



CITY of NOVI CITY COUNCIL

Agenda Item 3
January 24, 2011

SUBJECT: Consideration of award of an amendment to the engineering services agreement with Orchard, Hiltz & McCliment (OHM) for additional design engineering services associated with the Nine Mile Pathway project for a proposed alternate preliminary design of an 8-foot wide pathway, in addition to the 10-foot pathway currently being designed, in the amount of \$8,500.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division *BTC*

CITY MANAGER APPROVAL: *[Signature]* *RJA*

| | |
|-----------------------------|--|
| EXPENDITURE REQUIRED | \$8,500 |
| AMOUNT BUDGETED | \$46,500 (Engineering and Right-of-way acquisition) |
| LINE ITEM NUMBER | 204-204.00-974.421(Municipal Street Fund) |

BACKGROUND INFORMATION:

Constructing a continuous pathway along the north side of Nine Mile Road between Meadowbrook Road and Haggerty Road is the highest priority project listed in the Pathway and Sidewalk Prioritization and Process report, which was updated in November 2010. The project consists of constructing two major segments (shown in blue on the attached location map) to provide connectivity to Meadowbrook Road, Haggerty Road and the I-275 shared use trail to the east. Although it is currently being designed as a 10-foot wide pathway (as required by the Federal grant as discussed below), there are other viable widths for this pathway; and regardless of the width selected, the City is committed to completing the project in the upcoming fiscal year.

The City of Novi was awarded \$146,220 in federal funding through the Michigan Department of Transportation (MDOT) Transportation Enhancement grant program to construct the non-motorized pathway. This grant covers \$146,220 (60%) of the estimated \$243,700 construction cost, with the City of Novi responsible for the remaining \$97,480. Design engineering for this path was awarded to OHM in September 2010 in the amount of \$26,710. As required by the grant, the path is currently being designed with a width of 10 feet.

On December 13, 2010, staff hosted a public information open house to discuss the project with nearby residents. The attached December 14 memo from Brian Coburn provides a summary of the meeting and highlights the concerns presented by the residents. The majority of concerns heard at the open house involved the perceived negative impact to the property along the Nine Mile frontage, plus concerns about tree removals and the impact that a wider pathway would have on adjacent properties. While it may seem like an easy solution to move the pathway closer to the road to decrease the impact of property owners, doing so would require removal of several trees and/or require an enclosure of the ditch and curb and gutter added to Nine Mile Road at a substantial cost to the project. The alignment shown on the preliminary plan (attached) was selected to minimize tree impacts and costly ditch enclosures as much as possible.

The City of Novi Master Plan for Land Use defines two distinct types of non-motorized pathways: a sidewalk with a width of five feet and a bicycle path with a width of eight feet. Although the attached Bicycle & Pedestrian Master Plan shows a 5-foot wide sidewalk, as a condition of Federal funding the pathway must be constructed with a 10-foot width, which conforms to the national (AASHTO) standard for a shared use pathway, rather than Novi's standard width of eight feet for a pathway, or five feet for a sidewalk. According to AASHTO, the users of a shared use path include "bicyclists, in-line skaters, roller skaters, wheel chair users (both motorized and non-motorized) and pedestrians, including walkers, runners, people with baby strollers, people walking dogs, etc." The attached excerpt from AASHTO's *Guide for the Development of Bicycle Facilities* and Federal Highway Administration design guidelines provide additional information about the design standards. This increased width along with some other design standards required by AASHTO, such as minimum centerline radii, could result in additional grading or tree removal in some areas.

For these reasons, and because of affected residents' concerns, staff requested a proposal from OHM for the design of an 8-foot wide path design alternative to allow the City to evaluate the reduced impact that may be realized by a narrower path. A similar alternative was approved by City Council in April 2007 in which the width of the proposed pathway along the west side of Meadowbrook Road between Eight Mile Road and Ten Mile Road was reduced from a master planned 8-foot width to five feet wide at the time of preliminary design.

With this in mind, OHM has provided a proposal (attached) to develop a second, 8-foot wide pathway design concurrently with the 10-foot wide design currently under way. OHM's fee for this second, parallel design would be \$8,500 to prepare the 8-foot wide design to 60% completion—a point at which impacts to adjoining properties, trees, and landscaping could be quantified. Although some tasks such as surveying and other preliminary design efforts do not require duplication, the majority of the design tasks must be performed twice to develop the two designs, resulting in the proposed design fee. If the decision is made to proceed with the alternate design, then an additional fee of \$9,500 (for a total design fee of \$18,000) would be required to bring it to 100% completion.

It is important to note that construction of this pathway using the City's standard 8-foot width for a shared use pathway would result in forfeiture of the federal grant funding. While a reduction in the pathway width would decrease the construction cost to approximately \$190,000, the loss of federal funding would result in an increased City cost of approximately \$110,500 for this project, including the additional \$18,000 for design. Project funding is designated from the Municipal Street Fund, so if the 8-foot wide alternative is chosen, the additional \$110,500 in cost would be at the expense of other competing roadway, intersection, and pathway/sidewalk projects in the FY11-12 Capital Improvements Program.

The design of both alternatives for the pathway would be completed this winter. Construction is expected to begin in late summer of 2011.

RECOMMENDED ACTION: Consideration of award of an amendment to the engineering services agreement with Orchard, Hiltz & McCliment (OHM) for additional design engineering services associated with the Nine Mile Pathway project for a proposed alternate preliminary design of an 8-foot wide pathway, in addition to the 10-foot pathway currently being designed, in the amount of \$8,500.

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| Mayor Pro Tem Gatt | | | | |
| Council Member Fischer | | | | |
| Council Member Margolis | | | | |

| | 1 | 2 | Y | N |
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| Council Member Mutch | | | | |
| Council Member Staudt | | | | |
| Council Member Wrobel | | | | |

