



THE CITY OF WEST SAINT PAUL

PEDESTRIAN AND BICYCLE MASTER PLAN

12.05.11



THE CITY OF WEST SAINT PAUL



Prepared by
HOISINGTON KOEGLER GROUP



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EXECUTIVE SUMMARY





Dodd Rd.



Robert St.

EXECUTIVE SUMMARY

BACKGROUND

The City of West St. Paul (population 19,540) is a developed community located in northern Dakota County just south of the City of Saint Paul. The City has been working with the Dakota County Active Living Partnership to assess active living conditions and suggest policy changes that would encourage increased physical activity in daily routines.

This Pedestrian and Bicycle Master Plan is a tool to guide the long-term efforts (25 years or more) to physical projects, programs and policies that will support walking and biking in West St. Paul to encourage healthy, active living and provide transportation choices. The goal of this plan is make recommendations to help to transform West St. Paul into a community where choosing walking and biking are safe, convenient and enjoyable recreation and transportation options for all users.

Funding for this Master Plan was provided by a grant from the Minnesota State Health Improvement Program (SHIP) through the Dakota County Active Living Partnership, the Dakota County Public Health Department and a grant from Blue Cross Blue Shield of Minnesota.

PLANNING PROCESS

The West St. Paul Pedestrian and Bicycle Master Planning process began in April 2011 and was completed in October 2011. Stakeholder and community involvement were key components of the planning process to better understand existing conditions, partnership opportunities and community needs and desires. The planning process included:

- Information was gathered at the West St. Paul Community Open House held May 18, 2011.
- A Community Open House, held June 14, 2011, where community members were invited to provide input on issues, needs and opportunities.
- On-Line Pedestrian and Bicycle Questionnaire, available in May and June which had 127 respondents.
- Updates to the Parks and Recreation Advisory Committee throughout the planning process.
- City Council and Planning Commission provided input on the working draft Master Plan August 22, 2011.
- A Community Open House was held September 13, 2011, to review the draft plan and to identify priority projects.

EXISTING CONDITIONS

With its compact size (5 square miles) largely developed character, and close proximity to regional employment and entertainment destinations (less than 3 miles from downtown





Robert St.

St. Paul and Eagan), West St. Paul has the potential to be a haven for pedestrians and bicyclists. Though some areas of West St. Paul are friendly to walking and biking, the city lacks a city-wide connected pedestrian and bicycle network. The northern portion of the City has a traditional grid street network and many of these streets have existing sidewalks. The central and southern portions have newer residential neighborhoods with single family homes on larger lots and a less connected street network with cul-de-sacs, dead-end streets and few sidewalks. Outside of trails in parks, and the North Urban Regional Trail, there are few on or off-road facilities for bicyclists. The Robert St. commercial corridor is a community destination, but its automobile orientation today makes it unsafe and unpleasant to access by walking or biking and crossing it poses a barrier to non-motorized transportation.

BENEFITS OF WALKING AND BIKING

Today, communities across the United States face multiple challenges: increasing health care costs due to high obesity rates; traffic congestion; decreasing municipal resources; and increasing concerns about the environment. Fortunately, promoting walking and biking can be part of the solution for all of these issues.

NEEDS

Pedestrian and Bicycle needs are based on analysis of existing conditions, input from City Council, Parks and Recreation Advisory Committee, Planning Commission, Environmental Committee, City Staff, and the community.

Safety

There is a need for:

- Dedicated ped-bike facilities (sidewalks and bikeways) on collector and arterial roads and bus routes.
- Traffic calming on ped-bike routes.
- Better education and enforcement of traffic laws for all users: vehicles, bicyclists and pedestrians.
- Safety improvements at intersections, particularly at Robert St.
- Safe bicycle and pedestrian facilities for the most vulnerable populations, the very young and very old.

Convenience

There is a need for:

- Better connections to important community destinations.
- Making the Robert St. Corridor more pedestrian and bicycle tolerant with sidewalk connections on all major streets leading to Robert St. and connections from sidewalks on Robert St. to building entries.
- Connections to regional trails and routes.

Enjoyment

There is a need for:

- Education and enforcement of existing snow shoveling ordinance for better clearance of sidewalks in winter.
- Way-finding signage to key destinations.



- Support facilities such as bike racks, secure bike parking, showers and lockers at employment destinations.
- Programs to encourage walking and biking.

- Other local streets also provide access but are low volume residential streets where bicycles and walking can be compatible with vehicles without special designation or treatments.

THE PEDESTRIAN AND BICYCLE PLAN

Walk-Bike Framework

The walk-bike framework identifies pedestrian and bicycle routes within the City of West St. Paul to create a comprehensive and connected walk-bike system. The framework is based on a hierarchy of routes: Regional, Main, Local, and Access. Each type performs a specific function.

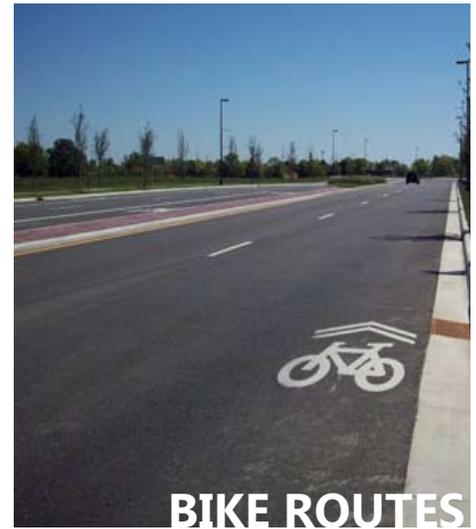
- Regional routes provide long distance uninterrupted travel for commuters and recreational users. Grade separated crossings and routing through scenic open spaces provide expedient, safe and enjoyable routes through multiple communities.
- Main routes facilitate long distance travel for commuters and recreation and create connections to regional trails, adjacent communities and regional parks.
- Local routes allow for mobility within the city and provide connections to city destinations: schools, parks and commercial areas.
- Access routes connect Main and Local routes to the front door of a given destination.

Trails or sidewalks for walking are a priority for all designated routes. The Bike-Walk Framework Map summarizes the route hierarchy with definitions of route purpose, intended users, preferred treatments and support facilities that respond to the route purpose, anticipated users, traffic conditions and available space.

Walk-Bike Treatments

The routes identified on the framework will use a combination of treatments: sidewalks, off-road trails, and on-road bikeways to create a comprehensive and connected walking and biking network that is appropriate for all ages and abilities. Suggested walk and bike treatments along all routes are shown in the Walk-Bike Treatment Map and are listed on the Walk-Bike Treatment Recommendations.

Suggested treatments are based on a variety of factors including: route type, safety, traffic volumes, available right-of-way, available road width, presence of existing facilities, etc. The suggested treatments are considered 'ideal', flexibility and time will be needed to implement the plan.



Recommended Treatment Types:

SIDEWALK – An off-street concrete walking path, typically parallel to streets.

OFF-ROAD TRAILS – A paved multi-use path parallel to the street separated by a 5’ minimum boulevard. Used for walking, running, biking and in-line skating.

BIKE ROUTE – On-road treatment, bicycles share the roadway with automobile traffic. May have a signing as sharrow (arrow and bike symbol) or other pavement markings, bike route signs and/or a road shoulder that can be used for cycling.

BIKE LANE – A striped on-road lane solely for bike use.

BIKE BOULEVARD - an on-street treatment where bicycles share the roadway with automobile traffic. The street is designed so bicycle travel is a comfortable and safe mode of transportation. Heavy emphasis on traffic calming, signage and pavement markings. Traffic calming techniques may include bump-outs, median islands, diverters, small traffic circles and landscaping. Works best on low traffic volume streets.

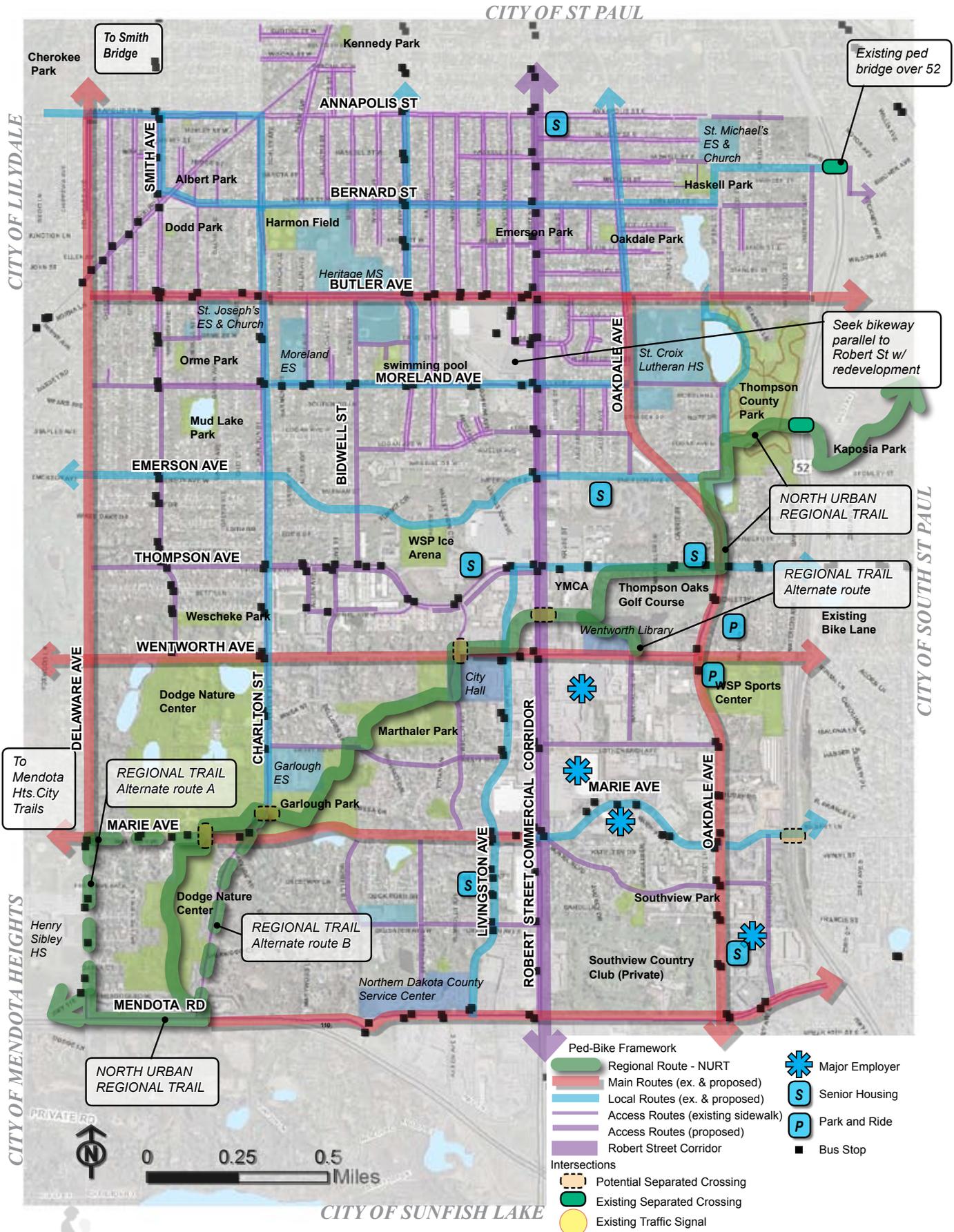
The Robert St. Corridor

Robert St. is West St. Paul’s “Main Street,” but lacks pedestrian accommodations needed to make it a pleasant place to walk. The Redevelopment Design Framework Plan (November 2000) defines pedestrian friendly concepts to improve the walking environment of the Robert St. District. Some key design strategies from the plan that should be implemented with redevelopment include:

- Gain easements to create a larger pedestrian zone.
- Consolidate driveways (fewer curb-cuts).
- Create center medians and dedicated turn lanes for pedestrian crossing refuge and traffic control.
- Add streetscape amenities (trees, lighting, benches, etc.) for traffic calming and pedestrian comfort.
- Create shared parking lots with landscaped pedestrian connections to/from building entries.

Bicycle travel along Robert St. is constrained by lack of right-of-way and very high traffic volumes. This plan recommends bicycle travel be routed on streets that parallel Robert St. with connections created along streets to key Robert St. intersections.

PEDESTRIAN AND BICYCLE FRAMEWORK MAP



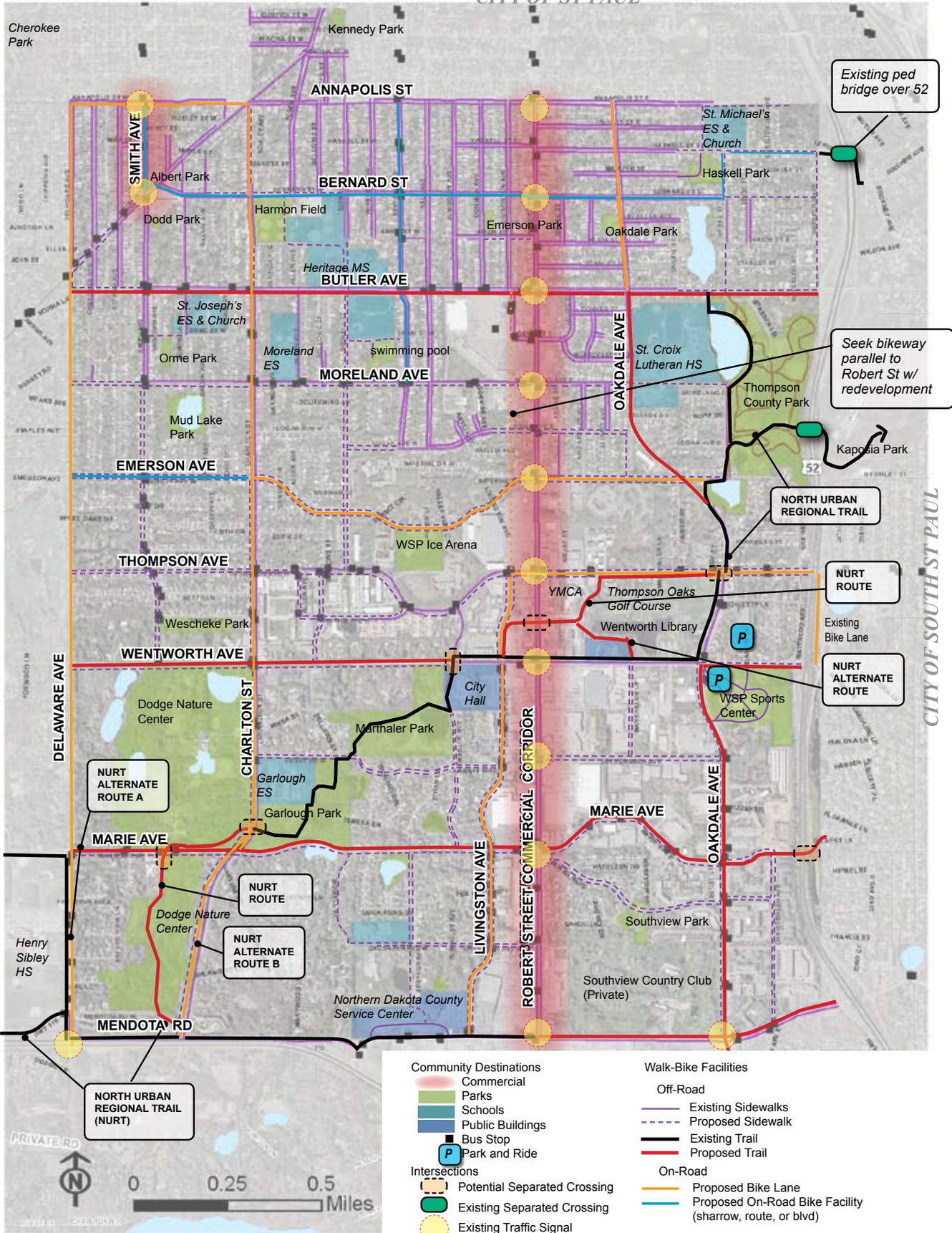
PEDESTRIAN AND BICYCLE FRAMEWORK TABLE

The walk-bike framework identifies pedestrian and bicycle routes within West St. Paul to create a comprehensive and connected walk-bike system. The framework is based on a hierarchy of routes: Regional, Main, Local, and Access. Each type performs a specific function and has a range of suggested treatments, as described in the table below.

REGIONAL	<p>PURPOSE: Part of the regional trail system</p> <p>USERS: Walkers, all cyclists - novice to experienced</p> <p>FOCUS: Shared transportation and recreation function, safety, experience, improved travel time, route continuity</p> <p>BIKE TREATMENTS: Off-road: paved multi-use trail corridor</p> <p>WALK TREATMENTS: Off-road: paved multi-use trail corridor with shorter distance local loop trails connect to the regional trail</p> <p>WAYFINDING SIGNAGE: Informational kiosks, directional, route sign and bike button; consistent with regional standards</p> <p>PREFERRED STREET CROSSINGS: Grade separated, high visibility crosswalk treatments at controlled at-grade crossings</p> <p>SUPPORT FACILITIES: Trail-heads with vehicle parking, rest areas with benches and water, visible bike parking at destinations</p> <p>EXAMPLES: North Urban Regional Trail</p>
MAIN ROUTES	<p>PURPOSE: Provide connections between citywide, county or regional trail system and regional destinations</p> <p>USERS: Walkers, all cyclists - novice to experienced</p> <p>FOCUS: Shared transportation and recreation function, safety, experience, improved travel time, route continuity</p> <p>BIKE TREATMENTS: Off-road: paved multi-use trail; On-road: bike lane, bike route</p> <p>WALK TREATMENTS: Paved multi-use trail; sidewalks</p> <p>WAYFINDING SIGNAGE: Informational kiosks, directional, route sign and bike button</p> <p>PREFERRED STREET CROSSINGS: Controlled intersections, high visibility crosswalk treatments at uncontrolled at-grade crossings</p> <p>SUPPORT FACILITIES: Rest areas with benches and water, visible bike parking at destinations</p> <p>EXAMPLES: Marie Ave., Oakdale Ave., Wentworth Ave., Charlton St.</p>
LOCAL ROUTES	<p>PURPOSE: To provide safe routes to significant city destinations such as Robert St., schools and library</p> <p>USERS: Walkers, all cyclists - novice to experienced</p> <p>FOCUS: Transportation for shorter local trips, recreation loops, safety, user experience, route continuity</p> <p>BIKE TREATMENTS: Off-road: paved multi-use trail; On-road: bike lane, bicycle boulevard, bike route</p> <p>WALK TREATMENTS: Sidewalks and paved multi-use trail</p> <p>WAYFINDING SIGNAGE: Directional, route sign, bike button</p> <p>PREFERRED STREET CROSSINGS: Controlled intersections, high visibility crosswalk treatments at uncontrolled at-grade crossings</p> <p>SUPPORT FACILITIES: Visible bike racks and benches at destinations</p> <p>EXAMPLES: Livingston Ave., Moreland Ave.</p>
ACCESS ROUTES	<p>PURPOSE: Provide fine grain connections between residential areas and the City network</p> <p>USERS: Walkers; all cyclists - novice to experienced</p> <p>FOCUS: Door to door connections between city-wide network and schools, parks and other city destinations, safety particularly for children and the elderly, experience</p> <p>BIKE TREATMENTS: On-road: residential streets shared with vehicles (no special treatments)</p> <p>WALK TREATMENTS: Sidewalks, short multi purpose trail links. Priority routes shown on Framework Plan, sidewalks on all other residential streets to be considered in conjunction with road-reconstruction projects</p> <p>WAYFINDING SIGNAGE: Directional, route sign</p> <p>PREFERRED STREET CROSSINGS: High visibility crosswalk treatments where needed on school routes</p> <p>SUPPORT FACILITIES: Benches and visible bike racks at parks and schools</p> <p>EXAMPLES: Smith Ave., Bidwell St.</p>

