City of Novi
Non-Motorized Master Plan 2011

Executive Summary

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WadeTrim

Active Transportation Alliance

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Why Plan?

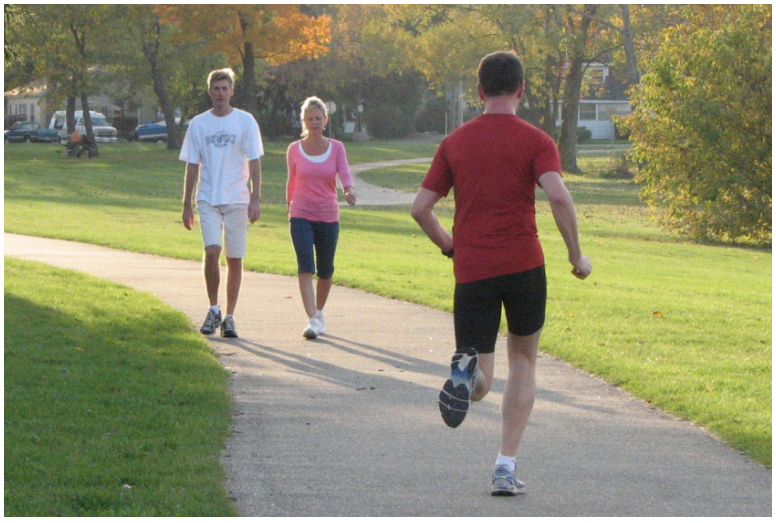
Encouraging healthy, active lifestyles through pathway and sidewalk connectivity has been a focus for the City of Novi. The City is a four-time Promoting Active Communities Gold Award winner from the Governor's Council on Physical Fitness, largely due to the over 225 miles of existing and 90 miles of planned public pedestrian and bicycle facilities.

The City of Novi is now poised to take its bicycle and pedestrian facilities, policies and programs to the next level. The City of Novi Non-Motorized Master Plan, funded by the Federal Energy Efficiency and Conservation Block Grant Program, lays out a systematic way to support non-motorized transportation.

Helping to shape this plan has been a dedicated group of elected officials, appointed officials, public employees and the general public. The input from an on-line survey and two public workshops shaped the proposed non-motorized network as well as setting implementation priorities.

When the recommendations of the Non-Motorized Master Plan have been substantively implemented, the result will be a physical and cultural environment that supports and encourages safe, comfortable and convenient ways for pedestrians and bicyclists to travel throughout the city and into surrounding communities.

It is anticipated that these physical and cultural changes will result in a greater number of individuals choosing walking and bicycling as their preferred mode of transportation for many local trips. These choices will lead to healthier lifestyles, improved air and water quality, and a more energy efficient and sustainable transportation system.



The Community Attitude and Interest Survey conducted in the winter of 2008 / 2009 found that 65% of the households indicated that they have a need for walking and bicycling trails. This was nearly double the need stated for the next highest category.

The end result is that with a substantially complete system, Novi could expect to replace over 18,000 miles of automobile trips with bicycle or pedestrian trips every day. This would require on average for each person in the city to replace about a1/3 of a mile trip that is currently done by automobile with a trip by bicycle or walking. The trip, or a combination of trips, could be of any sort – a trip to work, the store, to visit with friends, for recreation or to school.

The outcome would be 45 fewer barrels of oil being used and 9 tons less of CO2 being released into the environment each day – that translates into about 16,200 barrels of oil and 3,300 tons of CO2 per year. The benefits of a comprehensive non-motorized transportation system extend well beyond energy savings, reducing our dependence on fossil fuels and pollution reduction. A well-implemented non-motorized transportation system will reap rewards by:

- Providing viable transportation alternatives for individuals who are capable of independent travel yet do not hold a driver's license or have access to a motor vehicle at all times.
- Improving safety, especially for the young and old who are at most risk due to their dependence on non-motorized facilities and their physical abilities.
- Improving the economic viability of a community by making it an attractive place to locate a business while simultaneously reducing public and private health care costs associated with inactivity and increasing property values.
- Encouraging healthy lifestyles by promoting active living.
- Improving the aesthetics of the roadway and community by adding landscaping and medians that improve the pedestrian environment and safety.
- Providing more transportation choices that respect an individual's religious beliefs, environmental ethic, and/or uneasiness in operating a vehicle.
- Creating a stronger social fabric by fostering the personal interaction that takes place while on foot or on bicycle.

But the change will not happen overnight. Novi, like many other communities that have mostly been built since World War II, has been profoundly shaped by the automobile. For 70 years the design of everything from homes, neighborhoods, shopping center, schools, workplaces and churches have been centered on the car. This is true not only for the site-specific placement of driveways and parking lots, but also the distribution and mixing of land uses.

The pattern of public investment in motor vehicle transportation, above all other modes, has resulted in an overall reduction in transportation options for the average citizen. Many communities like Novi are now weighing the convenience of the automobile against the consequences of its use at current levels and trying to strike a balance.

The Non-Motorized Transportation Plan presents the vision of the future transportation system of Novi, defines the necessary support structures and lays out a course for implementation.

What is in the Plan?

