

# CITY OF NOVI 2016 THOROUGHFARE MASTER PLAN

## Introduction

The leaders and citizens of Novi understand that the purpose of a truly multi-modal thoroughfare master plan is to establish physical and cultural environments that support and encourage safe, comfortable, and convenient travel by a variety of modes.

They understand that a broad constituency must be engaged in the planning process, including elected and agency officials, neighborhood and business leaders, and, most important, the general public. A Thoroughfare Master Plan (TMP) must give form to their vision and provide a consensus on how to move the plan forward to fruition.

This requires the integration of projects among transportation modes to form a plan that complements the Master Plan for Land Use, and is also forward-thinking. To assist in preparing the TMP, Novi has engaged The Corradino Group of Michigan consulting firm (Corradino).

Throughout the project, input was received through the web-based application known as *Community Remarks*, the results of which are included in a separate Public Involvement Diary. Each public comment received a response. The categories of 'Safety and Traffic Calming,' 'Intersection Improvements,' and 'Pedestrian Improvements' received more than 75% of the comments. Other comments were divided among 'Roadway Improvements' (ten comments), 'Bicycle Improvements' (three comments), and 'Transit' (two comments). In all, *Community Remarks* receive over 2000 'likes' by people visiting the site.

Over the course of the project, four public meetings were conducted. All but the February, 2016, meeting was preceded by a Novi Planning Commission meeting. Notes of each meeting are included in the *Public Information Diary* which can be found on the City's Web site ([http://www.cityofnovi.org/City\\_Services/Community\\_Development/Codes,\\_Ordinances\\_and\\_Master\\_Plan/Thoroughfare\\_Master\\_Plan.aspx](http://www.cityofnovi.org/City_Services/Community_Development/Codes,_Ordinances_and_Master_Plan/Thoroughfare_Master_Plan.aspx)).



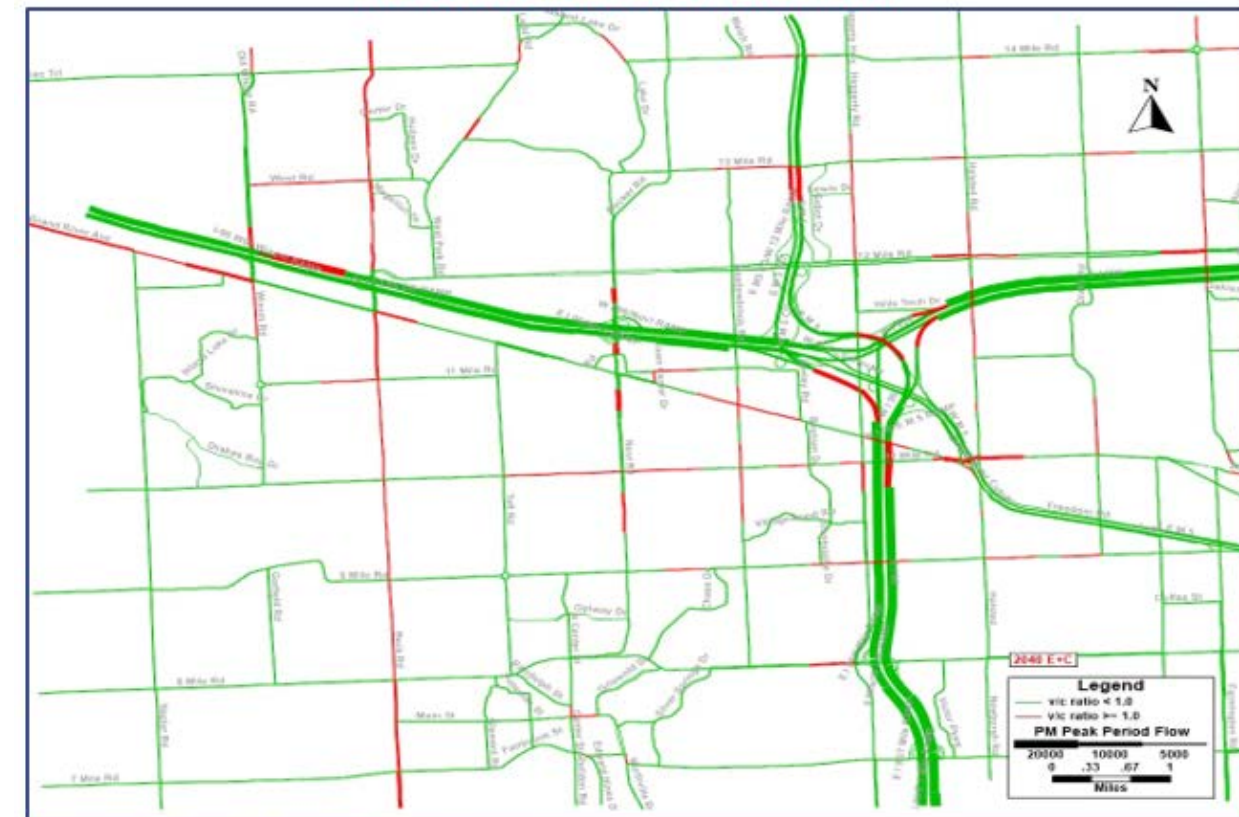
At the December, 2015, and February, 2016, meetings, those in attendance were asked, using a touch-pad polling system known as *Turning Point*, to provide their opinion on eight topics. In summary, the results indicate the meeting attendees were older adults and drove fewer than ten minutes in the off-peak hours to volunteer or work. None biked or walked on a regular basis, for a variety of reasons. Oddly though, when asked about the most important items that would enhance Novi's transportation system, improvements to streets/sidewalks, biking facilities, and traffic signal timing were cited in almost equal amounts (20% to 25%) as the most preferred roadway widening was preferred by fewer than 10% of the respondents. These independent opinions closely align with the comments received through the *Community Remarks* application.