PEDESTRIAN AND BICYCLE TREATMENT MAP

CITY OF ST PAUL



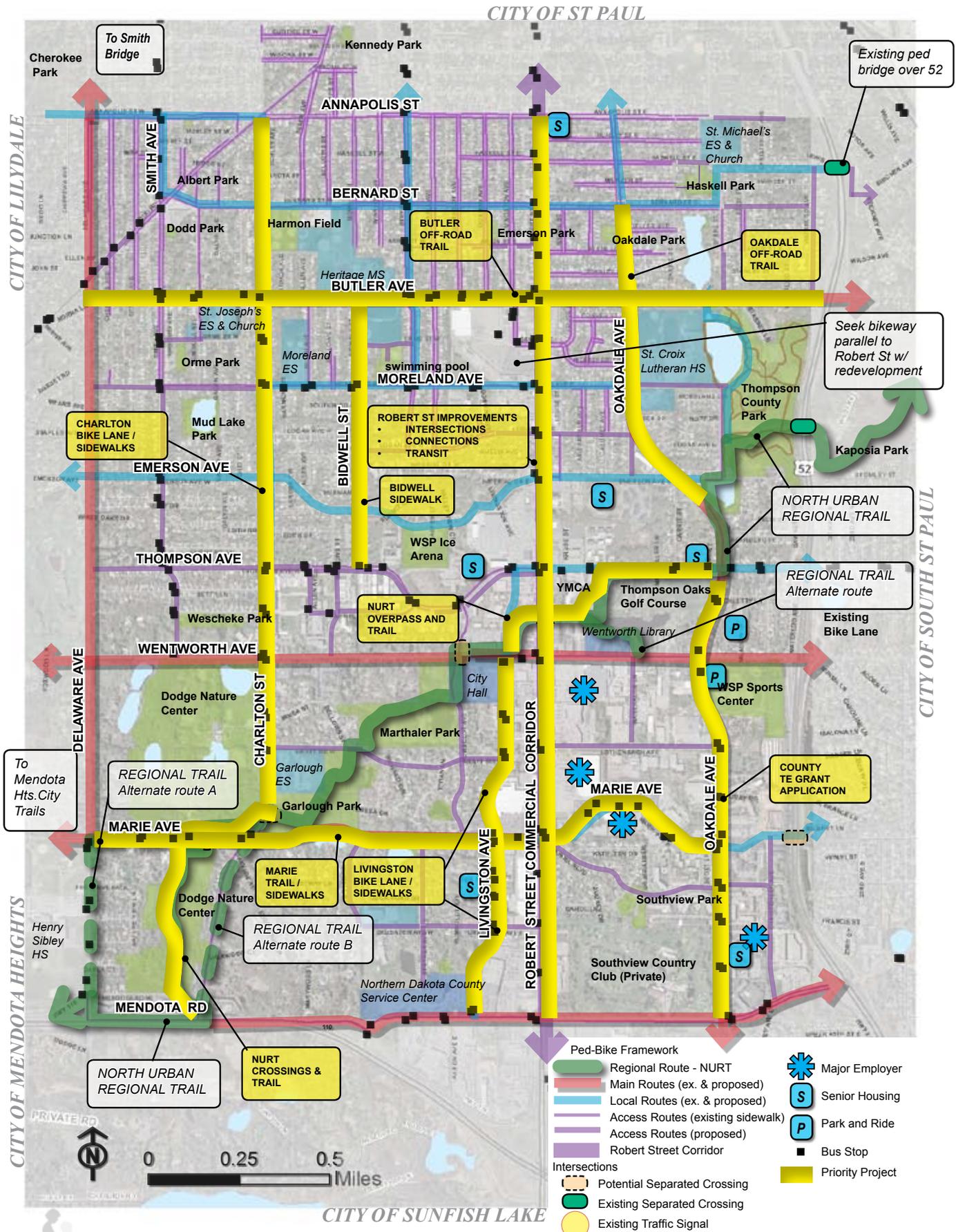
CITY OF SUNFISH LAKE

TREATMENT RECOMMENDATIONS TABLE

	SEGMENT	PREFERRED TREATMENT	FRAMEWORK HIERARCHY	JUSTIFICATION / CONSIDERATIONS
OFF ROAD TRAIL AND SIDEWALKS	North Urban Regional Trail (NURT)	Off-Road Trail	Regional	Follow regional trail standards. Coordinate with Dakota County planning.
	Butler Avenue (Delaware Ave. to 52)	Off-Road Trail Sidewalk one side	Main Route	High traffic volumes. Important link to park, schools, Robert St. on north side of City. Coordinate with Dakota County (CSAH 4).
	Oakdale Avenue (Butler Ave. to Mendota Rd.)	Off-Road Trail Sidewalk one side	Main Route	Includes NURT segments. Bus route. Road profile varies. Coordination with NURT and Dakota County (CSAH 73).
	Wentworth Avenue (Delaware Ave. to Highway 52)	Off-Road Trail Sidewalk one side	Main Route	High traffic volumes. Identified Dakota County pedestrian gap. Coordination with Dakota County (CSAH 8). Partial bus route.
	Marie Avenue (Delaware Ave. to Robert St.)	Off-Road Trail Sidewalk one side	Main Route	High traffic volumes. Partial Bus route. Short term: bike lanes. Potential road-diet.
	Marie Avenue (Robert St. to Oakdale Ave.)	Off-Road Trail Sidewalk one side	Local Route	High traffic volumes. Bus route. Short term: bike lanes.
	Mendota Road (Delaware Ave. to Highway 52)	Off-Road Trail - both sides	Main Route	Very high traffic volumes/speeds. Coordinate with Dakota County (CSAH 14 / 110).
BIKE LANE AND SIDEWALK	Delaware Avenue (Mendota Ave. to Annapolis St.)	Bike Lane	Main Route	Requires removal of the one sided parking. Long term: off-road trail. Coordination with Mendota Hts., Lilydale, and Dakota County (CSAH 63).
	Annapolis Street Link (Delaware Ave. to Charlton St.)	Bike Lane Sidewalk both sides	Local Route	Requires removal of parking on one side. Coordination with St. Paul and Dakota County (CSAH 2 / 41).
	Charlton Street (Mendota Rd. to Annapolis St.)	Bike Lane Sidewalk both sides Trail from Marie Ave. to Mendota Rd. if chosen as NURT route	Local Route	Important north/south city wide. Requires removal of the one sided parking. Consider sharrows to keep parking. Partial bus route.
	Oakdale Avenue (Butler Ave. to Annapolis St.)	Bike Lane Sidewalk both sides	Local Route	Constrained conditions. Requires removal of parking for bike lane. Consider bike route to keep parking. Coordinate with Dakota County (CSAH 73).
	Emerson Avenue (Charlton St. to NURT)	Bike Lane Sidewalk both sides	Local Route	Medium traffic volumes, requires removal of the one sided parking. Consider sharrow or bike route to keep parking.
	Livingston Avenue (Mendota Ave. to Thompson Ave.)	Bike Lane Sidewalk both sides	Local Route	Commercial destinations. Bus route. Requires removal of parking on one side. Concerns about crossing major uncontrolled intersections.
	Thompson Avenue (Livingston Ave. to Highway 52)	Bike Lane Sidewalk both sides	Local Route	Commercial destinations. High volume traffic. Bus route. Coordinate treatment with final NURT route.
OTHER ON-ROAD AND SIDEWALKS	Bernard Street (Smith Ave. to Sperl St.)	Bike Blvd / Bike Route Sidewalk both sides	Local Route	Local Route with constrained conditions. Treatment based on desire to calm traffic, keep parking.
	Sperl Street (Bernard St. to Haskell St.)	Sharrow / Bike Route Sidewalk both sides	Local Route	Constrained conditions. Treatment based on desire to keep parking and low traffic volumes.
	Haskell Street (Sperl St. to Ped. Bridge)	Sharrow / Bike Route Sidewalk both sides	Local Route	Constrained conditions. Treatment based on desire to keep parking and low traffic volumes. Steep grades.
	Smith Street Link (Bernard St. to Annapolis St.)	Sharrow / Bike Route Sidewalk both sides	Local Route	Constrained conditions. Treatment based on desire to keep parking. Bus route.
	Emerson Avenue (Delaware Ave. to Charlton St.)	Sharrow / Bike Route Sidewalk both sides	Local Route	Constrained conditions. Treatment based on desire to keep parking and low traffic volumes.
OTHER SIDEWALKS	Typical (in locations shown)	Sidewalk both sides	Access Route	Considerations on a site by site bases. Consider road-diets, multi use off-road trails that can function as sidewalks.



PRIORITY PROJECT MAP



PRIORITY PROJECTS RECOMMENDATIONS TABLE

LOCATION	TREATMENT	NOTES	PARTNERSHIPS & FUNDING
PHYSICAL PROJECTS			
NURT North Urban Regional Trail	Multi-Use Trail.	Complete the missing section of the NURT, including the Robert St. overpass and other grade separated crossings, off-road trail to follow Regional Trail standards, coordinate with County Planning.	- Partnership with Dakota County.
ROBERT STREET (Annapolis St. to Mendota Rd.)	Intersection and corridor improvements.	Intersection and corridor improvements for better pedestrian and bicycle crossings and movement, including the bike-ped overpass north of Wentworth, sidewalk connections within 1/4 mile, opportunities with redevelopment.	- Implementation along with road reconstruction project. - Partner with developers during redevelopment. - Partner with Dakota County for the ped-bike bridge.
MARIE AVENUE (Delaware Ave. to Oakdale Ave.)	Long term - trail on north, side sidewalk on south. Short term - Bike lane.	Main Route, high traffic volumes, Partial Bus route. -Long term - trail and sidewalk. -Short-term, consider bike lanes. -A 'road diet' where the vehicle drive space is narrowed to capture space for walk-bike facilities should be explored.	- Dakota County. County has applied for a Transportation Enhancement Grant (TE) for a trail on the north side from Robert St. to Oakdale Ave. - Possible federal funding for remaining sections. - City funds.
CHARLTON STREET (Annapolis St. to Marie Ave.)	Bike Lane. Sidewalk both sides.	Local Route -Important North/South city wide / requires removal of the one sided parking, consider Sharrows to keep parking, partial bus route.	- Safe routes to school funding may be available for sidewalks near Moreland and Garlough Elementary Schools. -City funds.
OAKDALE AVENUE (Bernard St. to Emerson Ave. and Thompson Ave. to Mendota Rd.)	Multi-Use Trail on one side. Sidewalk on one side.	Main Route: Important N/S on east side of City. Consider bike lanes in addition to trail.	- County Partnership for trail. Dakota County has applied for a TE Grant for a trail from Wentworth to Mendota. - Possible federal funding for remaining sections. - City Funds.
LIVINGSTON AVENUE (Wentworth Ave. to Mendota Rd.)	Bike Lane. Sidewalk on both sides.	Local Route, commercial destinations, Bus route / requires removal of parking on one side, concerns about crossing major uncontrolled intersections.	- City funds.
BIDWELL STREET (Butler Ave. to Thompson Ave.)	Sidewalk on both sides.	Access route, serves middle and elementary schools.	- Safe routes to school funding may be available for sidewalks near schools. -City funds.
BUTLER AVENUE (Delaware Ave. to Highway 52)	Trail on south side. Sidewalk on north side.	Main route, serves 5 schools and Thompson County Park, is a major east-west connection.	-Partnership with Dakota County. - Possible safe routes to school funding. - Possible federal funding. -City funds.

OTHER PRIORITIES

REVISE THE CURRENT SIDEWALK FUNDING POLICY

CREATE A WALK-BIKE ADVISORY GROUP OR SUB COMMITTEE OF THE PARK AND RECREATION ADVISORY COMMITTEE TO FOCUS ON WALK-BIKE ISSUES.



Sidewalks make pedestrian connections and are neighborhood gathering places

IMPLEMENTATION

Implementation of the Plan will occur as resources become available and opportunities arise. The Plan will be used as a guide when evaluating infrastructure and subdivision design to prioritize bicycle and pedestrian access in line with the goals and policies of the City Council.

Key for implementation will be:

- Assignment of Parks and Recreation Advisory Committee, Planning Commission, and Environmental Committee as the advisory boards to the City Council to help with Plan implementation.
- Assignment of the City staff in the planning department to implement the programs and projects in the pedestrian and bicycle plan.
- Develop and maintain a dedicated funding source to design, build and maintain the walk-bike system.
- Revise the current assessment policy for funding new sidewalks.

Priority Projects

Recommended priority pedestrian and bicycle improvement projects and action items are shown on the Priority Project Map and listed in the Priority Table. The recommended priority improvements are projects that will have the biggest impact for improving the pedestrian and bicycle environment.

Exact timing of priority projects will depend on available staff time, funding, as well as grant and partnership opportunities. Priorities and actions are not static; other projects in this plan not identified as priorities should be implemented as opportunities arise. Likewise, inclusion in the priority list does not obligate the City to implementation. The priorities should be reviewed and updated annually as projects are completed, needs change or new funding sources are identified.

On-going Actions

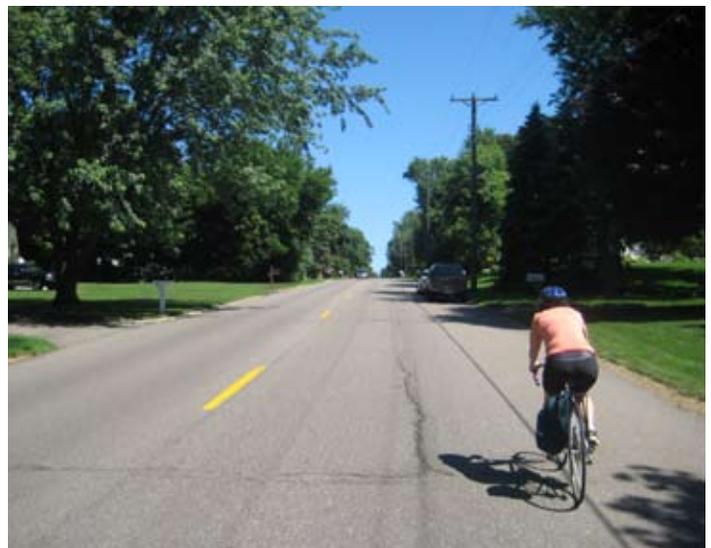
- Detailed design of routes.
- Construct sidewalks, trails and bikeways identified on the treatment plan as funding allows and opportunities arise.
- Build for pedestrians and bicyclists in conjunction with new streets and street reconstruction projects.
- Require sidewalks, bicycle connections, and bike racks along with redevelopment.
- Install bike racks at public buildings and in city parks.
- Consider developing a bike rack cost share program to encourage existing businesses to install bike racks.
- Consider developing a volunteer program to assist the elderly and disabled with sidewalk clearing.



Bike lane on Highway 52 Frontage Road

Potential Funding Sources for improvements include:

- City of West St. Paul general fund.
- State Aid funding.
- Developer improvements.
- Park and trail dedication.
- Partnerships with public and private organizations.
- Grants.
- Donations.



Delaware Ave.



1. INTRODUCTION





Library

INTRODUCTION

BACKGROUND

This Pedestrian and Bicycle Master Plan is a tool to guide the long-term efforts (25 years or more) to physical projects, programs and policies that will support walking and biking in West St. Paul to encourage healthy, active living and provide transportation choices.

Funding for this project was provided by a grant from the Minnesota State Health Improvement Program (SHIP) through the Dakota County Active Living Partnership and the Dakota County Public Health Department and a grant from Blue Cross Blue Shield of Minnesota.

PLAN NEED

With its compact size (5 square miles) and development pattern and close proximity to regional employment and entertainment destinations (less than 3 miles from downtown St. Paul and Eagan), West St. Paul has the potential to be a haven for pedestrians and bicyclists. But today, though some areas of West St. Paul are friendly to walking and biking, the city lacks a city-wide connected pedestrian and bicycle network. The northern portion of the City has a traditional grid street network and many of these streets have existing sidewalks. The central and southern portions have newer residential neighborhoods with single family homes on larger lots and a less connected street network with cul-de-sacs, dead-end streets and few sidewalks. Outside of trails in parks, and the North Urban Regional trail, there are few on or off-road facilities for bicyclists. The Robert St. commercial corridor is a major community destination, but its automobile orientation today makes it unsafe and unpleasant to access by walking or biking and crossing it poses a barrier to non-motorized transportation.





Off-road trail



Controlled crossings

A comprehensive and long term plan is needed to make biking and walking safer, more convenient and more enjoyable in West St. Paul. The goal of this plan is make recommendations to help to transform West St. Paul into a community where choosing walking and biking are safe, convenient and enjoyable recreation and transportation options for all users.

Safety

Creating an environment where people feel safe walking and biking is key to encouraging use. If people do not feel safe, they will not walk or bike. Gaps in the trail and sidewalk system that force people on to roads for portions of their routes, the amount of traffic, traffic speeds, crossing distances, and a lack of lighting all contribute to real and perceived safety. This plan makes recommendations and outlines best practices to:

- Minimize conflicts between travel modes (walk, bike, and car).
- Improve crossing safety.
- Provide facilities for all types of walking and levels of cyclists.

Convenience

The current transportation network provides fast, direct, door to door connections with ample parking for vehicle use but is not as developed for walking and biking. Many destinations within West St. Paul and beyond are within walking (1 mile /20 minute walk) or biking range (3-5miles/20 minutes) but gaps in the system, indirect routes, and a lack bike parking make biking and walking less convenient than driving. This plan makes recommendations and outlines best practices to:

- Connect walk and bike routes to local and regional destinations.
- Complete existing sidewalk and trail gaps.
- Link people to places they want to go (businesses, entertainment, shopping, schools, parks and civic uses).
- Raise awareness of pedestrian and bicycle opportunities.

Enjoyment

Equally important to safety and convenience is making walking and biking enjoyable. Reducing conflicts with other travel modes, attractiveness of the environment, the presence of shade, lighting, water and public restrooms and making the walk-bike system legible all contribute to making walking and biking more enjoyable. This plan makes recommendations and outlines best practices to:

- Create an attractive and comfortable environment.
- Make biking and walking more fun.





Active youth



Trails sell

BENEFITS OF WALKING AND BIKING

Today, communities across the United States face multiple challenges: increasing health care costs due to high obesity rates, traffic congestion, decreasing municipal resources and increasing concerns about the environment. Fortunately, promoting walking and biking can be part of the solution for all of these issues.

Promote Healthy Active Living

Walking and biking are two of the simplest and most popular ways to integrate regular physical activity into daily routines, which is referred to as Active Living. Communities that have the physical infrastructure and programs to promote walking and biking tend to have more physically active and healthier populations. Physical activity can help prevent: heart disease, obesity, high blood pressure, type 2 diabetes, osteoporosis and mental health problems which can reduce health care costs and improve quality of life.

As of 2009, 64.3% of adults in Dakota County were either overweight or obese. These figures are in line with the state and national data. If the current trend continues, the rate is expected to be 76% by 2020. Nationally over the past 30 years the rate has tripled where about 20% of school age children are now too heavy, and this trend appears to be continuing as well.

Among Dakota County adults (2009), almost half of the population (43.6%) does not meet the recommendation for the

amount of physical activity they should be attaining each week (at least 150 minutes of moderate level activity). For people who did engage in physical activity, walking, running and biking were the most popular activities (2007 Dakota County Active Living Survey).

Walking and biking to school is one way for youth to increase daily physical activity. Yet most West St. Paul elementary school students do not walk to school. Distance to school, speed of traffic, amount of traffic, and safety of intersections were among the top reasons that children did not walk to school (2011 Dakota County Safe Routes to School Plans for Garlough and Moreland Elementary Schools).

Increase Transportation Options and Mobility

Walking and biking can help reduce roadway congestion, pollution, and driver frustration. Many trips are short enough to be accomplished by walking or biking. West St. Paul is roughly 2 miles by 2.5 miles, making local destinations within walking or biking distance. West St. Paul is also less than 3 miles from St. Paul and Eagan, regional employment and entertainment destinations.

Providing facilities for pedestrians and bicyclists also increases affordable travel options and reduces dependency on automobile ownership. The cost of owning and operating a car is currently estimated at \$8,485 a year (AAA) compared with the \$120 operating cost of owning a bicycle (League of American Bicyclists) or the free cost of walking. Sidewalks and trails are crucial options for the 1/3rd of the population that do not drive.



Walkable development

Encourage Economic Development

Facilities for pedestrians and bicyclists and compact development patterns that support walking and biking can have a positive impact on attracting residents, businesses and workers. Compact, walkable developments provide economic development benefits through increased property values, enhanced marketability and faster sales than conventional developments. A survey from the National Association of Realtors found that 58 percent of Americans think a walkable neighborhood is an important consideration.

Walking and biking is also big business. Minnesota Business magazine estimates that the Twin Cities bicycle industry contributes \$315 to the local economy. Minnesota's trails tourism industry generates about \$2.2 billion annually related to walking and biking and supports about 24,000 jobs around the state.

In addition, when residents are able to live without a car, they save between \$3,000 and \$12,000 annually. That savings can translate into increased spending to support the local economy.

Provide Environmental Benefits

According to the EPA, transportation is responsible for nearly 80% of carbon monoxide and 55% of nitrogen oxide emissions in the U.S. If automobile use continues to grow, air quality will continue to decline. In addition, automobile use depends on oil, which is a non-renewable resource. Fortunately, replacing short trips with walking or biking can help reduce energy consumption and harmful emissions. According to the WorldWatch Institute,

Walk – Bike Infrastructure is a Community Investment

Improving biking and walking conditions in West St. Paul isn't just a 'want' it is an investment in the community. In Minnesota, the number of people walking or biking to work has increased by nearly 30% from 2001 to 2009 spurred by investments to support safe biking and walking. A few of the benefits include avoided gasoline costs, less wear and tear on roads, avoided car ownership costs, avoided health care costs, reduced air pollution and carbon emission. These benefits translate into monetary value and, when taken together far outweigh the infrastructure costs. A study by Rails to Trails compared spending on bike infrastructure in Portland to fuel and health care savings and found the return on investment (ROI) to be over \$8 for each \$1 invested. These are benefits not only for those who walk or bike, but lower costs to taxpayers, insurance payers and employers.

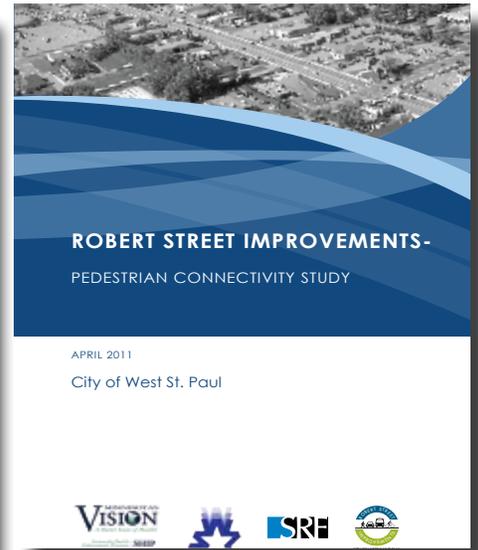
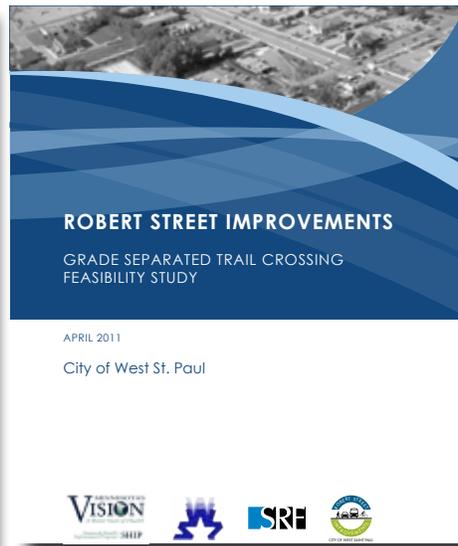
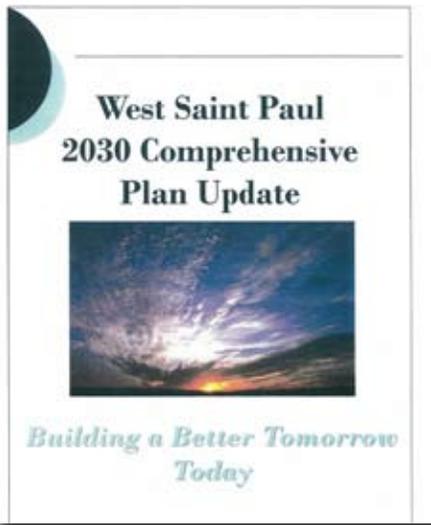
a short, four-mile round trip by bicycle keeps about 15 pounds of pollutants out of the air we breathe.

Walking and biking also allow people to connect with nature, something that is becoming difficult as more people move to urban areas. Connection to nature can help people become better environmental stewards.

Promoting Quality of Life

Walking and biking also bring intangible benefits including improved quality of life. Facilities for walking and biking can promote independence and improve quality of life for segments of the population who cannot drive: youth, elderly, those who cannot afford a car and people with certain disabilities. Marketing campaigns, such as "Live Local - Work Local", can encourage people to work and shop within walking and biking distance of home while supporting local businesses.

When a community commits to providing for pedestrians and bicyclists, it often results in safer streets, more vibrant business districts and increased social interaction between residents. This can strengthen the sense of community and place in West St. Paul.



PLANNING CONTEXT AND FOUNDATION DOCUMENTS

The Pedestrian and Bicycle Master Plan coordinates sidewalk and trail goals and policies outlined in the 2030 Comprehensive Plan. In addition, this Plan coordinates and builds on other pedestrian and bicycle planning efforts completed by the City of West St. Paul and Dakota County.