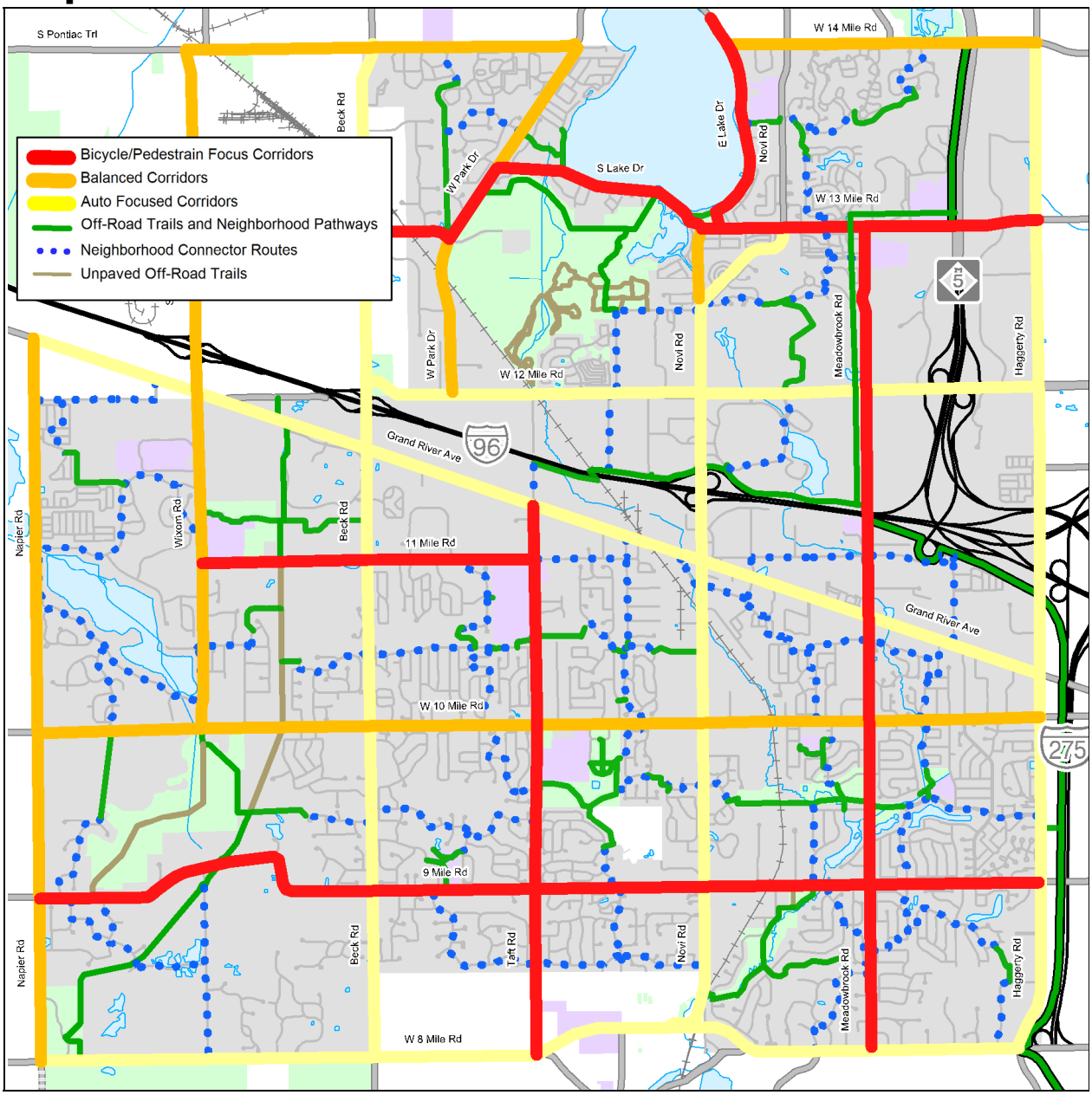
The Non-Motorized Master Plan is comprised of four key elements: facilities, policies, design guidelines and outreach and education. When these four elements are employed in concert, they will provide the supportive physical and cultural environment necessary to bring about real change.

The facilities are the physical changes that will make walking and bicycling in the City safer, more comfortable and convenient. The policies outline proposed changes to the way the City does business to support non-motorized transportation. The design guidelines show how current best practices may be employed for common scenarios. Outreach and education outline the programs that will encourage additional and safer non-motorized travel. The following provides an overview for each element.

