



CITY of NOVI CITY COUNCIL

Agenda Item 3
February 18, 2014

SUBJECT: Approval to revise the concept of design for the 11 Mile Road (Town Center to Meadowbrook) Reconstruction project and to defer the Town Center Reconstruction project and 2014 Capital Preventative Road Maintenance (Meadowbrook Road between Eight Mile and Nine Mile) project until FY14-15 to expedite and fund the reconstruction of 11 Mile Road beginning in spring 2014.

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

CITY MANAGER APPROVAL: *[Signature]*

BACKGROUND INFORMATION:

The design engineering services for 11 Mile Road Reconstruction (Town Center to Meadowbrook) was awarded to URS Corporation by City Council on January 21, 2014. The project's construction is not funded in FY13-14; however the extreme, accelerated deterioration of 11 Mile Road over the past few weeks prompted a budget amendment request to start the design. The condition of road has continued to worsen and there are several sections that are no longer serviceable. Staff has received numerous complaints about the poor condition of 11 Mile Road from adjacent businesses and the start of reconstruction of the road is necessary as soon as possible this fiscal year.

The original cross-section described in the motion sheet for engineering award proposed a three lane cross-section widened to add bike lanes, along with a six-foot wide pathway on each side of the road. This cross-section would be much wider than what exists now, and would require the entire master planned 70-foot right-of-way for construction (much of which is not controlled by the City and would need to be acquired from 20 properties). Additionally, there are several above ground utilities that would require relocation to facilitate construction. The original schedule contemplated using all of 2014 to complete the design, easement/right-of-way acquisition and utility relocations, with construction in 2015. The poor condition of 11 Mile will not facilitate 2015 construction without significant temporary maintenance expenditures.

The attached memo outlines some options for maintaining 11 Mile Road until reconstruction in 2015, all of which would be temporary and add cost to the project. In the memo, staff recommends a revised cross-section consisting of reconstructing the three-lane road similar to the existing cross-section as soon as possible in 2014, without on-street bike lane and pathways. Then, a separate project would follow in 2015 to construct a six-foot wide pathway on the south side and a 10-foot wide shared use pathway on the north side. This alternative would remove the easement acquisition and utility coordination from the road reconstruction project (although it would still take place in 2014 for the pathway project to be constructed in 2015). The attached memo provides additional detail and construction cost estimates.

The City's engineering consultant for this project, URS, has provided a construction cost estimate of \$955,600 for road construction, plus \$95,700 for construction engineering (\$1,051,300 total). In order to fund the reconstruction of 11 Mile as soon as possible, staff recommends that the construction of two projects funded and approved in the current fiscal year, Town Center Drive and the 2014 Capital Preventative Road Maintenance project (Meadowbrook Road between Eight Mile and Nine Mile), be deferred until next fiscal year (FY14-15). Both of these roadways are in much better condition than this stretch of 11 Mile Road and can feasibly be deferred by performing routine maintenance on them over the next few months. As shown below, this action would provide funds in the current fiscal year to reconstruct 11 Mile Road with only \$8,309 to be used from fund balance. The construction of the deferred projects would still occur this season, but would be delayed until after July 1.

Funding needed in FY13-14 to Reconstruct 11 Mile (Spring 2014 start)		\$1,051,300
Projects to defer until FY14-15 (2014 Construction after July 1)		
Town Center (Grand River to 11 Mile)	\$539,585	
Town Center (11 Mile to Crescent)	\$415,406	
2014 Capital Preventative Maintenance	\$88,000	
Less Total Available in FY13-14 from deferred projects		<u>(\$1,042,991)</u>
Fund Balance Allocation (202 Major Road Fund)		<u>\$8,309</u>

The reconstruction of 11 Mile Road could be designed and ready for construction in April 2014 and completed by late summer if funding is made available this fiscal year using this revised construction funding concept. The pathway construction along 11 Mile Road between Town Center and Meadowbrook would be added to the Capital Improvements Program as a request for FY14-15 in the amount of \$406,100 and would be constructed in 2015, if funded.