The City of West St. Paul 2030 Comprehensive Plan (Updated 2008)

The Comprehensive Plan outlines the City's Vision as well as land use, transportation, and parks, vision, goals and policies to guide the City through 2030. This pedestrian and bicycle master plan directly supports the community's vision to "Encourage the conservation of energy resources and the reduction of air emissions through the support of transit and other alternate forms of transportation to the automobile." Other goals and policies that support pedestrian and bicycle improvements include:

5.10 Transportation

Goal: Emphasize and encourage alternate forms of transportation

Policies:

9. Provide for a range of transportation modes and opportunities including transit, auto, pedestrian and bicycles.

12. Encourage the development and use of alternative methods of transportation.

5.11 Bicycle/Pedestrian Systems

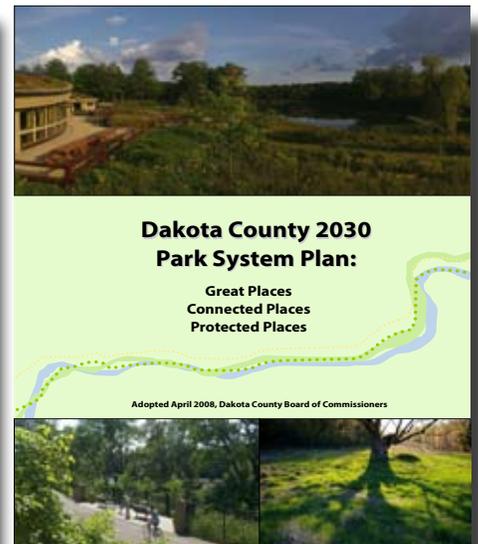
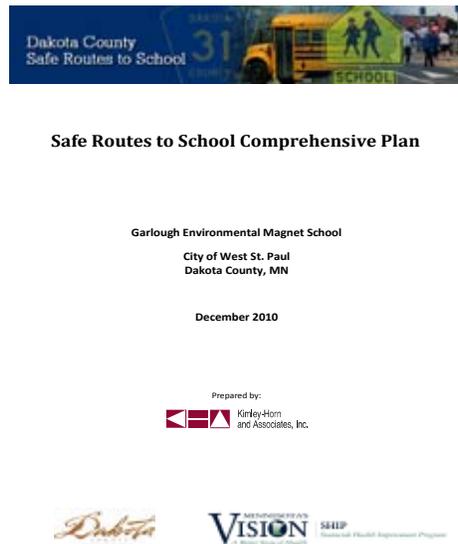
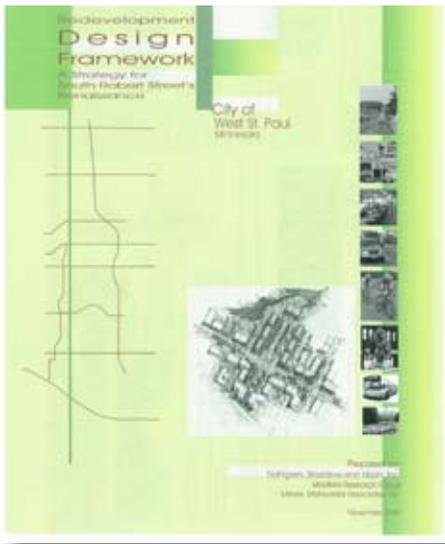
Goal: Manage and enhance existing sidewalk and trails systems so as to improve accessibility and the quality of life for all West St. Paul residents.

Policies:

1. Develop a city-wide system of bike and pedestrian trails/sidewalk and facilities that are functional, attractive, safe and accessible.
2. Encourage sidewalks and trails along arterials to enhance safety for pedestrians and bicyclists.
3. Continue to work with Dakota County in developing the county wide Regional Trail Plan.

Redevelopment Design Framework - A Strategy for South Robert Street's Renaissance (November 2000)

This plan provides a community vision to reinforce Robert Street's historic role as the main street of West St. Paul. Recommendations and concepts are presented to move from a relatively unpleasant environment for walking and biking to more of a pedestrian place with compact, mixed use development, and enhancements to the streetscape in favor of pedestrians and bicyclists. These include: connections to a city-wide bicycle



network; wider sidewalks on Robert St. with trees, landscaping and pedestrian scale lighting; gateways, open space and plazas to be incorporated with redevelopment.

Robert St. Improvements - Pedestrian Connectivity Study (April 2011)

This study was conducted to determine critical connections that would support the Robert St. corridor and enhance its relationship to the surrounding neighborhood. Sidewalk gaps were identified and prioritized to guide which improvements could logically be constructed as part of the Robert St. Reconstruction Project and which should be part of other future roadway improvement projects (or stand-alone projects).

Robert St. Improvements - Grade Separated Trail Crossing Feasibility Study (April 2011)

This report assesses the feasibility of constructing a grade separated trail at Robert St. to connect local trails, a planned regional trail, public and recreational facilities, local businesses, public transportation, surrounding residential neighborhoods, and provide an alternative to the at-grade crossing at Wentworth Ave. that exists today. The report presents an analysis of several different options and configurations with recommendations.

Garlough Elementary Magnet School Safe Routes to School Comprehensive Plan (2010)

This plan makes recommendations for programs and physical projects to increase walking and biking to Garlough Elementary School. Specific project recommendations include: Construct

sidewalk/trail connection from Charlton St. to the front of the school; Continue to plan, design, and pursue funding opportunities for construction of the NURT trail near Charlton St. and Marie Ave.; add sidewalks on city streets along Marie Ave., Kraft Rd. and Wentworth Ave.; construction of pedestrian ramps at Kraft Rd./ Charlton St. intersection.

Moreland Arts and Health Sciences Magnet School Safe Routes to School Comprehensive Plan (2011)

This plan makes recommendations for programs and physical projects to increase walking and biking to Moreland Elementary School. Specific project recommendations include: Sign the Charlton St./Moreland Ave. and Charlton St./Butler Ave. intersections as designated school crossings; construct sidewalk connection along Charlton St. north of Butler Ave.; add sidewalks on city streets along the north/south streets south of Butler Ave.

Dakota County 2030 Park System Plan (2008)

Dakota County envisions regional greenways with trails connecting Dakota County’s parks and natural resources. The North Urban Regional Trail travels through West St. Paul and when complete, will connect the Minnesota and Mississippi Rivers.

PLANNING PROCESS

The planning process began in April 2011 and was completed in October 2011. Stakeholder and community involvement were key components of the planning process to further the public dialog on active living as well as to better understand existing conditions, partnership opportunities and community needs and desires. The planning process included:

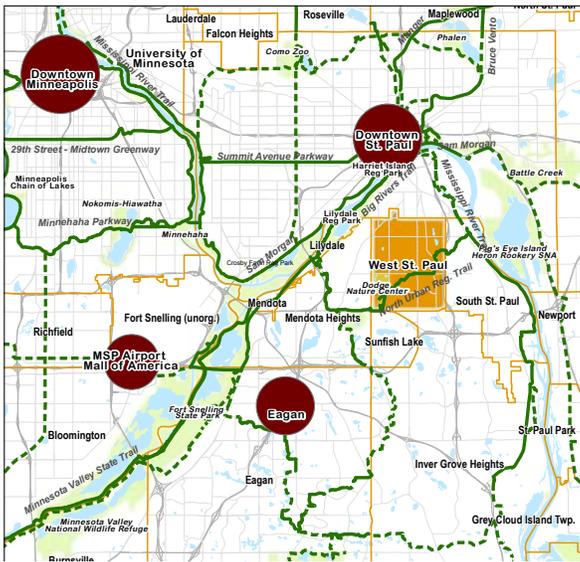
- Information at the West St. Paul Community Open House held May 18, 2011.
- A Community Open House, held June 14, 2011, where community members were invited to provide input on issues, needs and opportunities.
- On-Line Pedestrian and Bicycle Questionnaire, available in May and June which had 127 respondents.
- A Community Open House, held September 13, 2011, to review components of the draft plan.
- Updates to the Parks and Recreation Advisory Committee throughout the planning process.
- Presentations to the West St. Paul City Council in May, August (included the Planning Commission) and October 2011.

2. EXISTING CONDITIONS AND NEEDS



Legend

- Existing State and Regional Trails
- Planned and Proposed Regional Trails
- City Boundaries
- Regional Parks



West St. Paul is in close proximity to employment and entertainment in Minneapolis, St. Paul and Eagan



Existing pedestrian/ bike bridge over Highway 52 at Haskell St.



Wentworth Ave.

EXISTING CONDITIONS AND NEEDS

EXISTING CONDITIONS

With its compact size (5 square miles), largely developed character, and close proximity to regional employment and entertainment destinations, West St. Paul has the potential to be a haven for pedestrians and bicyclists. Today, though some areas of West St. Paul are friendly to walking and biking, the city lacks a city-wide connected pedestrian and bicycle network.

Regional Destinations

West St. Paul is located less than 3 miles to Downtown St. Paul and employment destinations in Eagan. Cherokee Regional Park and Lilydale Regional Park, located in St. Paul are within ½ mile of the City Boundary. The North Urban Regional Trail (NURT) travels through West St. Paul and, when complete, will connect the Minnesota and Mississippi Rivers and, according to Metropolitan Council ridership projections, will attract 33,900 riders yearly.

Land Use Patterns

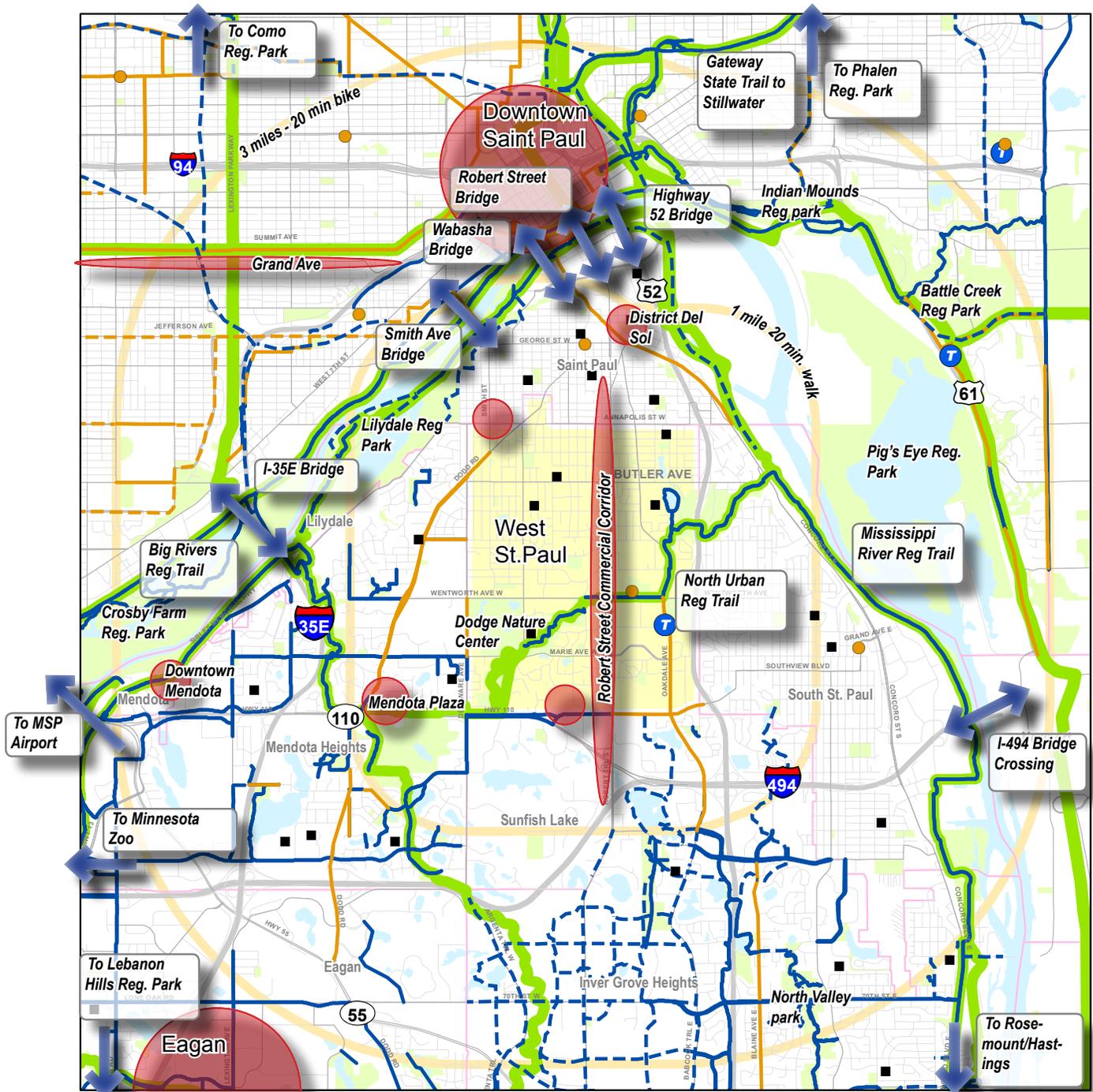
Much of West St. Paul developed in the 1950's and 1960's when automobile travel was dominant, and land use patterns reflect that. Today, the northern portion of the City developed before 1940 and has a traditional, connected grid street network with sidewalks. The central and southern portions of the City developed later and have newer residential neighborhoods with single family homes on larger lots and a less connected street network with cul-de-sacs, dead-end streets and few sidewalks.

Large blocks of employment/industrial uses between Wentworth, Thompson Oaks Golf Course and Southview Country Club, Dodge Nature Center, Garlough Park and Marthaler Park are all barriers to street connectivity. West St. Paul has several senior housing complexes and, for the most part, these are not connected to the existing sidewalk network.

Parks, schools, churches are distributed throughout the city and integrated into residential neighborhoods. Though some students live close enough to walk or bike to schools, lack of sidewalks, trails and busy street crossings make walking and biking unsafe.



REGIONAL CONTEXT MAP



Legend

Destinations

- Schools
- Libraries
- Regional parks
- Ⓣ Transit Center
- Commercial-Employment

Trails and Bikeways

- Existing off-road trails
- Existing on-road bikeways
- - - Proposed on-road bikeways
- - - Proposed off-road trails
- Existing and proposed regional trail corridor

— City boundaries

— Water

— 1 & 3 mile from West St. Paul

— 20 minute walk / bike

— Connections and Bridges



0 0.5 1 Miles



Butler Ave.



North Urban Regional Trail through Marthaler Park

The Robert St. commercial corridor is a community destination, but its automobile orientation makes it unsafe and unpleasant to access by walking or biking and crossing it poses a barrier to non-motorized transportation. Though there are sidewalks, they are not well connected to the adjacent neighborhoods and large parking lots are located between the sidewalk and the front door of businesses. There are no accommodations for bicyclists. Pedestrians and bicyclists do not feel safe at signalized intersections on the corridor, making it a barrier to east/west movement.

There are smaller neighborhood oriented commercial nodes along Smith Ave. at Dodd Rd. and Annapolis St. These areas are connected to adjacent neighborhoods by sidewalks and have good pedestrian access but complicated intersections make biking daunting.

Employment destinations are located south of Wentworth. There are several larger employers east of Robert St. Dakota County's Northern Service Center on Mendota Rd. west of Robert St. is also a significant employment destination.

Existing Walk-Bike Network

Today there are 50 miles of sidewalks, primarily located in the northern portion of the City. There are 5 miles of paved trails. Trails are limited to the Dakota County's North Urban Regional Trail and trail loops in parks.

Some roads are designated bike routes, notably Wentworth Ave., Delaware Ave., Dodd Rd., Oakdale Ave. and Mendota Rd. These routes have wide shoulders and bike route signage but high vehicle speeds, traffic volumes and inconsistent treatments limit use by average and novice cyclists.

The current bikeway and sidewalk system has significant gaps, particularly in the southern portion of the city where there are larger blocks and a less connected street grid. There are sidewalk gaps on many bus routes. This forces transit users to walk on the road shoulder or grass and is unsafe, particularly in winter when snow storage may force users on to the street.

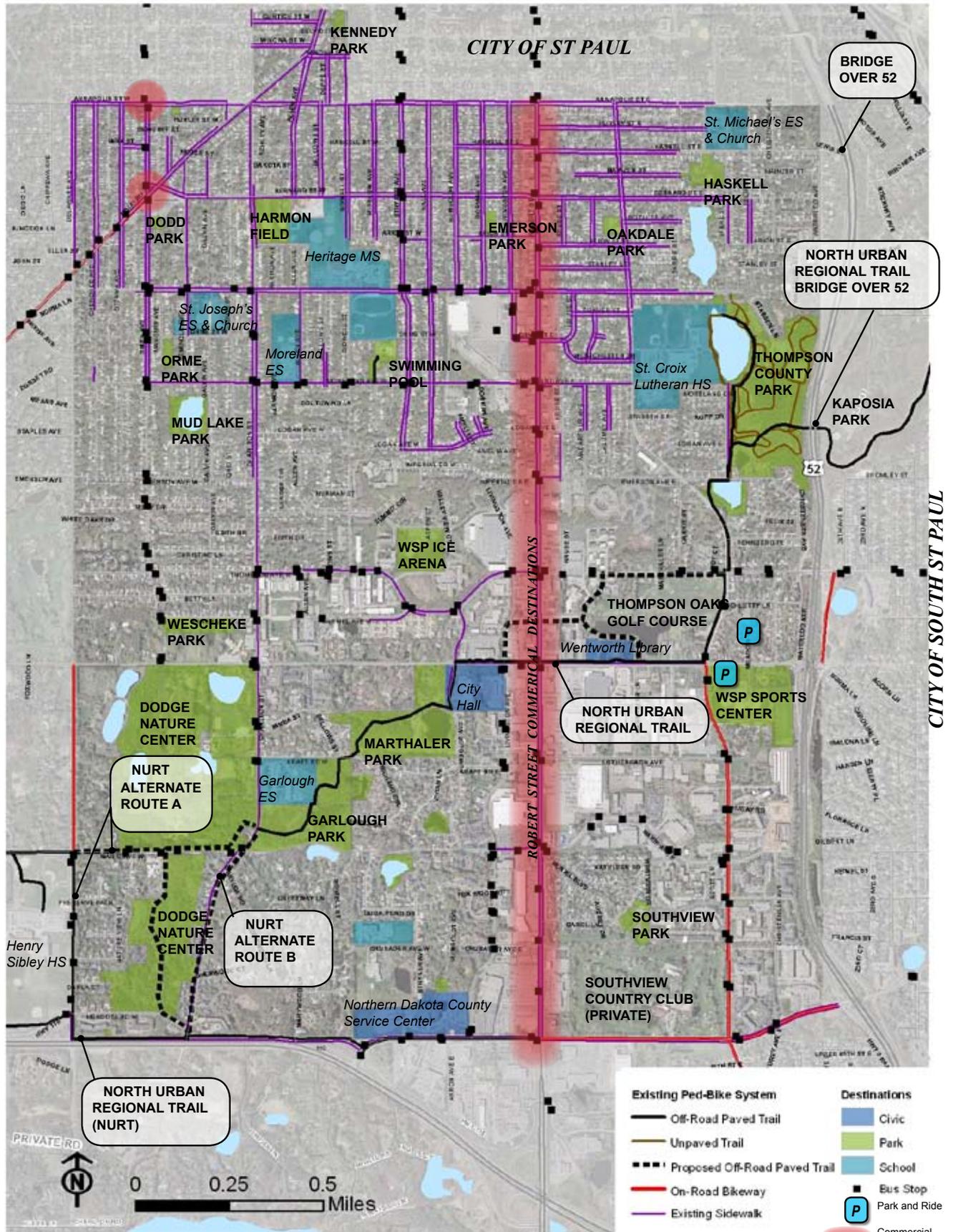
Busy roads and intersections are also barriers to greater pedestrian and bicycle use. The City is bound by Highway 52 to the east and Highway 110 to the south. These major roadways, as well as Robert St., Butler Ave., Wentworth Ave. and Mendota Rd. act as barriers. In addition, residents do not feel safe crossing some intersections.



EXISTING PEDESTRIAN AND BICYCLE CONDITIONS MAP

CITY OF LILYDALE

CITY OF MENDOTA HEIGHTS



CITY OF SUNFISH LAKE

EXISTING TRAVEL CHARACTERISTICS

Because of land use patterns, distance to work, school and other destinations, and the lack of a connected pedestrian and bicycle network, West St. Paul residents travel by vehicle for most trips. Improving the City's walk-bike system would enable residents to make more trips by walking and biking. Based on available data, the following observations can be made about existing travel patterns:

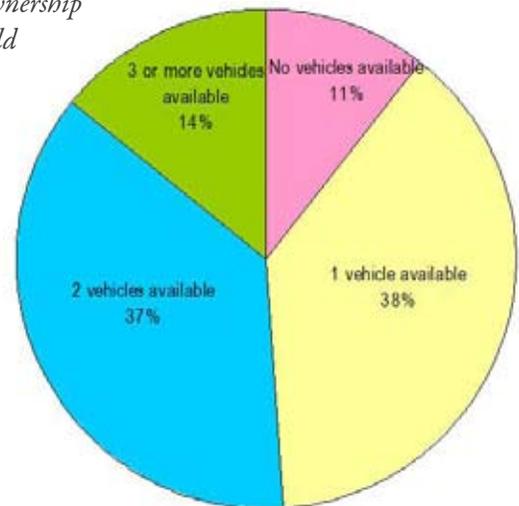
- 22% of West St. Paul's population is under 18, so providing safe routes to schools, parks, the YMCA and the library is a priority.
- 17% of West St. Paul's population is over 65. Nationally, 1/3 of the people in this age group do not drive. In the next 15 years, this age group will increase by 60%. For seniors, walking is the second most popular travel mode (after driving). Providing safe walking and biking routes within the community will become more important to as the baby-boomers age.
- Nationally, 3.0% of trips to work are by walking and 1.9% of trips to work are by biking (2009 National Household Survey). In West St. Paul commuting by biking and walking is slightly lower than national patterns; 2.5% of residents currently commute to work by walking, and 1% by "other means", which includes biking. Providing trails, sidewalks, and on-road bikeways to nearby employment centers and programs to encourage bike and walk commuting would support active living and has economic benefits. Reducing the number of cars a household needs can save between \$3,000 and \$12,000 per year. That is money that can be spent at local businesses. In addition, less car trips means less wear and tear on roads. This translates into road maintenance savings for cities.
- 6% of residents use transit to travel to work and 11% of households do not own vehicles. Sidewalks to and along bus routes would improve safety for transit users and a city-wide sidewalk and bikeway network would provide active transportation options for residents.
- While many students live within walking distance of West St. Paul's elementary schools, most students are provided bus transportation because of traffic volumes and road crossings. At Moreland Arts and Health

Sciences Magnet School, 50% of students live in the neighborhoods immediately around the school yet only 10% walk. At Garlough Environmental Magnet School, less than 10% of students live in the neighborhoods immediately around the school and 26% of students live within one mile of the school but only 1% walk. The disconnected sidewalk network, traffic speeds and the need to cross Wentworth Ave. and Robert St. are barriers to greater walking (Safe Routes to School Comprehensive Plans for Garlough Environmental Magnet School, May 2010 and Moreland Arts and Health Sciences Magnet School, May 2011).

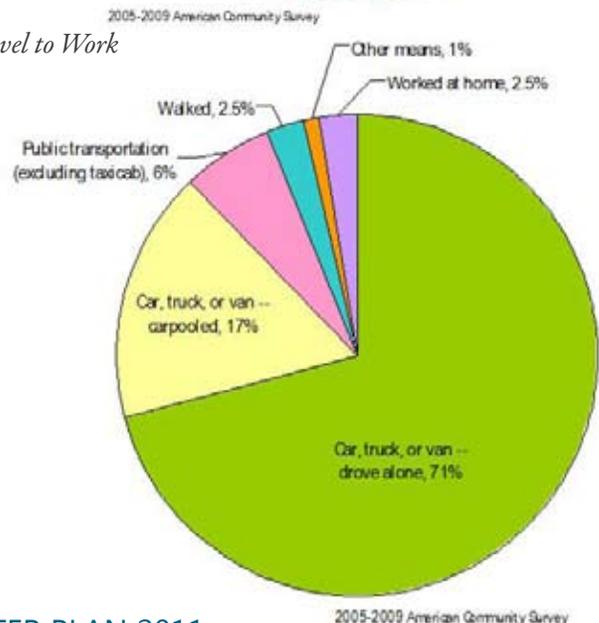
POPULATION/AGE	
TOTAL POPULATION	19,540
UNDER 18 YEARS	22%
18-64 YEARS	61%
65 YEARS AND OLDER	17%

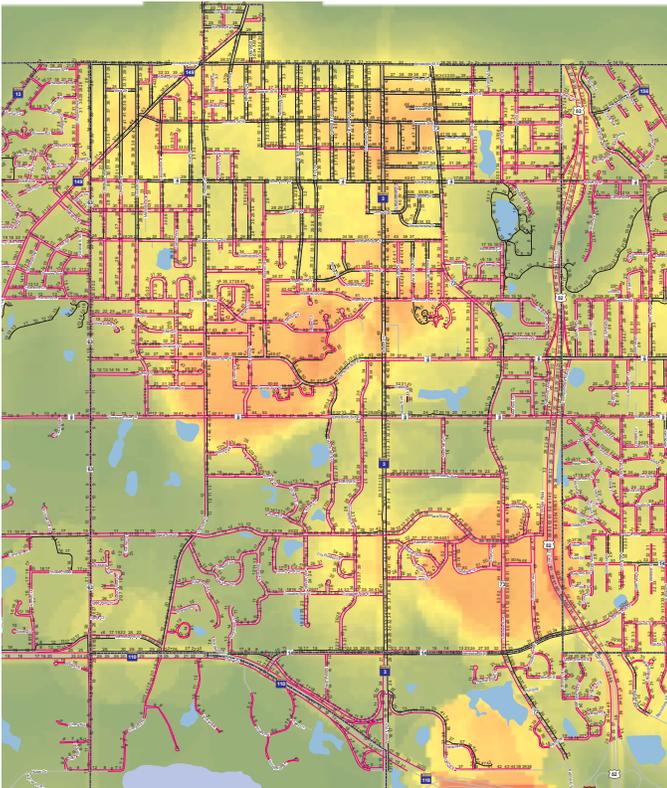
2010 US CENSUS

Vehicle Ownership by Household



Travel to Work





The dark orange areas show places where sidewalks are most needed based on population density and existing pedestrian facilities.



