, at the address of the Customer noted at the commencement of this Agreement, or at such other place or places or to such other person or persons as shall be designated by notice by any party hereto.

ARTICLE XIII - EFFECT OF WAIVER

No delay or omission to exercise any right or remedy accruing to either party upon any breach or default of the other party will impair any such right or remedy or be construed to be a waiver of any such breach or default, nor will a waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval on the part of either party of any breach or default under this Agreement or of any provision or condition hereof, must be in writing and will effect only to the extent in such specifically set forth. All remedies, either under this Agreement, under any agreement entered into in conjunction with this Agreement, or at law or in equity or otherwise afforded to either party, are cumulative and not alternate.

ARTICLE XIV - CUSTOMER'S WAIVER

To the extent not prohibited by law or statute, the Customer hereby waives the benefit of all provisions of all applicable conditional sales, regulatory credit, seizure, personal property security and other statutes and regulations made thereunder in any and all jurisdictions of the U.S. and Canada, which would in any manner, affect, restrict or limit the rights of Pure hereunder. The Customer also waives and assigns to Pure the right of any statutory exemption from execution or otherwise and further waives any right to demand security for costs in the event of litigation, for the purpose of repossessing the system.

ARTICLE XV - MISCELLANEOUS

Subject to the terms hereof, this Agreement shall enure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, administrators, successors, assigns and legal representatives.

It is agreed by and between the parties hereto that whenever the context of this Agreement so requires, the singular number shall include the plural and vice versa, and that words importing the masculine gender shall include the feminine and neuter genders, and that in case more than one person or entity is named as the Customer, the liability of such persons or entities shall be joint and several.

The Customer agrees that upon commencement of this Agreement, Pure shall have the right to publish advertisements stating that the Customer is a customer of Pure.

The Customer agrees to do all things and execute all documents as may reasonably be required by Pure in order to give effect to this Agreement including but not limited to the execution of financing statements in order to effect such registration as may be necessary in order to protect Pure's interest.

Pure and Customer intend the security interests granted hereby to attach upon execution of this Agreement. The Customer acknowledges that value has been given and that Pure has ownership rights in the Equipment.

The Customer acknowledges receipt of an executed copy of this Agreement.

Any provision hereof contrary to applicable law or unenforceable under applicable law shall be deemed to be ineffective and shall be severable from and not invalidate any other provision of this Agreement or any Schedule, provided, however, that to the extent that the provisions of any such applicable law can be waived, they are hereby waived by the Customer.

This Agreement may be terminated by either party hereto by providing the other party with three (3) months prior written notice. Upon such termination, all unbilled monitoring funds of the Customer will be refunded by Pure to the Customer on a pro-rated basis. Thereafter, Customer will retain ownership of all the monitoring equipment purchased under the Agreement.

Novi Public Safety

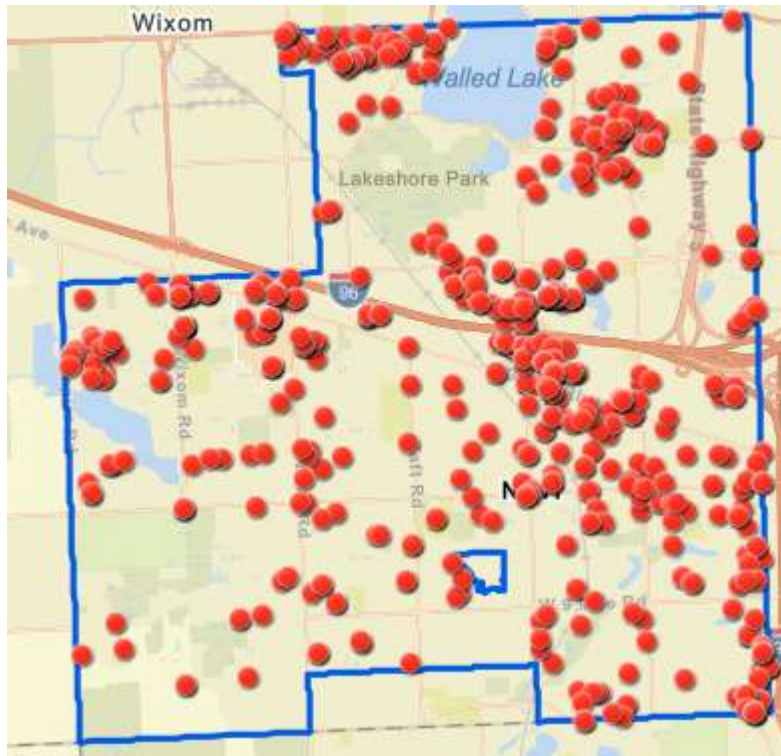
Police and Fire Departments 2025 v. 2026 Year-to-Date Statistics
July 2026