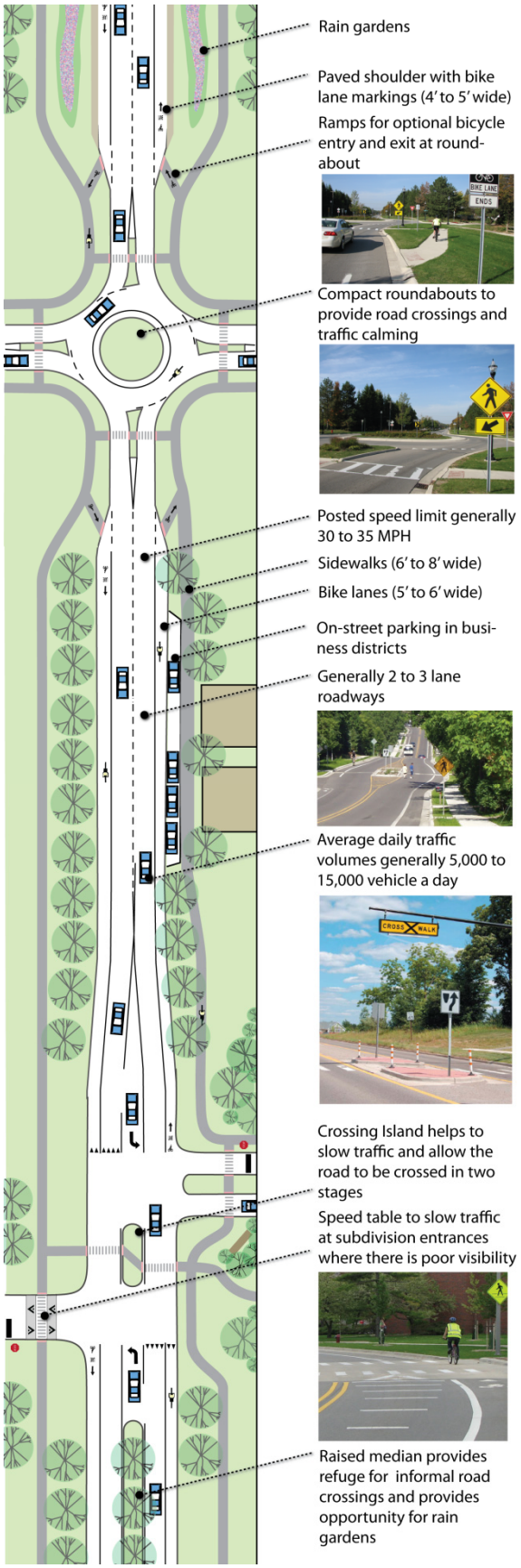
Facilities

The plan calls for a total of 74 miles of primary pedestrian routes (sidewalks, roadside paths and/or off-road trails on both sides) from the current 33 miles. This would be equal to the number of miles of primary roadway. The plan also calls for a total of 124 miles of primary bicycle routes (bike lanes, on-road bike routes and off-road trails) up from 6 miles that currently exist.

Proposed Non-Motorized Network



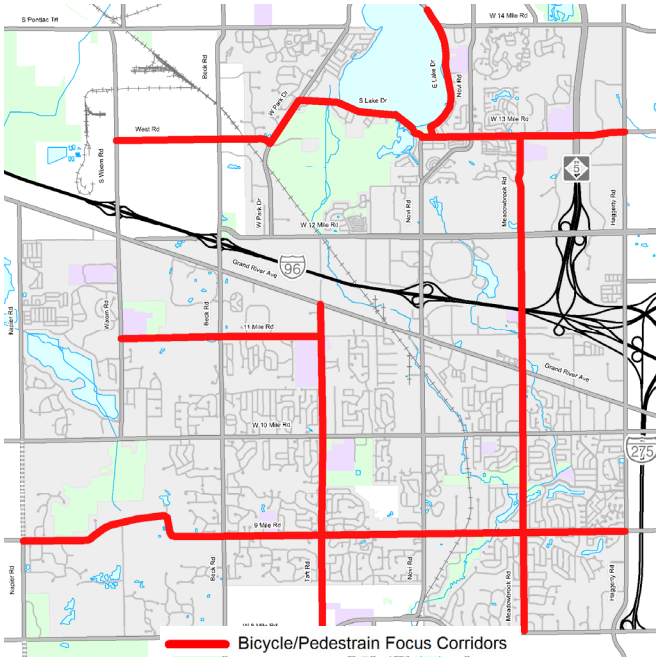
The proposed Non-Motorized Network recognizes that pedestrians and bicyclists are a diverse population and that no one solution will apply to all bicyclists or all pedestrians. Thus bike lanes and sidewalks / roadside pathways have been proposed along all the primary roads in the City. Some of these roads are more oriented to bicyclists and pedestrians than others as they carry fewer motor vehicles and will be designed such to keep motor vehicle speeds in the 30 to 35 mph range. Complementing the primary road system will be a network of neighborhood connectors and off-road trails that provide access to key destinations in the City while minimizing exposure to a large volume of high speed motor vehicles.