RECOMMENDED ACTION: Approval to revise the concept of design for the 11 Mile Road (Town Center to Meadowbrook) Reconstruction project and to defer the Town Center Reconstruction project and 2014 Capital Preventative Road Maintenance (Meadowbrook Road between Eight Mile and Nine Mile) project until FY14-15 to expedite and fund the reconstruction of 11 Mile Road beginning in spring 2014.

	1	2	Y	N
Mayor Galt				
Mayor Pro Tem Staudt				
Council Member Casey				
Council Member Fischer				

	1	2	Y	N
Council Member Markham				
Council Member Mutch				
Council Member Wrobel				

2/5/14

To: Mayor and City Council members
Tough decision, considering bringing this back to Council for feedback and policy direction. Clay



MEMORANDUM

TO: ROB HAYES, P.E.; DIRECTOR OF PUBLIC SERVICES/CITY ENGINEER
FROM: BRIAN COBURN, P.E.; ENGINEERING MANAGER *BTC*
SUBJECT: 11 MILE ROAD (TOWN CENTER TO MEADOWBROOK)
DATE: FEBRUARY 5, 2014

The purpose of this memo is to offer some alternatives for the reconstruction of 11 Mile Road, given the fact that it has experienced accelerated and severe deterioration this winter.

Background

The design engineering services for 11 Mile Road Reconstruction (Town Center to Meadowbrook) was awarded to URS Corporation by City Council on January 21, 2014. In the motion sheet, we provided a proposed cross-section that included the existing three lanes, along with on-street bike lanes and pathways on each side of the street. This cross-section is consistent with the recommendations of the 2011 *City of Novi Non-Motorized Master Plan* for 11 Mile Road. It is our practice to implement non-motorized improvements to the extent feasible for each road improvement project. Since the road requires reconstruction, it would be appropriate to add the recommended on-street bike lanes to roads and fill all pathway gaps since the existing curbs would be removed to reconstruct the road.

The proposed cross-section is wide and will require the entire master planned 70-foot wide right-of-way for construction. The city does not control the master planned right-of-way and we will need to acquire right-of-way and temporary construction easements from 20 different properties. Additionally, there are several above ground utilities (i.e., electric, phone, cable) that will require relocation to facilitate construction. The design, right-of-way acquisition, and utility relocations will take most of 2014 to complete, which is the reason that construction would not be scheduled until 2015, assuming that funding is provided in FY14-15. The current construction cost estimate for this cross-section is \$1,539,000.

Maintenance Alternatives

Because Eleven Mile Road has deteriorated much faster than anticipated, it will require temporary repairs if construction does not occur until spring 2015. These temporary repair options would be in addition to the construction costs in 2015. The first maintenance-related option is to maintain the status quo and continue patching the road as potholes appear. This task is requiring more and more effort and material as the concrete deteriorates. Some of the joints have become as wide as a tire and since the patch cannot handle the weight of the vehicle, the material is pushed out of the hole. The estimated cost to continue patching from now until spring 2015 is approximately \$75,000. The second option is an asphalt overlay of 11 Mile Road to provide a smooth driving surface, although without repair of the underlying structural problems in the pavement. This fix would only last approximately one year, and the cost of the asphalt overlay would be \$178,000.

Reconstruction Alternatives

Given the inferior condition of 11 Mile Road and the cost and difficulty in maintaining the road in passable condition, we looked for ways to reconstruct 11 Mile Road in 2014. The first construction-related alternative would be to construct just the road and on-street bike lanes in 2014 with the pathway construction to follow in 2015. We determined that this alternative would not be feasible because the widening for the on-street bike lanes would still require right-of-way and easement acquisitions as well as utility relocations to facilitate the grading required for the new cross-section.

A second alternative would be to reconstruct 11 Mile Road using the existing three lane cross-section in 2014, without the proposed on-street bike lanes and pathways. Then, a separate project would follow in 2015 to construct a six foot pathway on the south side and a shared use 10-foot wide pathway on the north side. This alternative would remove the easement acquisition and utility coordination from the road reconstruction project, although it would still occur in 2014 for the subsequent pathway construction in 2015. Shared use arrows (or "sharrows") could also be added to the project to encourage on-street bike use on this relatively low volume road. Although it would occur in two phases, this proposed cross-section would provide a non-motorized connection for all users between on 11 Mile Road between Town Center and Meadowbrook by the end of 2015 and address the poor condition of 11 Mile Road. The total construction cost for this alternative is estimated to be \$1,270,000 (\$955,600 for road construction in 2014 \$314,400 for the pathway construction in 2015), which is \$269,000 less than the original proposed cross-section.