August 2026

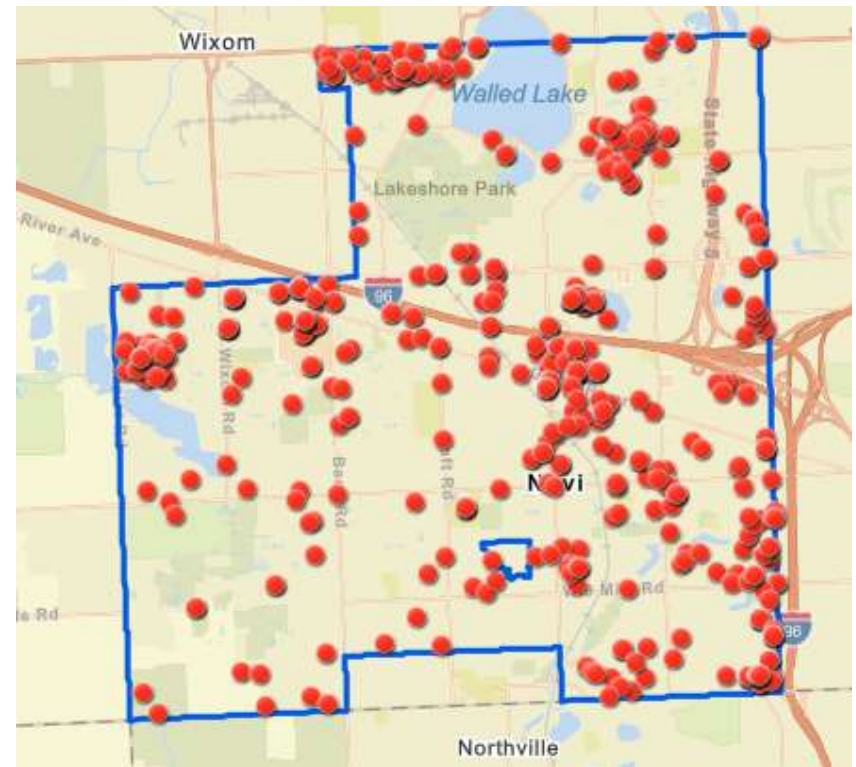


Part A Crimes by Location

2025



2026



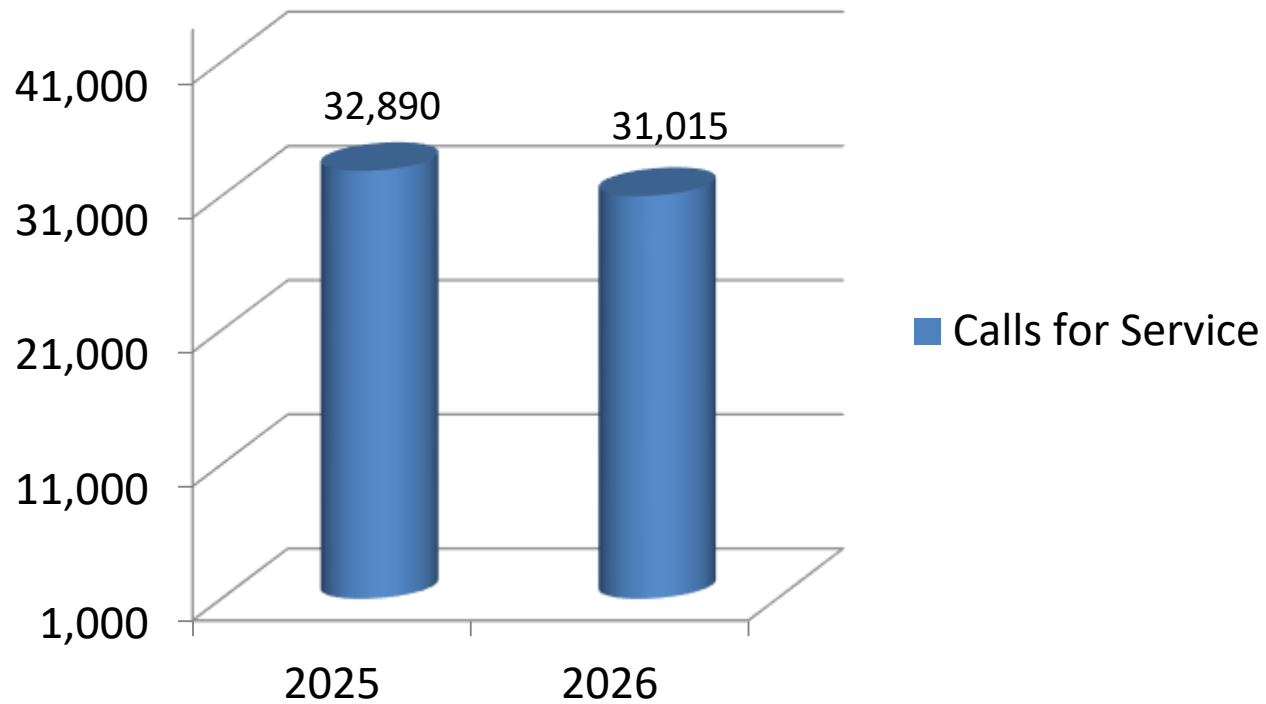
PART A CRIMES

JAN 1 - AUG 17

Description	26 YTD	25 YTD	24 YTD	Arrests/ Multiple 26 YTD	Arrests/ Multiple 25 YTD	Arrests/ Multiple 24 YTD	% Cleared 26 YTD	% Cleared 25 YTD	% Cleared 24 YTD
Murder	0	0	0	0	0	0	0.00%	0.00%	0.00%
Negligent Homicide	0	0	0	0	0	0	0.00%	0.00%	0.00%
Kidnapping/Abduction (Parental)	0	1	0	0	0	0	0.00%	0.00%	0.00%
Crim. Sexual Conduct	9	5	8	0	3	6	0.00%	60.00%	75.00%
Robbery	2	1	1	2	1	0	100.00%	100.00%	0.00%
Assault (Aggravated)	31	30	24	26	28	20	83.87%	93.33%	83.33%
Assault (Non-Aggravated)	168	139	141	130	129	133	77.38%	92.81%	94.33%
Threats/Stalking	23	23	13	18	12	11	78.26%	52.17%	84.62%
Arson	0	0	0	0	0	0	0.00%	0.00%	0.00%
Extortion	0	0	1	0	0	1	0.00%	0.00%	100.00%
Burglary	12	14	16	5	8	7	41.67%	57.14%	43.75%
Larceny	65	72	95	23	24	22	35.38%	33.33%	23.16%
Motor Vehicle Theft	15	21	34	6	9	15	40.00%	42.86%	44.12%
Forgery/Counterfeiting	5	10	6	5	5	5	100.00%	50.00%	83.33%
Fraud	65	53	42	12	24	14	18.46%	45.28%	33.33%
Retail Fraud	110	99	131	59	60	75	53.64%	60.61%	57.25%
Embezzlement	6	15	9	6	15	9	100.00%	100.00%	100.00%
R&C Stolen Property	5	4	2	5	4	2	100.00%	100.00%	100.00%
Vandalism	34	27	26	12	13	11	35.29%	48.15%	42.31%
Narcotics	20	28	30	17	27	29	85.00%	96.43%	96.67%
Obscenity	0	1	0	0	0	0	0.00%	0.00%	0.00%
Gambling	0	0	0	0	0	0	0.00%	0.00%	0.00%
Prostitution & Vice	0	2	1	0	1	1	0.00%	50.00%	100.00%
Weapons	18	20	9	16	19	9	88.89%	95.00%	100.00%
Animal Cruelty	2	0	1	0	0	1	0.00%	0.00%	100.00%
Total Part A Incidents	590	565	590	342	382	371	57.97%	67.61%	62.88%
Compared to Previous Year:	↑ 4.42%						↓ 9.64%		
Violent Crimes	42	37	33	28	32	26			



Police Total Calls for Service*

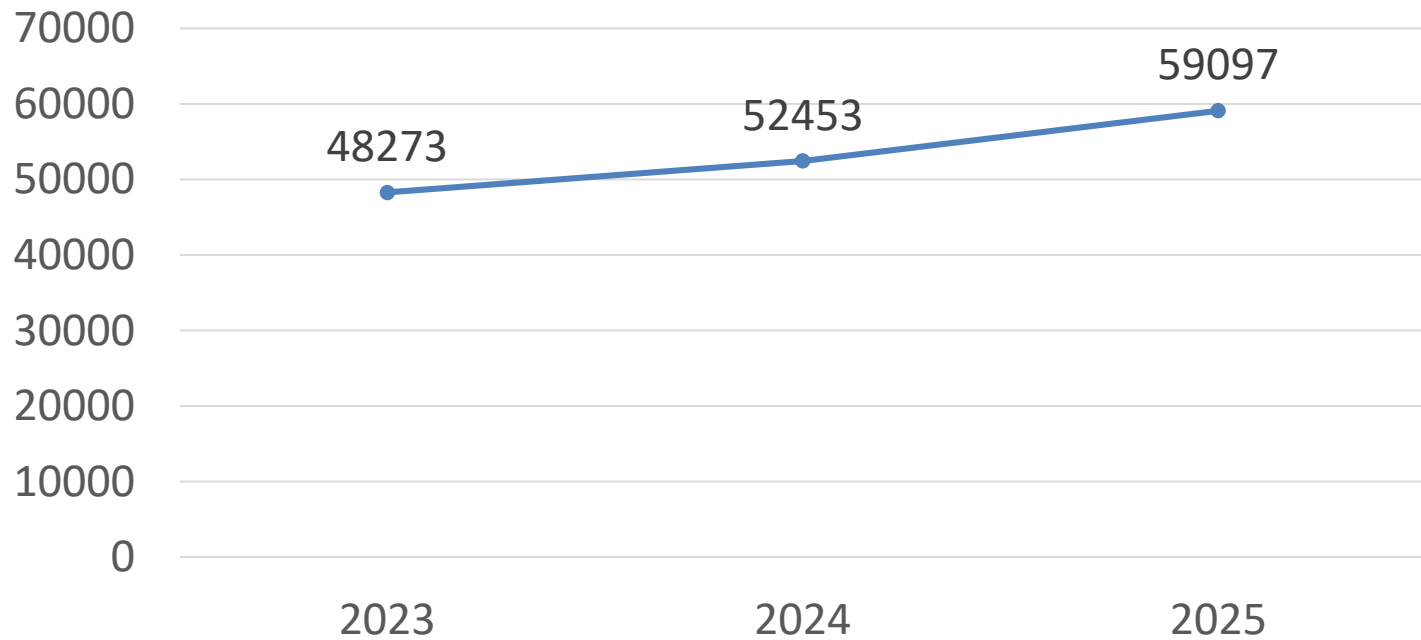


*includes all self initiated activity, routine and priority calls for service, etc.