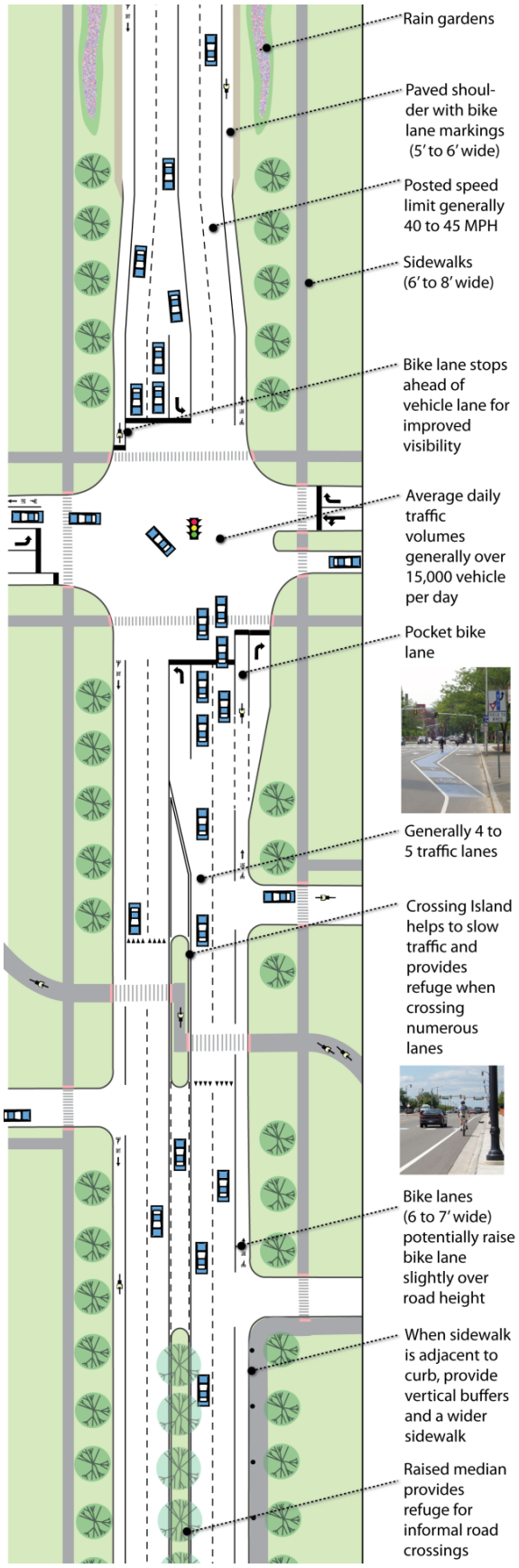


Bicycle/Pedestrian Focused Corridors

Bicycle/pedestrian focused corridors are roadways where an emphasis will be placed on the needs of the non-motorized user. The roadway will have design elements such as frequent mid-block crossings, mini-roundabouts, medians and street trees that will result in motorists naturally driving the roadway at 30 to 35 mph.

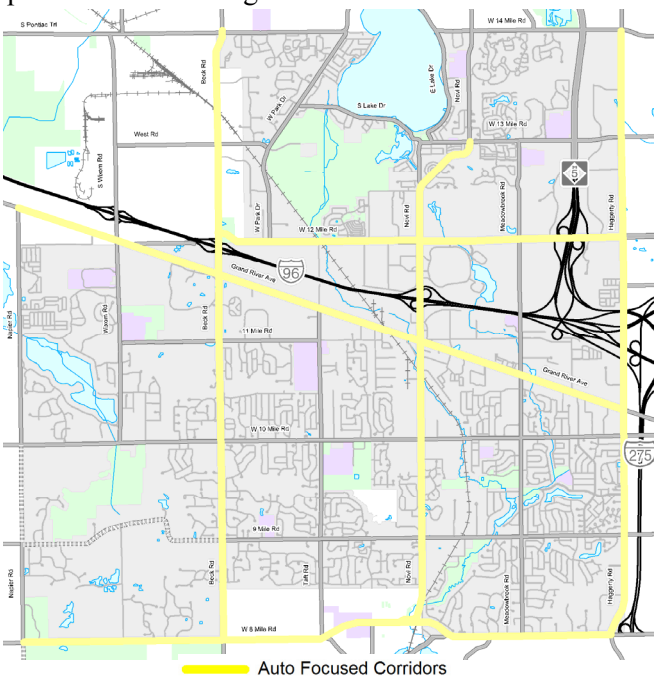
The result is that the road will be a much more comfortable environment to walk along and many bicyclists will be comfortable using bike lanes on these roads.





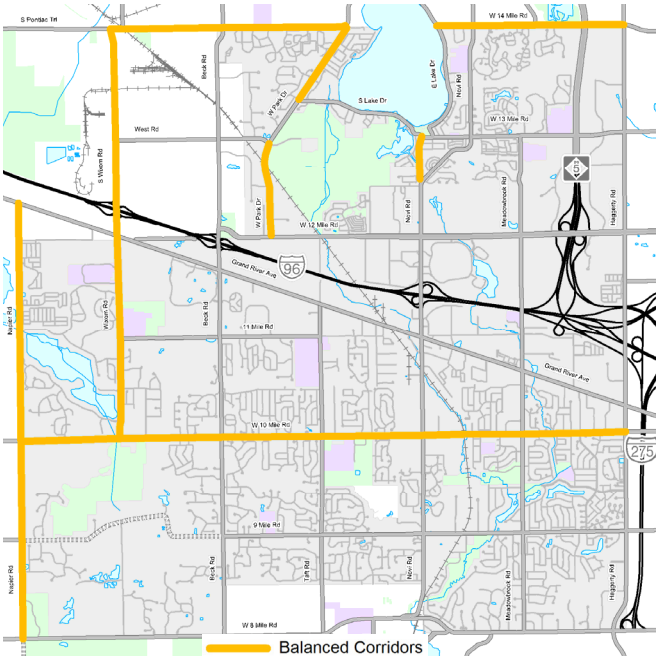
Auto Focused Corridors

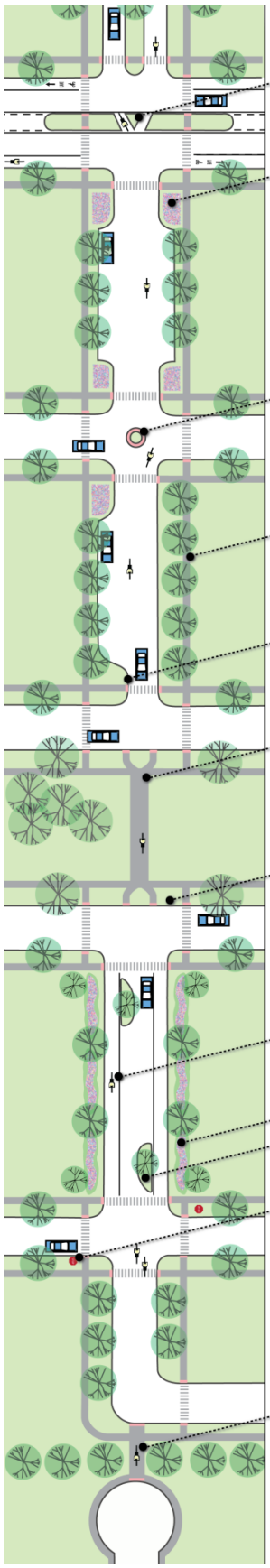
Auto focused corridors recognize that some roads in the City need to carry large volumes of motor vehicles at higher speeds. But even for these roads, bicycle facilities will be provided for non-motorized users commuting to work and enhanced crosswalks will be provided between signals where there is demand.