## Recommendations: Road Improvements

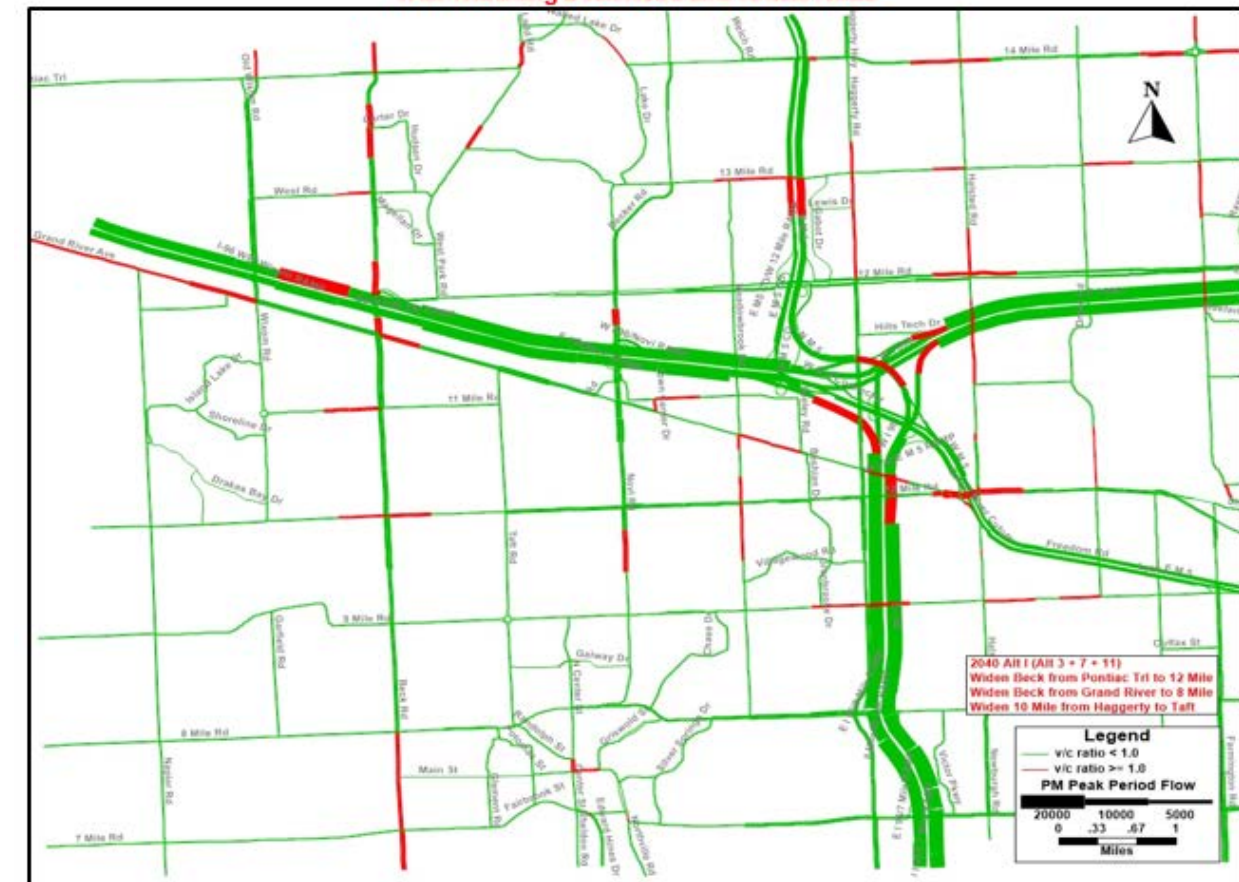
Multi-modal transportation elements were examined in layers, beginning with the most costly-to-implement element – roads. Analysis of future traffic conditions are illustrated in Figure S-1 which shows the 2040 volume/capacity (V/C) ratios in the PM peak period. In this graphic, RED indicates the V/C ratio exceeds 1.00, reflecting significant congestion. GREEN indicates significant congestion is not detected by the model. To determine the potential positive impact on congestion, a series of roadway improvement combinations were tested. The most cost-effective alternative combines widening Beck Road from 8 Mile Road to Pontiac Trail and 10 Mile Road from Haggerty to Taft. Funding, impact and policy constraints prevent more road widening in the near future. It is noted that widening Beck and 10 Mile Roads does not address all the congestion expected in 2040, as evidenced by the red/congested paths on Figure S-2. Proposed improvements at the intersections circled on Figure S-3 will also address congestion.

Figure S-1. 2040 PM Peak Period Traffic Conditions Without Widening Beck Road and 10 Mile Road



Source: The Corradino Group of Michigan, Inc.

Figure S-2. 2040 PM Peak Period Traffic Conditions With Widening Beck Road and 10 Mile Road



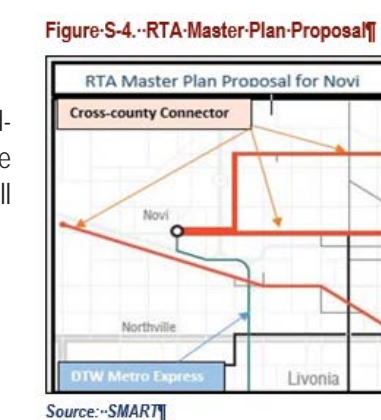
Source: The Corradino Group of Michigan, Inc.

## Recommendations: Older Adult Services Transportation

The City of Novi Older Adult Services Transportation (OAST) provides specialized transportation for Novi residents age 55+ and those under 55 with a limiting disability. The OAST current annual budget of about \$160,000 is supported by fare box revenues (\$30,000), the City of Novi General Fund (\$25,000), the Parks, Recreation & Cultural Fund (\$27,000), SMART (\$54,450), program donations (\$20,000), and advertising (\$2,400). The TMP expects the service to continue in its current form which costs about \$160,000 per year. Passage of the RTA plan may provide funds to cover these costs.

## Recommendations: Transit Circulator

A circulator between the Twelve Oaks Mall area and Town Center area was analyzed for service on Saturdays and recommended as a six-month "trial" project. The estimated cost is \$45,000. The vehicles would be those of the OAST available for six hours on Saturdays. If the service proves successful, additional hours may be beneficial, which may require additional equipment.



## Recommendations: Regional Transit Improvements

Transit in Novi is limited. Regional transit is not available because Novi "opted-out" of the tax that supports SMART. Nonetheless, more transit service may be in Novi's future when a referendum on additional property tax will be held in all four counties in Southeast Michigan.

## Future Possibilities

Autonomous (self-driving) vehicles are the future of transportation around the world. Traditional modes of transportation are being inundated with technology, and, as with everything else technology-driven, the future of transportation is evolving at a rapid pace. The limitations are, in fact, not the autonomous vehicles and technology, as much as the regulations to be put into place.

While researchers began building autonomous vehicles that could be tested on public roads, the concept evolved into Connected Autonomous Vehicles (CAVs) which can communicate with each other, and communicate with infrastructure, much more efficiently and as fast as the human brain.

CAVs have the potential to improve daily living, particularly for seniors and the disabled. Concerns like: "How will I get to the grocery store or the doctor or just get out of the house because I can no longer safely operate a moving vehicle" can be addressed. Consider that if you do not possess the ability to operate an auto, how transformative it could be for a vehicle to come to you, on demand, and provide travel, with comfort, safety, and security?

## Funding Situation

After years of frustration at the federal and state levels, both governments enacted transportation funding legislation in 2015. The state program doesn't begin to provide monies until January 1, 2017. It then takes until fiscal year 2020 for the full effect (estimated to be \$1.234 billion per year) to be felt. Those funds are to be distributed 49% ways. MDOT, 80 transit agencies, 83 counties, and 533 villages and cities. At the federal level, the FAST Act (Fixing America's Surface Transportation) will provide five years (FY 2016 through FY 2020) of funding certainty. For Michigan, that represents \$1.02 billion in the first fiscal year and \$1.17 billion in FY 2020. This is about \$52 million (5.1%) of net new money in 2016 versus 2015 and, then, about \$20 to \$25 million (about 2.25%, on average) of net new money each year after. When combined with state funding, cities in Michigan can expect \$66.4 million in FY 2017, when additional Michigan funding begins to flow. That will grow to \$186 million in 2020. It must be kept in mind funding to local government will be divided 53% ways. Novi is the 27th largest city in Michigan with about 1% of the total city/village population. It is also important to recognize that these funds are to be allocated overwhelmingly to routine maintenance and preservation of existing roads. A relatively small amount will be available for projects that will increase capacity.

## Implementation

Table S-1 provides a summary of the cost of each element of the multi-modal Thoroughfare Master Plan. The total road (\$41.3 million) and intersection (\$5.8 million) cost estimate is \$47.1 million. Beck Road widening is phased over FY 2017-2021 while expanding 10 Mile Road is phased between FY 2021-2025. Intersection improvements are programmed to occur between 2016 and 2020. The 11 sidewalk and pathway projects that are part of the plan are programmed to be built in the period FY 2016-2022 at a cost of \$4.3 million. In addition to continuing the Older Adults transportation program, and a \$45,000 "trial" mail circulator, major transit developments appear to be dependent on the Regional Transportation Authority's multi-county plan to be placed before the voters at some future date. Novi transportation future is brighter now than when the last TMP was prepared. To strengthen that outlook, Novi's officials and citizens must be aggressive with their state and federal government representatives to secure their share of funding.

## Plan Overview

Novi's 2016 Thoroughfare Master Plan projects proposed to be implemented over the period FY 2016-2025 include (Table S-1):

- Roads (\$41.3 million) and intersection (\$5.8 million) at \$47.1 million. Beck Road widening is phased over FY 2017-2021 while expanding 10 Mile Road is phased between FY 2021-2025. Intersection improvements are programmed to occur between 2016 and 2020. Even with new state and federal programs, future funding will be tight because so much of Michigan's transportation infrastructure requires long-delayed fixes that will consume most of the new revenue.
- Sidewalk and pathway projects that are part of the plan are scheduled to be built in the period FY 2016-2022 at a cost of \$4.3 million. Other top projects add \$11.4 to that proposed investment.
- Continuing the Older Adults transportation program, will cost \$160,000 per year, excluding inflation
- A \$45,000, six-month "trial" mail circulator project.
- Major transit developments appear to be dependent on the Regional Transportation Authority's multi-county referendum of November, 2016.

Table S-1. Novi Thoroughfare Master Plan Recommendations

Widening/Capacity Improvement	Estimated Cost	Implementation Period
Beck Road	\$21.5 million	FY 2017-2021
-Segment A	\$6.3 million	FY 2017-2018
-Segment B	\$5.8 million	FY 2018-2019
-Segment C	\$6.3 million	FY 2019-2020
-Segment D	\$3.3 million	FY 2020-2021
10 Mile Road	\$19.6 million	After 2025
Meadowbrook Road	TRD	After 2025
Grand River Avenue	TRD	After 2025
Novi Road	TRD	After 2025

Intersection Improvements	Estimated Cost	Time Frame
Beck Road at 10 Mile Road	\$760,000	See footnote 2
Beck Road at 19th Street	\$300,000	See footnote 2
Beck Road at Grand River Avenue	\$750,000	See footnote 2
West Park Drive at 12 Mile Road	\$215,000	FY 2018-19
West Park Drive at South Lake Drive	\$175,000	FY 2018-19
Novi Road at 10 Mile Road	\$75,000	FY 2018-19
Novi Road at Grand River Avenue	\$3,500,000	FY 2018-19
Novi Road at 12 Mile Road	\$200,000	FY 2018-19
Meadowbrook at 8 Mile Road	\$5,000	FY 2016-17
Haggerty Road at 12 Mile Road	\$35,000	FY 2016-17
Haggerty Road at 14 Mile Road	\$60,000	FY 2016-17
MS at 14 Mile Road	\$3,000	FY 2016-17

Sidewalks and Pathways	Segment	Estimated Cost	Time Frame
South side of 10 Mile Road	Meadowbrook to Haggerty	\$745,000	FY 2019-22
South side of Pontiac Trail	Beck to West Park	\$490,000	FY 2017-19
West side of Haggerty Road	8 Mile to High Pointe	\$200,000	FY 2019-20
North side of 10 Mile Road	Easton Center to Churchill Crossing	\$175,000	FY 2018-19
West side of Beck Road	11 Mile to Providence	\$185,000	FY 2018-19
North side of 8 Mile Road	Novi Road to Taft	\$415,000	FY 2018-21
South side of 10 Mile Road	Novi Road to Chipmunk Trail	\$340,000	FY 2019-20
East side of Meadowbrook Road	8 Mile to 19 Mile	\$400,000	FY 2019-22
East side of Meadowbrook Road	9 Mile to 10 Mile	\$615,000	FY 2019-22
West side of Meadowbrook Road	11 Mile to Gateway Village	\$450,000	FY 2019-20
South side of 14 Mile Road	Beach Walk to East Lake	\$95,000	FY 2016-17

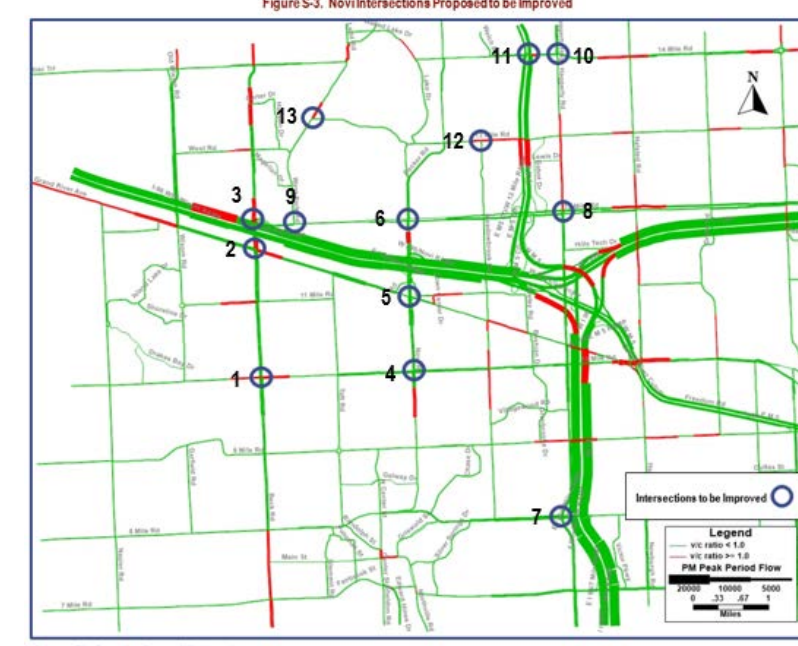
Transit	Service	Estimated Cost	Time Frame
Older Adult Services Transportation	Continuation of Current Service	\$160,000/year	Ongoing
Mail Circulator	Six-month demonstration	\$45,000	After 2025
Regional Transit	Dependent on November, 2016, Regional Referendum		FY 2017

<sup>2</sup>TRD denotes "To Be Determined" by widening Beck Road  
Source: The Corradino Group of Michigan, Inc.

## Recommendations: Intersection Improvements

The intersections recommended for improvement are:

1. Beck Road at 10 Mile Road;
2. Beck Road at Grand River Avenue;
3. Beck Road at 19th Street;
4. Novi Road at 10 Mile Road;
5. Novi Road at Grand River Avenue;
6. Novi Road at 12 Mile Road;
7. 8 Mile Road at Haggerty Road;
8. 12 Mile Road at Haggerty Road;
9. 12 Mile at West Park Drive;
10. 14 Mile Road at Haggerty Road;
11. 14 Mile Road at MS;
12. Meadowbrook at 13 Mile Road; and,
13. West Park Drive at South Lake Drive.



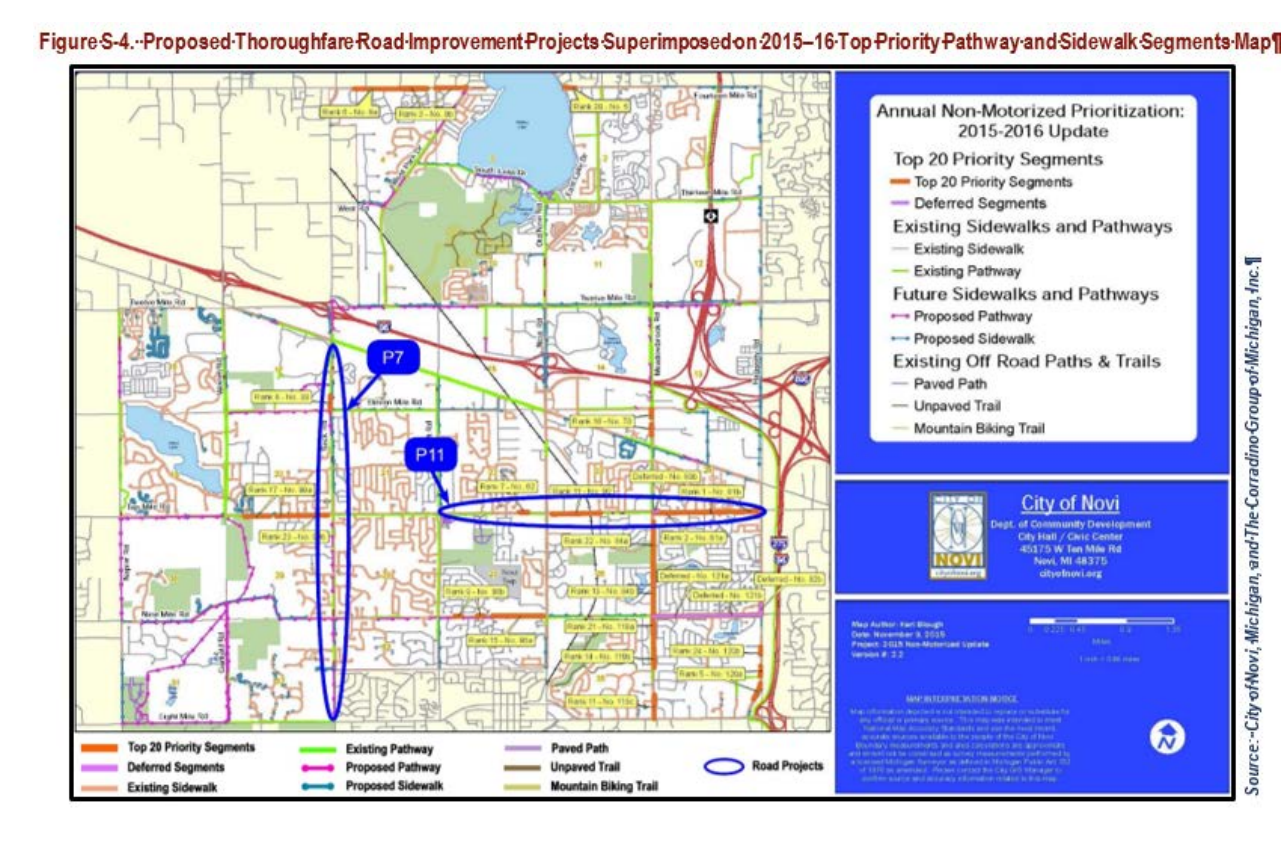
## Recommendations: Non-Motorized Improvements

Novi's current top priority pathway/sidewalk projects, as listed in the *Annual Non-Motorized Prioritization 2015-16 Update*, are shown on Table S-1. Four of these would be constructed when Beck Road, between 8 Mile Road and Grand River Avenue, and 10 Mile Road, between Taft Road and Haggerty Road are widened (Table S-1 and Figure S-4). Other non-motorized projects will be implemented as part of Novi's Annual Non-Motorized Projects Prioritization Update.

Table S-1 - Table 4A from Annual Non-Motorized Prioritization 2015-16 Update

Segment No.	Segment Name	Segment Length (ft.)	Estimated Cost	Time Frame
1	Beck Road at 10 Mile Road	1,270	\$760,000	FY 2017-2021
2	Beck Road at Grand River Avenue	2,300	\$750,000	FY 2017-2021
3	Beck Road at 19th Street	2,300	\$300,000	FY 2017-2021
4	Novi Road at 10 Mile Road	1,300	\$75,000	FY 2018-19
5	Novi Road at Grand River Avenue	3,500	\$3,500,000	FY 2018-19
6	Novi Road at 12 Mile Road	1,200	\$200,000	FY 2018-19
7	8 Mile Road at Haggerty Road	1,400	\$490,000	FY 2017-19
8	12 Mile Road at Haggerty Road	1,400	\$490,000	FY 2017-19
9	12 Mile at West Park Drive	1,100	\$175,000	FY 2018-19
10	14 Mile Road at Haggerty Road	1,400	\$415,000	FY 2018-21
11	14 Mile Road at MS	1,400	\$415,000	FY 2018-21
12	Meadowbrook at 13 Mile Road	1,400	\$490,000	FY 2017-19
13	West Park Drive at South Lake Drive	1,100	\$175,000	FY 2018-19

Source: Annual Non-Motorized Prioritization 2015-16 Update



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## CITY OF NOVI THOROUGHFARE MASTER PLAN

# DRAFT FINAL REPORT

June, 2016