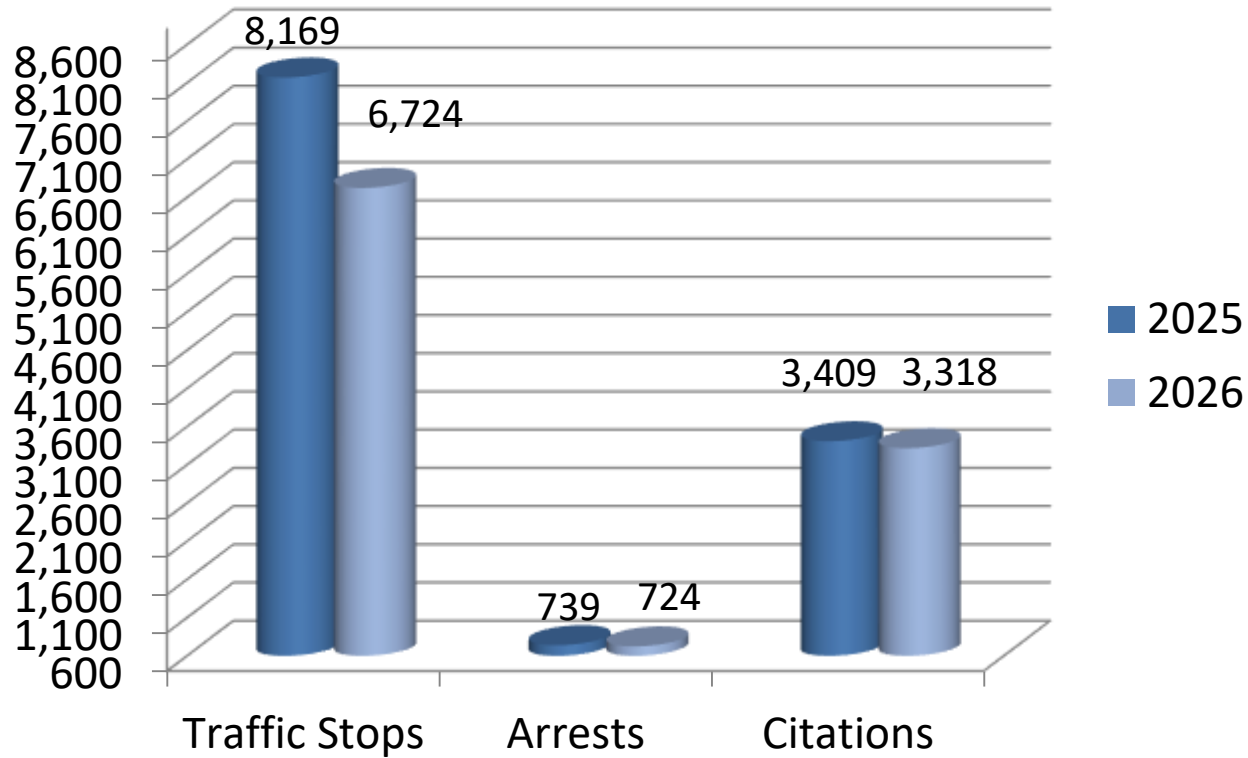


Calls For Service by Year

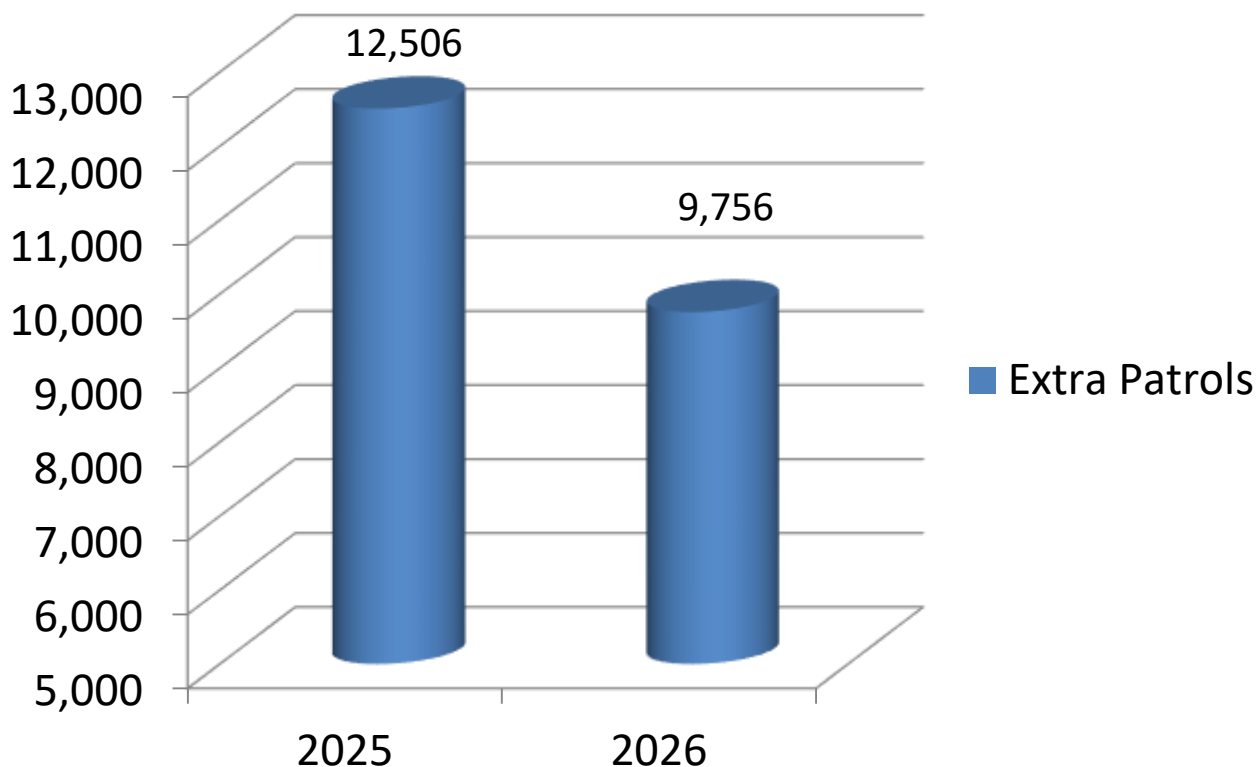
(Excluding Traffic Stops)



Officer Productivity



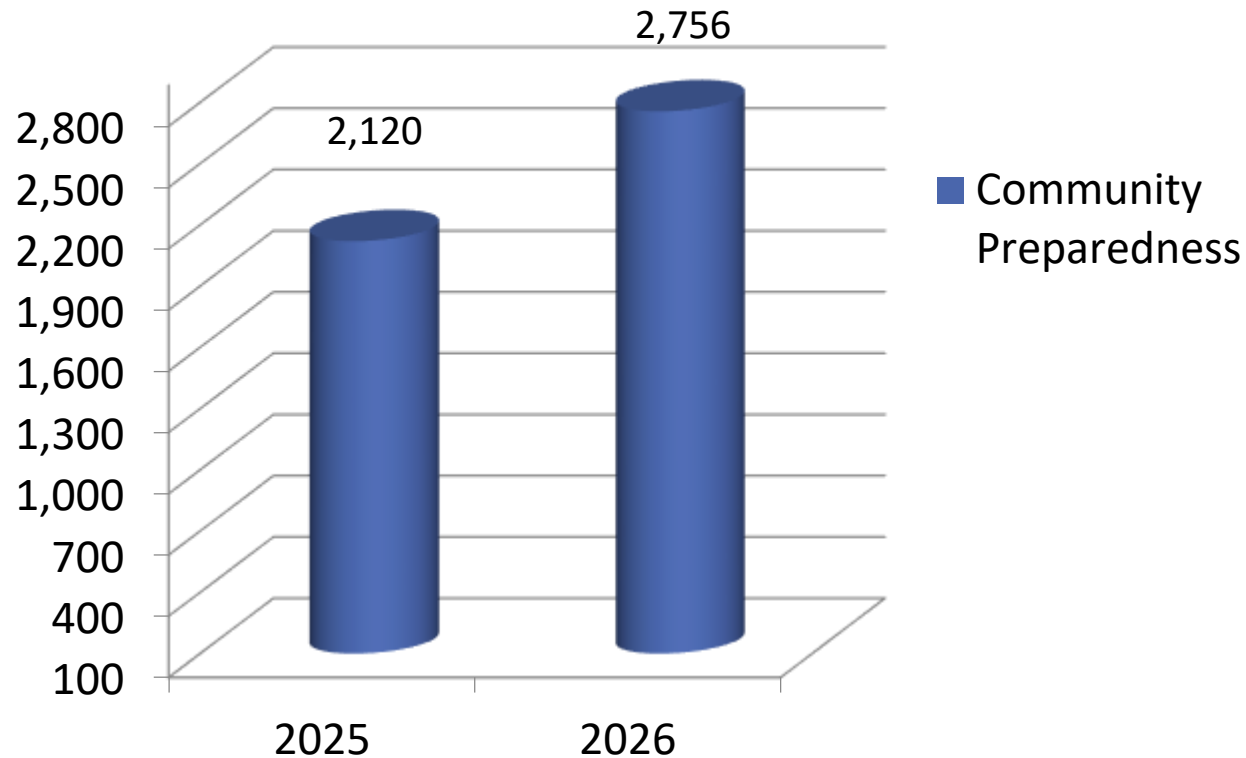
Extra Patrol Numbers* – Self Initiated



*Officers providing additional patrols at various locations above and beyond routine patrol.