Balanced Corridors

Balanced corridors try to balance the needs of both non-motorized and motorized users.





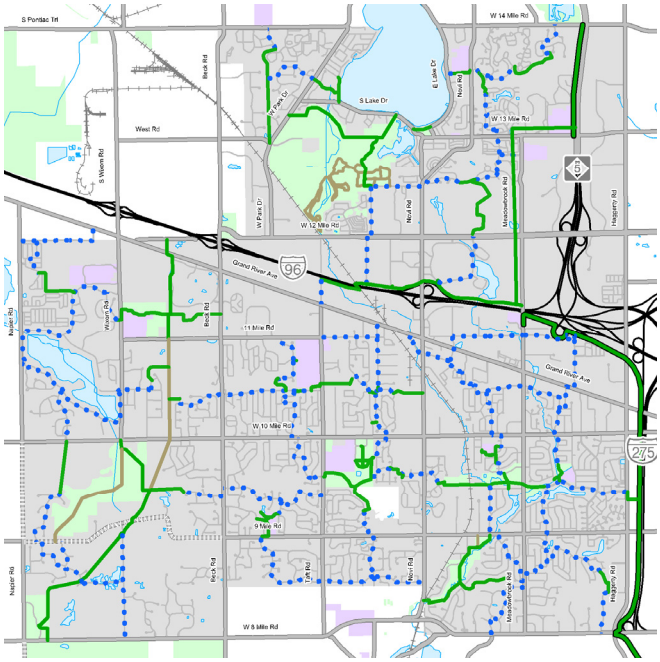
Neighborhood Connectors and Trails

Neighborhood connector routes are primarily located on low speed, low traffic volume local roads and connecting pathways. They link neighborhoods to parks, schools and downtowns. Signs provide wayfinding by noting direction and distance to key destinations. Elements such as traffic calming, public art, rain gardens and historic features can be added to enhance the routes.

The local roads in the City of Novi provide great opportunities for neighborhood connector routes, especially for people who prefer to not be along a major arterial or collector road. By incorporating short connecting pathways through schools, parks, and between neighborhoods, a tighter network is produced, making it easier for bicyclists and pedestrians to travel through the city.

Proposed Neighborhood Connector and Trails

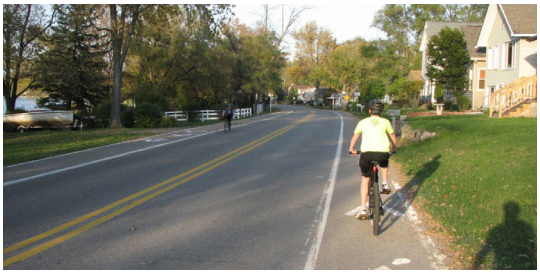
- Off-Road Trails and Connector Pathways
- Neighborhood Connector Routes
- Foot Trails



Policies

The proposed policies address the day to day operations of the City and its partners. They include the following topics:

- Complete Streets Policy
- ADA and Transition Plan
- Safe Routes to Schools
- Bicycle parking
- Maintenance of non-motorized facilities
- Sidewalk/roadside pathway completion



Maintaining the existing facilities

These policies provide the institutional support for the non-motorized system. They provide the necessary support system for the proposed physical system. They also provide a framework with which new issues related to non-motorized transportation may be addressed.

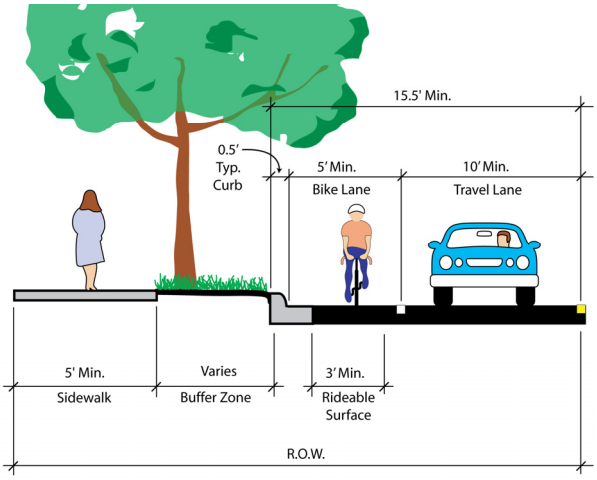
The City of Novi has already made great strides in this area. The City has adopted a resolution of support for complete streets and is currently in the process of preparing an ADA Transition Plan. By updating the City's codes and implementing the recommended programs, a system will be developed that will be able to support and embrace the physical and cultural changes of non-motorized transportation in the City.

Design Guidelines

The recommended design guidelines define what context sensitive complete streets should look like in the City of Novi. They are a compilation of national standards and practices that direct the implementation of non-motorized facilities.

The design guidelines provide background information on bicycle and pedestrian travel as well as address the following:

- Travel along the roadway
- Travel across the road
- Road cross sections
- Transitions between facility types
- Neighborhood connectors
- Bike routes
- Neighborhood greenways
- Off-road trails
- Land use and site design



Guidelines for multi-modal roadway design

Outreach and Education

The proposed outreach and education programs encourage people to safely use both the existing system and inform them of new opportunities. It works to capitalize on existing assets to address:

- Education
- Enforcement
- Encouragement

Education and outreach is critical to help people break out of established auto dependent travel patterns. Residents need to be provided information on safe and viable alternatives as well as given the encouragement necessary to precipitate change.

To accomplish this, a number of strategies have been provided that look at building on existing assets and creating new partnerships to provide effective communications and exciting events. These include bicycling and walking ambassadors, a third grade bicycle academy, bike to work week/commuter challenges, large scale rides and an improved Novi Bicycle Map.

Many elements of the public outreach and education program can begin immediately. Novi, like most communities, has enough infrastructure, programs, partners, and community pride to begin adding to the number of residents willing to try biking and walking right now. Efforts now will prime the City for success as it begins the work of improving its infrastructure for non-motorized transportation.

Outreach and education programs will encourage the use of existing facilities

A junior bicycle ambassadors program is proposed where teenage youth provide education and examples for elementary age children

How Will the Plan be Implemented?

The proposed improvements fall into five tracks. The first track is Initial Investments, which includes projects that should be done immediately as they complete critical gaps and address safety concerns.

Initial Investments

- Mostly locally funded projects
- Addresses critical gaps in the system
- Addresses safety concerns
- Mostly projects from the Pathway and Sidewalk Prioritization Analysis and Process

After the Initial Investments are completed, the following four tracks should be implemented concurrently as opportunities and funding become available.

Major Corridor Development

- Cross-city bike/pedestrian focused corridors most of which have either regional significance or are important to neighboring communities as well
- High capital investment projects likely supported by federal and state grants
- Generally involve multiple agencies

Neighborhood Connectors

- Mostly locally funded projects
- Low capital investment projects
- Intra-city network oriented

Sidewalk Gaps

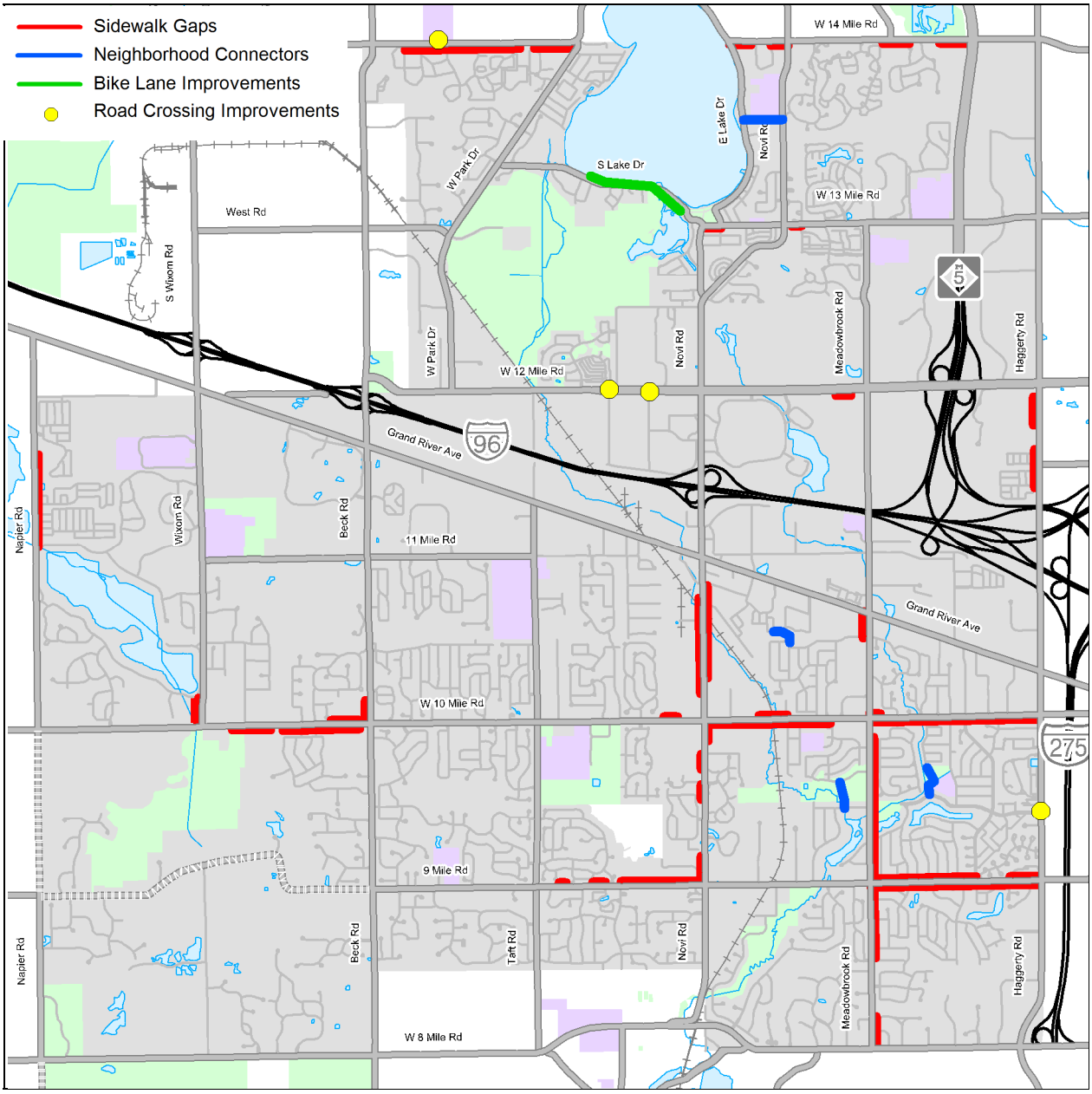
- Locally funded projects
- Prioritized to have the most impact for the investment and to respond to public demand
- Extension of the city's current sidewalk prioritization process

Construction Integration

- Projects that can be integrated as part of a larger construction project, such as bike lanes when a road is resurfaced

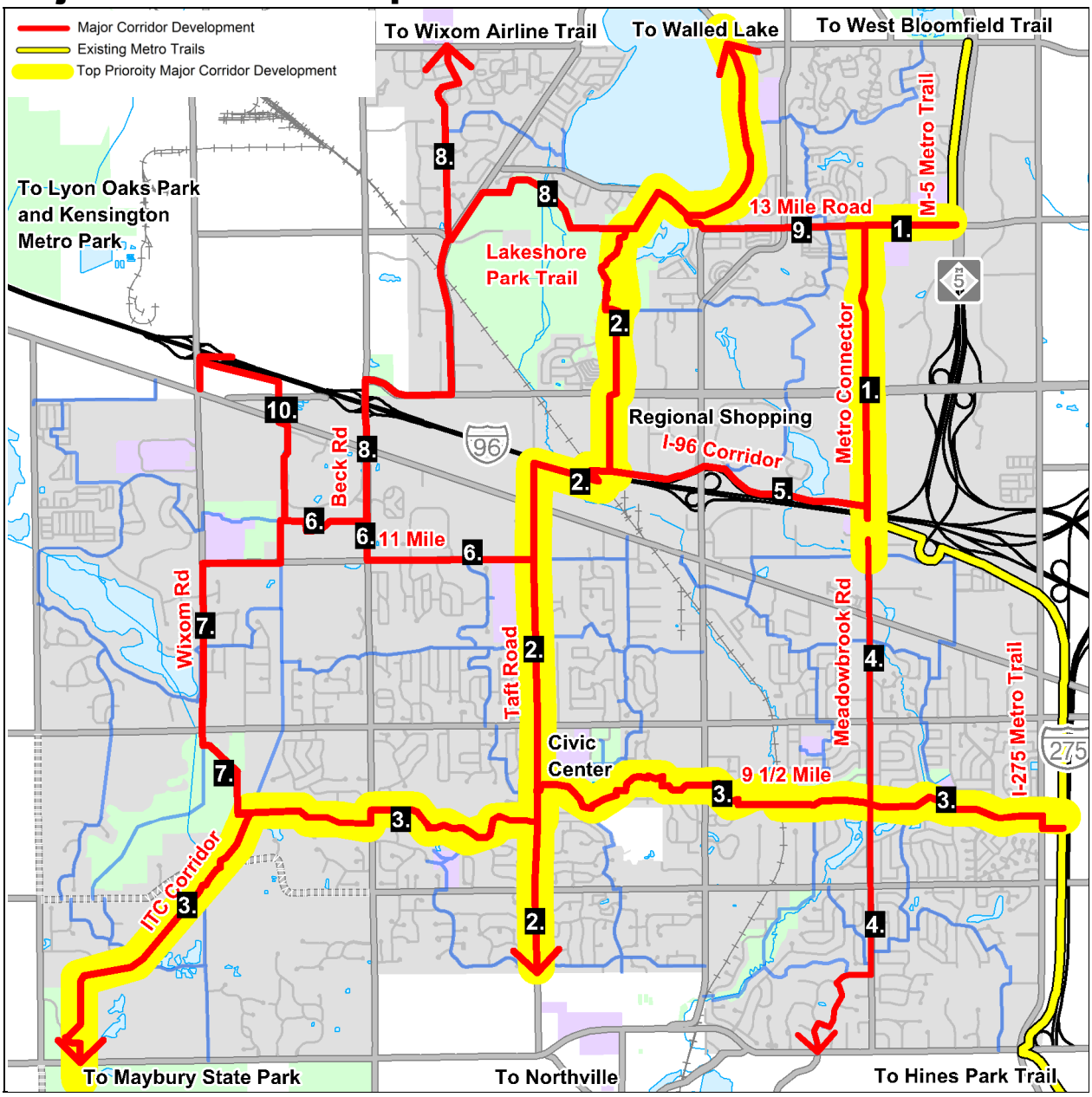
Some of the improvements include relatively modest changes such as road conversions and signage and others may take longer based on opportunities and available funding. Each task may take multiple years to implement. The speed of the implementation depends on the amount of money the city dedicates to the implementation along with the success of obtaining outside funding.

Initial Investments



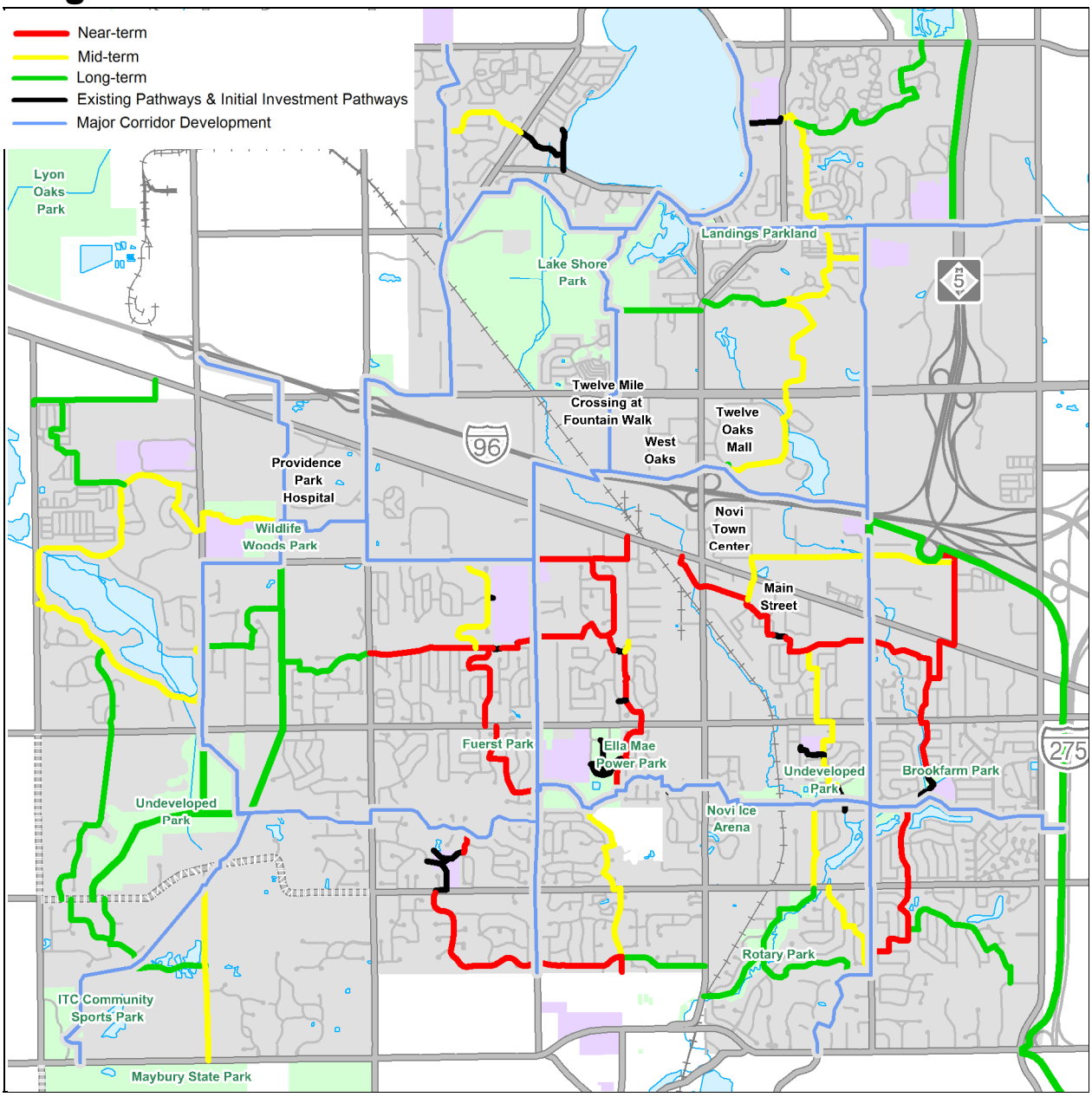
As the Non-Motorized Master Plan is in many ways a continuation and expansion of the City's Pathway and Sidewalk Prioritization Analysis and Process, a natural first step for implementation is to address the top priorities from that effort. These top priorities are included in the Initial Investments category. In addition, other key sidewalk gaps, connecting trails and safety concerns are addressed.

Major Corridor Development



The Major Corridors provide a framework comprised of Bicycle and Pedestrian Focused Corridors, Neighborhood Connectors and Off-Road Trails that provide access to the key destinations within the City. The nature of these corridors should appeal to great number of bicyclists and pedestrians.

Neighborhood Connectors



The Neighborhood Connectors provide a finer network than the Major Corridors and feed into the Major Corridor network. As they are primarily comprised of local roadways with short connecting off-road pathways, they are an economical way to provide alternative routes to the busy primary roads.

Conclusion

The City of Novi Non-Motorized Master Plan recognizes the great diversity of bicyclists and pedestrians and the variety of trip types they make. As a result the Plan calls for a multi-faceted non-motorized network that provides both direct routes along the primary roads as well as less direct links, that utilize local roads and trails that minimize the user's exposure to motorized traffic.

In addition to the physical network, updated policies combined with outreach and education programs will help to establish a supportive environment for bicyclists and pedestrians. After the completion, it is anticipated that this Plan will result in over 2% of all trips being done by pedestrians and another 2% of trips being done by bicycle. This will result in a significant reduction in the number of vehicle miles traveled in the City with an accompanying reduction in pollution.

Perhaps the greatest benefit to the City will be the improvement to the quality of life for the residents. By providing valued amenities, Novi will become an even better place to live, work and play.

Residents participating in one of the two public workshops held for the project.