The table below provides a summary of the various options and alternatives that have been presented.

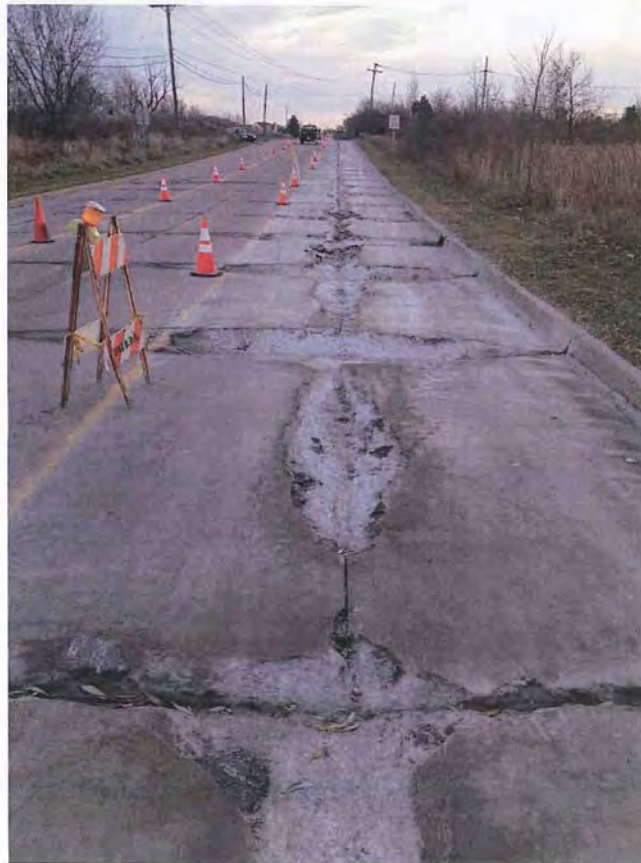
Cross-Section	Original		Alternative 1	Alternative 2
Description	3 lane road with on-street bike lanes, 6' sidewalk each side		3 lane road with on-street bike lanes, 6' sidewalk each side	3-lane road (no bike lane), sharrows, 6' sidewalk south side, 10' pathway north side
Temporary Repair Options	Cold/Hot Patch (until 2015)	2-inch Asphalt Overlay	Cold/Hot Patch (until July 2014)	Cold/Hot Patch (until July 2014)
Road Construction Year	2015	2015	Will not facilitate 2014 construction because of ROW needs	2014
Pathway Construction Year	2015	2015		2015
Repair Costs	\$75,000	\$178,000		\$30,000
Construction Cost	\$1,539,000	\$1,539,000		\$1,270,000
Engineering Costs	\$184,680	\$189,680		\$157,400
Total Project Costs (excluding ROW)	\$1,798,680	\$1,906,680		\$1,457,400

We recommend Alternative 2 (the three-lane road with sharrows and 6-foot wide sidewalk and 10-foot wide pathway, but without an on-street bike lane), because it would facilitate construction of 11 Mile Road in 2014, has a lower construction cost considering the temporary repairs that would be required prior to 2015, and provides non-motorized improvements that are appropriate for all users.

If you concur and funding is approved for FY14-15, we can be ready to construct Alternative 2 at the beginning of the fiscal year and complete road construction in 2014. If funding is provided this fiscal year, road construction could begin even sooner.

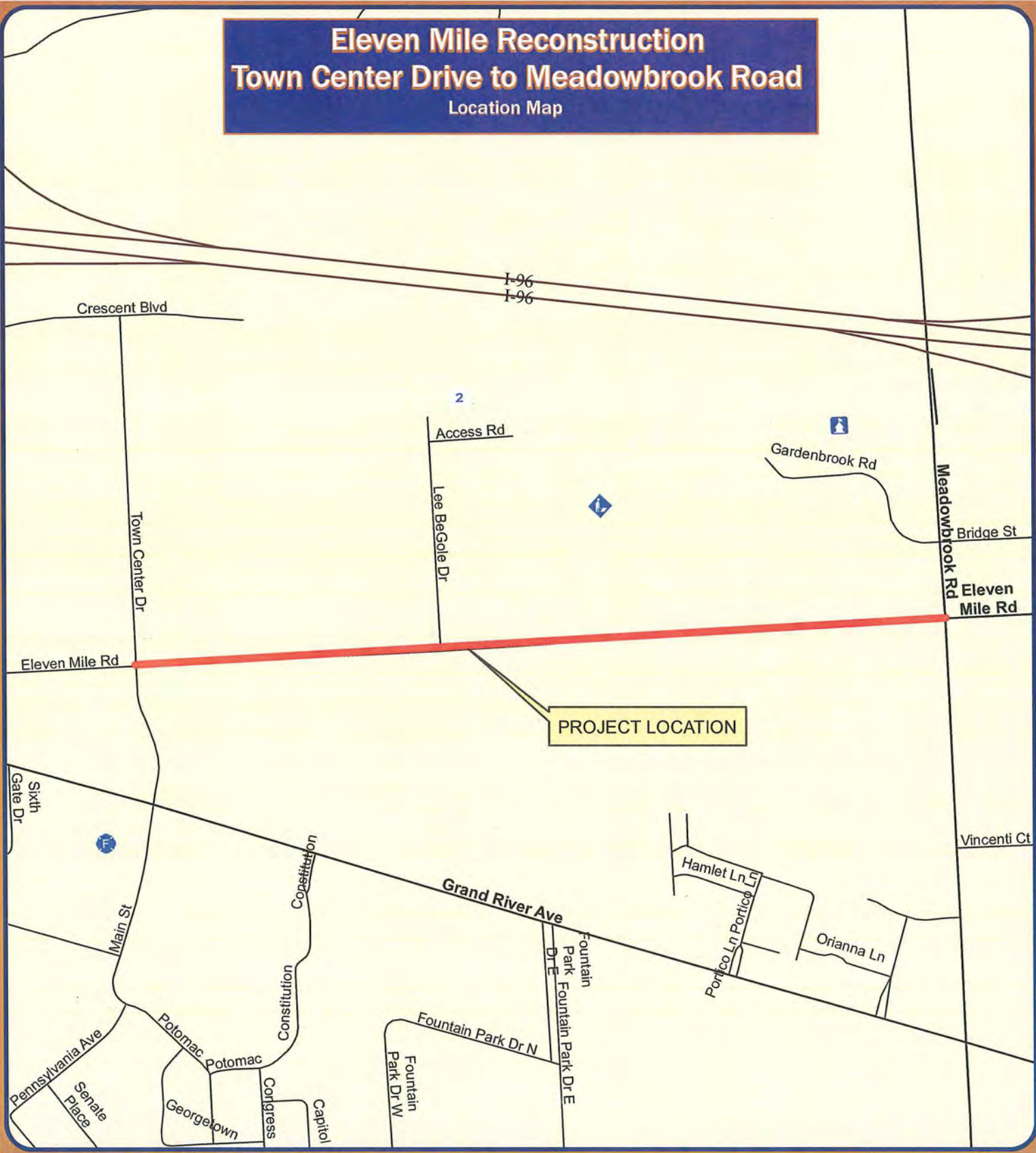
cc: Carl Johnson, Finance Director
Barbara McBeth, Community Development Deputy Director
Sara Roediger, Planner
Matt Wiktorowski, Field Operations Senior Manager
Jerry Tremblay, Road Asset Manager
Ben Croy, Civil Engineer

**CONDITION OF 11 MILE ROAD WITH COLD PATCH REMOVED
PRIOR TO SPRAY PATCH
(LIMITED STRUCTURE IN THE REMAINING CONCRETE)**



Eleven Mile Reconstruction Town Center Drive to Meadowbrook Road

Location Map



Map Author: Croy
 Date: 1/10/14
 Project: 11 Mile Reconstruction
 Version #: v1.0

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.



1 inch = 600 feet



City of Novi

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