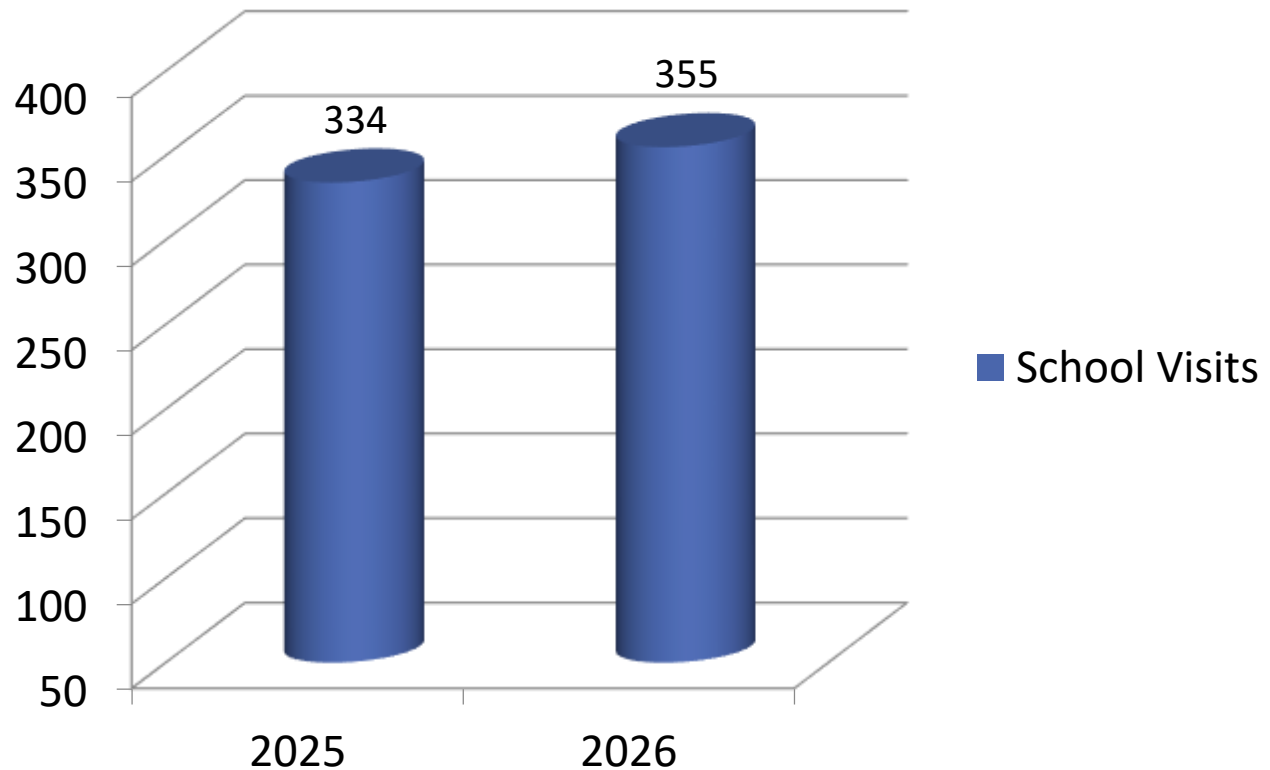
Community Preparedness Numbers* – Self Initiated



*Extra patrols at critical infrastructure (ie. ITC Transmission, US Energy Distribution, Henry Ford Providence Park Hospital, Water Treatment Facility, etc.) within the city.



School Visit Numbers* – Self Initiated



*Additional patrols at area schools where officers typically walk inside.

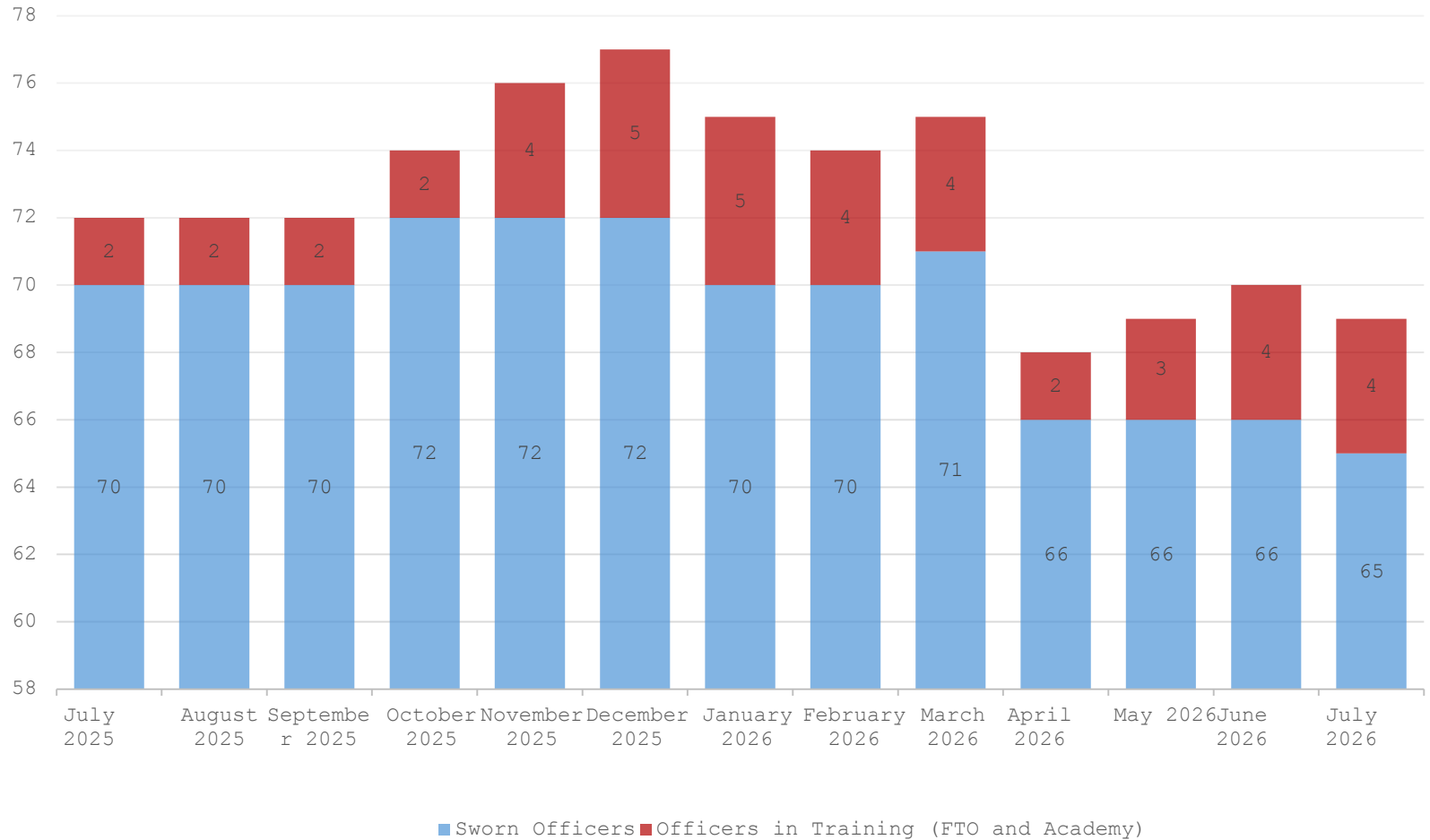


Police Staffing Levels

		Sworn	Budgeted	Officer	Detective	Sergeant	Lieutenant	Leadership
July	2025	70	73	41	13	9	3	4
August	2025	70	73	41	13	9	3	4
September	2025	70	73	40	14	9	3	4
October	2025	72	73	42	14	9	3	4
November	2025	72	73	42	14	9	3	4
December	2025	72	73	42	14	9	3	4
January	2025	70	73	40	14	9	3	4
February	2026	70	73	40	14	9	3	4
March	2026	68	73	38	14	9	3	4
April	2026	66	73	36	14	9	3	4
May	2026	66	73	36	14	9	3	4
June	2026	66	70	36	14	9	3	4
July	2026	65	70	36	13	9	3	4



Police Staffing Levels



Fire Response Times

FIRE OPERATIONS AVERAGE RESPONSE TIMES PRIORITY RESPONSES ONLY						
TEAM / STATION	July	Total Calls	2026	Total Calls	2025	Total Calls
	2026		YTD		YTD	
TEAM 'A':						
STATION 1	4:38	151	4:36	680	4:20	632
STATION 2	4:29	123	4:34	654	4:39	653
STATION 3	5:00	59	4:57	272	4:57	203
STATION 4	5:23	45	5:13	171	4:42	185
TEAM 'A' AVERAGE:	4:52	378	4:50	1777	4:39	1673
TEAM 'B':						
STATION 1	4:50	138	4:54	705	4:44	791
STATION 2	5:30	151	5:31	718	5:20	695
STATION 3	5:20	81	5:26	372	5:56	323
STATION 4	5:56	47	5:46	230	5:26	250
TEAM 'B' AVERAGE:	5:24	417	5:24	2025	5:21	2059
TEAM. AVERAGE	5:08	795	5:07	3802	5:00	3732



Fire Priority Calls

INCIDENT ACTIVITY REPORT				
Summary Comparison YTD				
Priority Calls for Service				
Incident Type	2026	2025	Difference	% Change
Fire (All Fires)	53	50	3	6%
EMS (Medicals, Rescues & PIAs)	3288	3284	4	0%
Hazardous Condition (Haz-Mat, Wires)	95	56	39	70%
Service Call (Pub.Assist, Unauth.Burn)	44	57	-13	-23%
Good Intent (Haz not found, CNX call)	98	103	-5	-5%
False Calls	223	177	46	26%
Power Outage Invst.(Severe Weather Assess)	0	1	-1	-100%
Other (Inspections, Pub-Ed, Pub-Relations, Car Seats, etc.)	1	4	-3	-75%
TOTAL	3802	3732	70	2%