MAP INTERPRETATION NOTICE

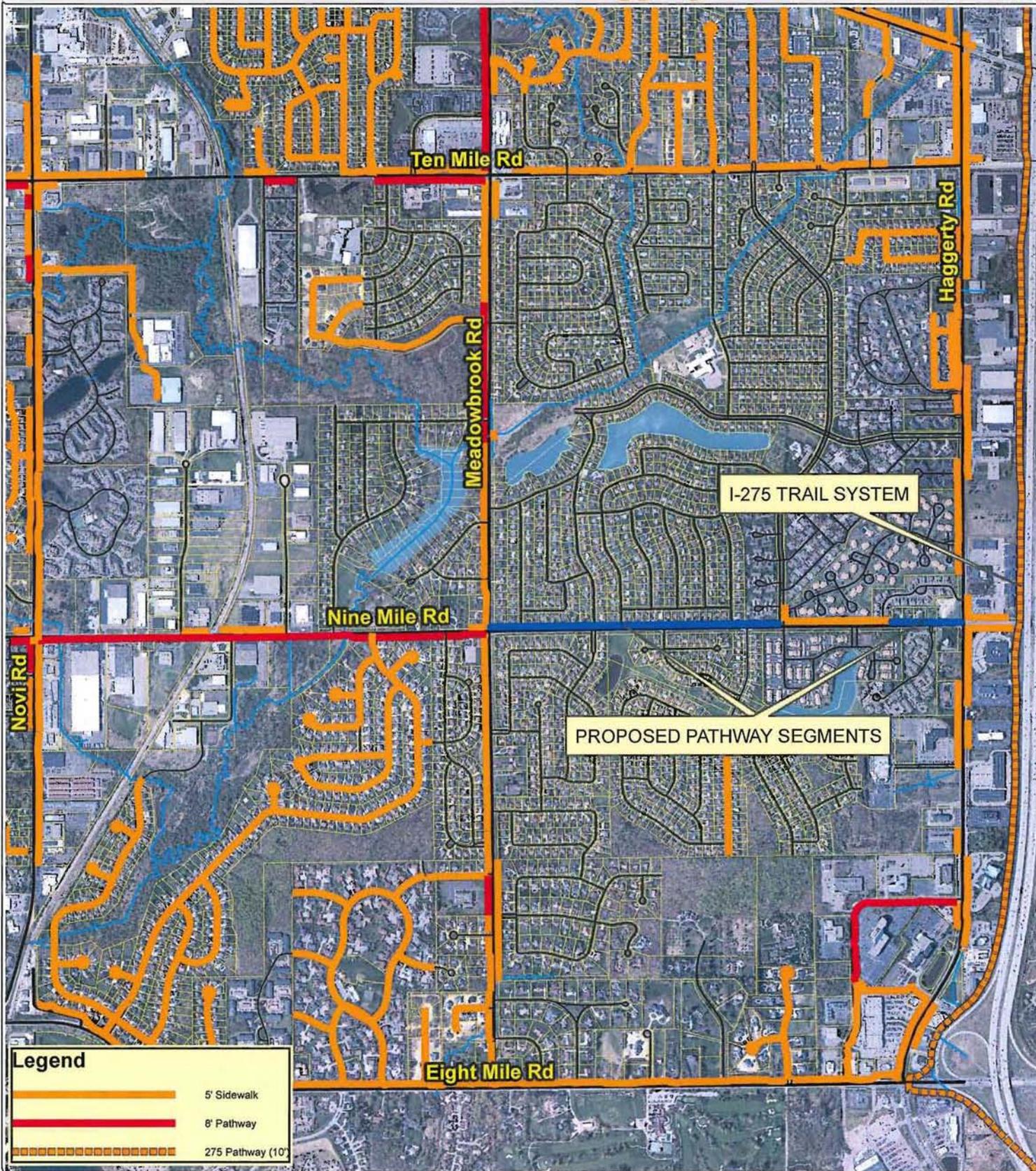
Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi.
Boundary measurements and area calculations are approximate 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



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Feet

NINE MILE ROAD PATHWAY PROJECT Meadowbrook Road to Haggerty Road



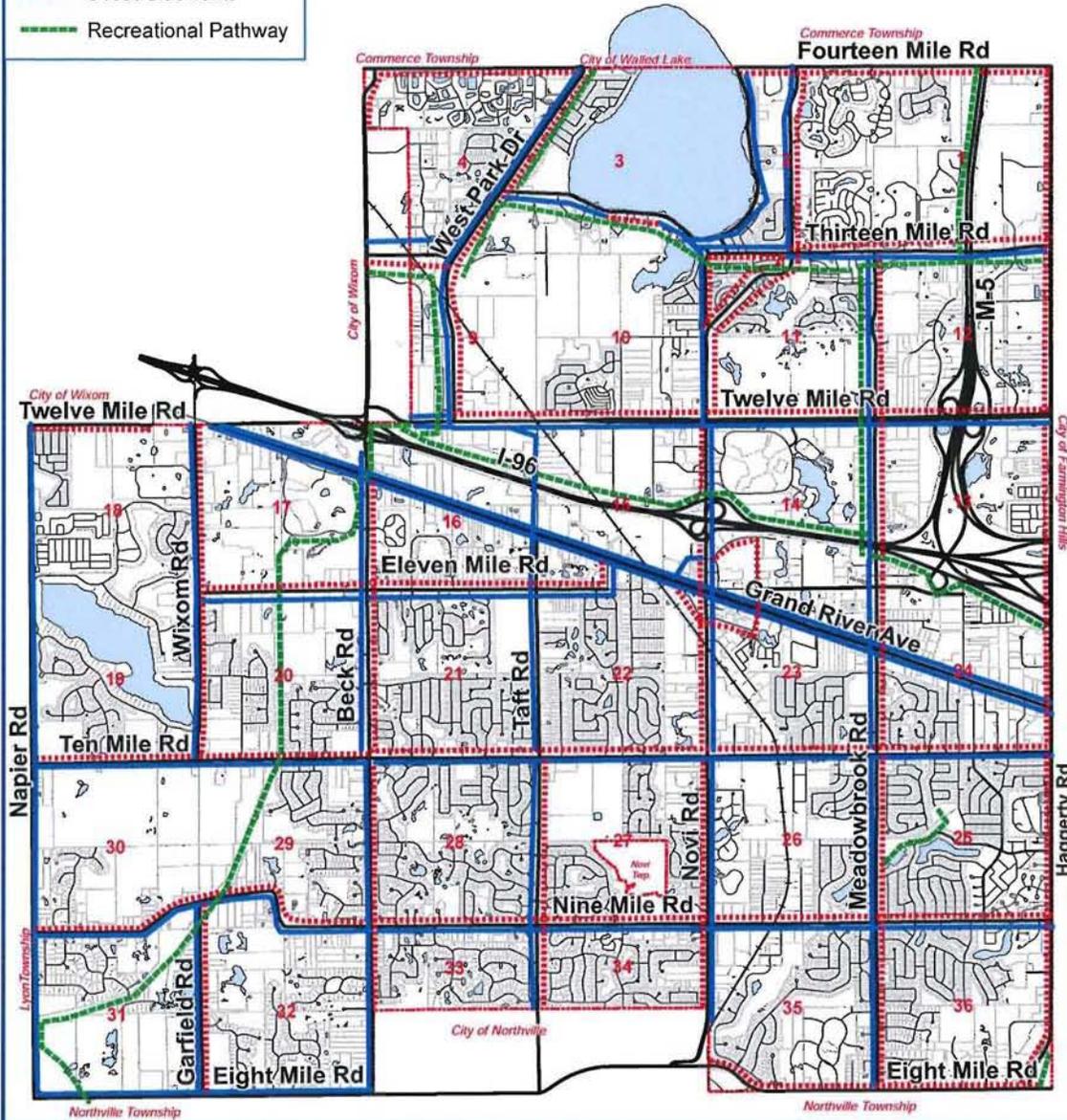
Legend

-  5' Sidewalk
-  8' Pathway
-  275 Pathway (10')