Charlton St. - Sidewalks on both sides of street are needed



Robert St. - Cyclists often use sidewalk which is a violation of state law in commercial districts

NEEDS

Needs are organized around improving the walk-bike experience in West St. Paul by making biking and walking safer, more convenient and more enjoyable. The Needs Assessment Map summarizes pedestrian and bicycle needs.

Pedestrian and Bicycle Needs were determined through:

- City tour and input from City Staff.
- Information gathered at the West St. Paul Community Open House held May 18, 2011 and the Pedestrian and Bicycle Plan Open House, held June 14, 2011, where community members were invited to provide input on issues, needs and opportunities.
- On-Line Pedestrian and Bicycle Questionnaire, available in May and June which had 127 respondents.
- Input from the City Council, Planning Commission and Parks and Recreation Advisory Committee.

Safety

There is a need for:

- Dedicated ped-bike facilities (sidewalks and bikeways) on collector and arterial roads and bus routes.
- Traffic calming on ped-bike routes.
- Better education and enforcement of traffic laws for all users: vehicles, bicyclists and pedestrians.
- Safety improvements at intersections, particularly at Robert St.
- Safe bicycle and pedestrian facilities for the most vulnerable populations, the very young and very old.

Residents and Businesses consider sidewalk and bikeways when relocating

“Our family is considering a move to WSP, in part because our children attend/have attended/will attend Dodge Nature Center Preschool, and other area school options are very appealing to us. However, we currently live in a city neighborhood with a terrific community feel, and when we look at homes in WSP, I worry about safety for the kids because of the lack of sidewalks. How do small children learn to ride bikes in an area with no sidewalks? Where do people push strollers/ walk dogs? Most of the streets in WSP seem like “thru streets” designed for quick car travel, but kids, dog walkers, and exercisers are forced to walk in the street. Drivers are so inattentive these days that I can see that people would simple stay home, or drive elsewhere for exercise. In our current neighborhood, the sidewalk provides a buffer between our family life and the cars. And people are more inclined to go for walks after dinner, stop and chat with neighbors, push strollers, walk to errands, etc. To me, sidewalks are an essential part of community-building.

So I was delighted to see that WSP is investing in sidewalks and bike trails/lanes. That makes the city immensely more appealing to us. We are bicyclists and any plan that includes more bike trails is fantastic. I just wanted to let you know that if your city wants to attract young families like mine, green space, pedestrian-friendliness, and infrastructure that generates real community connections is super important. There is a huge generation of people with young children in the core cities that are eyeing suburbs like yours because of the positives of suburban living, but the negatives, like car dependance, are daunting. There is a real loss of quality of life. That’s something you can change. I’d love to see a greener WSP with families and neighbors out walking and connecting.”

Amy Goetzman

Convenience

There is a need for:

- Better connections to important destinations: commercial areas, parks, schools, the YMCA, bus stops and the library.
- Making the Robert St. Corridor more pedestrian and bicycle tolerant with sidewalk connections on all major streets leading to Robert St.; connections from sidewalks on Robert St. to building entries; better bicycle access to Robert St. businesses; wider sidewalks and separation between walks and the street; building entries oriented to the street; and higher density development; pedestrian scale lighting.
- Connections to regional trails and routes: key routes for connections are the North Urban Regional Trail, Mendota’s trail system, the planned Cherokee Park Regional Trail, the Smith Ave. Bridge connection to Downtown St. Paul.

Specific routes where ped-bike improvements are needed are: Marie Ave., Wentworth Ave., Smith Ave., Delaware Ave., Oakdale Ave., Butler Ave., Charlton St., Emerson Ave., Livingston Ave., Dodd Rd., Thompson Ave., Imperial Dr.

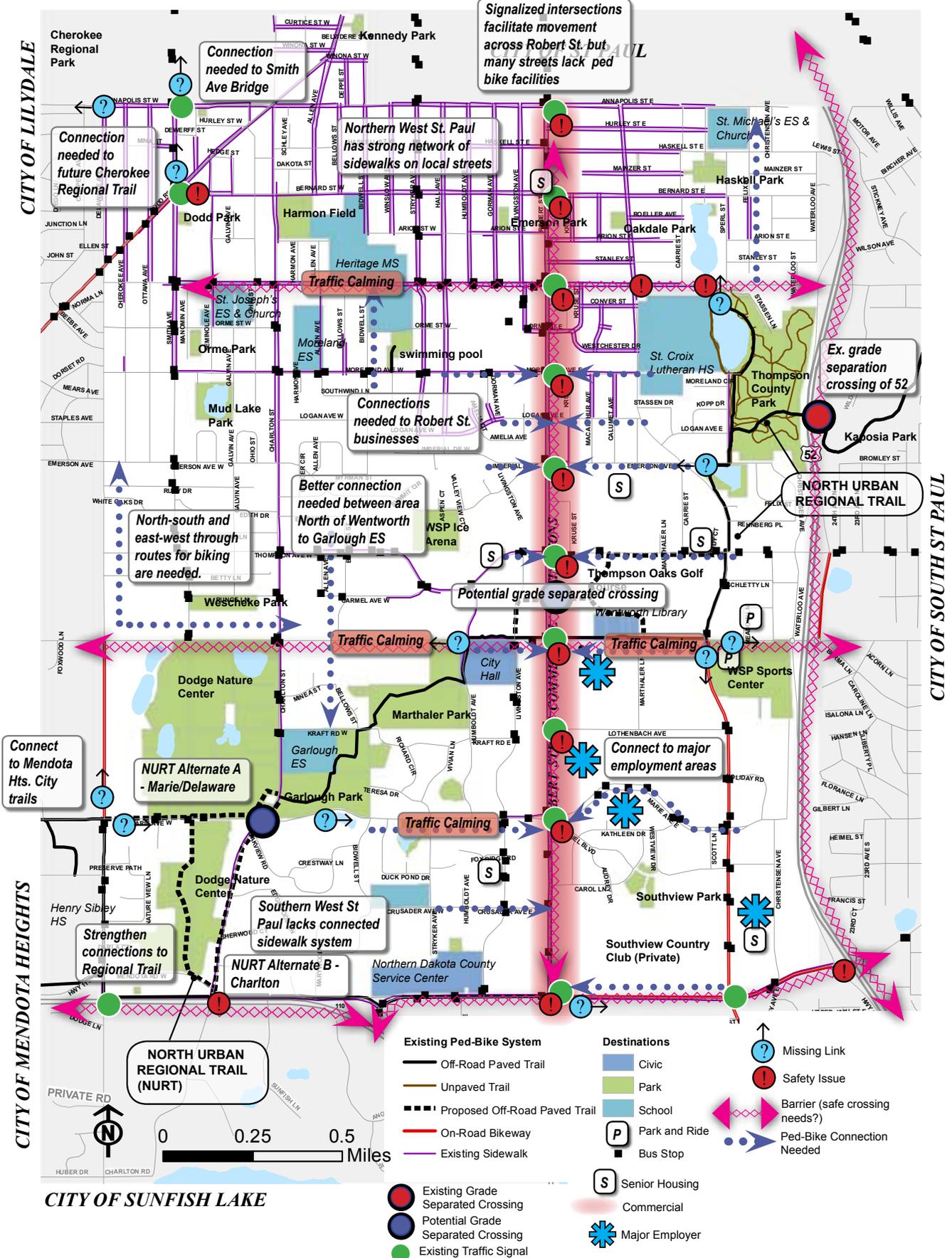
Enjoyment

There is a need for:

- Education and enforcement of existing snow shoveling ordinance for better clearance of sidewalks in winter.
- Bike racks at destinations.
- Way-finding signage to key destinations (as the system develops).
- Support facilities such as secure bike parking at park and rides and employment destinations. Showers and lockers at key employment destinations would encourage bike commuting.
- Programs to encourage walking and biking.



NEEDS ASSESSMENT MAP





3. THE PEDESTRIAN AND BICYCLE PLAN





Roadway shoulders are often used as bike lanes

THE PLAN

This chapter outlines a pedestrian and bicycle network, support facilities and programs to encourage healthy, active living and provide non-motorized transportation alternatives for West St. Paul's residents.

The first part of this chapter, the walk-bike plan, identifies walk-bike routes and specific treatments for each route to create a safe, convenient and complete walk-bike network. The latter half of this chapter addresses the best practices to make walking and biking in West St. Paul safer and more enjoyable.

TYPES OF PEDESTRIAN AND BICYCLE TRIPS & FACILITY NEEDS

The goal of this plan is to increase walking and biking in West St. Paul, therefore this plan focuses on improving walking and biking trips for residents of all ages and abilities and supports two major types of walking and biking trips:

- Utilitarian - to get to destinations such as work, school, or errands.
- Recreational - for exercise or entertainment.

Sidewalks, trails and safe, convenient street crossings are the primary facilities needed for walking. These facilities can be used for all types of walking trips and all abilities. Planning for

cyclists differs from pedestrian planning in that bicyclists often have very different facility needs according to their skill and experience level. An experienced cyclist will feel comfortable riding on the road with traffic, while less advanced cyclists will feel more comfortable with a physical separation from traffic. The pedestrian and cyclist user profiles table identifies the major walk-bike user group's needs.

WALK-BIKE FRAMEWORK

The walk-bike framework identifies pedestrian and bicycle routes within the City of West St. Paul to create a comprehensive and connected walk-bike system. The framework is based on a hierarchy of routes: Regional, Main, Local, and Access. Each type performs a specific function. Main routes facilitate long distance travel for commuters and recreation and create connections to regional trails, adjacent communities and regional parks. Local routes allow for mobility within the city and provide connections to city destinations: schools, parks and commercial areas. Access routes connect Main and Local routes to the front door of a given destination. Other local streets also provide access but are low volume residential streets where bicycles and walking can be compatible with vehicles without special designation or treatments. Trails or sidewalks for walking are a priority for all designated routes. The Framework Table, which follows identifies route hierarchy with definitions of route purpose, intended users,



PEDESTRIAN AND CYCLIST USER PROFILE TABLE

GROUP	NEEDS	FACILITIES	DISTANCE
PEDESTRIANS All abilities	Fine grain connected network with 'door-to-door' connections between home and destinations. Particularly important on high traffic roads, on bus routes, near schools and senior housing.	Sidewalks Trails Safe Road Crossings	Short loops for exercise (1-3 miles) ¼ to ½ mile for utilitarian trips.
EXPERIENCED CYCLISTS (Group A)	Are comfortable riding with no special facilities for cyclists.	Off-road trails On road bikeways Safe Road Crossings	10 miles or more for commuting Longer loops and connections to county and regional trails
AVERAGE CYCLISTS (Group B)	Casual riders who are less confident of their ability to operate in traffic without special provisions for bicycles.	Off-road trails On-road bikeways with well-defined separation between bicyclist and motor vehicles Safe Road Crossings	1-3 miles for errands 3-5 miles for commuting Longer recreational loops
NOVICE CYCLISTS (Group C)	Pre-teen cyclists who typically ride under close parental supervision.	Off-road trails Safe Road Crossings	Short trips close to home

preferred treatments and support facilities that respond to the route purpose, anticipated users, traffic conditions and available space.

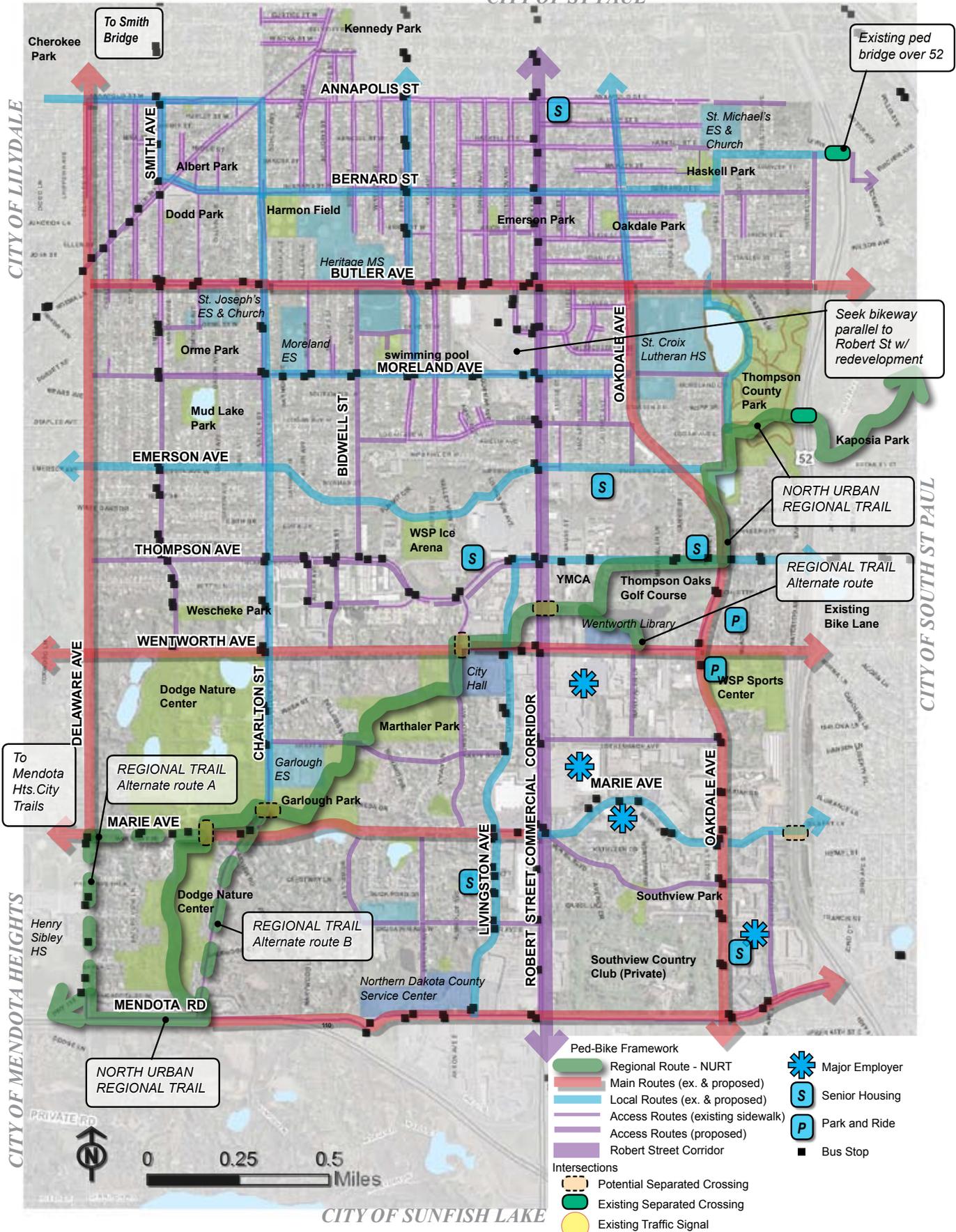
The framework:

- Identifies the Dakota County North Urban Regional Trail (NURT) connecting the Minnesota and Mississippi Rivers.
- Locates main routes to make connections to adjacent cities, regional parks, and regional trails.
- Creates a ½ to 1 mile grid of bicycle routes within the city that facilitate shorter trips within the city. This grid adds to the existing trail and sidewalks to make it more complete.
- Provides fine grain walking connections from the city route network to the neighborhoods and destinations on Access routes.
- Improves access to schools, senior housing, and higher density residential areas.

- Improves access to the Robert St. corridor by creating viable parallel bicycle routes on Livingston Ave. and Stryker Ave. to the west and Oakdale Ave. to the east. East-west connections from these streets provide access to Robert St.
- Creates connections to neighborhood commercial areas on Smith Ave. in the northern part of the City.

PEDESTRIAN AND BICYCLE FRAMEWORK MAP

CITY OF ST PAUL



PEDESTRIAN AND BICYCLE FRAMEWORK TABLE

The walk-bike framework identifies pedestrian and bicycle routes within West St. Paul to create a comprehensive and connected walk-bike system. The framework is based on a hierarchy of routes: Regional, Main, Local, and Access. Each type performs a specific function and has a range of suggested treatments, as described in the table below.

REGIONAL	<p>PURPOSE: Part of the regional trail system</p> <p>USERS: Walkers, all cyclists - novice to experienced</p> <p>FOCUS: Shared transportation and recreation function, safety, experience, improved travel time, route continuity</p> <p>BIKE TREATMENTS: Off-road: paved multi-use trail corridor</p> <p>WALK TREATMENTS: Off-road: paved multi-use trail corridor with shorter distance local loop trails connect to the regional trail</p> <p>WAYFINDING SIGNAGE: Informational kiosks, directional, route sign and bike button; consistent with regional standards</p> <p>PREFERRED STREET CROSSINGS: Grade separated, high visibility crosswalk treatments at controlled at-grade crossings</p> <p>SUPPORT FACILITIES: Trail-heads with vehicle parking, rest areas with benches and water, visible bike parking at destinations</p> <p>EXAMPLES: North Urban Regional Trail</p>
MAIN ROUTES	<p>PURPOSE: Provide connections between citywide, county or regional trail system and regional destinations</p> <p>USERS: Walkers, all cyclists - novice to experienced</p> <p>FOCUS: Shared transportation and recreation function, safety, experience, improved travel time, route continuity</p> <p>BIKE TREATMENTS: Off-road: paved multi-use trail; On-road: bike lane, bike route</p> <p>WALK TREATMENTS: Paved multi-use trail; sidewalks</p> <p>WAYFINDING SIGNAGE: Informational kiosks, directional, route sign and bike button</p> <p>PREFERRED STREET CROSSINGS: Controlled intersections, high visibility crosswalk treatments at uncontrolled at-grade crossings</p> <p>SUPPORT FACILITIES: Rest areas with benches and water, visible bike parking at destinations</p> <p>EXAMPLES: Marie Ave., Oakdale Ave., Wentworth Ave., Charlton St.</p>
LOCAL ROUTES	<p>PURPOSE: To provide safe routes to significant city destinations such as Robert St., schools and library</p> <p>USERS: Walkers, all cyclists - novice to experienced</p> <p>FOCUS: Transportation for shorter local trips, recreation loops, safety, user experience, route continuity</p> <p>BIKE TREATMENTS: Off-road: paved multi-use trail; On-road: bike lane, bicycle boulevard, bike route</p> <p>WALK TREATMENTS: Sidewalks and paved multi-use trail</p> <p>WAYFINDING SIGNAGE: Directional, route sign, bike button</p> <p>PREFERRED STREET CROSSINGS: Controlled intersections, high visibility crosswalk treatments at uncontrolled at-grade crossings</p> <p>SUPPORT FACILITIES: Visible bike racks and benches at destinations</p> <p>EXAMPLES: Livingston Ave., Moreland Ave.</p>
ACCESS ROUTES	<p>PURPOSE: Provide fine grain connections between residential areas and the City network</p> <p>USERS: Walkers; all cyclists - novice to experienced</p> <p>FOCUS: Door to door connections between city-wide network and schools, parks and other city destinations, safety particularly for children and the elderly, experience</p> <p>BIKE TREATMENTS: On-road: residential streets shared with vehicles (no special treatments)</p> <p>WALK TREATMENTS: Sidewalks, short multi purpose trail links. Priority routes shown on Framework Plan, sidewalks on all other residential streets to be considered in conjunction with road-reconstruction projects</p> <p>WAYFINDING SIGNAGE: Directional, route sign</p> <p>PREFERRED STREET CROSSINGS: High visibility crosswalk treatments where needed on school routes</p> <p>SUPPORT FACILITIES: Benches and visible bike racks at parks and schools</p> <p>EXAMPLES: Smith Ave., Bidwell St.</p>

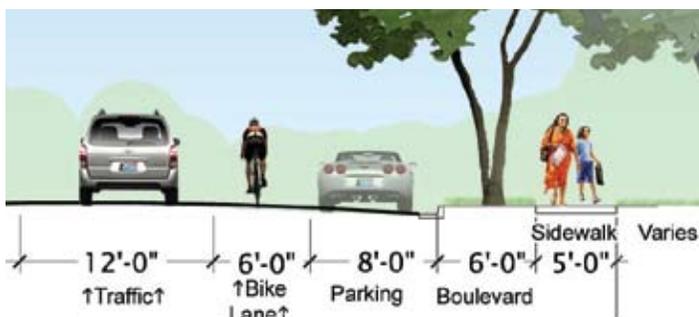


WALK-BIKE TREATMENTS

The routes identified on the framework will use a combination of treatments: sidewalks, off-road trails, and on-road bikeways to create a comprehensive and connected walking and biking network that is appropriate for all ages and abilities. Suggested walk and bike treatments along all routes are shown in the Walk-Bike Treatment Map and are listed on the Treatment Recommendation Table.

Suggested treatments are based on a variety of factors including: route type, safety, traffic volumes, available right-of-way, available road width, presence of existing facilities, etc. The suggested treatments are considered ‘ideal’; flexibility and time will be needed to implement the plan and considerations and issues for implementation are noted in the treatment table.

In some cases there is right-of-way and/or space within the existing roadway to accommodate desired treatments. In other situations, the street alignment, width, and parking needs will need to be evaluated to accommodate walk and bike facilities. In West St. Paul, many roadways are two lanes (one travel lane in each direction) with parking on one or both sides. To accommodate



Typical Cross Section for bike lanes and sidewalks

bicycle lanes within the existing pavement width, reducing travel lane widths and removing parking from one or both sides of the street may be necessary. Where on-street parking is deemed indispensable, on street treatments such as bike routes with sharrows pavement markings or striped shoulders and bicycle boulevards can be considered. When roads are reconstructed, the roadway width can be adjusted to accommodate desired uses. For example, the road could be narrowed to make room for sidewalks or widened to accommodate parking, bike lanes, and travel lanes, etc.

SIDEWALK

Description:

- Off-street treatment.
- Paved walking path.
- 5' min. width in residential areas, wider in commercial areas.- separated by a 5' minimum Boulevard or area for street furnishings (lights, trash, benches, etc.).

Uses: walking, running.

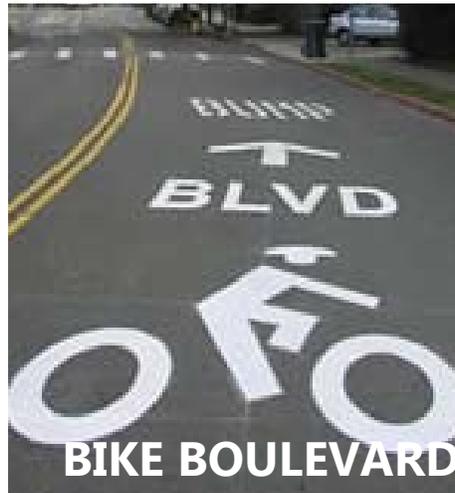
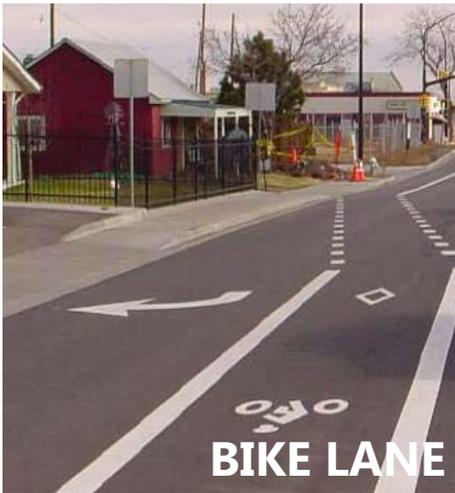
OFF-ROAD TRAIL

Description:

- Off-street treatment.
- Paved multi-use path parallel to the street - separated by a 5' minimum Boulevard.
- Where feasible, may follow natural resources, railroad corridors or other utility corridors.
- 8'-10' minimum width, two-way travel.

Uses: walking, running, biking, in-line skating.





BIKE LANE

Description:

- On-street treatment.
- Road lane solely for bike use.
- Bike lane striping, pavement markings and signage increases motorist awareness.
- One-way travel.
- 4 – 7 feet wide, depending on the traffic volume, available space and presence of on-street parking.
- Differs from a bike route or bike boulevard in that there is a designated lane solely for bike use.

Uses: biking.

BIKE BOULEVARD

Description:

- On-street treatment.
- A technique used to better accommodate bicyclists and vehicles on low traffic volume streets. The intent is to design a bike route in a manner that emphasizes the presence of bicyclist.
- Innovative approach that incorporates complete streets design standards and traffic calming techniques.
- Traffic volumes typically less than 3,000 ADT.
- On-street environment is designed so bicycle travel is the prominent mode of transportation.
- Heavy emphasis on traffic calming. Traffic calming techniques may include bump-outs, median islands, diverters, roundabouts and landscaping.

- Safe intersection crossings for cyclists.
- High impact pavement markings to increase awareness.
- Bike boulevard-specific signage to give identity to neighborhoods and boulevards.
- Differs from a bike route in that there is a heavy emphasis on traffic calming, pavement markings, landscaping and signage.
- Further study of the safety of this concept should be examined if implementation is proposed.

Uses: biking.

BIKE ROUTE

Description:

- On-street treatment.
- Shared travel lanes for vehicles and bicycles with signage and/or SHARROW or other pavement markings.
- On low volume, local streets share the road with automobile traffic.
- On high volume streets utilizes the road shoulder.
- Significantly less investment in signage, traffic calming and landscaping than a bike boulevard.

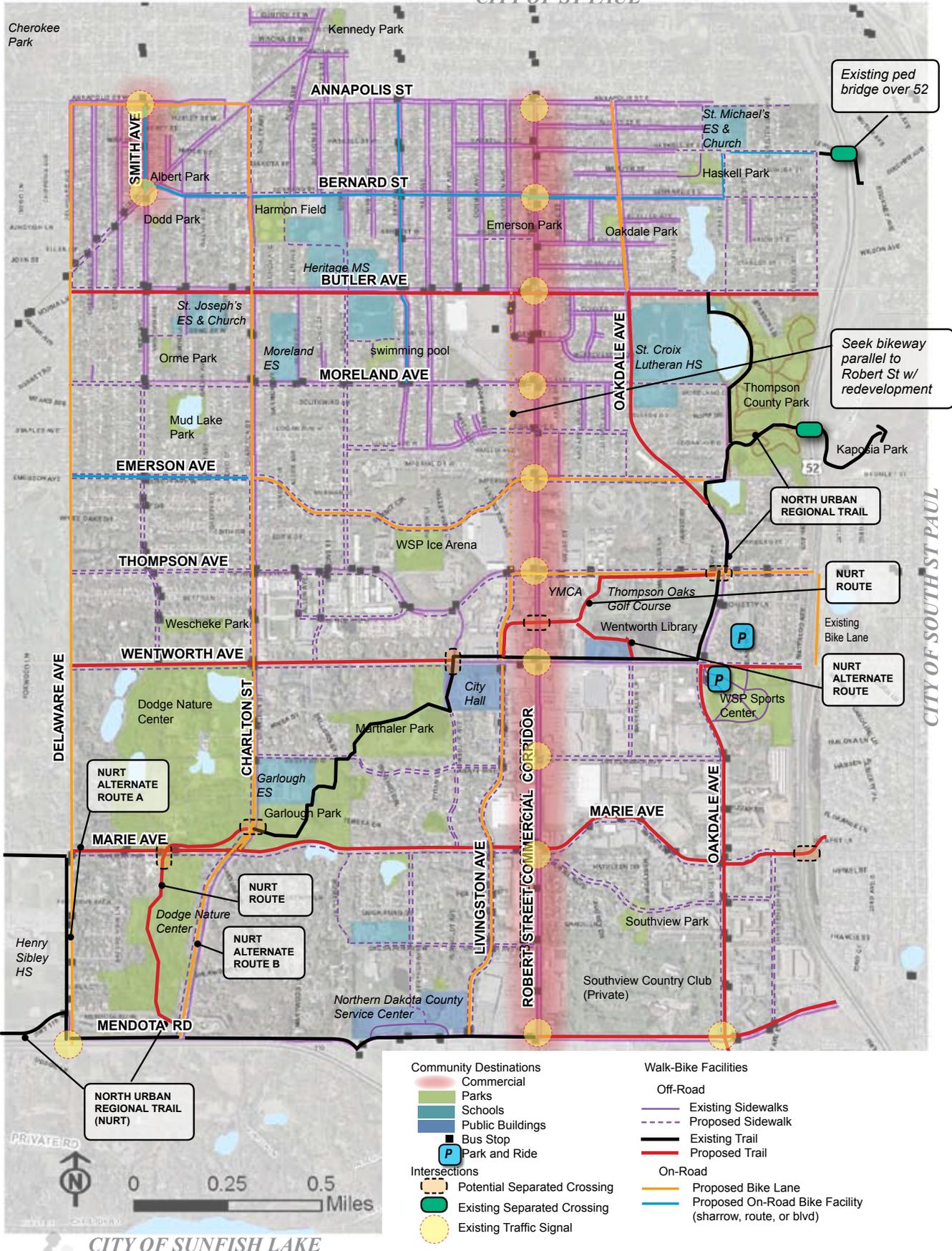
Types:

- Shared lane (if drive lane 12ft or less).
- Wide outside lane (drive lane 14ft-16ft) with or without SHARROW pavement markings.
- Paved shoulder (shoulder 4ft or more).

Uses: biking; often used in conjunction with sidewalks for pedestrian travel.

PEDESTRIAN AND BICYCLE TREATMENT MAP

CITY OF ST PAUL



CITY OF SUNFISH LAKE



TREATMENT RECOMMENDATIONS TABLE

	SEGMENT	PREFERRED TREATMENT	FRAMEWORK HIERARCHY	JUSTIFICATION / CONSIDERATIONS
OFF ROAD TRAIL AND SIDEWALKS	North Urban Regional Trail (NURT)	Off-Road Trail	Regional	Follow regional trail standards. Coordinate with Dakota County planning.
	Butler Avenue (Delaware Ave. to 52)	Off-Road Trail Sidewalk one side	Main Route	High traffic volumes. Important link to park, schools, Robert St. on north side of City. Coordinate with Dakota County (CSAH 4).
	Oakdale Avenue (Butler Ave. to Mendota Rd.)	Off-Road Trail Sidewalk one side	Main Route	Includes NURT segments. Bus route. Road profile varies. Coordination with NURT and Dakota County (CSAH 73).
	Wentworth Avenue (Delaware Ave. to Highway 52)	Off-Road Trail Sidewalk one side	Main Route	High traffic volumes. Identified Dakota County pedestrian gap. Coordination with Dakota County (CSAH 8). Partial bus route.
	Marie Avenue (Delaware Ave. to Robert St.)	Off-Road Trail Sidewalk one side	Main Route	High traffic volumes. Partial Bus route. Short term: bike lanes. Potential road-diet.
	Marie Avenue (Robert St. to Oakdale Ave.)	Off-Road Trail Sidewalk one side	Local Route	High traffic volumes. Bus route. Short term: bike lanes.
	Mendota Road (Delaware Ave. to Highway 52)	Off-Road Trail - both sides	Main Route	Very high traffic volumes/speeds. Coordinate with Dakota County (CSAH 14 / 110).
BIKE LANE AND SIDEWALK	Delaware Avenue (Mendota Ave. to Annapolis St.)	Bike Lane	Main Route	Requires removal of the one sided parking. Long term: off-road trail. Coordination with Mendota Hts., Lilydale, and Dakota County (CSAH 63).
	Annapolis Street Link (Delaware Ave. to Charlton St.)	Bike Lane Sidewalk both sides	Local Route	Requires removal of parking on one side. Coordination with St. Paul and Dakota County (CSAH 2 / 41).
	Charlton Street (Mendota Rd. to Annapolis St.)	Bike Lane Sidewalk both sides Trail from Marie Ave. to Mendota Rd. if chosen as NURT route	Local Route	Important north/south city wide. Requires removal of the one sided parking. Consider sharrows to keep parking. Partial bus route.
	Oakdale Avenue (Butler Ave. to Annapolis St.)	Bike Lane Sidewalk both sides	Local Route	Constrained conditions. Requires removal of parking for bike lane. Consider bike route to keep parking. Coordinate with Dakota County (CSAH 73).
	Emerson Avenue (Charlton St. to NURT)	Bike Lane Sidewalk both sides	Local Route	Medium traffic volumes, requires removal of the one sided parking. Consider sharrow or bike route to keep parking.
	Livingston Avenue (Mendota Ave. to Thompson Ave.)	Bike Lane Sidewalk both sides	Local Route	Commercial destinations. Bus route. Requires removal of parking on one side. Concerns about crossing major uncontrolled intersections.
	Thompson Avenue (Livingston Ave. to Highway 52)	Bike Lane Sidewalk both sides	Local Route	Commercial destinations. High volume traffic. Bus route. Coordinate treatment with final NURT route.
OTHER ON-ROAD AND SIDEWALKS	Bernard Street (Smith Ave. to Sperl St.)	Bike Blvd / Bike Route Sidewalk both sides	Local Route	Local Route with constrained conditions. Treatment based on desire to calm traffic, keep parking.
	Sperl Street (Bernard St. to Haskell St.)	Sharrow / Bike Route Sidewalk both sides	Local Route	Constrained conditions. Treatment based on desire to keep parking and low traffic volumes.
	Haskell Street (Sperl St. to Ped. Bridge)	Sharrow / Bike Route Sidewalk both sides	Local Route	Constrained conditions. Treatment based on desire to keep parking and low traffic volumes. Steep grades.
	Smith Street Link (Bernard St. to Annapolis St.)	Sharrow / Bike Route Sidewalk both sides	Local Route	Constrained conditions. Treatment based on desire to keep parking. Bus route.
	Emerson Avenue (Delaware Ave. to Charlton St.)	Sharrow / Bike Route Sidewalk both sides	Local Route	Constrained conditions. Treatment based on desire to keep parking and low traffic volumes.
OTHER SIDEWALKS	Typical (in locations shown)	Sidewalk both sides	Access Route	Considerations on a site by site bases. Consider road-diets, multi use off-road trails that can function as sidewalks.



Pedestrian Amenity Zone Concepts from the Redevelopment Design Framework Plan (2000)

ROBERT STREET CORRIDOR

Robert St. is West St. Paul’s “Main Street,” but is presently dominated by automobiles. Pedestrian facilities are limited to an uncomfortable sidewalk behind the curb. There are no bicycle accommodations and cyclists ride in traffic or on sidewalks. Sidewalks connections leading to Robert St. are lacking in many places and transit riders are often left to walk on the grass or in the street (when winter snow piles up). Crossing Robert St. on foot or bike is so difficult and dangerous that residents consider West St. Paul as two communities (the west side and east side - of Robert St.).

The City should continue to use the principles in the Redevelopment Design Framework Plan (2000) as a guide to improving the pedestrian environment as Robert St. redevelops.

Key design strategies that would improve the walking environment outlined in the above mentioned plan that should be implemented with redevelopment include:

- Gain easements to create a pedestrian amenity zone.
- Consolidate driveways (fewer curb-cuts).
- Create center medians and dedicated turn lanes for pedestrian crossing refuge and traffic control.
- Add streetscape amenities (trees, lighting, benches, etc.) for traffic calming and pedestrian comfort.
- Create shared parking lots with landscaped pedestrian connections to/from building entries.

- Create clear and comfortable pedestrian and bicycle connections to business front doors.

Bicycle travel along Robert St. is constrained by lack of right-of-way and high traffic volumes. This plan recommends bicycle travel be routed on streets that parallel Robert St. (Oakdale Ave. and Livingston Ave.) with connections created along perpendicular streets to key Robert St. intersections.

There are many gaps in the sidewalk system on streets leading to Robert St. Many of these gaps are at existing bus stops. Robert St. will continue to be a major transit corridor and fixing these gaps should be a high priority. Pedestrian connectivity gaps have been identified in the Robert Street Improvements - Pedestrian Connectivity Study (April 2011). Sidewalk gaps were identified in the study and prioritized to guide which improvements could logically be constructed as part of the Robert St. reconstruction project and which should be part of other future roadway improvement projects (or stand-alone projects). Those recommendations have been incorporated into this plan.

Robert St. is a major barrier to east/west pedestrian and bicycle movement. The high traffic volumes, the high speeds, and free right turns on red make crossing four lanes of traffic difficult. The following improvements should be considered to improve intersection safety on Robert St.:

- Medians for pedestrian refuge.
- No free right turns on red.
- Increased pedestrian crossing times.
- Tighter turning radius at corners for a shorter crosswalk.
- Grade separated crossing.

The Grade Separated Trail Crossing Feasibility Study 2011 assessed constructing a grade separated trail at Robert St. The report presents several different options and configurations (both tunnel and bridge).

As Robert St. continues to evolve and redevelop, accommodating pedestrian and bicycle users should continue to be a high priority.



BEST PRACTICES

The previous section outlined a walk-bike route network to make biking and walking convenient. Equally important to increasing and encouraging walking and biking is making the system safe and pleasant; if it is not fun, people will not use the system. This section outlines best practices that can move the West St. Paul's bike and walk network beyond functional to enjoyable.

COMPLETE STREETS

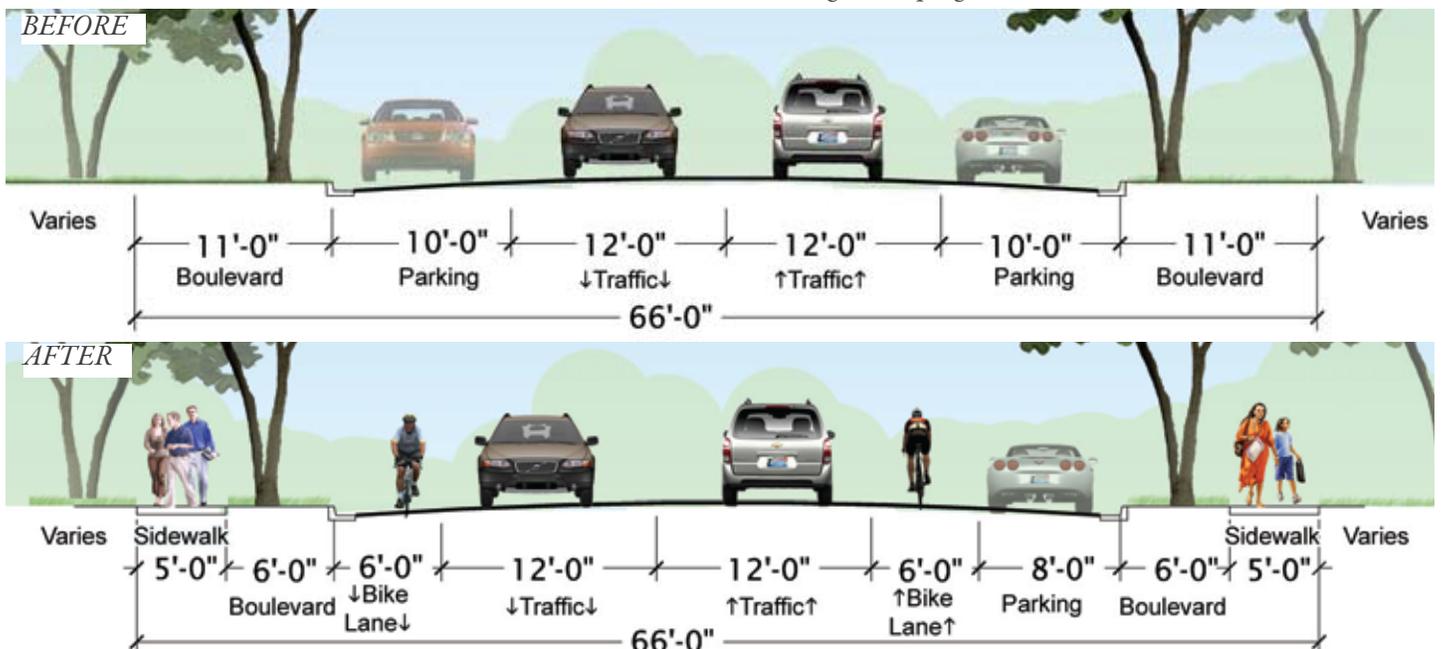
Adoption of a Complete Streets Policy is one way for a city to formally encourage multi-modal street access. The emerging Complete Streets movement strives to plan streets to accommodate pedestrians, transit riders, bicyclists and all other users regardless of age or ability instead of focusing solely on optimizing automobile travel. The movement recognizes that as many as 30% of residents in a community may not or cannot drive due to age (young or old), physical limitations or economic challenges. Complete Street policies do not prescribe that all modes be equally accommodated on all streets but that the overall transportation network be a safe and accessible environment for foot, bike or transit.

Instituting a Complete Streets policy ensures transportation agencies design and operate the entire right-of-way to enable safe access for all users. As with other practices that support walking and biking, Complete Streets are beneficial in numerous ways,

including providing safer streets and business districts, creating more predictable non-motorized and motorized interactions, reducing air pollution, creating vibrant neighborhoods and lessening transportation costs for families.

Mn/DOT's Complete Streets Report, published in December 2009, found that although there are incremental costs associated with implementing Complete Streets, the benefits and end product provided a better long-term value. Potential additional costs include the purchase of additional right-of-way, increased travel time for motor vehicles, shifting of traffic to other routes in the network and additional infrastructure to maintain and operate. For urban projects with spatial constraints, the primary issue is not cost but the allocation of available space among the various transportation modes. The report also notes that costs can be reduced by changes in the planning and design process that integrate transportation and land use planning across all jurisdictions early in the process. Nevertheless, detailed engineering analysis will be necessary when evaluating Complete Streets projects to insure each project balances these potential additional costs with the City's other transportation and economic development goals.

It is important to note that having a Complete Streets policy does not necessitate the redirection of funds to retrofit projects. Instead, a typical Complete Streets process focuses on new construction and reconstruction to be most cost-efficient. Opportunities do exist to implement Complete Streets on existing facilities, such as through restriping.



Creating a Complete Street within existing road widths and ROW



A complete street network accommodates vehicles, bicycles and pedestrians.

Complete street

The number of Complete Streets policies in the United States is rapidly increasing. According to the National Complete Streets Coalition, by mid-2010 there were nearly 150 jurisdictions that have adopted policies or have written commitments to do so. The State of Minnesota passed a Complete Streets bill in May 2010 (Sec. 52 MN Statutes 2010 Section 174.75 Complete Streets).

Complete Streets policies exist at every governmental level. Several Minnesota cities and counties, including Albert Lea, Duluth, Independence, Rochester, St. Paul and Hennepin County, have adopted policies or ordinances. West St. Paul should explore adopting a Complete Streets ordinance/policy to assure that as streets and bridges are rebuilt either by the City, County or State, provisions are made to accommodate all modes of movement safely and conveniently.

According to the National Complete Streets Coalition (NCSC), an ideal policy has the following elements:

- Vision for how and why the community wants to complete its streets.
- Specifies that “all users” includes pedestrians, bicyclists, trucks, buses, and automobiles.
- Encourages street connectivity and aims to create a comprehensive, integrated, connected network for all modes.
- Is adoptable by all agencies to cover all roads.

- Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right of way.
- Makes any exceptions specific and sets a clear procedure that requires high-level approval of exceptions.
- Directs the use of the latest and best design criteria and guidelines while recognizing the need for flexibility in balancing user needs.
- Directs complete streets solutions to complement the context of the community.
- Establishes performance standards with measurable outcomes.
- Includes specific next steps for implementation of the policy.





Keeping sidewalks and trails clear in winter is important for year round use.



Walking in winter

Photo Credit: pedbikeingates.org - Dan Burden

MAINTENANCE

Routine maintenance is essential for trails, sidewalks and bikeways.

Winter Use of Trail and Bikeways - Maintenance

Snow removal is a critical component of sidewalk, trail and bikeway safety. Winter walking, running and hiking on cleared trails and sidewalks is an increasing popular activity. In addition, many people ride bicycles throughout the winter. When streets are cleared, snow should be stored on the boulevard or removed. Plowing street snow onto sidewalks makes snow clearing difficult for residents and businesses.

Efforts to regularly maintain trails, bike lanes and walks can be done with a combination of enhanced public and private efforts. The City has the following ordinances and policies that support winter use currently in place:

- Plowing the street fully from curb to curb, wherever possible, to maximize bike and vehicle travel. (Loss of three to four feet of travel space is especially detrimental to winter bike travel).
- Seasonal sweeping to remove debris.
- A snow shoveling ordinance to ensure that sidewalks are clear in winter.
- Plowing paved trails in parks.

In addition, the City should consider creating a volunteer program to help seniors and people with disabilities shovel their sidewalks.

Sweeping

Loose sand and debris on the surface of designated bicycle lanes, paved shoulders, and paved sections of shared use paths should be removed at least once a year, normally in the spring. Sand and debris will tend to accumulate on bicycle lanes because automobile traffic will sweep these materials from the automobile portions of the roadway. This is especially true for bicycle lanes that are located directly adjacent to a curb, where debris collects already.

Surface repairs

A smooth surface, free of potholes and other major surface irregularities, should be provided and maintained on off-road trails and on-road bikeways. Care should be taken to eliminate other physical problems.

Vegetation

Vegetation encroaching into and under the trail or bikeway can create a nuisance and a hazard for users. The management of vegetation is generally considered the responsibility of maintenance staff. To provide long-term control of vegetation, the management of vegetation should be considered during design and construction. Vegetation management helps to maintain smooth pavement surface, as well as clear zones, sightlines, and sight corners to promote trail and bikeway safety.

ROAD DIETS

One way to achieve the dual goals of creating a complete street and calming traffic within in the existing right-of-way and/or road pavement is “a road diet”. The purpose of a road diet is to “slim down” it’s existing footprint by reducing lane widths and/ or eliminating lanes to improve safety, mobility and access for all modes of transportation, including biking and walking.

A typical road diet would:

- Reclaim street space for bikeway treatments or sidewalks.
- Reduce the number of lanes of traffic & conflict points.
- Reduce motorized vehicle speeds.
- Improve bicycle and pedestrian safety.
- Increase visibility and sight distance.
- Encourage an active streetscape and support the pedestrian realm.
- Improve the roadways aesthetics and visual qualities.

Potential Streets for Road Diets: Butler Ave., Oakdale Ave., Charlton Ave., Emerson Ave., Wentworth Ave., Livingston Ave., and Marie Ave.



Marie Ave. - Existing Conditions



Marie Ave. - re-stripped with bike lanes



Marie Ave. - Road Diet - Off-road trail



Road diet
example: 4 lane to
3 lane conversion



TRAFFIC CALMING

A key element of bicycle and pedestrian friendly routes and bicyclist's safety is lower traffic speeds. Lowering speeds should be considered along all routes identified in the framework plan. Lower traffic speeds can be accomplished through use of proven traffic calming measures. Techniques include:

- Lowering and enforcing speed limits.
- Physical devices.
- "Road diets" where lanes widths are reduced or lanes are eliminated create space for bike lanes and slow traffic.

The Federal Highway Administration (FHWA) defines traffic calming as a combination of mainly physical measures that reduce the negative effects of motor vehicle use and improve conditions for non-motorized street users. For the purpose of bike and walk planning, the objective is to provide physical improvements that will create safe and pleasant conditions for motorists, bicyclists and pedestrians. Some successful traffic-calming techniques are included in the table on the following page.

In West St. Paul, traffic calming would be beneficial to pedestrians and cyclists on all suggested routes where speed limits exceed 30 MPH. Detailed engineering study that closely examines traffic patterns, pedestrian and bicycle needs as well as coordination with each road's jurisdictional agency is recommended to determine appropriate traffic calming devices.

Vehicle speed and pedestrian survival rates

Reducing vehicle speeds is key to pedestrian safety. One way to do this is to lower and enforce vehicle speed limits. According to Minnesota Statute 160.263 Bicycle Lanes and Ways, local units of government may:

- By Subdivision 2, designate any roadway or shoulder or portion thereof under its jurisdiction as a bicycle lane or bicycle route; and
- By Subdivision 4: Speed on street with bicycle lane: "Notwithstanding section 169.14, subdivision 5, the governing body of any political subdivision, by resolution or ordinance and without an engineering or traffic investigation, may designate a safe speed for any street or highway under its authority upon which it has established a bicycle lane; provided that such safe speed shall not be lower than 25 miles per hour. The ordinance or resolution designating a safe speed is effective when appropriate signs designating the speed are erected along the street or highway, as provided by the governing body"

Vehicle Speed (MPH)	Pedestrian Survival Rate
20	95%
30	55%
40	15%

TRAFFIC CALMING DEVICES

(adapted from Federal Highway Administration - FHWA information)

DEVICE	DESCRIPTIONS	PICTURES
<p>BULBOUTS/ NECKDOWNS/ CHOKERS</p>	<p>Curb extensions at intersections that reduce curb-to-curb roadway travel lane widths.</p>	 <p><i>Photo Credit: pedbikeimgaes.org - Dan Burden</i></p> <p><i>Bulbout used in conjunction with a neighborhood-scale traffic circle.</i></p>
<p>MEDIANS / CENTER ISLANDS</p>	<p>Raised islands located along the centerline of a roadway that narrow the width at that location.</p>	 <p><i>Photo Credit: pedbikeimgaes.org - Dan Burden</i></p> <p><i>This planted median slows traffic and creates a pedestrian refuge.</i></p>
<p>CHICANES/ LATERAL SHIFTS</p>	<p>Curb extensions that alternate from one side of the roadway to the other, forming s-shaped curves.</p>	 <p><i>Photo Credit: pedbikeimgaes.org - Dan Burden</i></p> <p><i>Chicanes can be used to slow traffic on local streets.</i></p>

TRAFFIC CALMING DEVICES

(adapted from Federal Highway Administration - FHWA information)

DEVICE	DESCRIPTIONS	PICTURES
<p>DIAGONAL DIVERTERS</p>	<p>Barriers placed diagonally across an intersection, blocking certain movements.</p>	 <p><i>Photo Credit: streetswiki.com/burden</i></p> <p><i>Diverters can be used to block vehicle through traffic but allow pedestrian and bicycle through movements.</i></p>
<p>FORCED TURN LANES</p>	<p>Raised islands located on approaches to an intersection that block certain movements.</p>	 <p><i>Photo Credit: pedbikeimgaes.org/Dan Burden</i></p> <p><i>Raised islands, like the one on the far left of this photo, direct traffic movements and can be used to block through movements for vehicles. For traffic calming, these are best used in conjunction with high visibility crosswalks.</i></p>
<p>MEDIAN BARRIERS</p>	<p>Raised islands located along the center-line of a roadway and continuing through an intersection to block cross traffic.</p>	 <p><i>Photo Credit: pedbikeimgaes.org-Adam Fukushima</i></p> <p><i>This median barrier requires cars to turn but allows bicycles to travel through the intersection.</i></p>

TRAFFIC CALMING DEVICES

(adapted from Federal Highway Administration - FHWA information)

DEVICE	DESCRIPTIONS	PICTURES
<p>ROUNDBABOUTS /TRAFFIC CIRCLES</p>	<p>Circular barriers placed in the middle of an intersection, directing all traffic in the same direction.</p>	 <p><i>Photo Credit: pedbikeingaes.org-Adam Fukushima</i></p> <p><i>Cyclist in a roundabout.</i></p>  <p><i>Photo Credit: pedbikeingaes.org-Adam Fukushima</i></p> <p><i>Small traffic circles can be used on local streets to slow traffic and strengthen neighborhood identity.</i></p>
<p>SPEED TABLES/ TEXTURED PAVEMENT/ RAISED CROSSINGS</p>	<p>Flat-topped speed humps often constructed with a brick or other textured material to slow traffic</p>	 <p><i>Photo Credit: pedbikeingaes.org-Dan Burden</i></p> <p><i>Speed tables slow traffic and create high visibility crosswalks.</i></p>

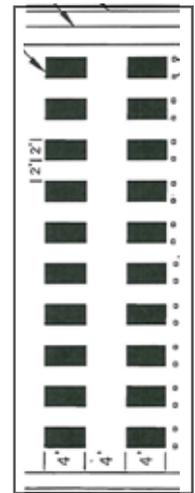




Underpass



Bike lane continues to crosswalk



Triple Four Crosswalk

SAFE CROSSINGS

The safest place for pedestrians to cross is at intersections with stop signs or traffic signals. Perceived safety is equally important to actual safety. If people do not feel that a crossing is safe they may choose not to bike or walk at all. According to surveys done in West St. Paul Elementary Schools as part of the Dakota County Safe Routes to School Comprehensive Plan and the questionnaire done as part of this planning effort, safety of intersections is one of the top factors which affects the decision to walk or bike and is the one of important improvements that would increase walking and biking. Speed of traffic, amount of traffic, sight-lines, amount of lighting and vehicle awareness of pedestrians and cyclists all contribute to actual and perceived safety. When pedestrians and cyclists do not feel safe crossing streets, it makes biking and walking less convenient and enjoyable, affecting the decision to walk or bike. The following strategies are recommended for consideration in improving crossing conditions.

Grade Separated Crossings

Grade separated crossings are recommended on the North Urban Regional Trail at major road crossings. Grade separated crossings are currently being planned in partnership with Dakota County at Marie Ave., Charlton Ave., Wentworth Ave., Robert St., and Thompson Ave.

Improvements to signalized intersections

Improvements for pedestrians and bicyclists at signalized intersections are needed. Long crossing distances, free right turns on red, vehicle speeds, crossing time, lighting and sight-lines all contribute to real and perceived safety at signalized intersections.

Though detailed design and engineering is needed to balance vehicle and bicycle movement needs, the following techniques can be considered to reduce crossing distances, increase walk-bike crossing times, slow vehicle speeds and make drivers more aware of pedestrians and cyclists:

- High visibility pavement markings such as zebra, ladder, continental or triple four.
- Increase signal time for pedestrians and separate vehicle movements from pedestrian-cyclist crossings.
- Pedestrian countdown signals.
- Where bicycle lanes exist, extend them to the crosswalk.
- Bicycle signal.
- Adequate driver visibility through proper sight distance triangles.
- Design for slow vehicle right turn movements (tighter turning radii: 5-25 ft).
- Eliminate right-turn on red.
- Break up complex intersections with pedestrian refuge islands.
- Adequate lighting.

Improvements at uncontrolled intersections

Uncontrolled crosswalks can be used where distances to controlled intersections are too far to be convenient for pedestrians and cyclists to reach desired destinations. New uncontrolled crosswalks can be used to concentrate crossings at the safest locations, where there is a high level of pedestrian



Photo Credit: pedbikeingaes.org- Dan Burden
 Pedestrian safe crossing reminders



Photo Credit: pedbikeingaes.org- Dan Burden
 In-street crossing signs



Photo Credit: pedbikeingaes.org- Dan Burden
 Refuge island

activity or a history of conflict. Crosswalks should be designed in accordance with the Manual on Uniform Traffic Control Devices (MUTCD). Key to making these crossings safe is slowing traffic and making pedestrians more visible to drivers.

The following guidelines are recommended for consideration of placement of unsignalized or mid-block crosswalks:

- Crossings in designated school zones. Use of adult crossing guards, school signal and markings, and /or traffic signals with pedestrian signals (when warranted) should be used in conjunction with the marked crosswalks, when needed.
- At non-signalized locations where engineering judgment dictates the number of vehicle lanes, pedestrian exposure, average daily traffic (ADT), posted speed limit and geometry of the location would make the use of specially designated crosswalks desirable for traffic and pedestrian safety and mobility. Locations to be considered include:
 - » Locations where a marked crosswalk can concentrate pedestrian crossings.
 - » Crossings at a park.
 - » Crossings to a bus stop.
 - » Other locations with high numbers of pedestrian/ cyclist crossings and/or pedestrian/vehicle conflicts. A higher priority should be placed on locations with a minimum of 20 pedestrian crossings per peak hour or 15 or more elderly and/or child pedestrians per peak hour.

Marked crosswalks at uncontrolled intersections alone are not always sufficient without traffic calming treatments, traffic signals or pedestrian signals and should not be used alone under the following conditions:

- Where the speed limit exceeds 40 mph.
- On roadways with four or more lanes without a raised median or crossing island that has an ADT of 12, 000 or greater.
- On roadways with four or more lanes with a raised median or crossing island that as an ADT of 15,000 or greater.

Where a marked crosswalk alone is insufficient to provide pedestrian safety, the following treatments can be considered to reduce vehicle speeds, shorten crossing distance, or increase the likelihood of motorists stopping and yielding:

- Pedestrian activated flashing lights.
- In-street crossing signs.
- Refuge islands.
- Split pedestrian crossover.
- Overhead signs.
- Speed limit reduction.
- Speed limit enforcement.
- Dynamic driver feedback signs.
- Roundabouts – to reduce vehicle speeds and improve pedestrian safety.
- Street narrowing measures, such as curb extensions.
- Providing adequate lighting for night visibility.





Walking can be a social activity

UNIVERSAL DESIGN

Universal design means designing the walk-bike network to be usable by all people, regardless of age or ability to the greatest extent possible. Good pedestrian and bicycle system design must account for the needs of all ages, including the young and old and those with physical or mental limitations. If the system is designed for the most vulnerable populations, it will better meet the needs of all users. Universal Design goes beyond meeting the requirements of the American's with Disabilities Act.

SAFE ROUTES FOR SENIORS AND SAFE ROUTES TO SCHOOL

Nineteen percent of West St. Paul's population is under 16 years of age. In addition, 17 percent of the population is over 65. Together these groups represent over 1/3 of West St. Paul residents that either cannot legally drive or choose to drive less and less as they age. The AARP notes that the older population will balloon between 2010 and 2030, when the baby boom generation reaches the age of 65 and the number of Americans aged 80 or over will rise sharply. A pedestrian friendly community keep seniors in their homes longer and improve quality of life.



Universal Design strives to make walk-bike network usable by all.

Strategies for Seniors

- Increase the walk time at signals for slower pedestrians to make it across the street and prohibiting right turn on red or prohibit turning during the first 10 seconds of a traffic signal.
- Sidewalk design, repair and maintenance must be a priority. Uneven surfaces and unexpected obstacles of any kind can cause serious falls.
- Ice and snow removal is critical.
- Curb ramps allow access for individuals with less mobility, as well as scooters and wheel chairs.
- Turning vehicles fail to yield.
- Median refuge islands at large streets.
- All bus stops near senior centers should have shelters and benches.
- Drivers should be prohibited from turning during the first 10 seconds of a traffic signal phase. This time is needed by seniors to ascend the curb and begin a safe crossing unobstructed by turning vehicles.
- Advanced stop bars 15 feet before a junction. This requires moving the stop bar back away from the crosswalk and placing a tactile surface on the stop bar. On busy commercial streets and bus routes, all curbs



Safe Routes encourage walking and biking to school

should be extended into the crosswalk to create better sightlines for pedestrians and drivers.

Safe Routes to School Recommendations

Safe routes to schools are also essential to encourage walking. Joint school district-city projects are recommended in existing Safe Routes to School plans for West St. Paul elementary schools. West St. Paul Safe Routes to School projects include:

Moreland Arts and Health Sciences Magnet School

- Sign the Charlton St./Moreland Ave. and Charlton St./Butler Ave. intersections as designated school crossings.
- Construct sidewalk connection along Charlton St. north of Butler Ave.
- Construct sidewalk along Emerson Ave. west of Robert St.
- Explore opportunities to construct sidewalks along the north/south streets south of Butler Ave. to provide routes from the neighborhoods to the sidewalks on the collector roadways like Moreland Ave. Bidwell St. is a priority.
- Construct trail and sidewalk on Butler Ave.

Garlough Environmental Magnet School

- Install pedestrian or trail crossing signing at the current marked trail crossing on Kraft Rd. between Garlough

Park and Marthaler Park. The crossing already had advance warning signs, but does not have any signing at the crosswalk.

- Construct sidewalk/trail connection from Charlton St. to the front of the school.
- Continue to plan, design, and pursue funding opportunities for construction of the NURT trail and grade separated crossings.
- Explore opportunities for construction of sidewalks on Marie Ave., Kraft Rd., and Wentworth Ave. (County Road 8).
- Install pedestrian ramps and sidewalks at west side of Charlton Ave. and Kraft Rd.

Heritage Middle School and Henry Sibley High School

Though safe routes to school plans have not been done for these schools, additional trail, sidewalk and bikeway connections will improve access to the schools. Recommended improvement include:

- Sidewalks and bikeways on Bernard St., Bidwell St., and Charlton St. and a pedestrian connection through the school campus would facilitate walking to Heritage Middle School.
- A trail along Marie Ave. would also improve access to the High School from West St. Paul.
- A trail on Butler Ave. is important for connectivity to Heritage Middle School.



CONNECTIONS TO TRANSIT

Transit stops are a major source of pedestrian and bicycle trips. Providing a safe connection from transit stops to commercial and residential areas can increase ridership and reduce dependence on the automobile.

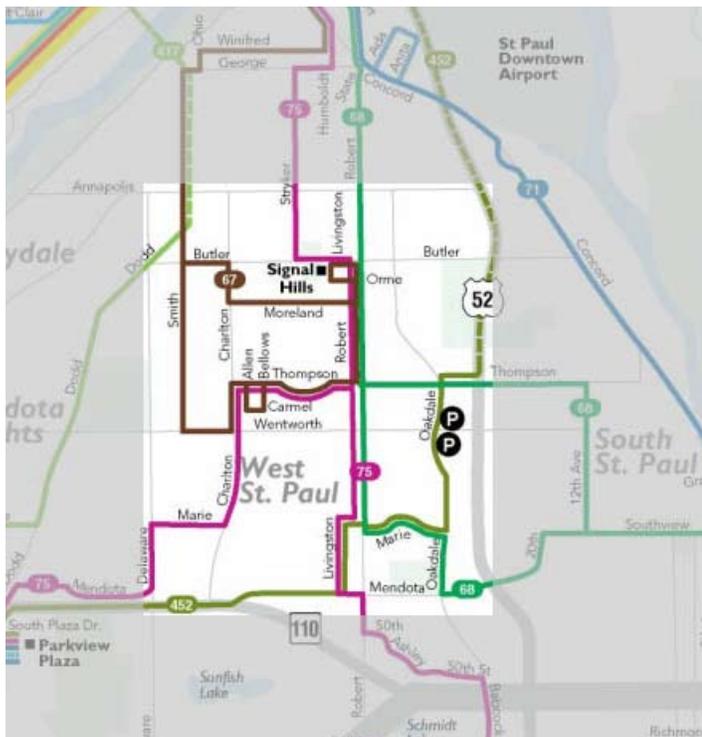
Support facilities at transit stops for pedestrians and bicyclists also encourage use. Facilities include:

- Showers.
- Secure bike parking.
- Food and water.
- Lighting.

The Robert Street Transit Corridor has been identified as an important transit line between downtown St. Paul and Rosemount/Umore Park. Presently the Robert St. Transitway Alternatives Analysis is underway to study transit modes, alignments and services within this corridor, with a vision to enhance transit services and support facilities along Robert St. Any City planning for pedestrian and bicycle facilities along Robert St. should coordinate with present and future Robert St. Transitway efforts.



Robert St. Transit Corridor
Long Term Vision Map from 2008 Feasibility Study



West St. Paul Metro Transit Bus Service Map



Wentworth Ave. - Sidewalks on bus routes are needed

WAYFINDING

Wayfinding is the way in which people orient themselves and navigate from place to place and is a vital component of an effective bicycle and walkway system. People need to be able to easily understand and navigate bikeways and walkways in order to conveniently and safely get to their destination.

Wayfinding signs for pedestrians and bicyclists typically show destination, direction and distance. Signs are placed where routes change or there is a change of direction and periodically along the route. For cyclists, pavement markings can be easier to see and can be used to supplement signage. Types of wayfinding signs are described below.

SIGN EXAMPLE	SIGN TYPE	ROLE	PLACEMENT
	INFORMATIONAL KIOSK	Route maps and additional information about the destination such as nearby businesses or historic interpretation.	Trail heads on Main and Local routes and destinations such as community parks and Downtown.
	DIRECTIONAL SIGN	Identify turns, route destination choices and distance.	Route intersections and decision points along main and local routes and destinations such as Downtown.
	ROUTE SIGN	Identify route name and major destination.	Every 1/2 mile along on-road bike routes and at major intersections.
	BUTTON	Identify bikeways.	On existing street signs along bikeway routes.
	PAVEMENT MARKINGS	Identify on-road bike routes, in addition to route signs.	Pavement.





Bike Parking



Trailhead kiosk



Rest area

SUPPORT FACILITIES

Pedestrian and bicycle support facilities such as trailheads, benches, showers, and bicycle parking are recommended to enhance the walk-bike experience. Adequate pedestrian scale lighting is also essential for safety and visibility.

Bicycle Parking and Support Facilities

Safe, secure bike parking and support facilities such as showers supports increased bicycle use. Short-term parking (1-4 hours) should be provided in bike racks near the front door of destinations. Long-term bike parking for commuters, employees and residents can occur in bike lockers or inside of buildings. Potential strategies:

- Develop an ordinance requiring bicycle route connections, parking and shower facilities for new construction.
- Install bike racks at all parks and public buildings.
- Provide bike lockers at the Park and Ride.
- Install bicycle parking in conjunction with new transit stop/ped-bike overpass on Robert St. Consider adding public restrooms at this location as well.
- Develop a cost-share program to encourage existing businesses to install bike racks.

Trailhead

A trailhead in West St. Paul should be developed in Partnership with Dakota County along the North Urban Regional Trail. Potential locations are on the west side of the proposed pedestrian bridge over Robert St. (in conjunction with support facilities for transit riders) or at Marthaler Park.

Amenities at trailheads include:

- Vehicle parking.
- Bike parking.
- Kiosk with trail information.
- Benches.
- Water.
- Restrooms.

Rest stops are smaller-scale than trailheads and typically include benches, water, bike parking, and landscaping. Installation of benches along walk-bike routes at parks is recommended.

Lighting

Pedestrian-cyclist scale lighting is essential to creating a safe and pleasant environment. Lighting is recommended along the NURT trail through Garlough, Marthaler, and Thompson Parks.



Mapping input at community events



Celebrating transportation options

EDUCATION, PROGRAMS, MARKETING AND PROMOTION

Improvements to the physical environment are most effective if coupled with on-going marketing, promotion and awareness efforts. Walk-bike information should be provided in digital format on the City's website. The City should also create and widely distribute walk-bike maps with existing routes, safety information and events.

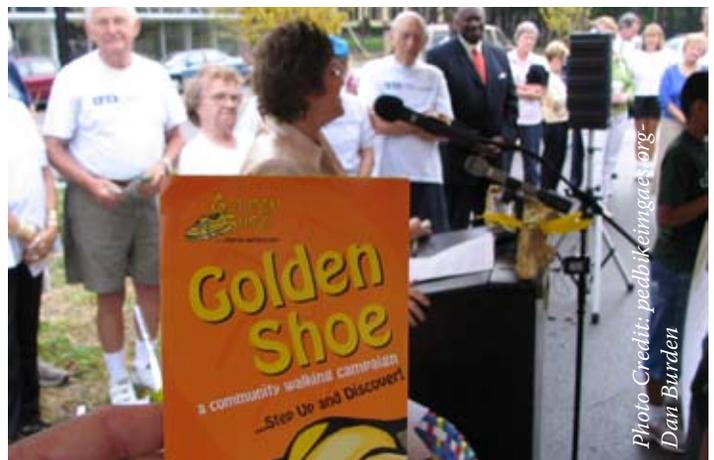
Programs and events to generate local enthusiasm and support and can be an important component attracting visitors.

Ideas for potential programs and activities include:

- Hold walk/bike with the Mayor/City Council days.
- School and community education classes.
- Classes for bike safety, bike commuting, bike maintenance and bike purchasing.
- Hold weekly/monthly rides through local walk and bike clubs.
- Coordinate events with non-profit groups.
- Hold annual bike events. Events could include: Rides with the Mayor, National Bike Month, and International Walk to School day.
- Hold walk/bike rodeos/carnivals – theme contests, art/costumed bikes, tricycle racing, bike light/pedometer giveaways, bike parade, walking parade, dog walking parade.



Community biking events



Community walking events and acknowledgments



4. IMPLEMENTATION



IMPLEMENTATION

The pedestrian and bicycle plan outlines the long term (25 years or more) goals for the walk-bike network in the City. This section focuses on moving from plan to reality. It first recommends priorities to be undertaken in the near term (1-10 years) and ways to measure progress and then identifies on-going actions and tools needed to implement the plan. Lastly, it identifies potential funding sources and partnership opportunities.

Implementation of this Plan will occur as resources become available and opportunities arise. The Plan is to be used as a guide when evaluating infrastructure improvements, redevelopment and subdivision design to prioritize bicycle and pedestrian access in line with the goals and policies of the City Council.

Keys to successful implementation include:

- City recognition and commitment to the importance of safe and convenient pedestrian and bicycle movement and as part of a vital healthy and prosperous community.
- Use of the West St. Paul Parks and Recreation Advisory Committee, Planning Commission, and Environmental Committee as the advisory boards to the City Council to help with Plan implementation.
- City staff in the Planning department working to implement the recommended programs and projects in the pedestrian and bicycle plan.
- Developing funding sources to design, build and maintain the walk-bike system.

PRIORITY PROJECTS

Identifying priorities and demonstrating visible, measurable progress is essential to implement the plan to maintain enthusiasm, generate political support and obtain funding.

Recommended priority pedestrian and bicycle improvement projects and action items are shown on the Priority Project Map (p. 48) and listed in the Priority Table (p. 49). The recommended priority improvements are projects that will have the biggest impact for improving the pedestrian and bicycle environment. Where appropriate, short and long term recommendations are made for priority routes. Criteria for identifying priorities are:

- Enhances safety.
- Connects residents to key destinations (schools, parks, commercial areas, transit, regional trail network).
- Connects existing trails and sidewalks.
- Is feasible (cost effective, political will, has available right-of-way, can be coordinated with road improvements).

Exact timing of priority projects will depend on available staff time, funding, as well as grant and partnership opportunities. Priorities and actions are not static; other projects in this plan not identified as priorities should be implemented as opportunities arise. Likewise, inclusion in the priority list does not obligate the City to implementation. The priorities should be reviewed and updated annually as projects are completed, needs change or new funding sources are identified.

MEASURING SUCCESS

Measuring progress towards the goals of this plan is also important to maintain enthusiasm and support for walk-bike projects. Each year an annual update, or report card of walk-bike improvements and successes can be created to publicly acknowledge progress. In addition the City of West St. Paul should consider pursuing Bicycle Friendly Community Status from the League of American Bicyclists. This program provides incentives, hands-on assistance and recognition for communities that support bicycling. The application process requires an in-depth assessment of bicycling in West St. Paul compared to peer cities across the nation and establishes an independent baseline for measuring future progress.

Quantifiable measures of progress should be instituted by the Parks and Advisory Recreation Commission as facilities and programs are put into place. Potential measures include:

- Annual or biannual pedestrian counts (as measured by volunteers or trail detectors/counters).
- Vehicle-bike-pedestrian crash rates.
- Number of participants at walk-bike events.
- Number of participants in walk-bike classes.
- Miles/numbers of pedestrian-bicycle facilities: on-road bicycle facilities, trails, sidewalks, bike racks, benches, etc.



Want more information on walk-bike investments, research, reports and advocacy? Try these resources:

- League of American Bicyclists - <http://www.bikeleague.org/index.php>
- The Pedestrian and Bicycle information Center - <http://www.pedbikeinfo.org/>
- A host of resources including case studies of how real communities have dealt with specific issues.
- http://www.bicyclinginfo.org/case_studies/
- http://www.walkinginfo.org/case_studies/
- Bicycle Alliance of Minnesota - <http://bikemn.org/>
- National Center for Biking and Walking - <http://www.bikewalk.org>
- Transit for Livable Communities - <http://www.tlcminnesota.org>

TOOLS FOR SUCCESS AND ON-GOING ACTIONS

Priority projects and actions will go a long way to creating a walk and bike friendly community, but on-going actions need to occur as well. Essential to successful implementation is: commitment to the importance of creating a pedestrian and bicycle friendly city; dedicating staff time to pedestrian and bicycle issues; having citizen oversight; and acquiring/developing adequate funding.

Pedestrian- Bicycle Coordination

Coordination of pedestrian and bicycle responsibilities should be assigned to the planning department. It will be the responsibility of this department to coordinate with engineering and parks and recreation departs to implement the programs and projects in the pedestrian and bicycle plan. Other duties may include:

- Reviewing redevelopment and road improvement proposals to ensure that local bicycle/pedestrian requirements are incorporated.
- Developing and implementing programs.
- Securing grant and city funding.
- Serving as the public contact for walk-bike issues and ideas.
- Coordinating the walk-bike projects across city departments and with partners.
- Coordinating with adjacent cities, other jurisdictions and support groups.
- Organize and Maximize local champions, etc.

Plan Oversight

The existing Parks and Recreation Advisory Committee, the Planning Commission, and the Environmental Committee should be the advisory boards to the City Council that would help with the implementation of the walk-bike network. Other pedestrian and bicycle functions of the advisory boards may include:

- Provide recommendations on pedestrian and bicycle improvement projects and dedication of land from developers for trails and sidewalks.
- Provide advice on local needs for safe and convenient walking and bicycling.
- Encourage and support walking and bicycling as transportation.
- Assist in promotion of walk-bike events.
- Instituting an annual walk-bike count program to track progress.

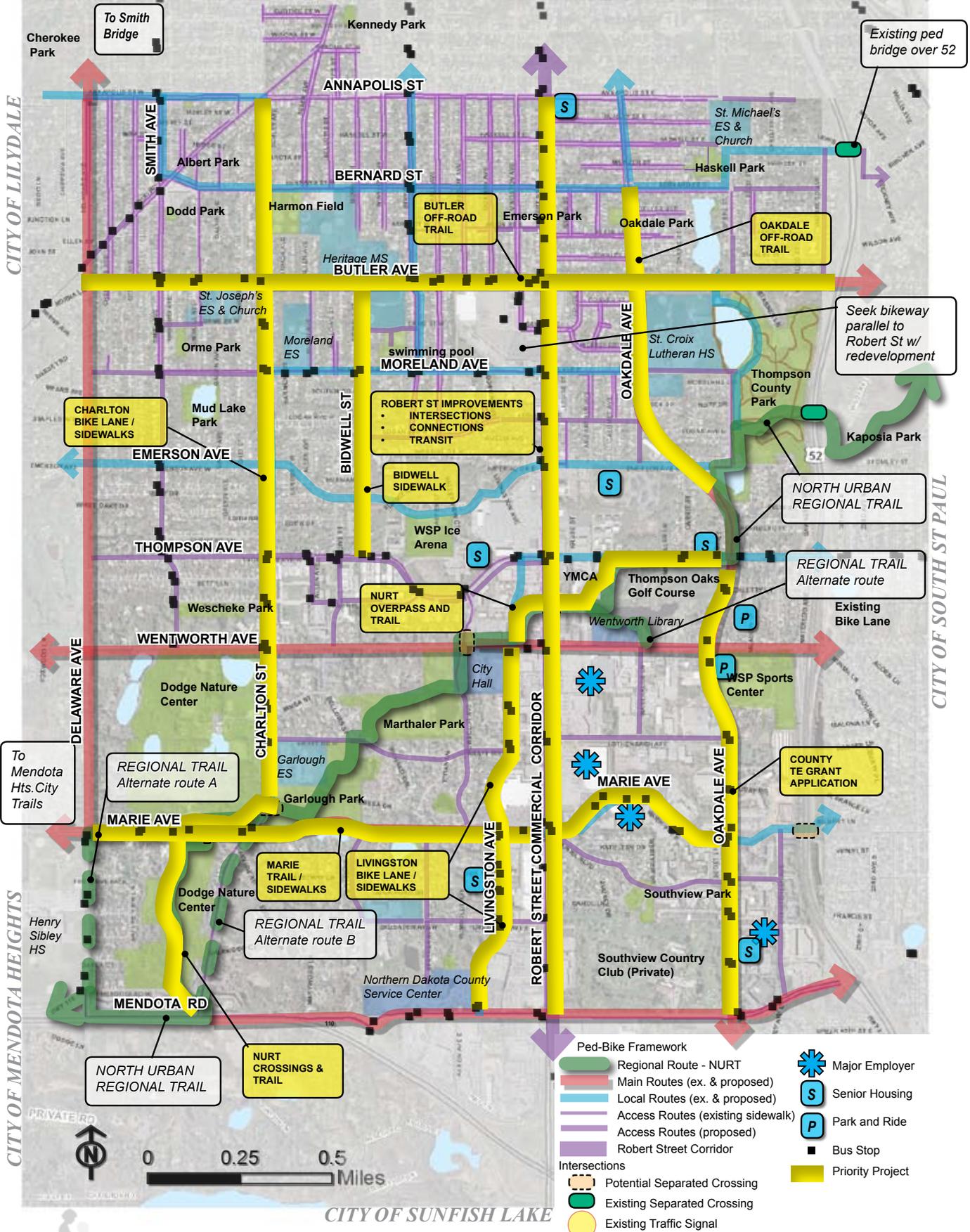
Walk-Bike Champions

Local walk-bike champions can help generate enthusiasm for local projects and can be a volunteer resource for planning and promoting walk-bike events. The City should consider creating a walk-bike advisory group or sub committee of the Park and Recreation Advisory Committee to focus on and champion walk-bike issues.



PRIORITY PROJECT MAP

CITY OF ST PAUL



PRIORITY PROJECTS RECOMMENDATIONS TABLE

LOCATION	TREATMENT	NOTES	PARTNERSHIPS & FUNDING
PHYSICAL PROJECTS			
NURT North Urban Regional Trail	Multi-Use Trail.	Complete the missing section of the NURT, including the Robert St. overpass and other grade separated crossings, off-road trail to follow Regional Trail standards, coordinate with County Planning.	- Partnership with Dakota County.
ROBERT STREET (Annapolis St. to Mendota Rd.)	Intersection and corridor improvements.	Intersection and corridor improvements for better pedestrian and bicycle crossings and movement, including the bike-ped overpass north of Wentworth, sidewalk connections within 1/4 mile, opportunities with redevelopment.	- Implementation along with road reconstruction project. - Partner with developers during redevelopment. - Partner with Dakota County for the ped-bike bridge.
MARIE AVENUE (Delaware Ave. to Oakdale Ave.)	Long term - trail on north, side sidewalk on south. Short term - Bike lane.	Main Route, high traffic volumes, Partial Bus route. -Long term - trail and sidewalk. -Short-term, consider bike lanes. -A 'road diet' where the vehicle drive space is narrowed to capture space for walk-bike facilities should be explored.	- Dakota County. County has applied for a Transportation Enhancement Grant (TE) for a trail on the north side from Robert St. to Oakdale Ave. - Possible Federal funding for remaining sections. - City funds.
CHARLTON STREET (Annapolis St. to Marie Ave.)	Bike Lane. Sidewalk both sides.	Local Route -Important North/South city wide / requires removal of the one sided parking, consider Sharrows to keep parking, partial bus route.	- Safe routes to school funding may be available for sidewalks near Moreland and Garlough Elementary Schools. -City funds.
OAKDALE AVENUE (Bernard St. to Emerson Ave. and Thompson Ave. to Mendota Rd.)	Multi-Use Trail on one side. Sidewalk on one side.	Main Route: Important N/S on east side of City. Consider bike lanes in addition to trail.	- County Partnership for trail. Dakota County has applied for a TE Grant for a trail from Wentworth to Mendota. - Possible federal funding for remaining sections. - City Funds.
LIVINGSTON AVENUE (Wentworth Ave. to Mendota Rd.)	Bike Lane. Sidewalk on both sides.	Local Route, commercial destinations, Bus route / requires removal of parking on one side, concerns about crossing major uncontrolled intersections.	- City funds.
BIDWELL STREET (Butler Ave. to Thompson Ave.)	Sidewalk on both sides.	Access route, serves middle and elementary schools.	- Safe routes to school funding may be available for sidewalks near schools. -City funds.
BUTLER AVENUE (Delaware Ave. to Highway 52)	Trail on south side. Sidewalk on north side.	Main route, serves 5 schools and County Park, is a major east-west connection.	-Partnership with Dakota County. - Possible safe routes to school funding. - Possible federal funding. -City funds.

OTHER PRIORITIES

REVISE THE CURRENT SIDEWALK FUNDING POLICY

CREATE A WALK-BIKE ADVISORY GROUP OR SUB COMMITTEE OF THE PARK AND RECREATION ADVISORY COMMITTEE TO FOCUS ON WALK-BIKE ISSUES.

Improve Sidewalk Snow Removal

Raise awareness of and increase compliance with the sidewalk snow removal ordinance is essential for year round walking. This may include a public relations campaign with information about the importance and requirements of snow removal on sidewalks.

Consider developing a volunteer program to assist the elderly and disabled with sidewalk clearing. After the media/awareness campaign it may be necessary to enforce the ordinance initially with door tag warnings to violators and later with citations for continued non-compliance. Continue to remove the snow from the walks of non-complying properties and add the removal fee to the properties tax bill.

Policy Actions

To accomplish a pedestrian and bicycle network envisioned in this Plan, a mix of funding sources are needed to design, build, and maintain the system. For more significant improvements envisioned in the plan, such as grade separated crossings, complete streets reconstruction, or State and County Road intersection improvements, additional funds outside of the City's operating budget would need to be identified. In most instances, it is anticipated that partnerships and grant opportunities will allow for these installations.

In some situations, it may be necessary to remove existing parking spaces to create room for on-street bike lanes or off-street multi-use trails. Removing parking can be a difficult political issue, so a parking utilization study/count is recommended before proposals to remove parking are initiated. In most cases, the streets where this Plan recommends parking be removed have low use for parking and adequate parking would be available off-street and on the opposite side of the street.

Along with funding for capital projects like trails, sidewalks and bike lanes, implementation of the Plan will also require ongoing funding for operations and long-term maintenance. Prior to implementation of individual recommendations in this plan, analysis of development, capital, maintenance and operation costs should be conducted and compared to available funding.

Sidewalk Funding

Today, current city policy for funding new sidewalks is to assess adjacent property owners 100% of the cost. In cases where there are existing sidewalks the City shares 50% of the cost for reconstruction and repair. In the recent past, the policy for new sidewalks has contributed to difficulties gaining resident approval for new sidewalks when roads are reconstructed. This plan recommends the City revise the current sidewalk policy and take on a greater share of the cost in recognition that sidewalks, particularly those identified on the Framework and Treatment plans benefit the entire community, not just the adjacent property owners. While revision of the sidewalk policy would be a separate process after adoption of this plan, possible approaches to explore include:

- A. City-wide funding by sidewalk purpose - The City contribute a percentage of the cost based on the route type identified in the framework plan. For example, the City would pay 100% of its cost on Regional and Main Routes (it is anticipated that some of these routes will be eligible for outside funding); City pay 75% of the cost and property owners 25% on Local Routes; and the City and property owners would split the cost 50%/50% on Access Routes.
- B. City-wide sidewalk assessment - All property owners in the entire city are assessed by lineal foot of right-of-way frontage to start a sidewalk/bikeway fund to cover annual improvements city-wide. For example, each year a property owner would pay \$1 per lineal foot of right-of-way frontage. This would spread the cost across the city and lessen the on-time burden on individual property owners.
- C. 50/50 share - The City fund 50% of new sidewalks for all new sidewalks. Homeowners are assessed for the remaining 50%.

This city-wide approach would encourage more sidewalk construction, make the city safer, improve livability and lessen the sometimes contentious and time consuming assessment hearings.



Detailed Design

The plan outlines priority routes and the vision for a complete walk-bike system. It is largely a guiding framework and individual routes will need more detailed planning and design prior to implementation and construction.

Create Door to Door Connections

Bicycle and pedestrian circulation within private development should not only be safe, but as direct and convenient as vehicle circulation; large parking lots that separate the bicyclist and pedestrian from business front doors do not encourage active transportation. The City should continue to analyze the door-to-door pedestrian and bicycle movement in all new development and redevelopment proposals. Building front doors should be located as close to the walk-bike network as possible, internal sidewalks and safe space for bicycle movement should be provided and entrances and site circulation should minimize interaction between vehicles, pedestrians and cyclists. The City should install bike racks at public buildings and in city parks and should consider requiring bicycle racks/bike parking with new development/redevelopment.

Zoning Code Changes in Favor of Pedestrians and Bicyclists

The West St. Paul Zoning Code does not currently include specific policy relating to pedestrian and bicycling infrastructure. However, in recent years City Staff has been encouraging developers to include facilities to accommodate pedestrians and bicyclists with redevelopment. In addition, the Environmental Committee is currently working on developing recommendations focusing on sustainable design and development. Initial recommendations include specific policies that would require pedestrian and bicycle access with redevelopment as well as bicycle parking.

Approximately 10% of all trips in West St. Paul are made by walking or bicycling so roughly 10% of the transportation/road improvement budget could equitably go to sidewalk, trail and bikeway improvements.

Create Complete Streets with Road Reconstruction

Complete streets are roadways designed and operated to enable safe, attractive, and comfortable access and travel for all users. Pedestrians, bicyclists, motorists and public transport users of all ages and abilities are able to safely and comfortably move along and across a complete street. It is important for West St. Paul to include pedestrians and bicyclists facilities, as identified in this Plan in conjunction with street reconstruction and resurfacing projects. Not all streets need to be complete streets but there needs to be a sufficient network of streets which accommodate all users within the City.

FUNDING AND PARTNERSHIPS

The City should develop funding for pedestrian and bicycle improvements through the annual CIP (Capital Improvement Programs), park dedication, grants and partnerships. There are many partners who may be interested in helping to fund or otherwise support improvement projects. Potential partners include, but are not limited to, local businesses, bicycle or fitness or visitor oriented businesses, civic organizations, neighborhood groups, schools, youth groups, senior citizen organizations, other units of government and others.

Potential funding sources for pedestrian and bicycle improvements include:

- City of West St. Paul general fund.
- State Aid funding.
- Developer improvements.
- Park and trail dedication.
- Partnerships with public and private organizations.
- Grants.
- Donations.

See the Funding Options for more information about potential funding sources for bike-walk implementation.

COST CONSIDERATIONS OF TYPICAL PEDESTRIAN AND BICYCLE IMPROVEMENTS

Improvement	Factors Impacting Cost	Cost	Potential Funding Sources
TRAILS	Land acquisition costs, new structures needed, the type of trail surface, the width of the trail, and the facilities that are provided for trail users.	\$100,000 - \$300,000/mile	Grants Park Dedication Partnerships Donations City General Fund New Development State Aid
SIDEWALK	Availability of right-of-way, topography, soil conditions, utilities.	Sidewalk \$10/ square foot	State Aid New Development City General Fund
BICYCLE LANES	Condition of the pavement, the need to remove and repaint the lane lines, the need to adjust signalization. It is most cost efficient to install improvements during street reconstruction, street resurfacing, or at the time of original construction.	\$10,000 to \$50,000/mile	Grants Developer / New Construction State Aid (when eligible) City General Fund
CROSSWALK	Size of intersection (linear feet) and number of crossing legs.	Stripping \$100- \$300/leg Patterned concrete \$20,000/leg	State Aid (when eligible) City General Fund
PEDESTRIAN SIGNALS; MID-BLOCK CROSSING	Utilities, solar powered signals are available.	\$20,000 to \$40,000	State Aid Grants Partnerships Donations City General Fund
DIRECTIONAL AND WAYFINDING SIGNS	Number of signs, design.	\$50 to \$300 per sign	Grants Partnerships Donations City General Fund
CROSSING ISLAND	Size of island, materials (concrete or asphalt), utilities.	\$4,000 to \$30,000	Grants Partnerships State Aid (when eligible) City General Fund





Charlton St. - Bus stop with good sidewalk connection

General Improvement Costs

The table on the previous page outlines general costs for pedestrian and bicycle improvements. While many factors contribute to cost, these rule of thumb costs are useful when budgeting for specific improvements and applying for grants.

Funding and Grant Strategy

The quality of a city's walk-bike system is a reflection of the community's ability to strategically leverage existing internal and external resources. Similar to roads, a long-term funding strategy that is updated annually is needed to design, build and maintain the pedestrian and bicycle system. Creating a multi-year funding strategy can be useful in identifying when funding should be solicited so it is available when the West St. Paul would like to do the project. As most grant awards are made more than four months after the date of application, it is too late to seek funding if one is already in the construction year or must be actively conducting engineering for it. For example, if the City is envisioning a trail improvement project that is tied to a road reconstruction, then one would want to apply for grant funding a year in advance of the construction commencing to have the funds in place in time. Most grant programs will not allow costs expended prior to the grant award to be considered for either reimbursement or part of the needed match.

The development of a funding strategy begins with the identification and prioritization of trail, bikeway or sidewalk segments. Gathering information about desired segments in one location will ease future analysis and sequencing of funding

sources. Information should include features such as segment location, type, length, property ownership status, preliminary costs, and related environmental improvements. Recognizing that available external sources may not always align with the community's top priorities, this type of information should be gathered about many segments rather than just the community's favorites.

Once the list of potential segments is identified, it is helpful to identify potential funding sources. Selecting appropriate projects for each funding source is one of the factors that contribute to a community's success in securing non-city funding. In linking projects to funding consideration should be given not only to the types of projects the funder seeks, but being aware of the maximum grant award, amount of match required, and preferred project size. For example, one grant may seek to fund trails as part of a park experience getting people connected to nature rather than trails that connect people from place to place. That same grant may have a maximum grant award of \$200,000 with a 50% match. Since many funders are concerned if there is a significant gap in funding that the City must contribute, it would be more appropriate to select a project with a cost ranging from \$400,000 to \$500,000 than one costing \$1 million if no other funds are available. However, if the City is able to secure other funding to reduce the gap, then the \$1 million may be an appropriate fit for the grant.

When exploring funding sources it is also important to consider grant program requirements. Some grants, particularly ones with federal funds, have specific design or reporting requirements that



Safe Routes to School is a way to partnership with schools for improving walking facilities in the community

can raise project costs or add extra administrative costs. Care should be taken in selecting projects where the extra design requirements are not an issue or the extra reporting requirements are reasonable because of the large piece of funding the grant program provides. For example, in considering an application for a state grant with federal funds, it may make more sense to submit a grant for a \$1 million overpass than a \$300,000 trail project.

Another key to success in securing non-city funding for the trail, bikeway and sidewalk systems is developing a persuasive statement of need that fits the characteristics of the funding program. For some funders, the project should address a significant safety issue such as getting children across a busy road to school. For others, it is about having a large number of users and connecting those users to transit, shopping, or employment. Demonstrating the public need for the project is one of the most important components of any grant application. Where possible, this need should be demonstrated through letters of support and community partnerships.

FUNDING OPTIONS

General Funds

General funds can be used to develop the walk-bike system. These funds are best used for projects such as completing sidewalk or trail gaps on local streets that may not be eligible for grants. General funds are the primary funding source for on-going maintenance cost such as crosswalk painting, snow plowing, street sweeping and trail and sidewalk reconstruction.

State Aid Funds

State aid funds are available for pedestrian and bicycle improvements on state aid streets. This funding source is particularly useful at the time of street construction or reconstruction.

Trails and Sidewalks Built Along with Redevelopment

Developers can be required to provide trails and sidewalks at the time of development. This requirement can be negotiated during the site review process or formalized through the City's subdivision and zoning code.

Park and Trail Dedication

Minnesota Statutes allow local governments to require dedication of land or cash in-lieu of land for parks and trails from new subdivisions. The dedication must be reasonable and rationally related to the recreation demand created by the development. Cities can also require dedication of right-of-way or easements for sidewalks or trails. Park and trail dedication is a frequently used tool to help pay for recreation facilities. Some cities, such as Chanhassen, MN, have adopted a separate trail fee or dedication requirement.

Partnerships

Partnerships with both public and private organizations are an essential component to achieve individual projects outlined in the plan. Organizations with partner funding can also provide assistance with design, outreach and maintenance. Local trail clubs can be used to help maintain trails. Partnerships and relationships with private businesses can also result in easements and use agreements for trails across private land.



Potential partnership organizations include:

- Dakota County.
- Watershed District.
- Dakota County Active Living Partnership.
- School District.
- Northern Dakota County Regional Chamber of Commerce.
- Friends of Dakota County Parks.
- Area Businesses.
- Rotary Club.
- Lions Club.
- Railroads.

Dakota County Transportation Safety & Management Set-aside Funds

In the interest of eliminating trail gaps along county roads, Dakota County has \$250,000 each year available for trail construction projects that are not part of road projects identified in the county's 5-year Capital Improvement Program (CIP). To be eligible, the City must agree to pay 45% of the projects costs in accordance to County policy, as well as lead the project, including design, acquiring of right-of-way, and awarding of the contract. The County compiles a list of potential projects each summer. Dakota County has developed a trail gap map which is used to prioritize requests. The priorities are based on factors such as the roadway design and surrounding land uses/need for the pedestrian facility (such as schools, parks, etc.). It is important to note that while the trail gap map is used to prioritize requests, segments not on the gap map may be eligible for funding.

Donations

Private donations are another potential funding source. These may be financial donations from individuals or area corporations or donations of labor from recreation clubs or use agreements or trail easements from landowners. Programs such as "adopt-a-trail" by an organization, business, or individuals have successfully been used in many communities to help with maintenance tasks and raise awareness.

Grants

Grants are a way to make the City's dollars go further. Below is a sample of some grant opportunities that may be available along with websites to visit for more information.

Minnesota DNR

Website: www.dnr.state.mn.us/grants/index.html

The Minnesota DNR is one of the most comprehensive resources when it comes to state funding for trail programs. They offer a variety of grant programs and technical assistance. Current programs provide assistance for cross country skiing trails, all-terrain vehicle trails, snowmobile trails, mountain biking trails, horseback riding trails and recreational trails. Some programs also offer assistance for the development of parks or for trail amenities such as restrooms, lightning, benches, etc. It is important to note that none of the current programs covers sidewalk construction. Any program with the word "Legacy" in its title is funded through the Clean Water, Land and Legacy Amendment.

Each of the Minnesota DNR grant programs is unique. While many have an annual application window in the first quarter, some are available more frequently and others only once every few years. The DNR should be consulted before pursuing a grant to clarify funding availability and qualifications.

Minnesota DOT

Website: <http://www.dot.state.mn.us/grants/>

Most trail or sidewalk improvement projects funded through Minnesota DOT also have a portion which is federal dollars. Since June 9, 1998 we have seen three federal bills (TEA-21, ISTEA & SAFETEA-LU) enacted to fund the bulk of our transportation improvements. The current program in place today, SAFETEA-LU expired on September 30, 2009. The reauthorization of this bill will likely occur in some form and fashion and will fund transportation improvements across the United States for the next six years. Examples of programs typically funding trail or sidewalk improvement projects include Transportation Enhancements or Safe Routes to Schools. While the essence of these bills has primarily supported roadway and safety improvements, roadway projects that have integrated trails have fared better than others during the solicitation process. The City should begin collaborating with other roadway jurisdictions

to prioritize projects for the next round of federal transportation dollars. Building early support across multiple jurisdictions will better position the City in obtaining federal dollars.

Dakota County State Health Improvement Project (SHIP)

Website: <http://www.co.dakota.mn.us/Departments/PublicHealth/Projects/SHIP>

In the recent past, the State Health Improvement Program (SHIP) provided funds to reduce the burden of chronic diseases through increasing physical activity, improving nutrition, and reducing tobacco use. These funds are administered by the Dakota County Public Health Department. In the past, grant requests associated with increasing physical activity are most closely related to this funding source and must focus on policy (laws or regulations), system (organizations or institutions operation) or environmental (land use, zoning or community design) changes. Examples of related projects funded through SHIP include pedestrian/bike master plans, wayfinding signs, bike racks, and trail master plans, as well as Safe Routes to School (SRTS) comprehensive plans for local schools and funds for events to promote walking and biking to school. While SHIP funds cannot be used for construction projects, Dakota County has contracted with a local firm to seek and write grants for projects that meet the goals of Active Living and SHIP.

Currently funding for this program is unavailable to Dakota County. The program may be funded in the future.

Clean Water, Land and Legacy Amendment

On Nov. 4 2008, Minnesota voters approved the Clean Water, Land and Legacy Amendment to the Minnesota State Constitution which increased the general sales and use tax rate by three-eighths of one percentage point (0.375%) to 6.875% and dedicated the additional proceeds as follows:

- 14.25% to a newly created Parks and Trails Fund to support parks and trails of regional or statewide significance.
- 33% to a newly created Outdoor Heritage Fund to be spent only to restore, protect, and enhance wetlands, prairies, forests and habitat for game, fish and wildlife.
- 33% to a newly-created Clean Water Fund to be spent

only to protect, enhance, and restore water quality in lakes, rivers, streams and groundwater, with at least 5% of the fund spent to protect drinking water sources.

- 19.75% to a newly created Arts and Cultural Heritage Fund to be spent only for arts, arts education, and arts access, and to preserve Minnesota's history and cultural heritage.

Funding from the Legacy Amendment is administered by a variety of agencies such as the Department of Natural Resources, Pollution Control Agency, Department of Health, Historical Society, and regional art councils. A number of new grant programs were created, including the Parks and Trail Legacy Grant Programs, Solar Energy Legacy Grant Program, Lessard-Sams Conservation Partners Legacy Program and Minnesota Historical and Cultural Grants. Information about grant opportunities can be found on individual state department and organization websites.

NPS Rivers, Trails, and Conservation Assistance Program

Website: www.nps.gov/ncrc/programs/rtca/

The National Parks Service's (NPS) "Rivers, Trails and Conservation Assistance Program" (RTCA) is designed to provide communities technical assistance to conserve rivers, preserve open space, and develop trails and greenways. The RTCA program also implements the natural resource conservation and outdoor recreation mission of the National Park Service in communities across America. The NPS highly encourages communities to contact them before submitting an application for assistance.

Recovery and Reinvestment Act

Website: www.recovery.gov

The Recovery and Reinvestment Act was signed on February 17, 2009 and infused our government with a number of new grants and technical assistance programs. These programs and others are a great opportunity for local governments to fulfill the funding gaps they've seen with the economic downturn. These funding sources have a small window of opportunity and require quick action. These opportunities are focused heavily on energy efficiencies and job growth, but trail projects may also be eligible.





Marthaler Park - Multi-Use trails offer safe and enjoyable commuting and recreational opportunities.

Environment & Natural Resources Trust Fund

Website: www.lottery.state.mn.us/etf.html

The Environment and Natural Resources Trust Fund is a program funded through the Minnesota State Lottery proceeds. Between 2003 and 2008 the Trust Fund has shown a strong support for trail projects.

CURA – University of Minnesota

Website: www.cura.mn.edu

The Center for Urban and Regional Affairs (CURA) is an all-University applied research and technical assistance center. The program is designed to connect the University with nonprofit organizations, businesses, neighborhoods, local governments, and state agencies in Minnesota by providing grants and technical assistance programs.

One program in particular, Center for Community and Regional Research is located on the University of Minnesota Duluth Campus. The program is designed to provide research and technical assistance to local agencies on community projects that serve a local importance. The community is linked with faculty and staff and typically requires a cost sharing agreement. This program and others offered through CURA offer a unique opportunity to partner with the academics for further planning initiatives.

FTA Federal Transportation Funds

Website: <http://www.gpo.gov/fdsys/pkg/FR-2011-08-19/pdf/2011-21273.pdf>

Funding opportunities through the Robert Street Transitway project. A new policy enacted by the Federal Transit Administration allow for consideration of pedestrian improvements within a half mile of a transit station and bicycling improvements with three miles of a transit station to be included as part of capital projects funded through the FTS's major capital funding programs, including the Section 5309 "New Starts" program that the Robert Street Transitway planning process is currently working under.

Foundations & Non-Profits

There are foundations and non-profits throughout the State and Country that are interested in fulfilling their missions by supporting local projects. Identifying these sources can be an overwhelming task. There are a number of on-line tools that can assist with this process. The Minnesota Council of Foundations is a great starting point for identifying local foundations. Another good starting point is to consider the businesses within your community and using their websites to see if they have a foundation or charitable giving department. In addition to retailers and manufacturers, be sure to consider businesses such as the railroad, energy providers and communications companies.

Before pursuing a foundation, it is important to recognize that each one operates differently. An applicant should be cognizant of the foundation's mission and be sure the proposed project aligns with the foundation's priorities. It is important to contact a foundation early-on in the solicitation process to clarify whether a project would be considered. It is also important to recognize that most funders do not want to be the sole source of funding for a project. Rather they want to see that community members, businesses and organization are actively supporting the project and have committed some of their own funds, however small. A funding strategy for an individual trail project would be to engage the community and foster some small amounts of financial support and then start writing funding requests to foundations and non-profits.

One challenge for local governments in pursuing foundation and non-profit funding is that many require the applicant to be non-profit with federal 501(c) designation. Opportunities to partner with local non-profits should be considered and relationships built so these partnerships are ready when there is a funding opportunity to pursue. Starting a new nonprofit, such as a "Friends of Rosemount Parks and Trail" may be an option. However, starting a nonprofit is neither easy nor quick. The Minnesota Council on Foundations provides a 15 step process on their website, www.mncn.org, that includes steps such as determining the organization's mission, recruiting board members, adopting articles of incorporation and bylaws and state and federal filings and registrations.



APPENDIX PUBLIC INPUT SUMMARY

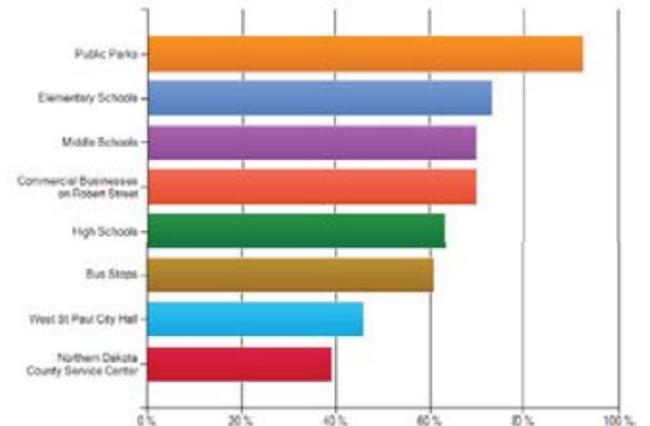


A number of public involvement methods were used to gather input on needs, opportunities and ideas for the West St. Paul Pedestrian and Bicycle Master Plan. The following is a summary of the input received through June 23, 2011.

The input is based on comments from the June community open house meeting, the on-line W. St. Paul Bike/Walk Questionnaire (127 responses) and from meetings with the West St. Paul City Council and Parks and Recreation Commission. Community input is summarized by major themes and includes priorities based on the frequency of public comments.

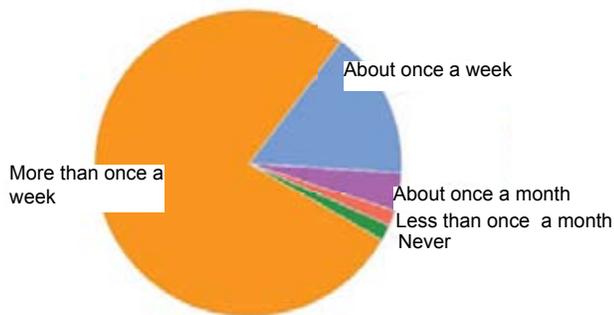
IMPORTANT DESTINATIONS (Walking & Biking)

What destinations do you feel should be easily accessible by walking and biking? (Check all that apply)

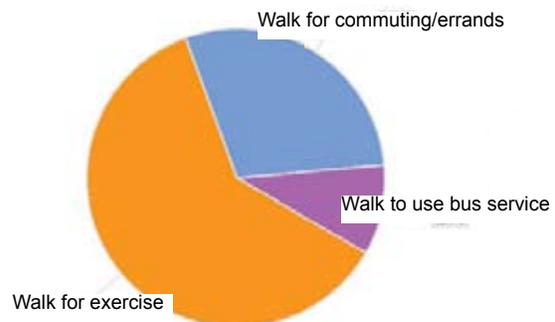


EXISTING HABITS Walking

How often do you participate in outside walking activities?

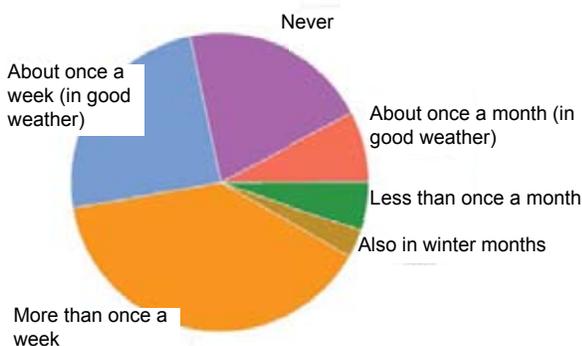


What are the purposes of your walking trips? (Check all that apply)



Biking

How often do you participate in bicycling activities? (Check all that apply)



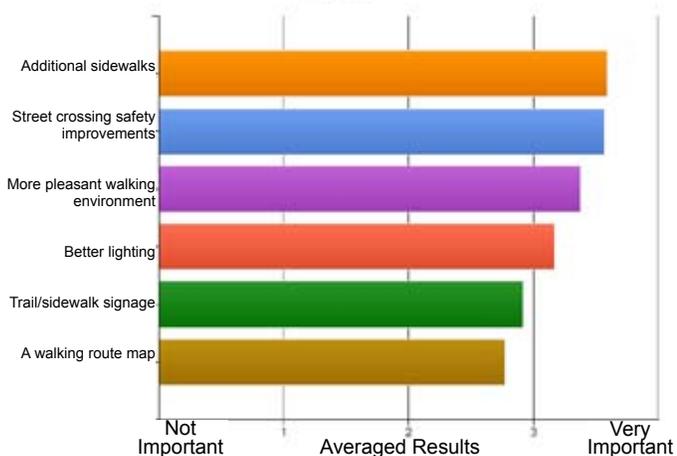
What are the purposes of your bicycling trips? (Check all that apply)



IMPROVING CONDITIONS

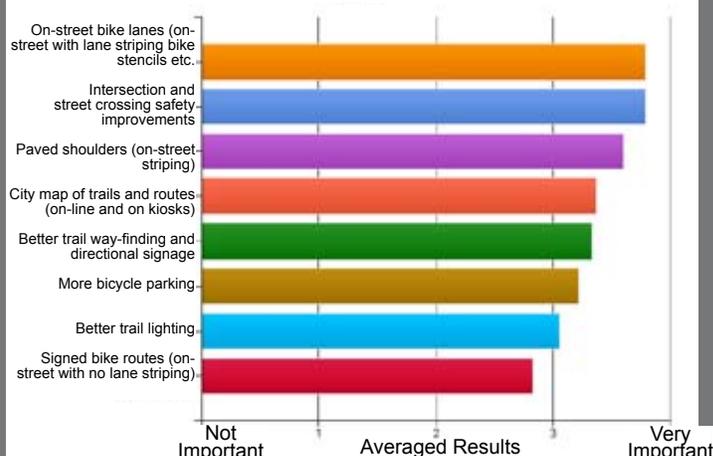
Walking

In your opinion how important are the following to improving walking conditions in West St. Paul?



Biking

In your opinion how important are the following to improving biking conditions in West St. Paul?



PRIORITIES COMMENTS

Very High Priority -

- Improve the bike and walk environment along Robert Street and crossing Robert Street. Create a safe bike route paralleling Robert St.
- Add traffic calming, have driver education/awareness of walkers and bicyclists, better speed limit and stop sign/signal enforcement, better crosswalks.
- Create a city-wide connected sidewalk and bikeway network.
- Marie - Add a multi-use off-road trail or bike lanes and sidewalks.
- Wentworth - Add sidewalks and a bike lane.
- Smith - Add striped bike lanes and sidewalks.
- Delaware - Add striped bike lanes and sidewalks.
- Oakdale Avenue - Add an off road multi-use trail for walking and biking (North-South trail "spine").
- Butler - Add striped bike lanes.
- Charlton - Add striped bike lanes and sidewalks.
- Enforce snow shoveling requirements.
- Safer walking and biking routes to schools, especially elementary schools.

High Priority -

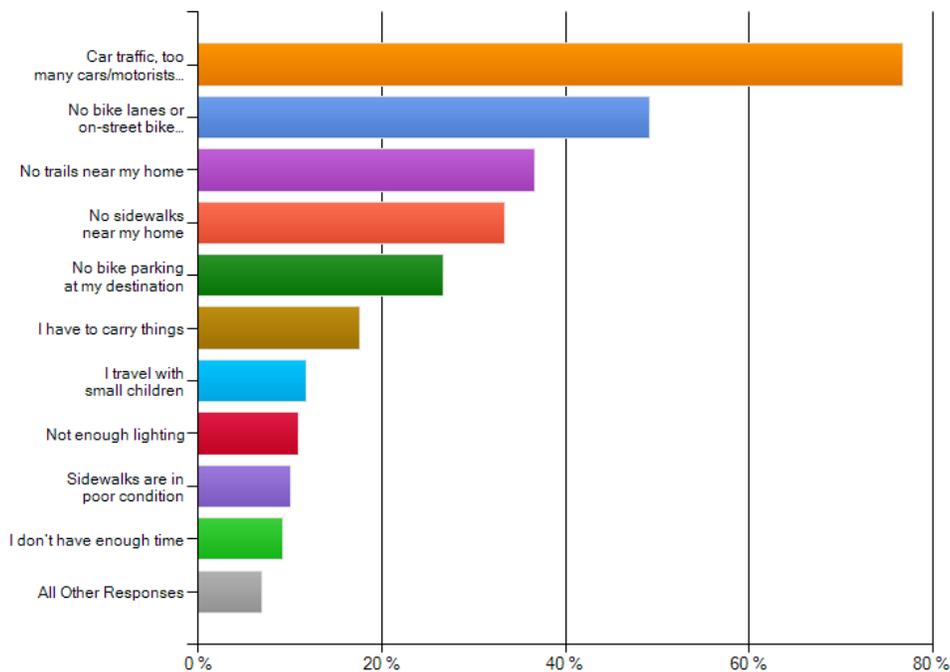
- Add bike racks at Doddway Center and major retail destinations.
- Emerson - Add sidewalks.
- Sidewalks on major streets that lead to Robert Street.
- Crosswalks to Dodge Nature Center.
- Loop walking trails around parks.

Medium Priority -

- Dodd Road - Add striped bike lanes.
- Livingston - Add a sidewalk.
- Thompson Ave. - add a bike lanes and sidewalk.
- Imperial Drive - Add sidewalks.
- Need safer crossing of TH 52 south of Wentworth.
- Improve safety in parks like Marthaler and Thompson (lighting, enforce off-leash dog regulations).
- Add trail connections to regional trails and trails in neighboring cities.

BARRIERS TO WALKING AND BIKING

What prevents you from walking or biking more in West St. Paul? (Check any that apply)



COMMENTS

- *High levels of vehicle traffic in some areas and motorists driving too fast, vehicles not stopping at stop signs prevented many people from walking or biking.*
- *Robert Street is pedestrian unfriendly and dangerous for bicyclists. It is a significant barrier to pedestrian and bicycle movement and feeling of community. Sidewalks are too close to traffic and not well shoveled in winter.*
- *There is a lack of off-road trails, sidewalks and on-road bike lanes.*
- *Sidewalk and trail system is patchwork, not connected.*
- *People do not feel safe crossing some intersections - Robert Street and major street crossings, TH 110/Charlton, TH 52/Southview, Dodd/Smith, Butler/Oakdale, Butler at Thompson Park.*
- *There is a need for better snow shoveling of sidewalks in the winter.*

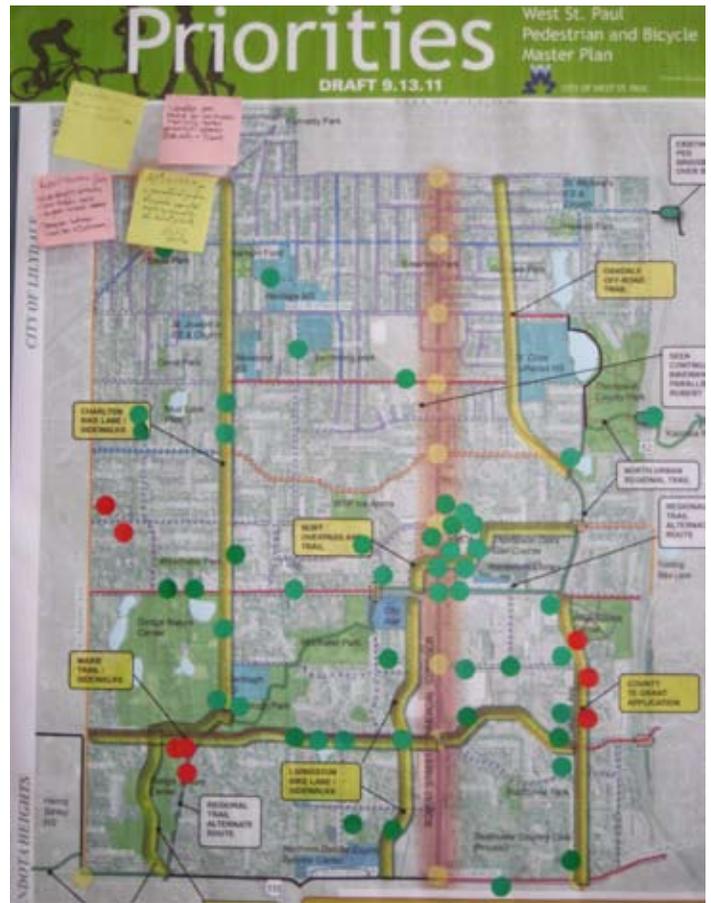


DRAFT PLAN: PUBLIC INPUT SUMMARY

Input on the Draft West St. Paul Pedestrian and Bicycle Master Plan included:

- An open house to review the draft plan, held September 13, 2011.
- The draft plan was posted on the project website for the Month of September with the ability to comment on-line via Survey Monkey or email.
- Presentations at City Council work sessions August 22, 2011 and October 24, 2011.
- Review by the Park and Recreation Advisory Committee September 13, 2011 and October 11, 2011.
- Review by the Planning Commission October 18, 2011.
- Review by the Environmental Committee.
- Review by Dakota County.

People addressed a wide variety of interests and concerns. The majority of comments showed interest or support for making pedestrian and bike improvements in West St. Paul. Concerns centered around economic feasibility, space feasibility (wide enough ROW to implement sidewalks on both sides or the addition of a bike lane) and concerns of negative side effects for homeowners. Specific routes that solicited concerns from property owners included: Marie Ave, Oakdale Ave., and Emerson Ave.



At the Community Open House, attendees were asked to place a green dot on improvements that they felt should be a priority and a red dot on improvements they were not supportive of. Meeting attendees are supportive of a grade separated crossing at Robert St. and improvements to Charlton St. and Livingston Ave.. While some attendees would like to improvements to Oakdale Ave. and Marie Ave., property owners are concerned as to how improvements would affect them.



THE CITY OF WEST SAINT PAUL

PEDESTRIAN AND BICYCLE MASTER PLAN

12.05.11