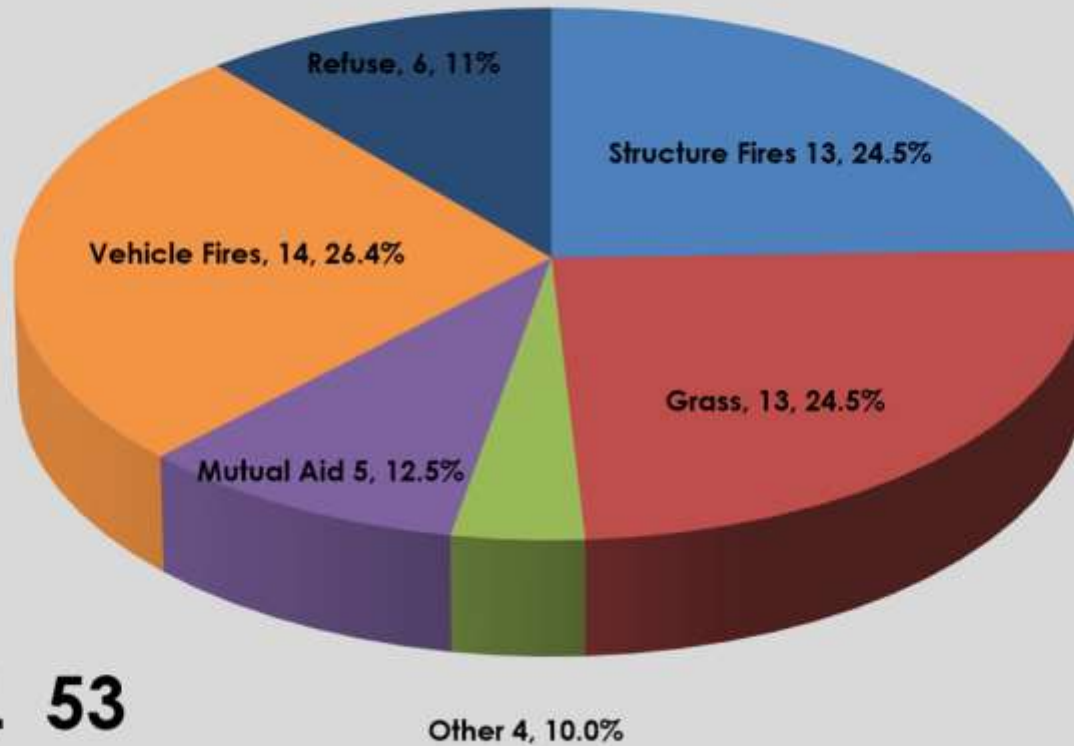
Fire All Calls

INCIDENT ACTIVITY REPORT				
Summary Comparison YTD				
All Calls for Service				
Incident Type	2026	2025	Difference	% Change
Fire (All Fires)	58	52	6	12%
EMS (Medicals, Rescues & PIAs)	3777	3805	-28	-1%
Hazardous Condition (Haz-Mat, Wires)	146	90	56	62%
Service Call (Pub.Assist, Unauth.Burn)	1000	675	325	48%
Good Intent (Haz not found, CNX call)	68	203	-135	-67%
False Calls	414	373	41	11%
Power Outage Invst.(Severe Weather Assess)	9	7	2	29%
Other (Inspections, Pub-Ed, Pub-Relations, Car Seats, etc.)	22	374	-352	-94%
TOTAL	5494	5579	-85	-2%