Bicycle and Pedestrian Master Plan

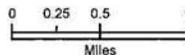
Legend

-  8 foot Pathways
-  5 foot Sidewalks
-  Recreational Pathway



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Recreation trails are from the City of Novi Pathway and Sidewalk Prioritization Analysis and Process, 2009 Update.

CITY OF NOVI PLANNING COMMISSION

45175 W. Ten Mile Road
Novi, MI 48375-3024
(248) 347-0475
Map Cartographer:
Mark Spencer, AICP, Planner
CREATED: 3/31/10
Version 1.0

Figure 55

14.6 Shared-use path width

The width of the shared-use path tread not only affects pedestrian usability but also determines the types of users who can use the path. Factors, such as the movement patterns of designated user groups, should be considered. For example, skaters may use a lateral foot motion for propulsion that is wider than the stride of most pedestrians. In addition, shared-use paths should be designed to accommodate high-speed users in both directions.

The tread of a shared-use path should be at least 3.05 m (10 ft) wide. A minimum of 2.44 m (8 ft) may be used on shared-use paths that will have limited use. Shared-use paths should also have graded areas at least 610 mm (2 ft) on either side of the path. On shared-use paths with heavy volumes of users, tread width should be increased to a range from 3.66 m to 4.27 m (12 ft to 14 ft).

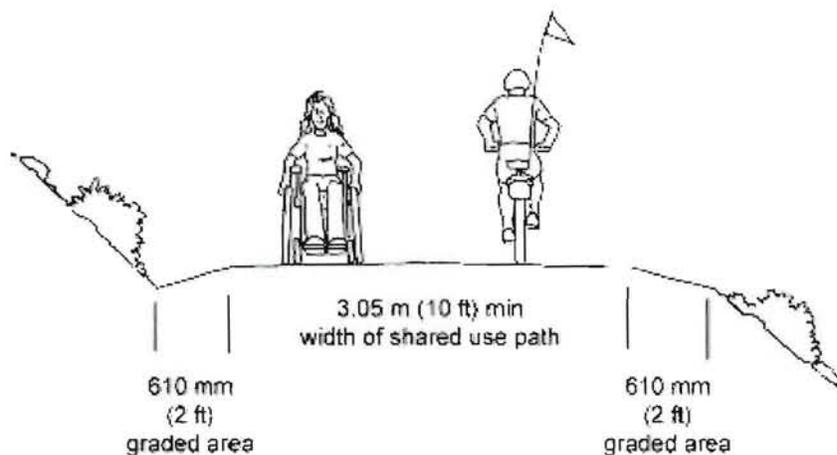


Figure 14-11. Shared-use paths should be designed with a minimum tread width of 3.05 m (10 ft) with graded areas of at least 610 mm (2 ft) on either side of the path.

can complicate maintenance of the facility, and can cause other problems as well.

For the above reasons, other types of bikeways are likely to be better suited to accommodate bicycle traffic along highway corridors, depending upon traffic conditions. Shared use paths should not be considered a substitute for street improvements even when the path is located adjacent to the highway, because many bicyclists will find it less convenient to ride on these paths compared with the streets, particularly for utility trips.

When two-way shared use paths are located adjacent to a roadway, wide separation between a shared use path and the adjacent highway is desirable to demonstrate to both the bicyclist and the motorist that the path functions as an independent facility for bicyclists and others. When this is not possible and the distance between the edge of the shoulder and the shared use path is less than 1.5 m (5 feet), a suitable physical barrier is recommended. Such barriers serve both to prevent path users from making unwanted movements between the path and the highway shoulder and to reinforce the concept that the path is an independent facility. Where used, the barrier should be a minimum of 1.1 m (42 inches) high, to prevent bicyclists from toppling over it. A barrier between a shared use path and adjacent highway should not impair sight distance at intersections, and should be designed to not be a hazard to errant motorists.

Width and Clearance

The paved width and the operating width required for a shared use path are primary design considerations. Figure 17 depicts a shared use path on a separated right of way. Under most conditions, a recommended paved width for a two-directional shared use path is 3.0 m (10 feet). In

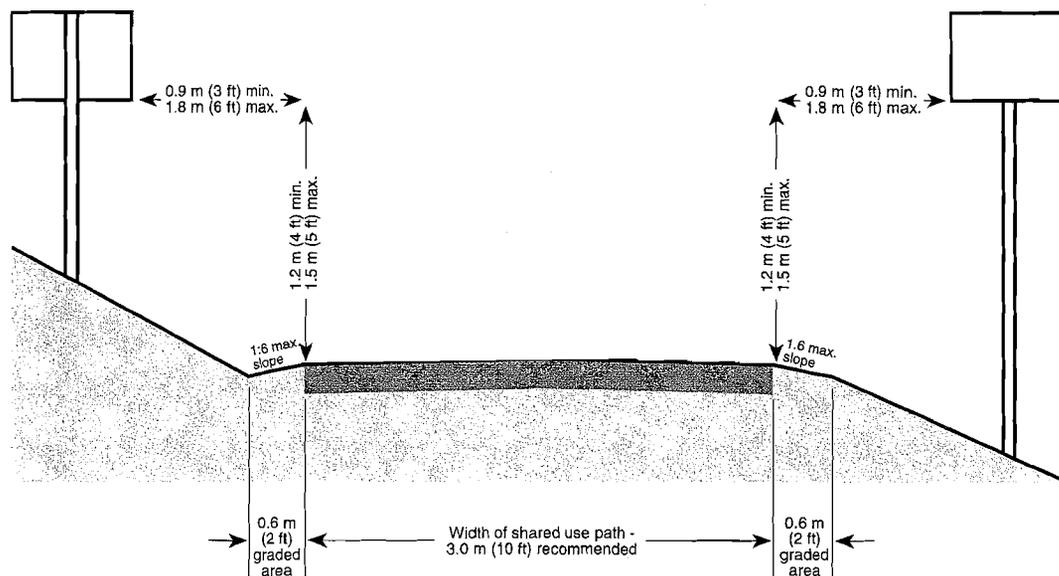


Figure 17. Cross Section of Two-Way Shared Use Path on Separated Right-of-Way



rare instances, a reduced width of 2.4 m (8 feet) can be adequate. This reduced width should be used only where the following conditions prevail: (1) bicycle traffic is expected to be low, even on peak days or during peak hours, (2) pedestrian use of the facility is not expected to be more than occasional, (3) there will be good horizontal and vertical alignment providing safe and frequent passing opportunities, and (4) during normal maintenance activities the path will not be subjected to maintenance vehicle loading conditions that would cause pavement edge damage. Under certain conditions it may be necessary or desirable to increase the width of a shared use path to 3.6 m (12 feet), or even 4.2 m (14 feet), due to substantial use by bicycles, joggers, skaters and pedestrians, use by large maintenance vehicles, and/or steep grades.

The minimum width of a one-directional shared use path is 1.8 m (6 feet). It should be recognized, however, that one-way paths often will be used as two-way facilities unless effective measures are taken to assure one-way operation. Without such enforcement, it should be assumed that shared use paths will be used as two-way facilities by both pedestrians and bicyclists and designed accordingly.

A minimum 0.6-m (2-foot) wide graded area with a maximum 1:6 slope should be maintained adjacent to both sides of the path; however, 0.9 m (3 feet) or more is desirable to provide clearance from trees, poles, walls, fences, guardrails or other lateral obstructions. Where the path is adjacent to canals, ditches or slopes down steeper than 1:3, a wider separation should be considered. A minimum 1.5 m (5-foot) separation from the edge of the path pavement to the top of the slope is desirable. Depending on the height of embankment and condition at the bottom, a physical barrier, such as dense shrubbery, railing or chain link fence, may need to be provided. (See Figure 18.)

The vertical clearance to obstructions should be a minimum of 2.5 m (8 feet). However, vertical clearance may need to be greater to permit passage of maintenance and emergency vehicles. In undercrossings and tunnels, 3.0 m (10 feet) is desirable for adequate vertical shy distance.

Design Speed

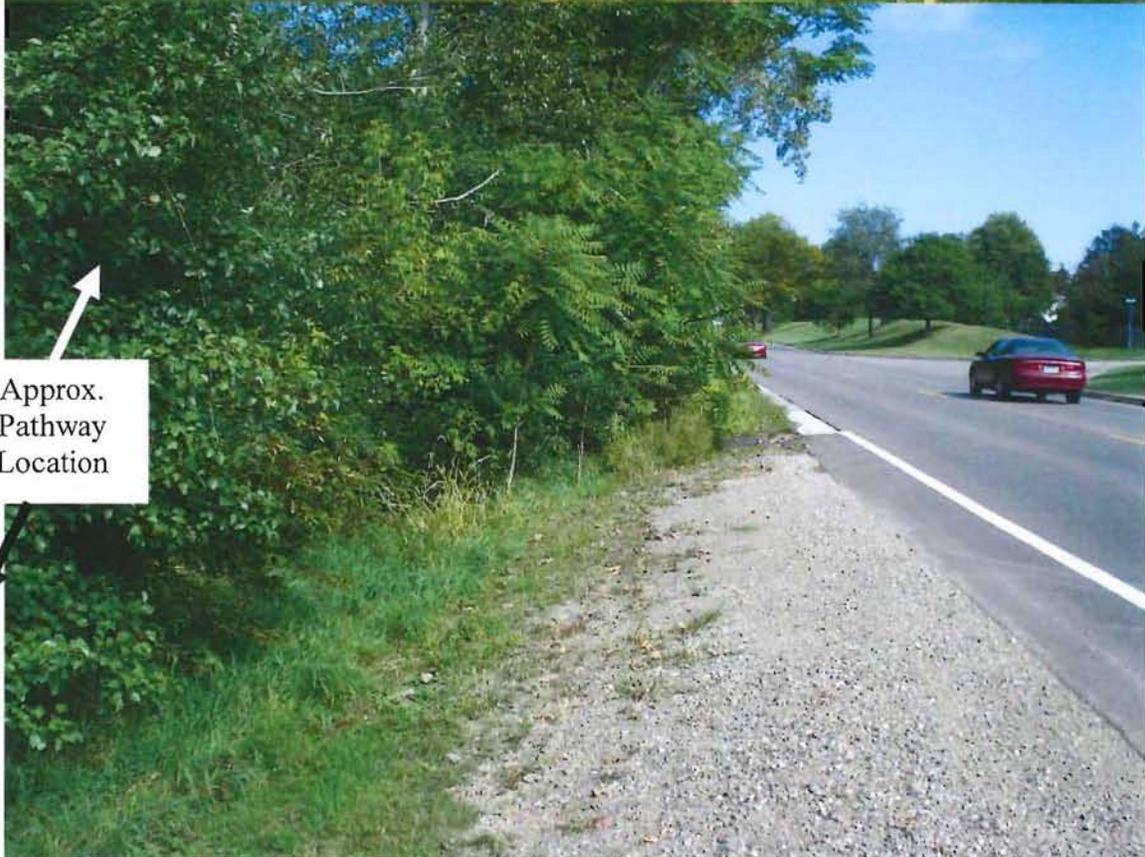
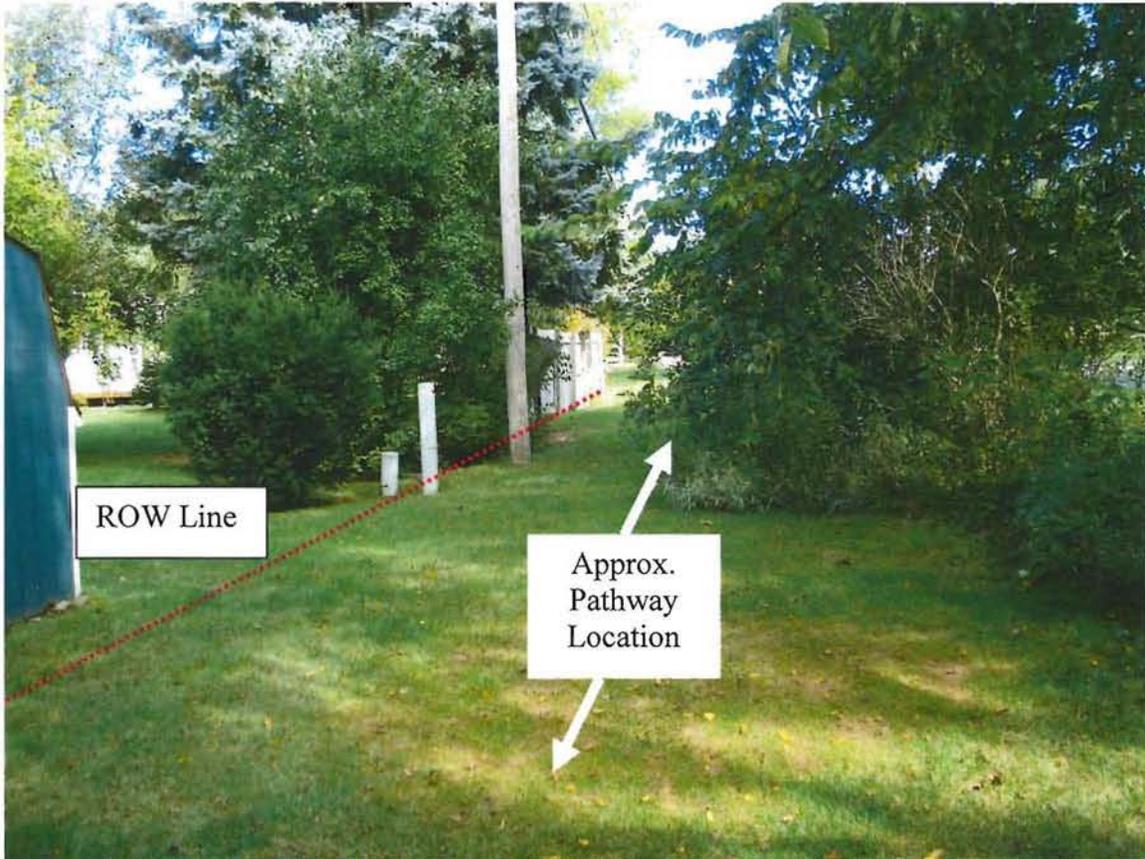
The speed a bicyclist travels is dependent on several factors, including the type and condition of the bicycle; the purpose of the trip; the condition, location and grade of the path; the speed and direction of any prevailing winds; the number and types of users on the path; and the physical condition of the bicyclist. Shared use paths should be designed for a selected speed that is at least as high as the preferred speed of the faster bicyclists. In general, a minimum design speed of 30 km/h (20 mph) should be used. Although bicyclists can travel faster than this, to do so would be inappropriate in a mixed-use setting. Design and traffic controls can be used to deter excessive speed and faster cyclists can be encouraged to use the roadway system. Lower design speeds should not be selected to artificially lower user speeds. When a downgrade exceeds 4 percent, or where strong prevailing tailwinds exist, a design speed of 50 km/h (30 mph) or more is advisable.

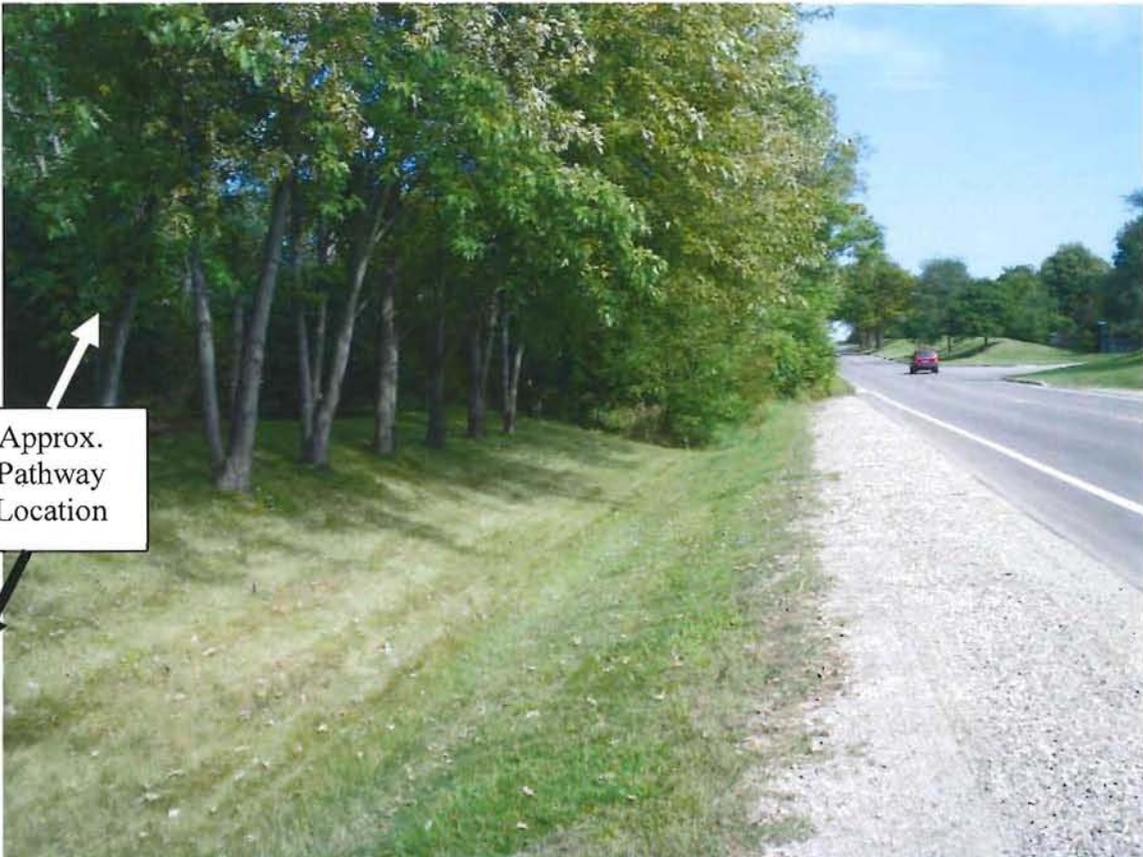


Figure 18. Safety Rail Between Shared Use Path and Adjacent Slope and Waterway

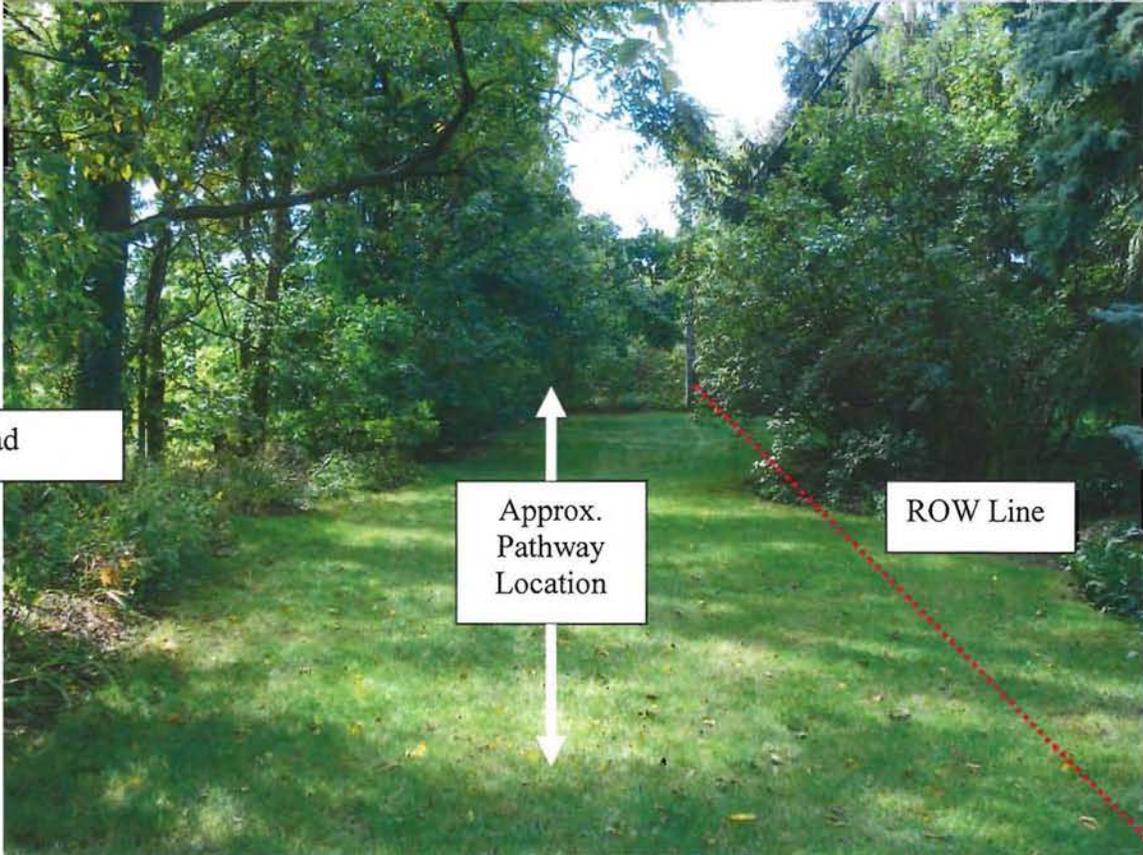


PHOTOS OF PROPOSED NINE MILE PATHWAY ALIGNMENT





Approx.
Pathway
Location



Road

Approx.
Pathway
Location

ROW Line



MEMORANDUM

TO: ROB HAYES, P.E.; DIRECTOR OF PUBLIC SERVICES
FROM: BRIAN COBURN, P.E.; ENGINEERING MANAGER *BC*
SUBJECT: NINE MILE PATHWAY PUBLIC INFORMATION OPEN HOUSE
DATE: DECEMBER 14, 2010

12/16/10
To: Mayor City Council
Further update FY11
[Signature]

A public information open house was hosted last evening by the Engineering staff to discuss a proposed pathway on the north side of Nine Mile Road between Meadowbrook Road and Haggerty Road. The project is partially funded using a federal grant, which was awarded by Michigan Department of Transportation in 2008. The grant covers \$146,220 (60%) of the estimated \$243,700 construction cost of the pathway, with the City of Novi responsible for the remaining \$97,480. The design engineering was funded in Novi's FY10-11 budget, with the construction identified in the Capital Improvement Program for FY11-12. A summary of the project details can be found in my November 23, 2010 memo, attached.

The meeting was attended by approximately two dozen people. The majority of the attendees were residents living adjacent to the proposed pathway. There were also residents from the south side of Nine Mile Road and other parties interested in pathways in attendance. While most of the attendees live directly adjacent to the proposed pathway and were mostly opposed to its construction, those attendees who were advocates of the pathway were in favor of the attached plan.

The purpose of the open house was for staff and consultants to work with the residents to identify specific concerns about the pathway on their properties and work to minimize those impacts to the extent feasible during final design. There were few specific comments about individual properties, but several comments about the pathway project in general. These comments can be summarized as follows along with the responses provided by staff:

- *The residents on the north side of Nine Mile Road feel the pathway should be located on the south side of the road.* Staff responded that the north side of Nine Mile was identified in the grant application because it will minimize the impacts to trees and berms and decrease the number of potential easements required for the project. One resident noted that a pathway was proposed for construction using grant funds in 2000 along the south side of Nine Mile Road from Novi Road to Haggerty Road and there was City Council action to eliminate the Meadowbrook Road to Haggerty Road portion from the grant. At that time, there were concerns about the location of the proposed pathway relative to the existing berm. Staff explained that this pathway is part of a larger plan to connect pathway segments throughout the City and to a larger regional system. Staff discussed the Pathway and Sidewalk Prioritization Analysis and Process and shared the background on the selection and ranking of this location, especially regarding the connectivity of a densely populated area to the I-275 regional pathway.
- *Several people believed that they should have been notified sooner about the pathway project.* Staff referenced the Pathway and Sidewalk Prioritization Analysis and Process and the Non-Motorized Study that is in progress as examples of community input into the selection of pathway priorities.

- *The 10' width of the pathway was believed to increase the impact on the adjacent properties.* Staff explained that the City received a grant for the project requiring a minimum width of 10 feet as one of the conditions of funding.
- *The number of tree removals required for the project.* There are a number of trees that require removal for construction of the pathway under the current plan. The removals are required because the tree locations conflict with the pathway or the grading associated to provide proper slopes on and adjacent to the pathway. The alignment of the pathway could be adjusted to avoid more trees by moving it closer to the road in some locations; however, this design change would significantly increase the cost of construction for the installation of the curb and gutter, storm sewers, and catch basins needed to enclose the ditches in the existing areas that are uncurbed.
- *Some people believe that their safety will be compromised by inviting people into their backyards from the pathway.* Staff explained that similar concerns about safety have been raised on past pathway projects and upon checking with the Police Department, those concerns were never realized.
- *The City should work with the residents to install standard fences.* Several residents expressed their intention to install fencing along the south property line, although there was some concern about the aesthetics of dissimilar fencing. Some questioned if the City could help coordinate a standard fencing installation with the residents at their cost. This will be investigated by staff as part of the final design to determine the feasibility and risks.
- *The pathway should be located closer to the road to minimize impacts on privacy.* There are several properties that have trees along the south side of the property to screen the yards from Nine Mile Road. In some cases, the pathway is proposed on the north side of the screening trees, placing the pathway in an area of the right-of-way that the residents have generally used as their backyards. Moving the pathway closer to the road would require removal of the screening trees and/or require an enclosure of the ditch and curb and gutter added to Nine Mile Road at a substantial cost to the project. The location shown on the preliminary plan was selected to minimize tree impacts and costly ditch enclosures as much as possible.
- *Those properties that front on Nine Mile Road were concerned about vehicle and pedestrian conflicts, especially when backing out of their driveways.* There are four residential properties near Haggerty Road that front on Nine Mile Road. These property owners have concerns about backing out of their driveways and potentially crashing into a pedestrian or bicyclist. Staff will review these areas as part of the final design to increase sight distance and improve the safety of these crossings.
- *Winter maintenance of the pathway, especially for those people who would have the pathway in their backyards, making it difficult to access the pathway with snowblowers.* The most common concern expressed was related to winter maintenance of the 10-foot wide pathway. Several residents found this requirement to be extremely burdensome, especially those with pathways in their backyards that would have difficulty transporting their snowblowers to the pathway. The requirement for clearing pathways is found in Section 21-126 (attached) and requires that the snow be cleared from sidewalks within 24 hours by the adjacent property owner after a snow greater than two inches. Since this is the City's first 10-foot wide pathway in a city right-of-way, staff will determine if the ordinance should be reviewed to address resident winter maintenance obligations on the wider pathways.

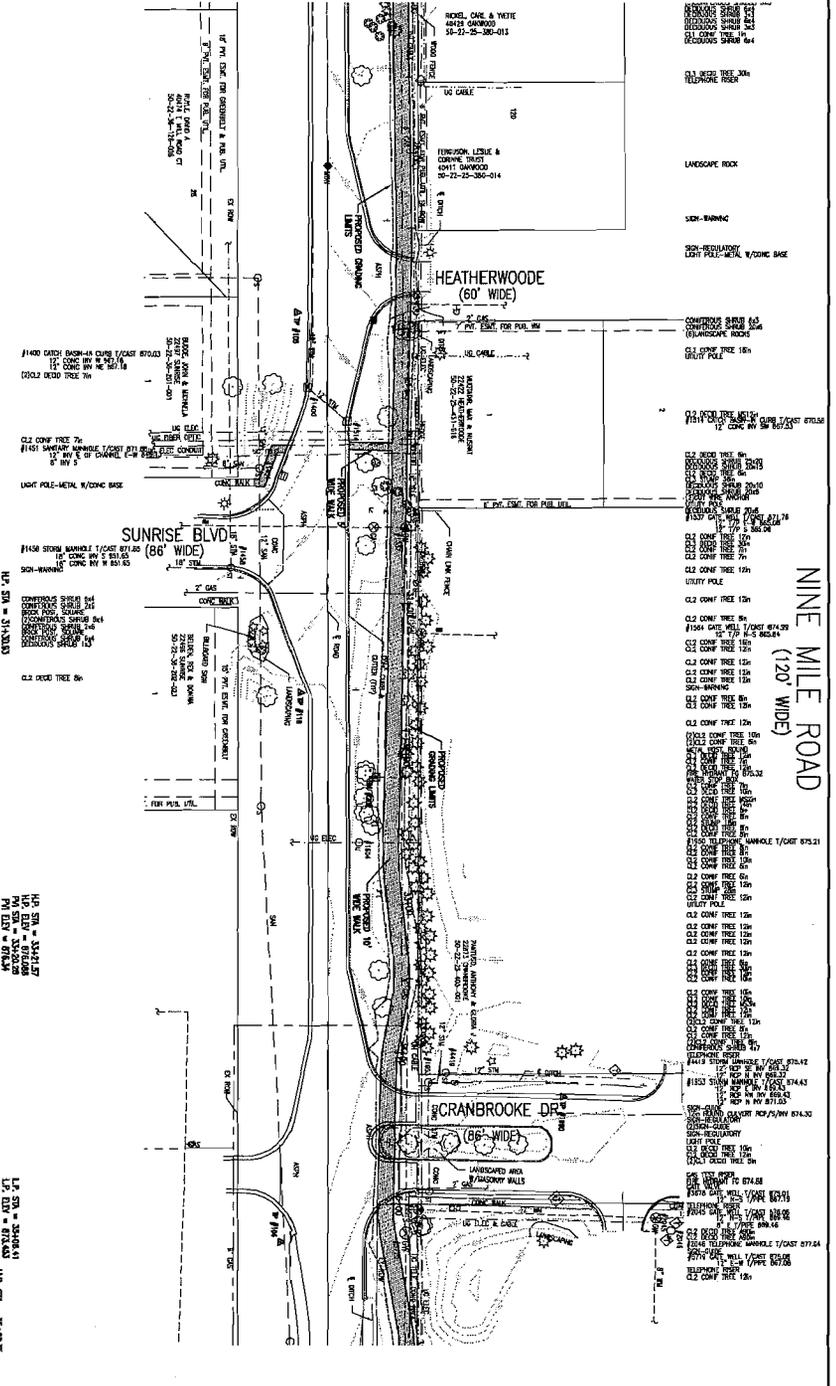
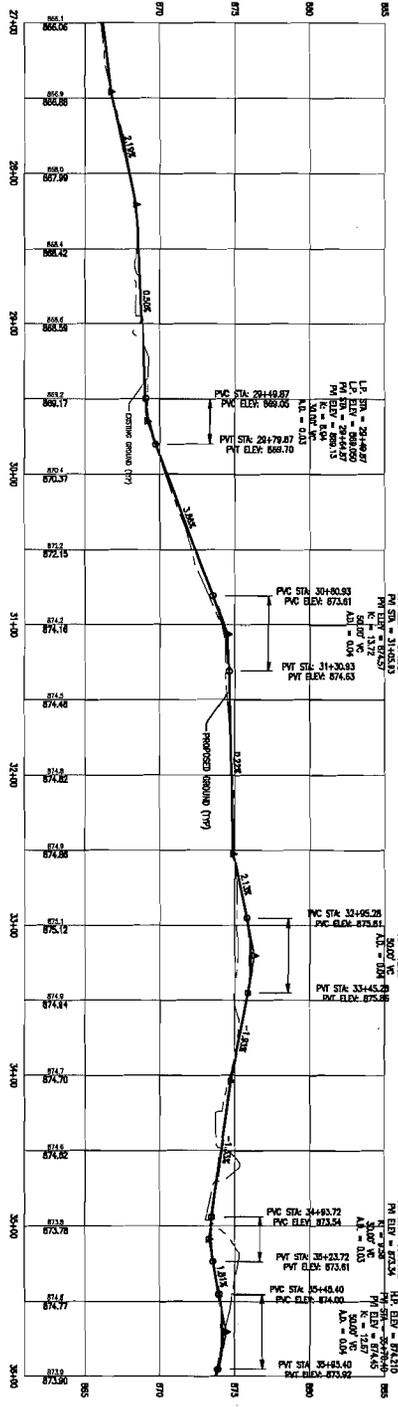
Since my last memo, we have been able to reduce the number of permanent easements required for the project to only three: one residential property, one for Pavilion Apartments (needed if there are funds available to replace the existing 5-foot sidewalk), and one for the vacant commercial parcel on the corner of Haggerty and Nine Mile Road. We continue to anticipate approximately ten temporary grading easements; however that number is subject to change until the design is finalized. Excluding the Pavilion Apartments parcel, over 90% of the pathway is to be constructed within the City's Nine Mile Road dedicated right-of-way.

Staff will continue to refine the design based on the comments received at the open house and look for ways to decrease the number of trees slated for removal while keeping the project within the established budget. We will communicate updated information to the residents using the project website at www.cityofnovi.org/9milepath.

cc: Charles Boulard, Community Development Director
Barbara McBeth, AICP; Deputy Community Development Director
Ben Croy, P.E.; Civil Engineer

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| PROJECT | NINE MILE ROAD |
| SCALE | AS SHOWN |
| DESIGNER | OHM |
| CHECKER | OHM |
| APPROVER | OHM |
| DATE | 12/12/10 |



NINE MILE ROAD PATHWAY
 CONSTRUCTION PLAN
 STA 27+00 THRU 36+00

| DATE | NO. | BY | CHKD BY | PROJ. NO. | SECTION | TOWN | RANGE | COUNTY | DEVELOPER | SCALE | HORIZONTAL | VERTICAL |
|---|-----|-----|---------|-----------|---------|------|-------|--------|-----------|----------------------|------------|----------|
| 12/12/10 | 1 | OHM | OHM | | | | | OSHTON | OHM | 1"=40' | AS SHOWN | AS SHOWN |
| CITY OF NOVI | | | | | | | | | | 0183-10-0130 | | |
| 34000 Plymouth Road Livonia, MI 48150 P (734) 522-6711 F (734) 522-6427 | | | | | | | | | | WWW.OHM-ADVISORS.COM | | |





2 TE CATEGORIES: PROJECT TYPES, GOALS, EVALUATION CRITERIA

The TE application includes questions which establish how the proposed project fits within one or more of the project eligibility categories. In addition, applicants are asked to answer questions which indicate how well the proposed project:

- Accomplishes MDOT's TE activity category goals, and
- Meets MDOT's TE activity category evaluation criteria.

For each of the five TE activity categories, this section provides a list of eligible project types, category goals, and category evaluation criteria.

2.1 NONMOTORIZED TRANSPORTATION

Project Types:

Facilities for Pedestrians and Bicycles:

- Paved shoulders five or more feet wide.
- Curb lane with greater than 12 feet.
- Bike lanes
- Shared use paths 10 feet wide or greater
- Path/trail user amenities
- Grade separations
- Bicycle parking facilities
- Bicycle accommodations on public transportation

Preservation of Abandoned Railroad Corridors (Including the Conversion and Use Thereof for Pedestrian or Bicycle Trails):

- Acquisition of abandoned rail corridors
- Preparation of a rail corridor for nonmotorized use
- Development of a nonmotorized facility in a rail corridor

Provision of Safety and Educational Activities for Pedestrians and Bicyclists:

- Design, development, and/or implementation of materials and programs

Nonmotorized Transportation Goals:

- Increase nonmotorized travel by:
 - Promoting nonmotorized transportation as a complement and/or an alternative to other transportation modes.
 - Encouraging community plans that foster nonmotorized travel and the coordination of nonmotorized travel with other modes.

MICHIGAN DEPARTMENT OF TRANSPORTATION
TRANSPORTATION ENHANCEMENT ACTIVITY

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Page 1 of 2

Conditional Commitment

Project Number: ENH200900002
Applicant: Novi
Project Name: Nonmotorized Pathway: Nine Mile Road from Meadowbrook to Haggerty

TEA Amount Requested: \$146,220.00
Original Match: \$97,480.00
Total Project Cost Requested: \$243,700.00

TEA Amount Recommended Pending Final Reviews and Approvals: \$146,220.00 60.00 %
(Prorated) Applicant / Sponsor Match: \$97,480.00 40.00 %
TEA Recommended + Prorated Match: \$243,700.00

Proposed (Participating) Work:

2011 CONDITIONAL COMMITMENT:

The City of Novi will construct two segments of nonmotorized pathway on Nine Mile Road that will result in providing a continuous nonmotorized pathway between Meadowbrook and Haggerty Road. This project, on the north side of Nine Mile, will provide an alternate means of transportation that will benefit residents and businesses in Novi by connecting a heavily residential area with the nearby Haggerty Road corridor, which is primarily commercial. Also, the pathway will provide access to the I-275 bike path off of Nine Mile Road which will benefit pedestrians and bicyclists alike. Total project cost is \$243,700 with \$146,220 in federal enhancement program funds and \$97,480 in local match from the City of Novi. vhr

FUNDING CONDITION

This project must be designed and constructed in accordance with the standards in the AASHTO Guide for the Development of Bicycle Facilities, 1999 edition. The standards include a minimum 10' width with a minimum of 2' clear zone on both sides, for trails. Also, any bridges or boardwalks will have a minimum 14' width between rub rails.

FUNDING CONDITION:

Transportation Enhancement funding is conditional upon the items mentioned in the letter from our office conveying the conditional commitment, supporting documentation, as well as Congress' reauthorization of Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) continuing TE program funding. SAFETEA-LU legislation is set to expire at the end of fiscal year 2009 (September 30, 2009).

Total Non-Participating Amount (Not Recommended) : \$0.00