Total Fires

2026 PRIORITY FIRES

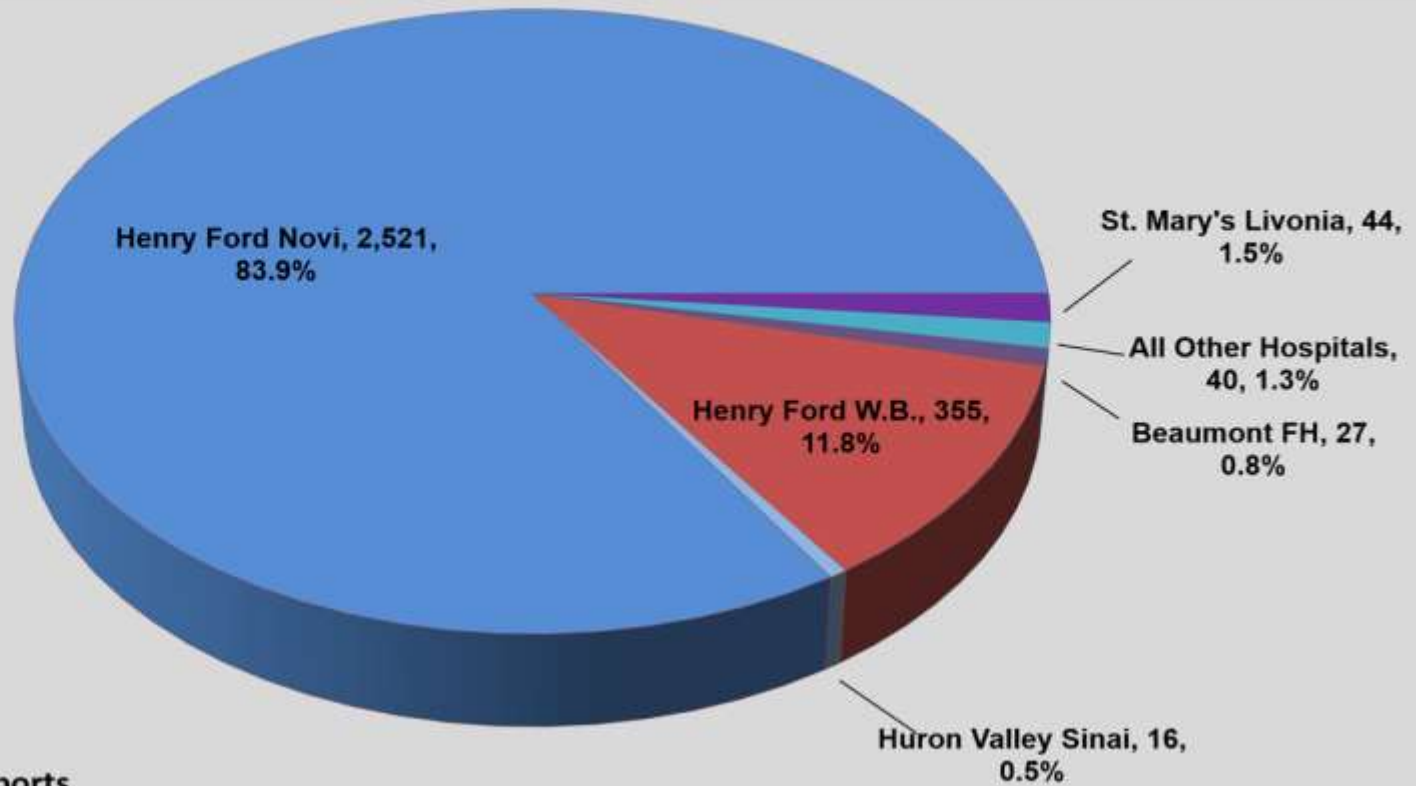


TOTAL 53



Hospital Transports

Hospital Transports 2026



Total Transports
3003



cityofnovi.org

Unstaffed Station Monthly Totals

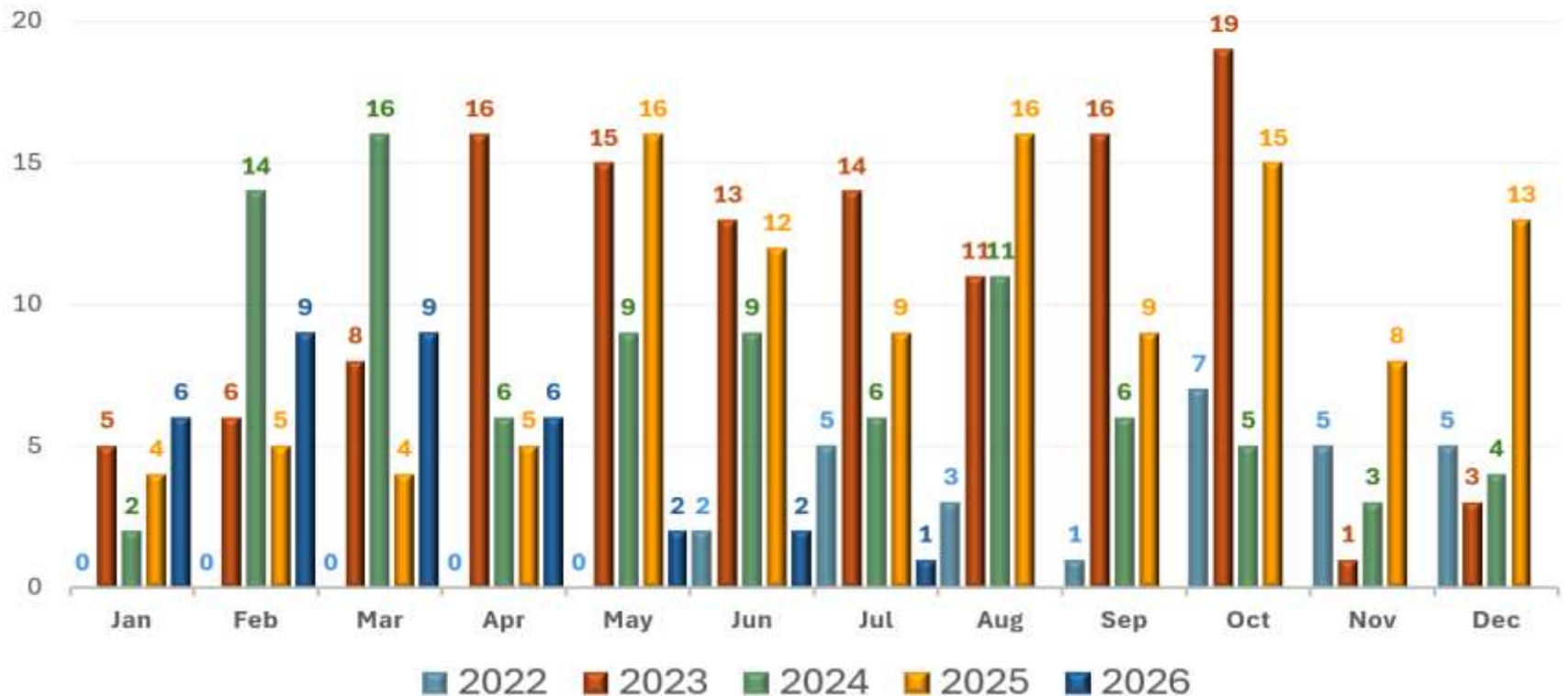
2022 Total: 28

2023 Total: 127

2024 Total: 91

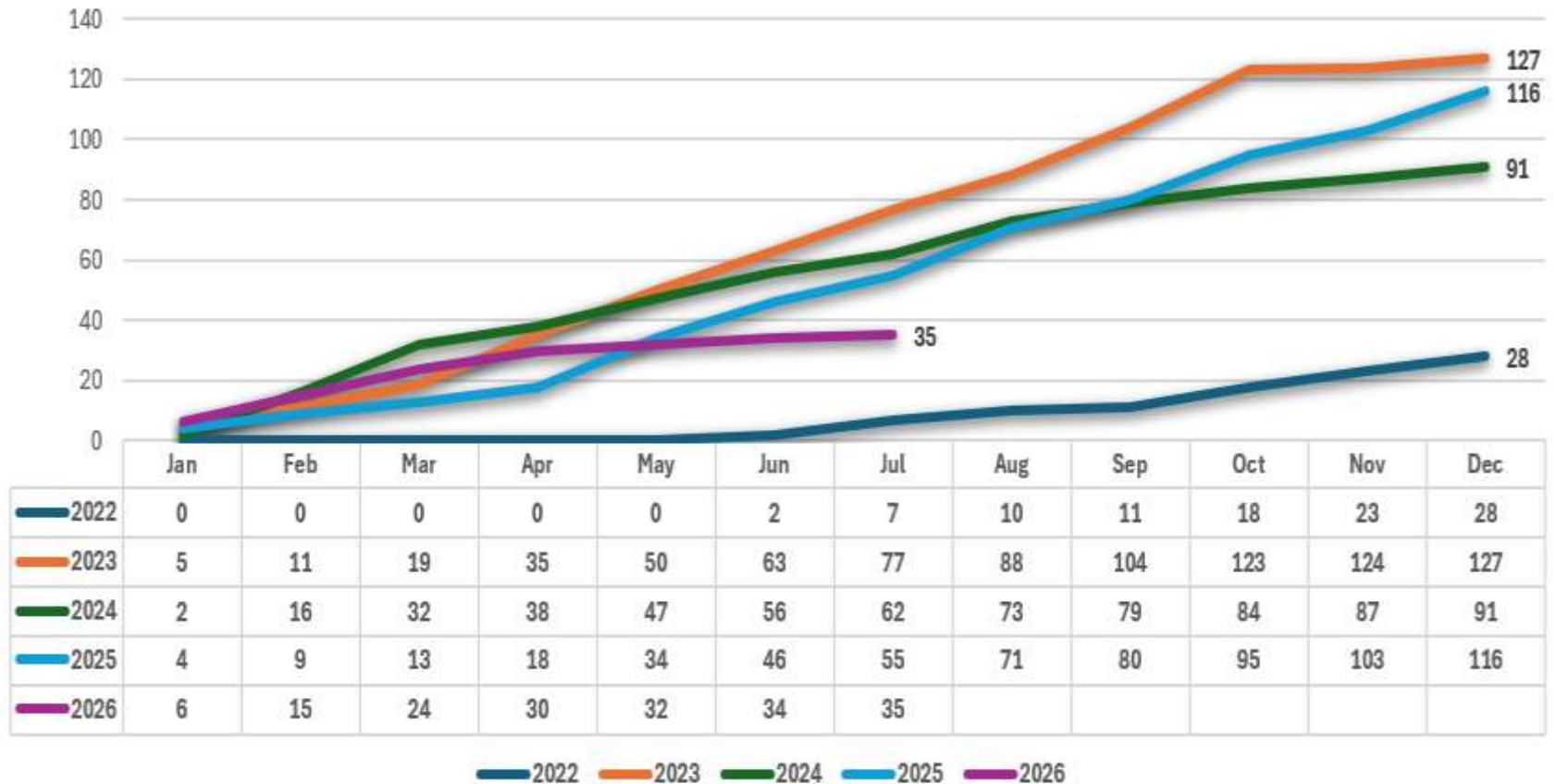
2025 Total: 116

2026 Total: 35



cityofnovi.org

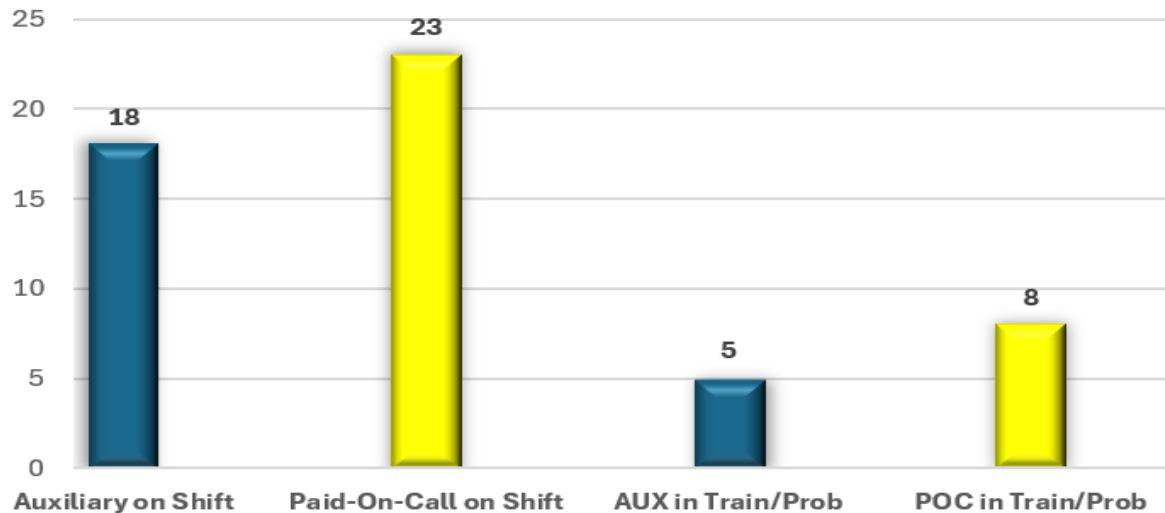
Unstaffed Stations Cumulative Monthly Totals



Part-Time Staffing Levels

July 2026

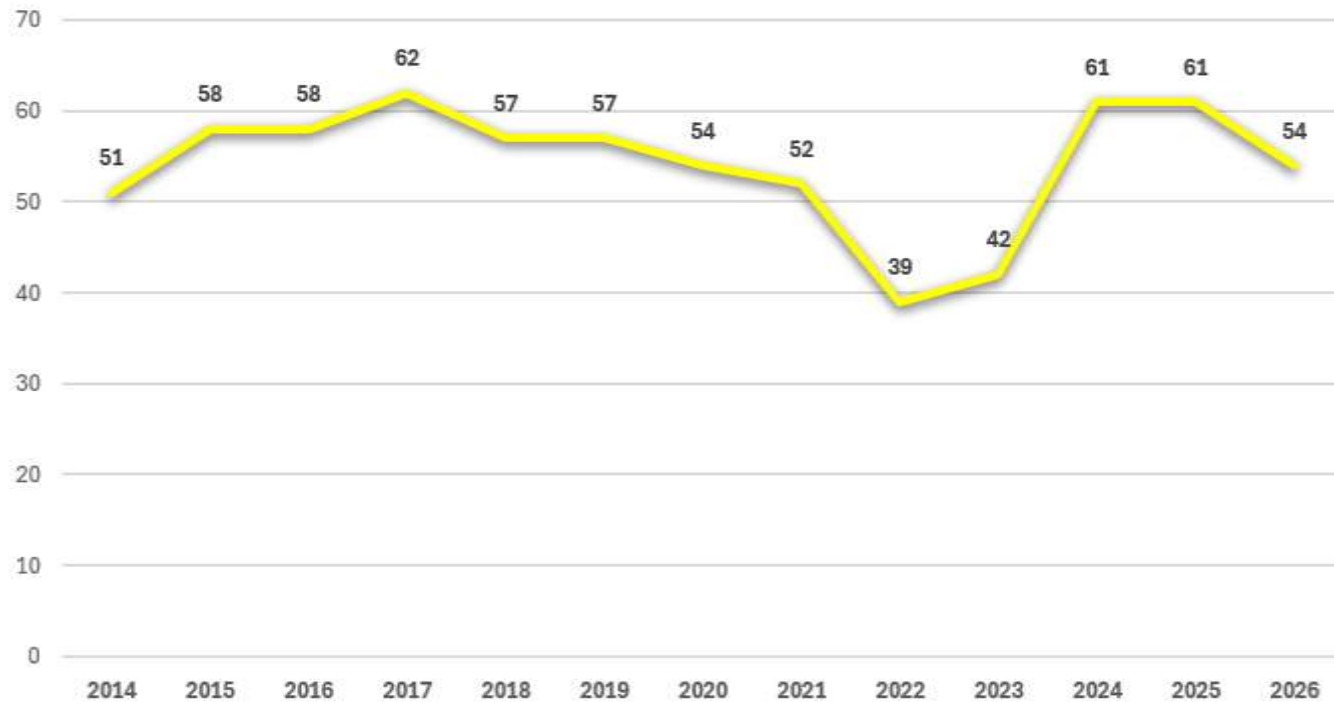
(This includes 2 Auxiliary and 1 POC on Leave of Absence)



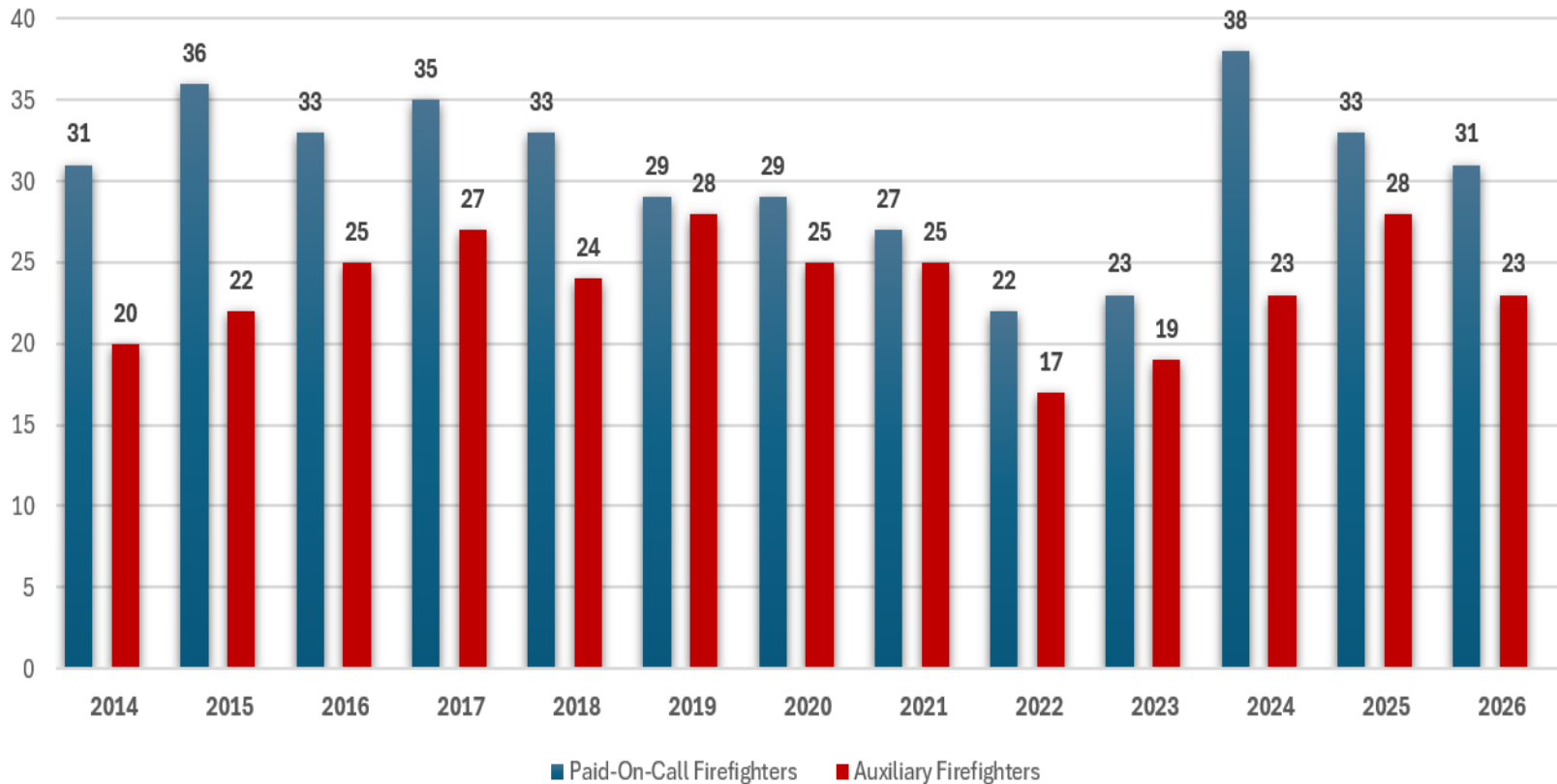
- All Probationary members have completed FF I/II Certification
- All but 1 have obtained thier EMT-B License
- All 13 Probationary members are in various stages of in-house training



Total Number of Part-Time Firefighters Per Year



Part-Time Staffing Levels 2014-2026



ROAD COMMISSION

for OAKLAND COUNTY

PRESS RELEASE PRESS RELEASE

FOR IMMEDIATE RELEASE: Aug. 19, 2026
Visit RCOC online at www.rcocweb.org



TREATMENT OF PHRAGMITES AND KNOTWEED ALONG RCOC ROADS TO TAKE PLACE AUG. 24 THROUGH LATE OCT.

Beverly Hills, MI — The Road Commission for Oakland County (RCOC), in partnership with the Oakland County Cooperative Invasive Species Management Area (CISMA) organization, is addressing invasive species growing along roads throughout Oakland County.

Beginning Aug. 24, and continuing through late October, state-licensed commercial applicators will apply herbicide to targeted areas of knotweed and Phragmites along RCOC roadways. Yellow signs will be posted at treated locations on the day of application. The signs will identify the products used, provide any applicable restrictions and indicate when treatment occurred.

Phragmites is an invasive grass that commonly grows in wet areas and can reach a height of 15 feet. Dense stands can create safety and environmental concerns by blocking sightlines at intersections, impairing drainage, damaging infrastructure and crowding out native habitat. When dry, Phragmites also can fuel intense fires.

Knotweed is another invasive species that can spread rapidly, particularly when it is cut. It can also damage infrastructure, including roads and drainage structures.

Treatment will be performed using vehicle-mounted hand-spray equipment. Once sprayed, the herbicide is an important tool for controlling the stands of Phragmites and knotweed and preventing their continued spread. The public is advised to stay out of the areas treated.

--MORE--

INVASIVE SPECIES/ 2 OF 2

KNOTWEED TREATMENT

Stantec will perform the knotweed treatment. Questions regarding the treatment products used or the application methods may be directed to:

Stantec

8060 Kensington Ct.,
Brighton, MI 48116
616-847-1680
www.stantec.com

PHRAGMITES TREATMENT

PLM Lake and Land Management Corp and Stantec will perform the Phragmites treatment. Questions regarding the treatment products used or the application methods may be directed to:

PLM Lake and Land Management Corp

10785 Bennett Drive
Morrice, MI 48857
800-382-4434
www.plmcorp.net

Stantec

8060 Kensington Ct.,
Brighton, MI 48116
616-847-1680
www.stantec.com

For a list of CISMA members and supporting partners, visit <https://oaklandinvasivespecies.org/current-members/>. For more information or questions, contact RCOC by calling (877) 858- 4804 or emailing dcsmail@rcoc.org.

--- # # # ---

Editor's note: The legal notice and map of roads to be treated are attached.

To maintain environmental quality and public health and safety, the Road Commission for Oakland County (RCOC) and various local governments, working with the Oakland County Cooperative Invasive Species Management Area, will treat the invasive plants knotweed and *Phragmites* along major Oakland County roads from mid-August through October 2026.

Phragmites grows in wet areas and can reach heights of 15 feet, leading to safety and environmental problems. It forms dense stands blocking views at intersections, impedes water access, impairs drainage, damages infrastructure, crowds out habitat and causes hot, damaging fires if ignited. Knotweed spreads easily when cut and can damage infrastructure including buildings and roads.

Areas for treatment include Oakland County primary, local and natural beauty roads in Addison, Bloomfield, Brandon, Commerce, Groveland, Highland, Holly, Independence, Lyon, Milford, Oakland, Orion, Oxford, Rose, Springfield, Waterford, West Bloomfield and White Lake townships; and the communities of Auburn Hills, Beverly Hills, Bingham Farms, Birmingham, Bloomfield Hills, Clarkston, Farmington, Farmington Hills, Franklin, Holly, Lake Angelus, Lake Orion, Lathrup Village, Leonard, Madison Heights, Novi, Novi Township, Orchard Lake Village, Ortonville, Pontiac, Rochester, Rochester Hills, South Lyon, Southfield, Troy, Walled Lake, Wixom and Wolverine Lake.

The contractor listed below will perform the knotweed treatment and can be contacted with questions about the chemical products used and method of application:

- Stantec, 8060 Kensington Ct., Brighton MI 48116. 616-847-1680, www.stantec.com

The contractors listed below will perform the *Phragmites* treatment and can be contacted with questions about the chemical products used and method of application:

- PLM Lake and Land Management Corp, 10785 Bennett Drive, Morrice, MI 48857, 800-382-4434, www.plmcorp.net
- Stantec, 8060 Kensington Ct., Brighton MI 48116. 616-847-1680, www.stantec.com

Michigan Department of Environment, Great Lakes and Energy (EGLE) permitting restrictions, national holidays and/or weather conditions may influence the timing of treatments. The treatment schedule is approximate. Areas adjacent to planned treatment areas may receive posting of the 8.5x11 inch yellow signs at regular intervals or at the start and end of treatment line along treated corridors. Where signs are present, they will indicate the date of the treatment, the products used, and any restrictions on the use of treated property. Any questions about access to right-of-way areas, and to confirm areas that may be recently treated and have restricted access, contact the Road Commission for Oakland County, contact information provided below.

This notice is being circulated in accordance with EGLE procedures. Herbicides that may be applied and the associated use restrictions are listed below. On the day of

treatment, signs will be posted that indicate what products were used and specific restrictions that apply:

Herbicides Planned for Use on knotweed:

Clearcast (Imazamox) and Rodeo (Glyphosate) or Aquaneat (Glyphosate) or Roundup Custom (Glyphosate), and Cygnet Plus as an adjuvant (drift control, surfactant)

Herbicides Planned for Use on Phragmites:

Aquaneat (Glyphosate) or Roundup Custom (Glyphosate) or Glyphosate 5.4 (Glyphosate) or Rodeo (Glyphosate), and Cygnet Plus as an adjuvant (drift control, surfactant)

Method of Application:

All applications will be foliar applied by vehicular mounted hand spray gun equipment or backpack spray equipment. The herbicide will be tank mixed.

Re-Entry Restrictions:

Do not enter treated areas until the spray has dried.

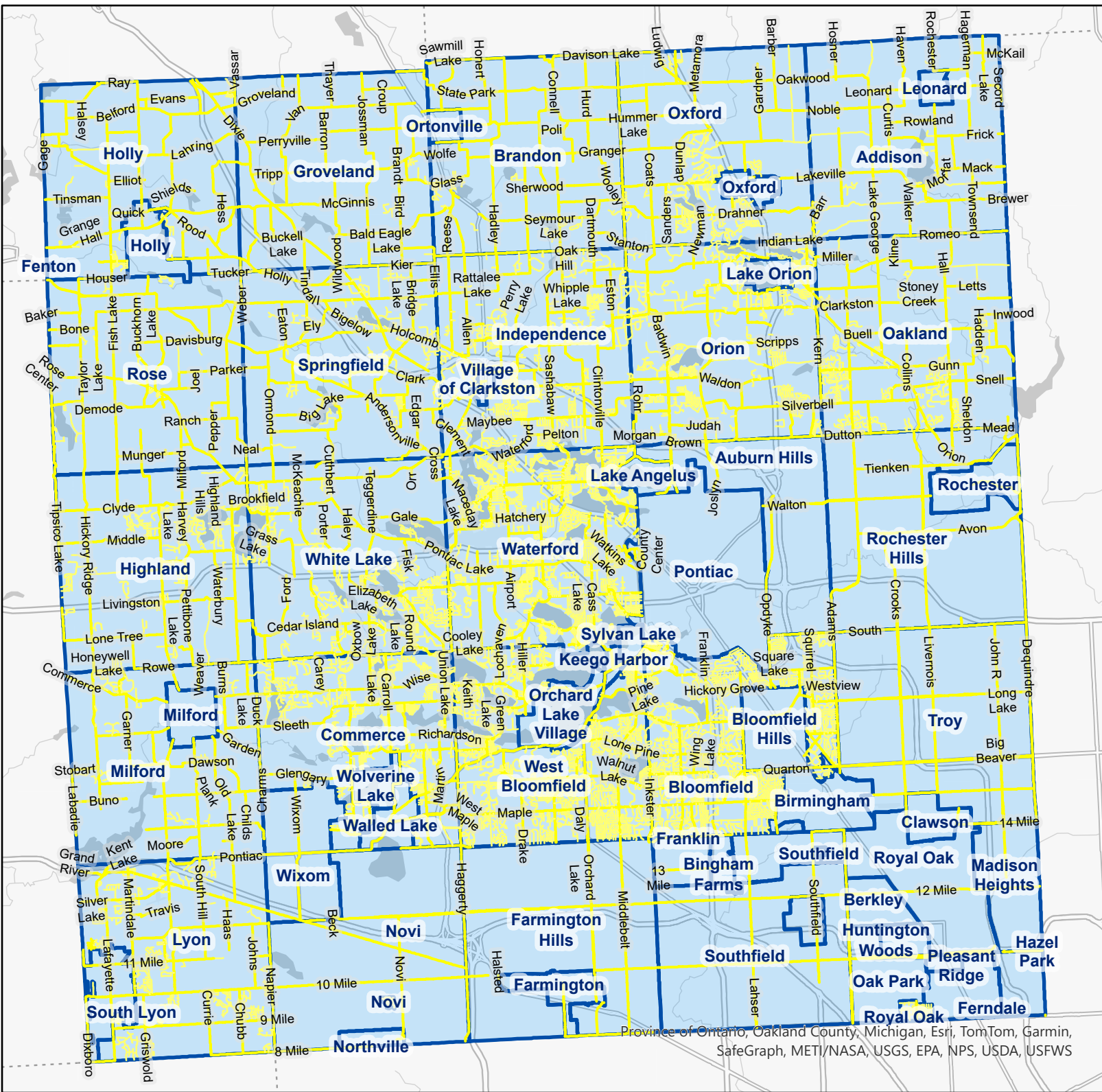
This advance notification is a requirement that a commercial applicator must make before a broadcast or foliar application of pesticides for community or right of way pest management to persons who own or reside on property that is within the target area or to their authorized representatives.

The chemicals used for Aquatic Nuisance Control are registered by the U.S. Environmental Protection Agency (EPA) and the Michigan Department of Agriculture. The potential for damage to fish and other nontarget organisms is minimal when the product is used as directed on the product label and the permit.

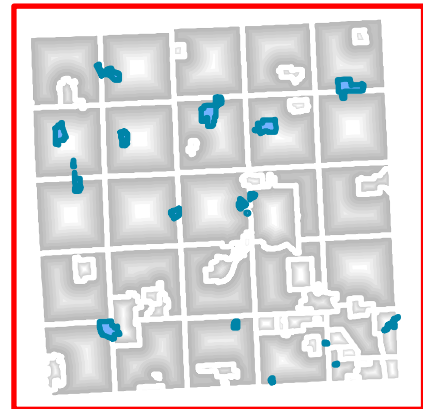
To minimize the possible effects on health and the environment, the treated area is restricted as noted above.

For more information, contact the Road Commission for Oakland County at 31001 Lahser Road, Beverly Hills, MI 48025; by phone at 877-858-4804; or by e-mail at dcsmail@rcoc.org.

Path: C:\Users\megan\Desktop\Oakland County\Working Map\QC_WorkingMap\QC_WorkingMap.aprx



OAKLAND COUNTY PARKS



County Extent

- 2026 ROW Invasive Treatment Areas -

Roads to be Treated

- County Primary/ Local
- County Sublocal/ Natural Beauty

Municipal District



Oakland County Parks and Recreation
Chris Ward, Executive Director
2800 Watkins Lake Road
Waterford, MI
248-858-0906
www.OaklandCountyParks.com

Revision Date: 7/31/2024

"The information that has been provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise."