Application

04786 - 2016 Multiuse Trails and Bicycle Facilities

05172 - Bruce Vento Regional Trail Extension - Buerkle Road to Highway 96

Regional Solicitation - Bicycle and Pedestrian Facilities

Status:	Submitted
Submitted Date:	07/15/2016 2:27 PM

Primary Contact

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	Salutation	First Name	Middle Name	Last Name
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*	Maplewood	Minnesota	55109	
	City	State/Province	Postal Code/Zip	
Phone:*	651-748-2500			
	Phone		Ext.	
Fax:				
What Grant Programs are you most interested in?	Regional Solicitation - Bicycle and Pedestrian Facilities			

Organization Information

Name:	RAMSEY COUNTY
Jurisdictional Agency (if different):	

Organization Type:	County Government
Organization Website:	
Address:	2015 N VAN DYKE ST

*	MAPLEWOOD	Minnesota	55109
	City	State/Province	Postal Code/Zip

County:	Ramsey
Phone:*	651-748-2500 Ext.
Fax:	
PeopleSoft Vendor Number	0000023983A2

Project Information

Project Name	Bruce Vento Regional Trail Extension - Buerkle Road to Highway 96
Primary County where the Project is Located	Ramsey
Jurisdictional Agency (If Different than the Applicant):	

Brief Project Description (Limit 2,800 characters; approximately 400 words)

The Bruce Vento Regional Trail has been a highly popular multiuse trail corridor for Ramsey County residents for years since the development of the Bruce Vento Regional Trail Master Plan in 1993. The trail corridor is 13 miles in length, and extends from the east side of downtown St. Paul to the north County line in White Bear Township. The final segment of the southern 7 miles of regional trail was completed in 2005 on former Burlington Northern Santa Fe (BNSF) railway ending at Buerkle Road in White Bear Lake. The remaining north 6 miles of trail was planned to be constructed on the north BNSF railway segment to the County line when this segment of railway is abandoned. The north 6 miles of trail has remained undeveloped for years, and is a critical trail gap for the northern communities of Ramsey County. At this time, it is undetermined when, or if, the north BNSF railway corridor will be abandoned.

A major planning effort was initiated in 2014 to find an alternative trail alignment out of railway right of way in hopes to begin to fill the north 6 mile trail gap. As a result of this planning effort, a three-mile extension of the Bruce Vento Regional Trail has been planned from Buerkle Road to Highway 96. This is a major step to provide increased opportunities for multiuse trails and bicycle facilities within the City of White Bear Lake and in sections of Maplewood, Vadnais Heights, Gem Lake and White Bear Township. This trail project will provide connections to the Highway 96 Regional Trail, Lake Avenue Trail, and South Shore Lake Trail, which are also identified in the Ramsey County Pedestrian and Bicycle Master Plan and the Lakes Links Trail Network Master Plan. This project will also set the stage for future connections north of Highway 96 to County Road J in efforts to complete the remaining 3-mile gap for future connection to the Hardwood Creek Trail, and coordination with US Bicycle Route 41 to the Canadian border.

The proposed trail will be designed to meet Federal State Aid Standards for multiuse trails and bicycle facilities. The trail width is planned for a twelve-foot wide trail section consisting of bituminous pavement, trail under-pass components for travel under County Road E and Highway 61 roadway bridges, pedestrian bridge to provide safe crossings over Buerkle Road, at grade pedestrian/trail crossing improvements at roadway intersections, fencing, landscaping and restoration, signage, and site amenities.

Include location, road name/functional class, type of improvement, etc.

TIP Description Guidance (will be used in TIP if the project is selected for funding)

Bruce Vento Regional Trail from Buerkle Rd to CSAH 96- Construct 12-foot wide trail, underpasses at County Road E and US 61, pedestrian bridge at Buerkle Rd, landscaping, restoration, signage, and amenities

Project Length (Miles)

3.0

Project Funding

Are you applying for funds from another source(s) to implement this project?

No

If yes, please identify the source(s)

Federal Amount

$4,100,000.00

Match Amount

$1,025,000.00

Minimum of 20% of project total

Project Total

$5,125,000.00

Match Percentage

20.0%

Minimum of 20%
Compute the match percentage by dividing the match amount by the project total

Source of Match Funds

Legacy Amendment Parks and Trails funds, Metropolitan Council Regional Park and Trail Capital Improvements Project funds, local municipal stake holder cost participation funding

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources

Preferred Program Year

Select one:

2020

For TDM projects, select 2018 or 2019. For Roadway, Transit, or Trail/Pedestrian projects, select 2020 or 2021.

Additional Program Years:	2019

Select all years that are feasible if funding in an earlier year becomes available.

Project Information

County, City, or Lead Agency	Ramsey County
Zip Code where Majority of Work is Being Performed	55110
(Approximate) Begin Construction Date	03/02/2020
(Approximate) End Construction Date	05/31/2021
Name of Trail/Ped Facility:	Bruce Vento Regional Trail

(i.e., CEDAR LAKE TRAIL)

TERMINI:(Termini listed must be within 0.3 miles of any work)

From: **(Intersection or Address)**	Buerkle Road and BNSF railway
To: **(Intersection or Address)**	Intersection of CSAH Highway 96 and State Aid Highway 61

DO NOT INCLUDE LEGAL DESCRIPTION; INCLUDE NAME OF ROADWAY IF MAJORITY OF FACILITY RUNS ADJACENT TO A SINGLE CORRIDOR

Or At:

Primary Types of Work	Clear/Grub, Grade, Agg Base, Bit Base, Bit Surf, Concrete, Sidewalk, Signals, Lighting, Guardrail, Ped Bridge, Ped Ramps, Landscape

Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.

BRIDGE/CULVERT PROJECTS (IF APPLICABLE)

Old Bridge/Culvert No.:	
New Bridge/Culvert No.:	
Structure is Over/Under **(Bridge or culvert name):**	Under County Road E Bridge and Highway 61 Bridge

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$0.00
Removals (approx. 5% of total cost)	$0.00
Roadway (grading, borrow, etc.)	$0.00
Roadway (aggregates and paving)	$0.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$0.00

Ponds	$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$0.00
Traffic Control	$0.00
Striping	$0.00
Signing	$0.00
Lighting	$0.00
Turf - Erosion & Landscaping	$0.00
Bridge	$0.00
Retaining Walls	$0.00
Noise Wall (do not include in cost effectiveness measure)	$0.00
Traffic Signals	$0.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$0.00
Other Roadway Elements	$0.00
Totals	**$0.00**

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	**Cost**
Path/Trail Construction	$3,944,100.00
Sidewalk Construction	$0.00
On-Street Bicycle Facility Construction	$39,200.00
Right-of-Way	$103,700.00
Pedestrian Curb Ramps (ADA)	$9,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$65,000.00
Pedestrian-scale Lighting	$96,000.00
Streetscaping	$0.00
Wayfinding	$25,000.00
Bicycle and Pedestrian Contingencies	$828,000.00
Other Bicycle and Pedestrian Elements	$15,000.00
Totals	**$5,125,000.00**

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	$0.00
Stations, Stops, and Terminals	$0.00
Support Facilities	$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	$0.00
Vehicles	$0.00
Contingencies	$0.00
Right-of-Way	$0.00
Other Transit and TDM Elements	$0.00
Totals	**$0.00**

Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	$0.00
Substotal	$0.00
Other Costs - Administration, Overhead,etc.	$0.00

Totals

Total Cost	$5,125,000.00
Construction Cost Total	$5,125,000.00
Transit Operating Cost Total	$0.00

Requirements - All Projects

All Projects

1.The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan, the 2040 Regional Parks Policy Plan (2015), and the 2040 Water Resources Policy Plan (2015).

Check the box to indicate that the project meets this requirement. Yes

2.The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan objectives and strategies that relate to the project.

List the goals, objectives, strategies, and associated pages:

Goal: Access to Destination(Chapter 2 2040 TP)

Objective:

(A)Increase the availability of multimodal travel options, especially in congested highway corridors.

(E)Improve multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities, particularly for historically under-represented areas.

Strategy:C1,C15,C16,C17

Goal: Healthy Environment(Chapter 2 2040 TP)

Objective:

(C)Increase the availability and attractiveness of transit, bicycling, and walking to encourage healthy communities and active car-free lifestyles.

(D)Provide a transportation system that promotes community cohesion and connectivity for people of all ages and abilities, particularly for historically under represented populations.

Strategy:E3

(Limit 2500 characters; approximately 750 words)

3.The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.

List the applicable documents and pages:

Thrive 2040

2040 Regional Parks Plan-(19,44-49,75-76)
2040 Transportation Plan-(Chapter 7)

Ramsey County Parks System Plan-(36-38)

Ramsey County Pedestrian and Bicycle Plan-(Section 2a&b,4)

Lake Links Trail Network Master Plan -(Sec 3)

(Limit 2500 characters; approximately 750 words)

4.The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of bicycle/pedestrian projects, transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.

Check the box to indicate that the project meets this requirement. Yes

5.Applicants that are not cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes

6.Applicants must not submit an application for the same project in more than one funding sub-category.

Check the box to indicate that the project meets this requirement. Yes

7.The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.
Multiuse Trails and Bicycle Facilities: *$250,000 to $5,500,000*
Pedestrian Facilities (Sidewalks, Streetscaping, and ADA): *$250,000 to $1,000,000*
Safe Routes to School: *$150,000 to $1,000,000*

Check the box to indicate that the project meets this requirement. Yes

8.The project must comply with the Americans with Disabilities Act.

Check the box to indicate that the project meets this requirement. Yes

9.The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes

10.The owner/operator of the facility must operate and maintain the project for the useful life of the improvement.

Check the box to indicate that the project meets this requirement. Yes

11.The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

Check the box to indicate that the project meets this requirement. Yes

12.The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

Check the box to indicate that the project meets this requirement. Yes

13.The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

Check the box to indicate that the project meets this requirement. Yes

Requirements - Bicycle and Pedestrian Facilities Projects

1.All projects must relate to surface transportation. As an example, for multiuse trail and bicycle facilities, surface transportation is defined as primarily serving a commuting purpose and/or that connect two destination points. A facility may serve both a transportation purpose and a recreational purpose; a facility that connects people to recreational destinations may be considered to have a transportation purpose.

Check the box to indicate that the project meets this requirement. Yes

Multiuse Trails on Active Railroad Right-of-Way:

2.All multiuse trail projects that are located within right-of-way occupied by an active railroad must attach an agreement with the railroad that this right-of-way will be used for trail purposes.

Check the box to indicate that the project meets this requirement. Yes

Safe Routes to School projects only:

3.All projects must be located within a two-mile radius of the associated primary, middle, or high school site.

Check the box to indicate that the project meets this requirement.

4.All schools benefitting from the SRTS program must conduct after-implementation surveys. These include the student travel tally form and the parent survey available on the National Center for SRTS website. The school(s) must submit the after-evaluation data to the National Center for SRTS within a year of the project completion date. Additional guidance regarding evaluation can be found at the MnDOT SRTS website.

Check the box to indicate that the applicant understands this requirement and will submit data to the National Center for SRTS within one year of project completion.

Requirements - Bicycle and Pedestrian Facilities Projects

Measure A: Project Location Relative to the RBTN

Select one:

Tier 1, Priority RBTN Corridor	Yes
Tier 1, RBTN Alignment	Yes
Tier 2, RBTN Corridor	
Tier 2, RBTN Alignment	
Direct connection to an RBTN Tier 1 corridor or alignment	Yes
Direct connection to an RBTN Tier 2 corridor or alignment	

OR

Project is not located on or directly connected to the RBTN, but is part of a local system and identified within an adopted county, city or regional parks implementing agency plan.	
Upload Map	1466193737500_Bike Corridors Map.pdf

Measure A: Population Summary

Existing Population Within One Mile (Integer Only)	28331
Existing Employment Within One Mile (Integer Only)	20309
Upload the "Population Summary" map	1466449295921_Population Summary Map.pdf

Measure A: Project Location and Impact to Disadvantaged Populations

Select one:

Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):	
Project located in Area of Concentrated Poverty:	
Projects census tracts are above the regional average for population in poverty or population of color:	Yes
Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:	

Response (Limit 2,800 characters; approximately 400 words)

The 3-mile trail extension from Buerkle Road to Highway 96 will connect to two Above Average areas of Race and Poverty within the cities of Maplewood, Vadnais Heights, Gem Lake, White Bear Lake, and White Bear Township as identified on the Socio-Economic Conditions map.

This trail extension project will eliminate several significant barriers between Buerkle Road and Highway 96 and will create additional local trail connections throughout the trail extension project to offer opportunities for multi-modal travel to northern communities within Ramsey County. There are very little pedestrian facilities within the proposed trail extension corridor from Buerkle Road to Highway 96. This corridor is primarily dominated by industrial/office land use and major vehicular transportation routes. The primary mode of travel is via vehicular transportation. Other benefits of this trail project will include connections to the Highway 96 Regional Trail, Lake Avenue Trail, and South Shore Lake Trail, which will provide connection to a greater multi-use trail system, and additional recreation opportunities will be gained in efforts to promote help living environments. These trail connections are identified in the Ramsey County Pedestrian and Bicycle Master Plan and the Lake Links Trail Network Master Plan.

The majority of the trail extension project has been planned within public land and or public right-of-way to reduce impacts however some impacts will include areas that will need to be acquired or easements gained on private property to construct the trail project. The majority of private land impacted is within the railway corridor, except two small areas on one residential property and one commercial property. Due to significant steep slopes between Buerkle Road and County Road E, a section of the trail is proposed to straddle the

railway property and a small section of residential property. Mitigation efforts proposed would include additional screening design elements to help buffer the trail from the townhouse complex. The commercial property impacted is a small section of a parking lot owned by a restaurant for overflow parking adjacent to the railway at the intersection of County Road E and Hoffman Road. The proposed design would not affect any parking stalls in the overflow parking lot.

The response should address the benefits, impacts, and mitigation for the populations affected by the project.

Upload Map 1466449382593_Socio-Economic Conditions Map.pdf

Measure B: Affordable Housing

City/Township	Segment Length in Miles (Population)
White Bear Lake	2.6
Vadnais Heights	0.01
White Bear Township	0.39
	3

Total Project Length

Total Project Length (Total Population) 3.0

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

City/Township	Segment Length (Miles)	Total Length (Miles)	Score	Segment Length/Total Length	Housing Score Multiplied by Segment percent
		0	**0**	**0**	**0**

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles) 3.0

Total Housing Score 0

Measure A: Gaps, Barriers and Continuity/Connections

Check all that apply:

Gap improvements can be on or off the RBTN and may include the following:
• Providing a missing link between existing or improved segments of a regional (i.e., RBTN) or local transportation network;

•Improving bikeability to better serve all ability and experience levels by:
• Providing a safer, more protected on-street facility;

•Improving crossings at busy intersections (signals, signage, pavement markings); OR

•Improving a bike route or providing a trail parallel to a highway or arterial roadway along a lower-volume neighborhood collector or local street. Barrier crossing improvements (on or off the RBTN) can include crossings (over or under) of rivers or streams, railroad corridors, freeways, or multi-lane highways, or enhanced routes to circumvent the barrier by channeling bicyclists to existing safe crossings or grade separations. (For new barrier crossing projects, data about the nearest parallel crossing (as described above) must be included in the application to be considered for the full allotment of points under this criterion).

Closes a transportation network gap and/or provides a facility that crosses or circumvents a physical barrier Yes

Improves continuity and/or connections between jurisdictions (on or off the RBTN) (e.g., extending a specific bikeway facility treatment across jurisdictions to improve consistency and inherent bikeability)

Improves Continuity and/or Connections Between Jurisdictions Yes

The remaining 6-mile gap of undeveloped Bruce Vento Regional Trail from Buerkle Road to County Road J is a major gap and significant barrier for northern communities in Ramsey County. The 3-mile trail extension project from Buerkle Road to Highway 96 will complete approximately one-half of this gap in addition to providing a multi-use trail opportunity that currently does not exist today for northern communities within Ramsey County. This trail project will provide connections to the Highway 96 Regional Trail, Lake Avenue Trail, and South Shore Lake Trail, which are also identified in the Ramsey County Pedestrian and Bicycle Master Plan and the Lakes Links Trail Network Master Plan. This project will also set the stage for future connections north of Highway 96 to County Road J in efforts to complete the remaining 3-mile gap for future connection to the Hardwood Creek Trail, and coordination with US Bicycle Route 41 to the Canadian border.

Response (Limit 2,800 characters; approximately 400 words)

The trail extension project area between Buerkle Road and Highway 96 has significant barriers due to land use patterns, high vehicle route corridors such as, Buerkle Rd, County Rd E, Highway 96, and Otter Lake Road, and Burlington Norther Santa Fe railway corridors. This project will eliminate these barriers and will create additional local trail connections throughout the trail extension project. On the southern terminus of the trail project, a pedestrian bridge is planned to provide access over Buerkle Road which, is a local two way street with approximately 8600 ADT and has poor sight line visibility for vehicles approaching the trail corridor since it is located on a sharp S-curve. The trail is planned to go under the County Road E Bridge and Highway 61 Bridge to allow safe travel by these heavy traveled vehicular route corridors. An activated pedestrian light system is proposed at the intersection of Otter Lake Road and Hoffman Road due to high north/south bound ADT on Otter Lake

Road between County Road J on the west side of Otter Lake to Hoffman Road. Redesign of the intersection of Hoffman Road/White Bear Ave/Highway 61 will include reconfiguration of existing curbs/median, select traffic lights and crosswalks to provide safer pedestrian connections across highway 61 for access to the South Shore Lake Trail and business districts along White Bear Lake Marina on the east side of Highway 61. At the northern terminus of the trail project, additional crosswalk locations are proposed at the intersection of Highway 96 and Highway 61 for improved connections to the areas north of Highway 96 and connection to the Lake Avenue Trail on the east side of Highway 61.

Measure B: Project Improvements

Response (Limit 2,800 characters; approximately 400 words)

The 3-mile trail extension project will provide a multi-use trail/bicycle facility opportunity that currently does not exist today for northern communities within Ramsey County. There are very little north-south pedestrian facilities within the proposed trail extension corridor from Buerkle Road to Highway 96 resulting from significant barriers such as, land use patterns, high vehicle route corridors (Buerkle Road, County Road E, Highway 96, Otter Lake Road, Highway 61), and Burlington Northern Santa Fe (BNSF) railway corridors. These barriers have created significant deficiencies for north-south multi-use trails and bicycle facilities.

In efforts to provide a safe and useable multi-use trail facility, several barriers and deficiencies must be corrected such as, crossing high vehicular route corridors, trail use within the BNSF railway corridor, and providing a trail system through areas that are dominated by industrial/commercial use corridors. In efforts to correct deficiencies on high vehicular route corridors, several design measures have been proposed to provide safe passage for trail users. At Buerkle Road, a pedestrian bridge is planned to provide access over the roadway due to high ADT and has poor sight line visibility for vehicles approaching the trail corridor. The pedestrian bridge will eliminate crash conflicts with pedestrian/bicycle. At, County Road E and Highway 61, the trail is planned to go under the County Road E Bridge and Highway 61 Bridge to allow safe travel by these heavy traveled vehicular route corridors. At the intersection of Otter Lake Road/Hoffman Road, an activated pedestrian light system is proposed due to high north/southbound ADT on Otter Lake Road. The activated light system will help reduce the conflicts between vehicular and pedestrian/bicycle. At the intersection of Hoffman Road/White Bear Ave/Highway 61, the intersection is planned to be modified to provide safer pedestrian connections across highway 61 for

access to the South Shore Lake Trail and business districts along White Bear Lake Marina on the east side of Highway 61. At the northern terminus of the trail project, additional crosswalk locations are proposed at the intersection of Highway 96 and Highway 61 for improved connections to the areas north of Highway 96 and connection to the Lake Avenue Trail on the east side of Highway 61.

Additionally, the trail alignment design was planned to avoid the BNSF railway corridor where feasible. Where there is impact to the BNSF corridor, the trail was planned to be located on the outer edge of the railway ROW and safety fencing/barricades will be provided to provide safe measures for trail and bicycle users.

Measure A: Multimodal Elements

The proposed 3-mile trail extension project will provide critical connections to the Highway 96 Regional Trail, South Shore Trail, and Lake Avenue Trail as identified in the Ramsey County Pedestrian/Bicycle Master Plan and the Lakes Links Trail Network Master Plan. This project will also set the stage for future connections north of Highway 96 to County Road J for future connection to the Hardwood Creek Trail and coordination with US Bicycle Route 41 to the Canadian border.

Response (Limit 1,400 characters; approximately 200 words)

A pedestrian bridge is planned to extend over Buerkle Road due to high ADT and poor sight line visibility for vehicles approaching the trail corridor since it is located on a sharp S-curve. The trail is planned to go under the County Road E Bridge and Highway 61 Bridge to allow safe travel through these heavy vehicular route corridors. An activated pedestrian light system is proposed at the intersection of Otter Lake Road and Hoffman Road. The project will accommodate a trail connection to the intersection of Hoffman RD/White Bear Ave/Highway 61 and will include minor reconfiguration of the intersection to provide safe pedestrian connections on the east side of highway 61. Lastly, additional crosswalk locations are proposed at the intersection of Highway 96 and Highway 61 for improved connections to the areas north of Highway 96 and connection to the Lake Avenue Trail on the east side of Highway 61.

Transit Projects Not Requiring Construction

If the applicant is completing a transit or TDM application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.
Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

Measure A: Risk Assessment

1)Project Scope (5 Percent of Points)

Meetings or contacts with stakeholders have occurred Yes

100%

Stakeholders have been identified

40%

Stakeholders have not been identified or contacted

0%

2)Layout or Preliminary Plan (5 Percent of Points)

Layout or Preliminary Plan completed Yes

100%

Layout or Preliminary Plan started

50%

Layout or Preliminary Plan has not been started

0%

Anticipated date or date of completion 06/16/2016

3)Environmental Documentation (5 Percent of Points)

EIS

EA

PM Yes

Document Status:

Document approved (include copy of signed cover sheet)

100%

Document submitted to State Aid for review

75% date submitted

Document in progress; environmental impacts identified; review request letters sent

50%

Document not started Yes

0%

Anticipated date or date of completion/approval 12/31/2017

4)Review of Section 106 Historic Resources (10 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge

100%

Historic/archeological review under way; determination of no historic properties affected or no adverse effect anticipated

80%

Historic/archaeological review under way; determination of adverse effect anticipated

40%

Unsure if there are any historic/archaeological resources in the project area Yes

0%

Anticipated date or date of completion of historic/archeological review: 12/31/2017

Project is located on an identified historic bridge

5)Review of Section 4f/6f Resources (10 Percent of Points)

4(f) Does the project impacts any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or public private historic properties?
6(f) Does the project impact any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or historic property that was purchased or improved with federal funds?

No Section 4f/6f resources located in the project area Yes

100%

No impact to 4f property. The project is an independent bikeway/walkway project covered by the bikeway/walkway Negative Declaration statement; letter of support received

100%

Section 4f resources present within the project area, but no known adverse effects

80%

Project impacts to Section 4f/6f resources likely coordination/documentation has begun

50%

Project impacts to Section 4f/6f resources likely coordination/documentation has not begun

30%

Unsure if there are any impacts to Section 4f/6f resources in the project area

0%

6)Right-of-Way (15 Percent of Points)

Right-of-way, permanent or temporary easements not required

100%

Right-of-way, permanent or temporary easements has/have been acquired

100%

Right-of-way, permanent or temporary easements required, offers made

75%

Right-of-way, permanent or temporary easements required, appraisals made

50%

Right-of-way, permanent or temporary easements required, parcels identified Yes

25%

Right-of-way, permanent or temporary easements required, parcels not identified

0%

Right-of-way, permanent or temporary easements identification has not been completed

0%

Anticipated date or date of acquisition 12/31/2018

7)Railroad Involvement (25 Percent of Points)

No railroad involvement on project

100%

Railroad Right-of-Way Agreement is executed (include signature page) 100%

Railroad Right-of-Way Agreement required; Agreement has been initiated Yes

60%

Railroad Right-of-Way Agreement required; negotiations have begun

40%

Railroad Right-of-Way Agreement required; negotiations not begun

0%

Anticipated date or date of executed Agreement 12/31/2018

8)Interchange Approval (15 Percent of Points)*

**Please contact Karen Scheffing at MnDOT (Karen.Scheffing@state.mn.us or 651-234-7784) to determine if your project needs to go through the Metropolitan Council/MnDOT Highway Interchange Request Committee.*

Project does not involve construction of a new/expanded interchange or new interchange ramps Yes

100%

Interchange project has been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee

100%

Interchange project has not been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee

0%

9)Construction Documents/Plan (10 Percent of Points)

Construction plans completed/approved (include signed title sheet)

100%

Construction plans submitted to State Aid for review

75%

Construction plans in progress; at least 30% completion

50%

Construction plans have not been started Yes

0%

Anticipated date or date of completion 12/31/2018

10)Letting

Anticipated Letting Date 12/02/2019

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form): $5,125,000.00

Enter Amount of the Noise Walls: $0.00

Total Project Cost subtract the amount of the noise walls: $5,125,000.00

Points Awarded in Previous Criteria

Cost Effectiveness $0.00

Other Attachments

File Name	Description	File Size
2040 Parks Plan.pdf	Other Supporting Documents - 2040 Parks Plan	31.3 MB
2040-TPP-Chapter-2-Strategies.pdf	Other Supporting Documents - 2040 TPP Chapter 2 Strategies	3.1 MB
2040-TPP-Chapter-7-Bike-and-Pedestrian-Investment.pdf	Other Supporting Documents - 2040 TPP Chapter 7 Bike and Pedestrian Investment	2.4 MB
BNSF Railway Email.pdf	Burlington Northern Santa Fe Coordination - Email from BNSF	42 KB
Bruce Vento - Agency Local Match Letter - RC Parks.pdf	Local Match Letter - Ramsey County Parks & Rec Agency Support	168 KB
Bruce Vento Letter of Support - Vadnais Heights.pdf	Coordination - Letter of Support Vadnais Heights	70 KB
Bruce Vento Letter of Support - White Bear Lake.pdf	Coordination - Letter of Support - White Bear Lake	406 KB
Burce Vento Letter of Support - Active Living.pdf	Coordination - Letter of Support - Ramsey County Active Living	587 KB
Burce Vento Letter of Support - Maplewood.pdf	Coordination - Letter of Support - Maplewood	580 KB
Burce Vento Letter of Support - Public Works.pdf	Coordination - Letter of Support - Ramsey County Public Works	89 KB
Burce Vento Letter of Support - White Bear Township.pdf	Coordination - Letter of Support - White Bear Township	515 KB
Lake_Links_Trail_Master_Plan.pdf	Other Supporting Documents - Lakes Link Trail Network Master Plan	30.7 MB
RC Pedestrian and Bicycle Plan.pdf	Other Supporting Documents - Ramsey County Pedestrian and Bicycle Master Plan	56.8 MB
System Plan-Bruce Vento Regional Trail.pdf	Other Supporting Documents - Bruce Vento Regional Trail System Plan	572 KB
Vento trail sheet 1 16 05-16.pdf	Maps - Bruce Vento Preliminary Design Sheet 1	3.0 MB
Vento trail sheet 10 16 05-16x.pdf	Maps - Bruce Vento Preliminary Design/Acquisition Sheet 10	521 KB
Vento trail sheet 11 16 05-16.pdf	Maps - Bruce Vento Preliminary Design/Acquisition Sheet 11	440 KB
Vento trail sheet 12 16 05-16x.pdf	Maps - Bruce Vento Preliminary Design/Acquisition Sheet 12	555 KB
Vento trail sheet 2 16 05-16.pdf	Maps - Bruce Vento Preliminary Design Sheet 2	2.9 MB

Vento trail sheet 3 16 05-16.pdf	Maps - Bruce Vento Preliminary Design Sheet 3	2.3 MB
Vento trail sheet 4 16 05-16.pdf	Maps - Bruce Vento Preliminary Design Sheet 4	3.3 MB
Vento trail sheet 5 16 05-16.pdf	Maps - Bruce Vento Preliminary Design Sheet 5	3.7 MB
Vento trail sheet 6 16 05-16.pdf	Maps - Bruce Vento Preliminary Design Sheet 6	534 KB
Vento trail sheet 7 16 05-16.pdf	Maps - Bruce Vento Preliminary Design/Acquisition Sheet 7	683 KB
Vento trail sheet 8 16 05-16.pdf	Maps - Bruce Vento Preliminary Design/Acquisition Sheet 8	881 KB
Vento trail sheet 9 16 05-16.pdf	Maps - Bruce Vento Preliminary Design/Acquisition Sheet 9	1.0 MB

Project to RBTN Orientation

Multiuse Trails and Bicycle Facilities Project: Bruce Vento Regional Trail-Buerkle Road to Highway 96 | Map ID: 1465852712478

Project
RBTN Corridor Centerlines
RBTN Tier 1 Alignment
RBTN Tier 2 Alignment
Principal Arterials
Minor Arterials
Railroads
RBTN Tier 1
RBTN Tier 2

0 0.75 1.5 3 4.5 6 Miles

Created: 6/13/2016
LandscapeRSA1

For complete disclaimer of accuracy, please visit http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

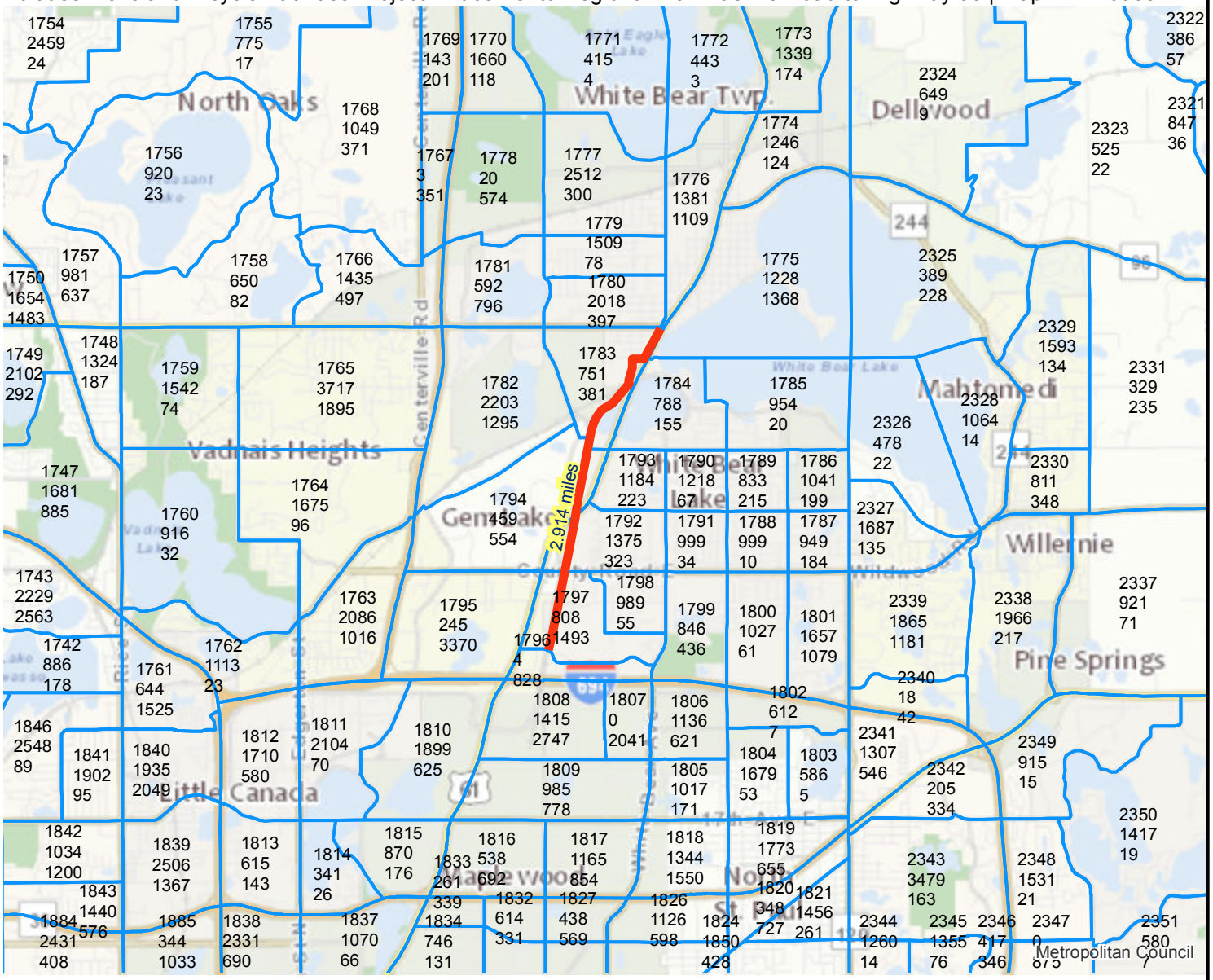
METROPOLITAN COUNCIL

Population Summary

Multiuse Trails and Bicycle Facilities Project: Bruce Vento Regional Trail-Buerkle Road to Highway 96 | Map ID: 1465852712478

Results

Within ONE Mile of project:
Total Population: 28331
Total Employment: 20309



Project

2010 TAZ

0 0.75 1.5 3 4.5 6 Miles

Created: 6/13/2016
LandscapeRSA4

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

Socio-Economic Conditions

Multiuse Trails and Bicycle Facilities Project: Bruce Vento Regional Trail-Buerkle Road to Highway 96 | Map ID: 1465852712478

Results

Project census tracts are above the regional average for population in poverty or population of color:
(0 to 18 Points)

Project

Area of Concentrated Poverty

Area of Concentrated Povertry > 50% residents of color

Above reg'l avg conc of race/poverty

0 0.75 1.5 3 4.5 6 Miles

Created: 6/13/2016
LandscapeRSA2

For complete disclaimer of accuracy, please visit http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

Yonke, Scott

From: Leibfried, Lynn M <Lynn.Leibfried@BNSF.com>
Sent: Friday, July 15, 2016 12:12 PM
To: Yonke, Scott
Cc: Roger Schwinghammer; Kalinosky, Kate Beth; Swanson, Kristopher
Subject: Bruce Vento trail

Scott,
BNSF acknowledges that it appears we will be able to come to an agreement on the design of the trail. We are not able to offer a letter of support at this time. We typically don't allow trails on our property, so we are making an exception in this case, based on certain design criteria being met.
Lynn

Lynn Leibfried, P.E
Assistant Director Public Projects
BNSF Railway

July 15, 2016

Elaine Koutsoukos
TAB Coordinator
Transportation Advisory Board
390 North Roberts St
St. Paul, MN 55101

RE: 2016 Regional Solicitation for Bicycle and Pedestrian Facilities – Multi-Use Trail and Bicycle Facilities
Bruce Vento Regional Trail - Buerkle Road to Highway 96

Dear Ms. Koutsoukos:

Ramsey County Parks and Recreation Department (RPCRD) is excited about the opportunity to submit the 2016 Regional Solicitation Application for funding to extend the Bruce Vento Regional Trail from Buerkle Road to Highway 96 in White Bear Lake. The project is being submitted in the Multi-Use Trails and Bicycle Facilities Category.

RCPRD is committed to providing the local match; and operation and maintenance of the Bruce Vento Regional Trail from Buerkle Road to Highway 96 in White Bear Lake. Local match funds are anticipated to be provided through Fiscal Year 2018 and 2019 Legacy Amendment Parks and Trail Fund to complete final construction documents, project memorandum documents, and local match for construction. It is anticipated this funding would be available in late 2017 to start the final design process and information studies required for the project memorandum.

The proposed improvements will allow for a safe multi-use trail/bicycle facility in addition to providing critical connections to the Highway 96 regional trail, South Shore Trail, and Lake Avenue Trail, and will also set the stage for future connections north of Highway 96 to County Road J for future connection to the Hardwood Creek Trail, and coordination with US Bicycle Route 41 to the Canadian border. This is a major step to provide increased opportunities for multiuse trails and bicycle facilities within the northern communities of Ramsey County.

Enclosed are the required materials for the 2016 Regional Solicitation Application. If you have any questions or require additional information please do not hesitate to call me at 651-363-3786 or scott.yonke@co.ramsey.mn.us.

Scott Yonke, ASLA, PLA | Director of Planning and Development
Ramsey County Parks and Recreation Department
2015 Van Dyke Street
Maplewood, MN 55109-3796
651-363-3786
www.co.ramsey.mn.us

July 22, 2016

Scott Yonke, Planning Director
Ramsey County Parks and Recreation
2015 N. Van Dyke Street
Maplewood, MN 55109-3796

RE: 2016 Regional Solicitation – Multiuse Trail and Bicycle Facilities
Bruce Vento Regional Trail – Buerkle Road to Highway 96

Dear Mr. Yonke:

This letter is to share the City of Vadnais Heights' support for Ramsey County Parks and Recreation's plan to extend the Bruce Vento Regional Trail from Buerkle Road to Highway 96 along the border of Vadnais Heights and White Bear Lake. We encourage the selection committee to strongly consider this project for Multiuse Trail and Bicycle Funds.

The Bruce Vento Regional Trail has been a highly popular multiuse trail corridor for Ramsey County residents for years since development of the Trail Master Plan in 1993. The trail corridor is 13 miles in length, and extends from the east side of downtown St. Paul to the north County line in White Bear Township. The final segment of the southern seven miles of regional trail was completed in 2005 on former Burlington Northern Santa Fe (BNSF) railway ending at Buerkle Road at our border with White Bear Lake. The remaining north six miles of trail was planned to be constructed on the north BNSF railway segment to the County line when this segment of railway is abandoned. The north six miles of trail has remained undeveloped for years, and is a critical trail gap for the northern communities of Ramsey County.

A major planning effort was initiated in 2014 to find an alternative trail alignment out of railway right of way in hopes of finishing the six mile trail gap. As a result of this planning effort, a three-mile extension of the Bruce Vento Regional Trail has been planned from Buerkle Road to Highway 96. This is a major step to provide increased opportunities for bicycle and pedestrian travel within the communities of White Bear Lake, Maplewood, Vadnais Heights, Gem Lake and White Bear Township. In addition, this project will provide a connection to the Highway 96 Regional Trail, Lake Avenue Trail and South Shore Trail. This will allow our residents to more readily access other regional trails too, such as the Gateway Trail. There are discussions in progress to include the Bruce Vento Regional Trail as part of United States Bicycle Route 41 from St. Paul to the Canadian border.

This trail will provide a critical segment in a complex regional trail system linking Vadnais Heights, Maplewood, White Bear Lake, Gem Lake and White Bear Township. It will also link Ramsey and Washington County, the Twin Cities region and the State. We are contacted weekly by pedestrians and bicyclists seeking more trails, so we hope this project moves forward. Please let me know if we may provide additional support for this project.

Sincerely,

Kevin Watson, Vadnais Heights City Administrator

City of White Bear Lake

4701 Highway 61 • White Bear Lake, Minnesota 55110
Phone (651) 429-8526 • Fax (651) 429-8500
www.whitebearlake.org

July 13, 2016

Scott Yonke, Director of Planning and Development
Ramsey County Parks and Recreation
2015 N. Van Dyke Street
Maplewood, MN 55109-3796

RE: 2016 Regional Solicitation – Multiuse Trail and Bicycle Facilities
Bruce Vento Regional Trail – Buerkle Road to Highway 96

Dear Mr. Yonke:

This letter is to share our support for Ramsey County Parks and Recreation's plan to extend the Bruce Vento Regional Trail from Buerkle Road to Highway 96 in the City of White Bear Lake. The selection committee should strongly consider this project for Multiuse Trail and Bicycle Funds.

The Bruce Vento Regional Trail corridor has been a highly popular multiuse trail corridor for Ramsey County residents for years since the development of the Bruce Vento Regional Trail Master Plan in 1993. The trail corridor is 13 miles in length, and extends from the east side of downtown St. Paul to the north County line in White Bear Township. The final segment of the southern 7 miles of regional trail was completed in 2005 on former Burlington Northern Santa Fe (BNSF) railway ending at Buerkle Road in White Bear Lake. The remaining north 6 miles of trail was planned to be constructed on the north BNSF railway segment to the County line when this segment of railway is abandoned. The north 6 miles of trail has remained undeveloped for years, and is a critical trail gap for the northern communities of Ramsey County. At this time, it is undetermined when, or if, the north BNSF railway corridor will be abandoned.

A major planning effort was initiated in 2014 to find an alternative trail alignment outside of the railway right-of-way in hopes to begin to fill the north 6 mile trail gap. As a result of this planning effort, a three-mile extension of the Bruce Vento Regional Trail has been planned from Buerkle Road to Highway 96. This is a major step to provide increased opportunities for bicycle and pedestrian travel within the communities of the City of White Bear Lake's western boundary and in sections of Maplewood, Vadnais Heights, Gem Lake and White Bear Township. In addition, this project will provide a connection to the Highway 96 Regional Trail, Lake Avenue Trail and South Shore Trail. There are also discussions in progress to include the Bruce Vento Regional Trail as part of United States Bicycle Route 41 from St. Paul to the Canadian border.

The proposed trail improvement project is extremely important to the County and Regional system and helps create a connected and safe regional recreation and transportation bicycle and pedestrian system. Walking and biking are two of the most popular recreational activities in Minnesota and this trail will provide a critical segment in a complex regional trail system linking areas throughout Ramsey County, Washington County, the region and the State.

Sincerely,

Ellen Richter
City Manager

Active Living
Ramsey Communities

June 16, 2016

Scott Yonke, Director of Planning and Development
Ramsey County Parks and Recreation
2015 N. Van Dyke Street
Maplewood, MN 55109-3796

RE: 2016 Regional Solicitation – Multiuse Trail and Bicycle Facilities
Bruce Vento Regional Trail – Buerkle Road to Highway 96

Dear Scott Yonke:

This letter is to share with you our strong support for Ramsey County Parks and Recreation's plan to extend the Bruce Vento Regional Trail from Buerkle Road to Highway 96 in the City of White Bear Lake. The selection committee ought to place high priority on and fund this project through the Multiuse Trail and Bicycle Funds.

The Bruce Vento Regional Trail is a major-regional and extremely-popular multiuse trail corridor for Ramsey County residents and others in the region for years since the development of the Bruce Vento Regional Trail Master Plan in 1993. This important trail corridor is 13 miles in length. It extends from the east side of downtown St. Paul, where there is a high level of concentrated poverty, to the north County line in White Bear Township. The final segment of the southern seven miles of regional trail was completed in 2005 on former Burlington Northern Santa Fe (BNSF) railway ending at Buerkle Road in White Bear Lake. The remaining north six miles of trail was planned to be constructed on the north BNSF railway segment to the County line when this segment of railway is abandoned. The north six miles of trail has remained undeveloped for years, and is a critical trail gap in the northern communities of Ramsey County. At this time, it is undetermined when, or if, the north BNSF railway corridor will be abandoned.

With the encouragement of stakeholders, a major planning effort was initiated in 2014 to find an alternative trail alignment out of railway right of way in hopes to begin to fill the north six mile trail gap. As a result of this planning effort, a three-mile extension of the Bruce Vento Regional Trail has been planned from Buerkle Road to Highway 96. This is a major step to provide increased opportunities for bicycle and pedestrian travel within the communities of the City of White Bear Lake's western boundary and in sections of Maplewood, Vadnais Heights, Gem Lake and White Bear Township as well as throughout the region. In addition, this project will provide a connection to the Highway 96 Regional Trail, Lake Avenue Trail and South Shore Trail. There are discussion in progress to include the Bruce Vento Regional Trail as part of United States Bicycle Route 41 from St. Paul to the Canadian border.

This trail improvement project is extremely important to the County and Regional system and helps create a connected and safe regional recreation and transportation bicycle and pedestrian system for all ages and abilities. Walking and biking are two of the most popular recreational activities in Minnesota and this trail will provide a critical segment in the regional trail system plan linking areas throughout Ramsey County, Washington County, the region and the State.

Sincerely,

Connie Bernardy

Connie Bernardy
Active Living Ramsey Communities Director
2015 North Van Dyke
Maplewood, MN 55109-3796

MAPLEWOOD

Together We Can

July 15, 2016

Scott Yonke, Director of Planning and Development
Ramsey County Parks and Recreation
2015 N. Van Dyke Street
Maplewood, MN 55109-3796

RE: 2016 Regional Solicitation – Multiuse Trail and Bicycle Facilities
Bruce Vento Regional Trail – Buerkle Road to Highway 96

Dear Mr. Yonke:

This letter is to share the City of Maplewood's support for Ramsey County Parks and Recreation's plan to extend the Bruce Vento Regional Trail from Buerkle Road to Highway 96 in the City of White Bear Lake. The selection committee should strongly consider this project for Multiuse Trail and Bicycle Funds.

The Bruce Vento Regional Trail has been a highly popular multiuse trail corridor for Ramsey County residents for years since the development of the Bruce Vento Regional Trail Master Plan in 1993. The trail corridor is 13 miles in length, and extends from the east side of downtown St. Paul to the north County line in White Bear Township. The final segment of the southern 7 miles of regional trail was completed in 2005 on former Burlington Northern Santa Fe (BNSF) railway ending at Buerkle Road in White Bear Lake. The remaining north 6 miles of trail was planned to be constructed on the north BNSF railway segment to the County line after the segment of railway was abandoned. The north 6 miles of trail has remained undeveloped for years, and is a critical trail gap for the northern communities of Ramsey County. At this time, it is undetermined when, or if, the north BNSF railway corridor will be abandoned.

A major planning effort was initiated in 2014 to find an alternative trail alignment out of railway right of way in hopes to begin to fill the north 6 mile trail gap. As a result of this planning effort, a three-mile extension of the Bruce Vento Regional Trail has been planned from Buerkle Road to Highway 96. This is a major step to provide increased opportunities for bicycle and pedestrian travel within the communities of the City of White Bear Lake's western boundary and in sections of Maplewood, Vadnais Heights, Gem Lake and White Bear Township. In addition, this project will provide a connection to the Highway 96 Regional Trail, Lake Avenue Trail and South Shore Trail.

The proposed trail improvement project is extremely important to the County and Regional system. It will help create a connected and safe regional recreation and transportation system for bicyclists and pedestrians. Walking and biking are two of the most popular recreational activities in Minnesota and this trail will provide a critical segment in a complex regional trail system linking areas throughout Ramsey County, Washington County, the region, and the State.

Sincerely,

Steven W. Love, P.E., P.L.S.
City Engineer / Deputy Public Works Director
City of Maplewood

RAMSEY COUNTY
Public Works

July 14, 2016

Scott Yonke, Director of Planning and Development
Ramsey County Parks and Recreation
2015 N. Van Dyke Street
Maplewood, MN 55109-3796

2016 Regional Solicitation – Multiuse Trail and Bicycle Facilities- Bruce Vento Regional Trail – Buerkle Road to Highway 96

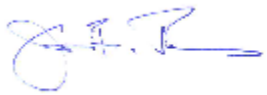
Dear Mr. Yonke:

This letter is to share our support for Ramsey County Parks and Recreation's plan to extend the Bruce Vento Regional Trail from Buerkle Road to Highway 96 in the City of White Bear Lake. The selection committee should strongly consider this project for Multiuse Trail and Bicycle Funds.

The popularity of the segments of the Vento Trail that are currently in operation demonstrate the need for this extension. This project will provide critical connections to the City of White Bear Lake, Highway 96 Regional Trail, South Shore Trail, Lake Avenue Trail, as well as setting the stage for future connections to the Hardwood Creek Trail and coordination with US Bicycle Route 41to the Canadian border.

The proposed trail improvement project is extremely important to the County and Regional system and helps create a connected and safe regional recreation and transportation bicycle and pedestrian system. Walking and biking are two of the most popular recreational activities in Minnesota and this trail will provide a critical segment in a complex regional trail system linking areas throughout Ramsey County, Washington County, the region and the State.

Sincerely,



Director of Public Works/County Engineer

1425 Paul Kirkwold Drive
Arden Hills, MN 55112
Phone: (651) 266-7100
www.co.ramsey.mn.us

WHITE BEAR TOWNSHIP
1858
RAMSEY COUNTY
MINNESOTA

1281 HAMMOND ROAD
WHITE BEAR TOWNSHIP, MN 55110

651-747-2750
FAX 651-426-2258
Email: wbt@ci.white-bear-township.mn.us

July 15, 2016

Scott Yonke, Director of Planning and Development
Ramsey County Parks and Recreation
2015 N. Van Dyke Street
Maplewood, MN 55109-3796

RE: 2016 Regional Solicitation – Multiuse Trail and Bicycle Facilities
Bruce Vento Regional Trail – Buerkle Road to Highway 96

Dear Mr. Yonke:

This letter is to share our support for Ramsey County Parks and Recreation's plan to extend the Bruce Vento Regional Trail from Buerkle Road to Highway 96 in the City of White Bear Lake. The selection committee should strongly consider this project for Multiuse Trail and Bicycle Funds.

The Bruce Vento Regional Trail has been a highly popular multiuse trail corridor for Ramsey County residents for years since the development of the Bruce Vento Regional Trail Master Plan in 1993. The trail corridor is 13 miles in length, and extends from the east side of downtown St. Paul to the north County line in White Bear Township. The final segment of the southern 7 miles of regional trail was completed in 2005 on former Burlington Northern Santa Fe (BNSF) railway ending at Buerkle Road in White Bear Lake. The remaining north 6 miles of trail was planned to be constructed on the north BNSF railway segment to the County line when this segment of railway is abandoned. The north 6 miles of trail has remained undeveloped for years, and is a critical trail gap for the northern communities of Ramsey County. At this time, it is undetermined when, or if, the north BNSF railway corridor will be abandoned.

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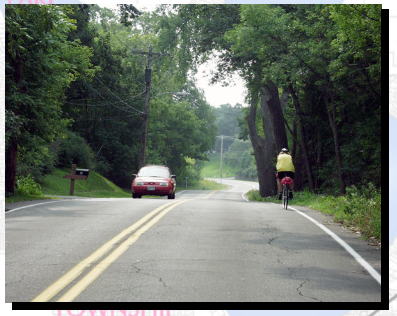
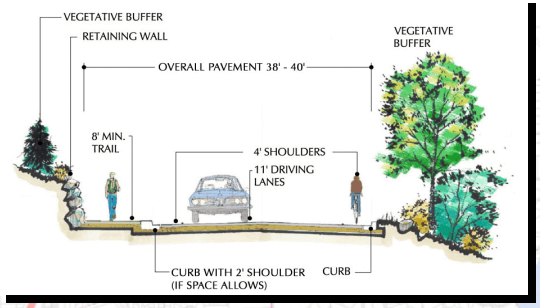
The proposed trail improvement project is extremely important to the County and Regional system and helps create a connected and safe regional recreation and transportation bicycle and pedestrian system. Walking and biking are two of the most popular recreational activities in Minnesota and this trail will

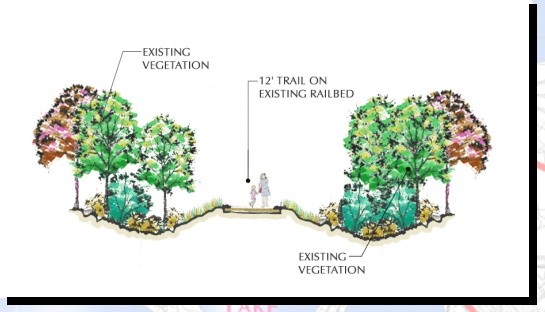
provide a critical segment in a complex regional trail system linking areas throughout Ramsey County, Washington County, the region and the State.

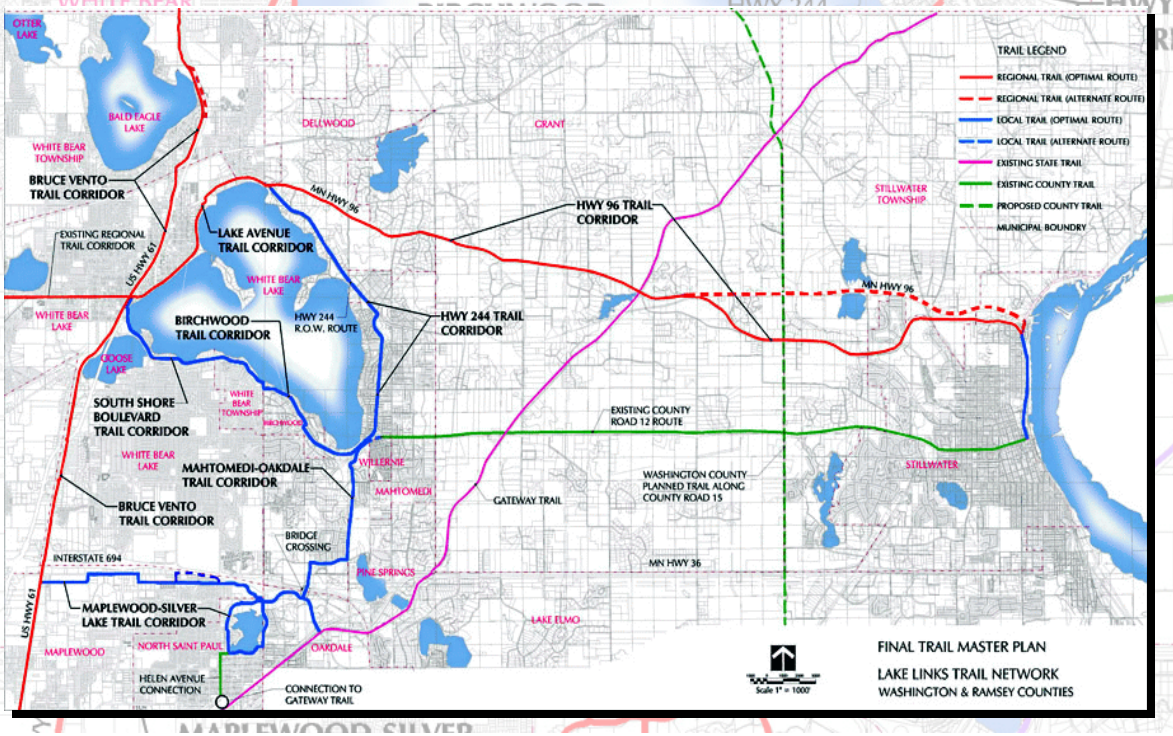
Sincerely,

WILLIAM F. SHORT
Town Clerk-Treasurer









Lake Links Trail Network Master Plan

Prepared For:

Washington County Parks

Ramsey County Parks

January 1, 2001

Prepared By:

Brauer & Associates, Ltd.

Acknowledgments

Overview

In February, 2000, Washington and Ramsey County Parks Departments retained Brauer & Associates, Ltd. to work with a Citizens Advisory Committee and Technical Advisory Committee to complete a comprehensive study for the Lake Links Trail Network. This document represents the culmination of the project, which was completed in January, 2001.

Acknowledgments

The planning team would like to thank the Washington and Ramsey County staffs for providing their insights and understanding of the concerns and issues facing this project. We would also like to thank the many individuals who participated as members of the two committees listed below. Their individual and collective insights were instrumental in drawing conclusions that both made sense and had a reasonable chance of being implementable. Their enthusiasm for the project and belief that the trail network would add value to the lives of people living in the study area kept the planning team motivated to the very end.

The planning team also extends a heartfelt thank you to the many people throughout the study area who took the time to attend meetings, write letters, make phone calls, and even bring us into their homes so that we could understand the issues first hand and find solutions that seemed reasonable and workable. It is our belief that maintaining an open dialogue with members of the broader community was the only possible way that retrofitting a trail into established communities would have any chance of being successful.

Finally, our appreciation is extended to the State legislators who sponsored the grant for this study. Their appreciation of the past citizen-driven planning efforts set the stage for this study to be undertaken.

State Legislators Sponsoring the Project

Minnesota Senate:	The Honorable Chuck Wiger	
Minnesota House of Representatives:	The Honorable Harry Mares	The Honorable Betty McCollum

Citizens Advisory Committee

Dorian Grilley, Chair

Rick Brandon	Elmer Strohmeier	David Chase	Bill Rasmussen	Marianne Oie	Polly Shank
Tim Agness	Theresa Hegland	Tom Dwight	Claudette Munson	Pat Bantli	Jerry Lindquist
Lydia Crawford	Linda Ford	Charles Burfeind	Dennis Hoelscher	Neil Franey	John Hall
Bob Nuffort					

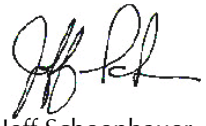
Technical Advisory Committee

Bruce Anderson	Rich McNamera	Jim Robinson	Tom Riedesel	David Vail	Steve Roe
Ron Hance	Laurie McRostie	Jon Hohenstein	Keith Arboleda	Barbara Parent	Sue Fitzgerald
Jerry M. Hicks	Jay Kennedy	Marc Goess	Susan Willhite		

Washington and Ramsey County Staff

James Luger, Parks Director, Washington County Parks
Greg Mack, Parks Director, Ramsey County Parks
John Elholm, Operations Coordinator/Parks Planner, Washington County Parks
Larry Holmberg, Supervisor of Planning and Development, Ramsey County Parks

Sincerely,
BRAUER & ASSOCIATES, LTD.



Jeff Schoenbauer

Consultant Team

Brauer & Associates, Ltd.
10417 Excelsior Boulevard, Suite 1
Hopkins, MN 55343
(952) 238-0831

Jeff Schoenbauer, Vice President, Principle-In-Charge
George Watson, President
Tim Wold, LA
Candace Amberg, RLA
Jason Amberg, RLA

WSB & Associates, Inc.
350 Westwood Lake Office
8441 Wayzata Boulevard
Minneapolis, MN 55426

Jay Kennedy, PE
Mark Erichson, PE

Lake State Realty Services, Inc.
2140 Otter Lake Drive
White Bear Lake, MN 55110

Julie Jeffery-Schwartz, Certified General Appraiser
Paul Schwartz

Table of Contents

Summary Statement

Statement Overview

The summary statement captures the key points of the Lake Links Trail Network Master Plan as succinctly as possible. Inherently, the summary will not address many of the details of the plan. As such, for a more comprehensive understanding of the planning process and findings, it is recommended that the master plan report be reviewed. Copies of the master plan are available at the city offices of all of the cities, townships, and counties involved in the study.

Section I - Introduction and Planning Framework

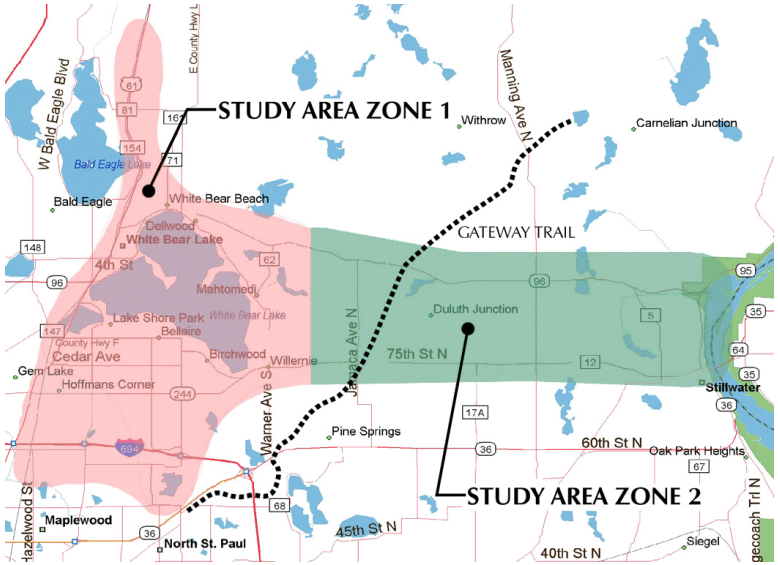
The project focused on the preparation of a comprehensive master plan for Lake Links Trail Network in Washington and Ramsey County.

The project focused on the creation of a comprehensive master plan for Lake Links Trail Network in Washington and Ramsey Counties. Funded through a state grant, the purpose of the project was to cooperatively develop a master plan for the study area, which included:

- A trail loop around White Bear Lake.
- A trail loop around Silver Lake.
- Extension of the Bruce Vento Trail from Maplewood to the Hugo trail system.
- Trail links between each of the above and to the Gateway Trail and Stillwater trail system.

The following figure illustrates the study area for the project.

Study area map.



History and Rationale for Undertaking the Project

This study was a direct outgrowth of years of citizen-led planning initiatives focusing on the development of a comprehensive trail system within the study area.

From a historical perspective, this study was a direct outgrowth of years of citizen-led planning initiatives focusing on the development of a comprehensive trail system within the study area. Whether at the local or regional level, the primary rationale behind past planning initiatives was fairly straightforward: An interlinking trail system within and between local communities was thought to offer outstanding recreational potential and would be of high community value. An equally compelling reason behind these past initiatives was the desire for a comprehensive trail system that would alleviate the unsafe conditions now found for pedestrians and bicyclists within the study area. For these reasons, the State legislature responded to citizen advocacy by sponsoring a grant to develop a comprehensive master plan for the Lake Links Trail Network, with the intent being to determine if the vision of a linked trail system was in fact achievable given the inherent constraints within the study area.

Project Oversight

To support the planning initiative, a Citizens Advisory Committee (CAC) and Technical Advisory Committee (TAC) were formed.

At the agency level, Washington and Ramsey Counties shared responsibility for overseeing the planning process and ensuring that the requirements of the grant were fulfilled. To support the planning initiative, a Citizens Advisory Committee (CAC) and Technical Advisory Committee (TAC) were formed. The former consisted of citizens from each of the local municipalities and townships who were responsible for overseeing the planning process and working with the planning team on determining the most appropriate trail routes within the context of the inherent physical constraints and varying public opinion.

Public Involvement

A great deal of emphasis was placed on working with local communities and townships to define local planning issues and determine which trail route options were viable.

Given the inherently difficult nature of retrofitting a trail into developed or settled communities, a great deal of emphasis was placed on working with local communities and townships to define local planning issues and determine which trail route options were viable. The public process included a number of steps to ensure that each community had an opportunity to participate and to ensure that planning outcomes were underpinned by an understanding of the local circumstances. In many cases, the public input process was literally taken down to the individual level to gain a first-hand understanding of the impact that the various routing scenarios would have on private property.

Property Acquisition Approach

One of the important factors affecting the ultimate location of the trail corridors was the use of a “willing seller” approach by Washington and Ramsey Counties for acquiring property for stand-alone trail corridors. Under this approach, potential trail corridors that traverse extensive areas of privately-owned property, such as some of the old railroad corridors, pose major challenges for land acquisition and in the end greatly affected the trails plan. In cases where the trail follows existing road rights-of-way, the willing seller approach translates into trying to stay within the existing right-of-way wherever possible to minimize the need to acquire property.

Acquisition of additional rights-of-way will be required in some areas to accommodate roadway upgrades and trail construction.

Note, however, that given the eclectic nature of the rights-of-way throughout the study area, acquisition of additional rights-of-way will be required in some areas to accommodate roadway upgrades and trail construction. In most of these situations, right-of-way acquisition is driven largely by roadway construction requirements for grading, stormwater management, and so forth. In these instances, the trail would be placed in the rights-of-way already required for upgrading the roadway.

Section II – Community Value Statement

The community value statement essentially defines the benefits that a comprehensive trail network would bring to residents living within the surrounding region relative to its potential impacts across a number of variables, ranging from safety and crime to property values and loss of privacy. Taken as a whole, the community value statement defines whether or not the perceived benefits of the trail outweigh perceived impacts to justify its development. The following statement summarizes these findings.

Community Value Statement

Recreational trends suggest that trail activities are the highest ranked recreational pursuits in this metropolitan region, far outpacing most other forms of recreation.

With respect to the overall benefits of a comprehensive trail network, research suggests that trails offer a very high degree of community value by providing the type of recreational amenity that the majority of the population would actually use and like to have available near their home. As defined in the master plan, recreational trends suggest that trail activities are the highest ranked recreational pursuits in this metropolitan region, far outpacing most other forms of recreation. In addition, the improved safety for pedestrians and bicyclists as they travel along the proposed trail corridors is a value that some would argue is more important than that of the recreational experience. The community value statement is strengthened by evidence that suggests that potential down sides, like crime, trespassing, and littering, generally do not manifest themselves to any great degree. Based on the information presented in the master plan and that which was garnered from local public meetings and in-field interviews during the planning process, it seems quite evident that the community value of the trail network being proposed would be very high. This assumes that the personal values and issues defined by the residents and adjoining property owners can be effectively addressed.

It seems quite evident that the community value of the trail network being proposed would be very high.

General Summary of Public Input

From an overall perspective, those that participated in the public process express a general belief that the trail network plan would indeed offer high community value.

As noted previously, a great deal of emphasis was placed on working with the local communities and townships to define local planning issues and determine which trail route options were viable and which were not. From an overall perspective, those attending the public meetings held at the local level, and those providing input through phone calls and letters, express a general belief that the trail network plan would indeed offer high community value. Although not everyone would agree, this also seems to hold true for those that own property next to one of the corridors and are therefore most directly affected by the master plan. Under the assumption that there is general support for the trail network within the study area, the concern shifts toward defining, in good faith, ways in which the personal concerns of individual property owners can be addressed to diminish their level of uncertainty as to the impact a given trail will have on their personal property and quality of life. As part of the public consensus building for the trail network, local residents helped establish a set of expectations that they have about how the trail master plan would be implemented. Expectations include:

Local residents helped establish a set of expectations that they have about how the trail master plan would be implemented.

- Property owners affected by the trail network will be given a reasonable opportunity to participate in the design process to ensure that their interests and concerns are dealt with in a responsible and forthright manner.
- Encroachment and direct Impact to private property will be minimized to the degree possible.
- Trail and roadway designs should be based on the principle of providing a safe environment for the pedestrian, bicyclist, and the driver of a motor vehicle.
- Aesthetic qualities and sense of place within the study area will be maintained or enhanced
- Master plan presented here should be used to define the key issues associated with each trail corridor and the expectations of those most impacted by trail development.

The last point is of considerable importance in that many of those that accept the master plan do so with the understanding that the planning agencies responsible for implementing the plan will adhere to these expectations and carry the good faith that has been built up thus far into and through the actual implementation process.

CAC Community Value Conclusions

The CAC came to the conclusion that the overall value of the trail network justifies its development.

In consideration of the findings defined in the master plan, the CAC came to the conclusion that the overall value of the trail network justifies its development and that the routes ultimately selected for inclusion in the master plan are those that offer the greatest community value with the fewest impacts to private properties and personal interests. Whereas there were alternative routes that offered outstanding trail opportunities, the ones ultimately selected were those that were thought to serve the need while still being reasonable and practical to implement, everything considered. Other conclusions related to the overall community value of the trail network include the following:

- Demand for trails is well established and will likely continue to grow in the future.
- Past citizen-driven planning efforts and public input during this study suggest that an integrated trail network in the study area would offer high community values.
- In-field observations suggests that trail routes defined by the master plan are already being used by pedestrians and bicyclists even though no formal trail exists.
- Public safety remains a major concern and is a significant factor in the selection of the trail routes.

Developing a viable master plan that is implementable requires an understanding of, and empathy for, the concerns of those most affected.

Whereas the community values as defined above suggest that a looped trail network would be of high community value, developing a viable master plan that is implementable requires an understanding of, and empathy for, the concerns of those most affected. Whereas the community values of the trail network are pronounced, the CAC also recognized that inevitably every trail alignment affects private properties and personal values to varying degrees. In light of this, the CAC was committed to working toward minimizing the direct impacts to private properties to the degree possible. In addition, the CAC asked the planning team to define the expressed concerns and opinions of property owners and to determine their expectations related to the trail alignment and character along each proposed corridor to ensure that those considerations were brought forward to the point of implementation. Forthcoming sections of the report considers these issues in greater detail and defines the development issues and constraints that need to be addressed as part of the implementation phase of the project.

Section III – Trail Network Master Plan

The final plan represents a network of trails that fulfill the objectives set for the study.

The trail network consists of eight trail corridors, which tie into several existing or planned corridors at the State, regional, and county level.

Total trail mileage is 34.1.

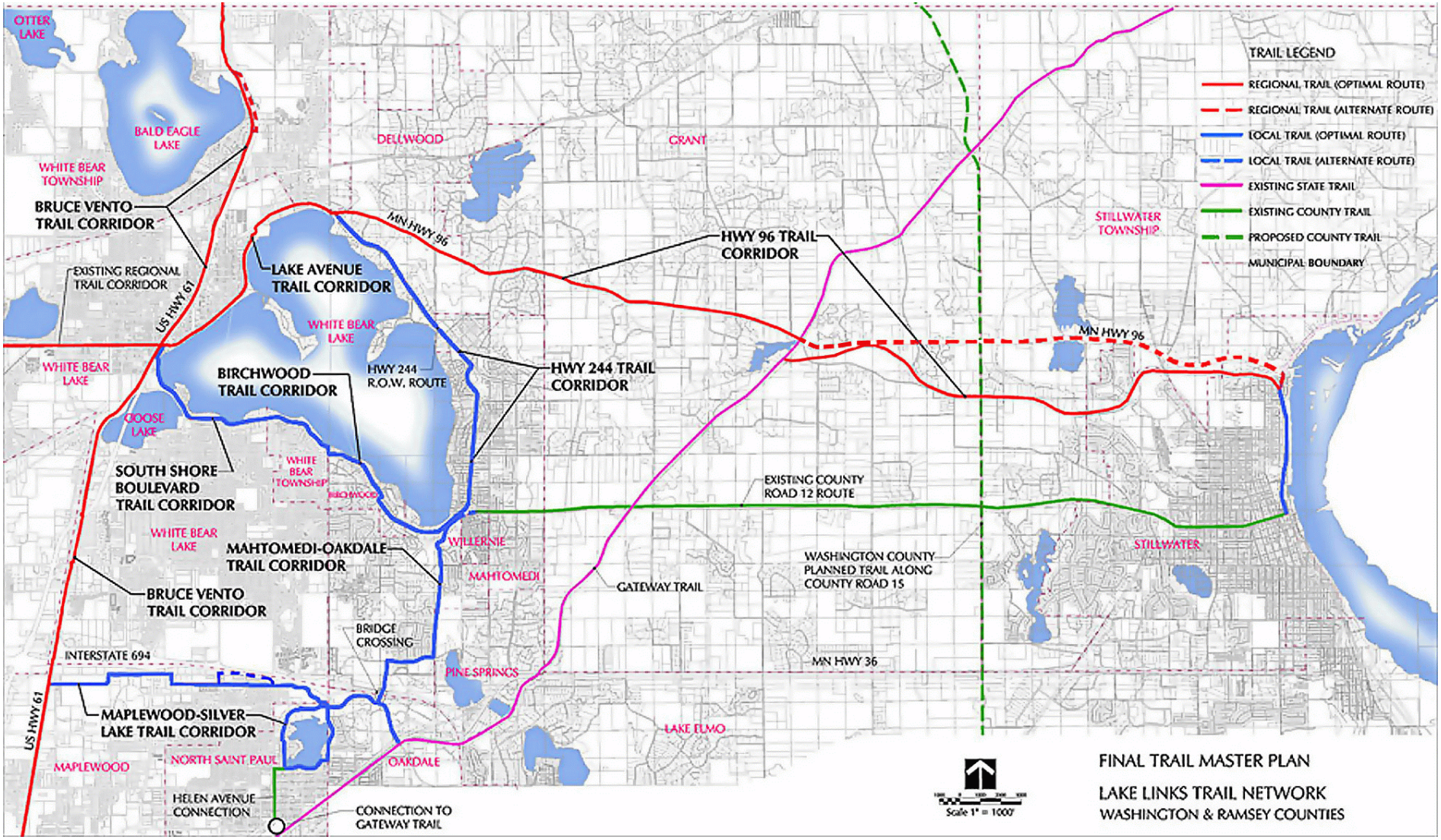
The trail network master plan is the end result of the planning and public process. The final plan represents a network of trails that fulfill the objectives set for the study. The master plan also represents a trail network that was molded as much by the limitations of the planning area as it was by the opportunities it offered. In spite of the challenges, it is believed that the trail network presented here offers very high recreational value to the surrounding communities and greatly improves pedestrian safety along the trail corridors.

The trail network consists of eight trail corridors, which tie into several existing or planned corridors at the State, regional, and county level. In addition, the trail network interlinks with a series of existing and planned local trails that, ultimately, will provide a seamless and expansive system of trails within the study area. The following table provides an overview of the trail corridors defined under the master plan. *Total trail mileage is 34.1*.

Trail Corridor	Description
Bruce Vento Trail Corridor (7.3 miles)	North-south regional trail that extends the existing trail from Beam Avenue in Maplewood north into Hugo, where it will continue on to link with other regional-level trails. The corridor generally follows the Burlington Northern railroad alignment, as well as existing adjacent roadways.
Lake Avenue Trail Corridor (2.1 miles)	Regional trail corridor that follows an existing trail corridor from Lions Park north along Lake Avenue on the west side of White Bear Lake in the City of White Bear Lake.
Hwy. 96 Trail Corridor (10.3 miles)	Regional trail corridor that follows the Hwy. 96/Zephyr Line rights-of-way from Ramsey Beach all the way to Stillwater.
Hwy. 244 Trail Corridor (3.5 miles)	Trail corridor that follows the Hwy. 244 right-of-way from Hwy. 96 south to the downtown area of Mahtomedi and Willernie.
Birchwood Trail Corridor (1.7 miles)	Trail corridor that follows Wildwood and Lake Avenues through the City of Birchwood. Given limited road right-of-way through this area, an on-street bike route is proposed for this segment.
South Shore Blvd. Trail Corridor (1.5 miles)	Trail corridor that follows South Shore Blvd. from East County Line to Goose Lake area.
Mahtomedi-Oakdale Trail Corridor (3.1 Miles)	Trail corridor that starts in downtown Mahtomedi and heads south to connect with an existing trail in Oakdale. This corridor includes a proposed pedestrian bridge across I-694.
Maplewood- Silver Lake Trail Corridor (4.6 Miles)	Trail corridor that provides a loop around Silver Lake and then heads west along the northern edge of Maplewood following a powerline easement and local streets to make a connection with the Bruce Vento trail corridor.

The map on the next page provides an overview of the Lake Links Trail Network.

Overall Trail Network Master Plan Map



When considered against the evaluation criteria, it is clear that the Lake Links Trail Network measures up very well and that an interlinking trail system would offer high regional and local values.

Trail Network Evaluation Against Stated Criteria

A set of evaluation criteria were applied to the master plan to provide an objective framework for evaluating potential trail routing options. The following briefly summarizes the evaluation of the overall trail network against those criteria.

Evaluation Summary – First Tier Criteria

Criteria	Evaluation Statement
Regional Values	The trail network offers significant regional values, especially by providing: ▸ An interconnection between existing regional and State trail corridors and between local communities. ▸ A new regional-level recreational amenity that provides a new system of interconnected trails that allows trail users to travel through several communities.
Local Values	Trail network offers significant value to the local communities in a number of ways, including: ▸ Providing a safe place for pedestrians and bicyclists to walk, ride bikes, and in-line skate. ▸ Providing high demand recreational amenities for local residents to use and enjoy. ▸ Expanding local trail options beyond the local community to create a larger, more complete system.
User Experience Values	The trail network around the two lakes offers high recreational value in very desirable settings. Expanding the regionally-based trail system through the creation of the Lake Links Network also provides extensive recreational value by greatly expanding trail options offering a vast array of settings and lengths.

Evaluation Criteria – Second Tier

Criteria	Evaluation Statement
Natural Setting	Even though the proposed trail corridors follow existing road and railroad rights-of-way, the lakes they encircle along with interconnections made with regional parks and local parks/natural open space areas offer high aesthetic and recreational value.
Separated Trail	With a few exceptions, the Lake Links Trail network consists of separated trails that greatly improve user safety and enhance the recreational experience.
Natural Resource Issues	Since virtually all of the trail corridors follow existing road and railroad right-of-way, the direct impact to natural areas is relatively minimal. Although trail construction (and roadway upgrades) will have some impact to adjacent wetlands and natural vegetation in select locations along Hwy. 96 and Hwy. 244, this can be kept to a minimum and any impacts would be appropriately mitigated.
Acquisition Issues	Since the trail corridors generally stay within existing road and railroad rights-of-way, acquisition of private properties is relatively minimal and generally limited to instances where the right-of-way is simply too narrow for trail (and roadway) upgrading occur.
Physical Constraints	Although impediments exist, the inherent physical constraints along the proposed corridors are surmountable and technically feasible to overcome.

Encroachment Issues	Minimizing the level of encroachment into adjacent properties and keeping the trail/roadway cross-section as narrow as possible within the right-of-way is a fundamental objective of the master plan and of critical importance to affected property owners.
Cost-Benefit	Given the high demand for trails in the region, along with the high recreational value and improved safety that these trails would provide to the surrounding communities, the long-term cost-benefit of Lake Links Trail Network appears justifiable.

Evaluation Criteria – Third Tier

Criteria	Evaluation Statement
Public and Political Acceptance	Based on the results of the public process, there is a general consensus that the trail network would offer high community value. However, there is also an expectation that the implementation of the trail would be done with sensitivity toward minimizing impacts to adjacent properties and maintaining the character of the corridors it follows. Acceptance of the plan is also based on the expectation that local communities will be directly involved in the implementation process and that local citizens will have an opportunity to participate in the detail design of the trail (and roadways) in their community.

When considered against the evaluation criteria, it is clear that the Lake Links Trail Network measures up very well and that an interlinking trail system would offer high regional and local values. In addition, the evaluation statements suggest that while technical and public/political issues remain to be fully addressed as part of implementing the plan, the actual development of the trail network seems very feasible

Regional and Local Designations

Two of the corridors included under the Lake Links Trail Network are designated as regional trails: The Bruce Vento trail corridor and the Hwy. 96 trail corridor.

Whereas the trail network master plan serves to form a cohesive system of trails within the study area, there is a distinction between trail corridors that are locally-based and those that are regionally-based. As the trail network map illustrates, two of the corridors included under the Lake Links Trail Network are designated as regional trails: The Bruce Vento trail corridor and the Hwy. 96 trail corridor. These trails are given regional designation because they meet the criteria as defined by Regional Recreation Open Space Policy Plan Update. This includes:

- Providing access to or traverse through regional parks or park reserves and serve to link these parks together.
- Providing linkages between existing regional and state trails.
- Traversing interesting developed areas.
- Traversing high quality natural areas.

The remaining trails within the network are defined as local-level trails.

The remaining trails within the network are defined as local-level trails (city, township, and county), whereby their focus is on meeting local trail needs and providing connections to the regional and state trails. From an implementation standpoint, the most important distinction between trail types is the potential avenues available for funding. Whereas none of these sources are guaranteed, the inclusion of local trails within the Lake Links Trail Network master plan shows the inter-connective nature of these trails, which in turn provides the platform for local cities, counties, and townships to collaborate on seeking funding opportunities for development.

The master plan provides an extensive technical review of the individual trail corridors defined by the master plan.

Technical Overview of Individual Trail Corridors

The master plan provides an extensive technical review of the individual trail corridors defined by the master plan. The purpose of the review is to more clearly define trail alignment and other important planning outcomes and issues. These in turn will set the stage for implementing the plan and serve as an underpinning for continued public input to ensure that the expectations of those most affected by trail development are ultimately met. The following table summarizes the technical review of each trail corridor.

Trail Corridor	Design Overview	Major Issues
Bruce Vento Trail Corridor	A separated trail with a 12' wide cross-section is recommended to accommodate heavy use and a variety of users.	▸ Uncertainty of future multi-modal transportation needs along this railroad corridor. ▸ Retrofitting the trail in areas where space is limited. ▸ Ensuring that local residents have an opportunity to give input into the detail design process.
Lake Avenue Trail Corridor	Enhancements to trail cross-section to ensure pedestrian safety is recommended.	▸ Working with local residents to determine the type of improvements that are justified and add value.
Hwy. 96 Trail Corridor	A separated 10' trail adjacent to the roadway is recommended given the regional status of this trail corridor.	▸ Retrofitting the trail in areas where space is limited. ▸ Ensuring that local residents have an opportunity to give input into the detail design process.
Hwy. 244 Trail Corridor	A separated 8' to 10' trail as part of upgrading the roadway is recommended (local input is needed on final width).	▸ Retrofitting the trail in areas where space is limited. ▸ Ensuring that local residents have an opportunity to give input into the detail design process.
Birchwood Trail Corridor	Maintaining existing on-road shared-use system is recommended, with upgrades.	▸ Ensuring that local residents have an opportunity to give input into the detail design process.
South Shore Blvd. Trail Corridor	A separated 8' to 10' trail adjacent to the roadway is recommended, preferably with one-way road system.	▸ Determining which roadway cross-section best serves need ▸ Ensuring that local residents have an opportunity to give input into the detail design process.
Mahtomedi-Oakdale Trail Corridor	Making connection between two established trails via a bridge across I-694 is recommended.	▸ Determining the best location for the crossing and working with MNDOT to actually implement.
Maplewood-Silver Lake Trail Corridor	A separated 10' trail along the powerline in Maplewood and completing the loop around Silver Lake is recommended.	▸ Retrofitting the trail in areas where space is limited. ▸ Ensuring that local residents have an opportunity to give input into the detail design process.

Turnback Status of Roadways Affected by the Trail Corridors

The timing of turning back some of the roads within the study area from the State to the county, and from the County to the local city or township is an important aspect of implementing the master plan.

The timing of turning back some of the roads within the study area from the State to the county, and from the County to the local city or township is an important aspect of implementing the master plan. Turnback essentially refers to a shift of responsibility for upgrading, maintaining, and operating a roadway from one agency to the other as part of the overall transportation plan for the region. The master plan provides an overview of the roads that fall under the turnback program and their current status. Roads included in this program include:

- Hwy. 244 – State to county turnback
- Hwy. 96 – State to county turnback
- County Road 94 / South Shore Blvd. – County to city and township turnback
- County Road 154 / Hugo Road – County to township turnback

The turnback schedule associated with each of these roadways is quite important to a number of the trail corridors. In reality, the development of the trails along these corridors will be lock-stepped with the timing of the upgrading and turning back of the adjoining roadway from the State to the County and from the County to the local cities and township. Also, the design for the roadways on the turnback schedule would follow the standards defined by MNDOT and the County. Note, however, that both Washington and Ramsey Counties recognize that some degree of flexibility may be required in order to incorporate a trail along these corridors and preserve their existing aesthetic qualities. As defined by this master plan, there is also the expressed desire by local residents to keep the roadway cross-sections as narrow as possible to help calm traffic and maintain the existing sense of place.

Alternative Trail Corridors Considered During the Planning Process

It became clear that these routes were either not the best option and/or would simply not be implementable and therefore did not warrant further consideration.

A number of alternative trail corridors were considered during the planning process. Whereas these routes were ultimately excluded from further consideration for various reasons, some of them held great promise when first considered against the first tier evaluation criteria. However, when measured against second and third tier criteria, it became clear that these routes were either not the best option and/or would simply not be implementable and therefore did not warrant further consideration. Note here that while each of these options did not make the final plan, some of them continue to have merit as part of local trail systems and, in some cases, may be worthy of a second look should the primary routes defined by the master plan fail to materialize.

Interconnection with Local Level Trail Systems

The interconnection between the Lake Links Trail Network and existing and planned local systems is a fundamental objective of the planning process.

Note that the interconnection between the Lake Links Trail Network and existing and planned local systems is a fundamental objective of the planning process. While the master plan focused on the Lake Links Trail Network, the local trail systems play a significant role in creating a comprehensive network of trails that provide a safe place for pedestrians and bicyclists to walk, ride bike, and in-line skate.

Trail (and Roadway) Design Guidelines

The trail design guidelines that would be applied to the trail corridors (and roadways) defined by this master plan would follow those commonly used for regional, State, and Federal projects.

The trail design guidelines that would be applied to the trail corridors (and roadways) defined by this master plan would follow those commonly used for regional, State, and Federal projects. The use of these guidelines is of importance for a couple of reasons:

- To ensure the development of consistent and safe trail corridors that are in sync with accepted design practices.
- To ensure that the trail corridors qualify for various trail funding programs that are sponsored at the Metropolitan Council, State, and Federal level.

With respect to trail signage, the master plan also calls for adherence to the previously defined design manuals as well as those prepared by MNDOT that relate specifically to trail and roadway signage.

Support Facilities for the Trail Network

The trail network master plan itself does not call for development of any major new support facilities.

One of the advantages of developing the trail network is that it links together numerous existing parks and public spaces, which in turn offers an important side benefit in that many of these areas already have, or will in the future, facilities that support the trails. This includes public parking, restrooms, picnic spaces, and sitting areas. In addition, connection to the downtown areas of the local communities provides ample opportunity for refreshments and food. Since this rather extensive infrastructure of facilities already exists, the trail network master plan itself does not call for development of any major new support facilities. Note, however, that the detail design for individual trail corridors should provide trail links from the main trails to existing support facilities, along with the necessary signage to ensure trail users are aware of these facilities.

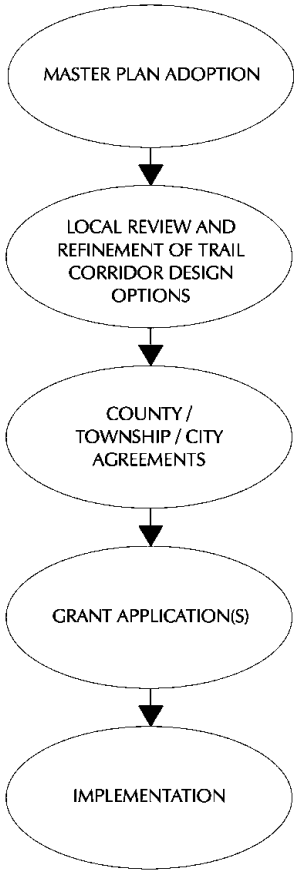
Affect of Multi-modal Transportation Plans on Trail System Planning

One of the factors that was considered as part of the planning for the Bruce Vento trail extension along the Burlington Northern railroad corridor was the potential for use of that corridor for multi-modal transportation, which ranges from buses to light and heavy rail. Whereas there is a great deal of uncertainty as to where this will ultimately lead, it is clear from various Metropolitan Council transit studies that some form of transit use of the corridor can be anticipated in future years. With this understanding, the intent of the Lake Links Trail Network master plan is to set the trail within the Burlington Northern railroad corridor on the periphery of the right-of-way, or even outside of it, wherever possible to minimize the potential for future conflicts.

Section IV – Implementation Plan

Implementation of the Lake Links Trail Network will require strong collaboration between local cites, townships and counties if a cohesive and complete trail system is to be realized.

Implementation steps.



Local cities, townships, and counties are encouraged to pursue implementation of the plan as a singular priority.

Collaborative Underpinning

Implementation of the Lake Links Trail Network will require strong collaboration between local cites, townships and counties if a cohesive and complete trail system is to be realized. While each of the trail corridors proposed offers numerous local benefits, the real opportunity lies in the broader vision of the plan that would result in a truly exciting regional asset offering outstanding recreational values. In many ways, the collective value of the larger trail network is greater than the sum of the individual parts. Through a shared common vision, opportunities for becoming a higher priority for receiving non-local funding can be enhanced over that which would otherwise be available to local units of government. Given the potential costs associated with implementing the plan, these outside sources of funding will likely be needed to offset the fiscal limitations facing local cities and townships.

Implementation Strategy

Implementation of the master plan will require a coordinated effort between local communities, townships, and counties – starting with the adoption of the master plan. This, of course, is based on the collective understanding that the options for each of the trail corridors defined in the master plan are subject to local review and refinement as part of the implementation process. This statement is critical in that each of the trail corridors defined by the plan raise numerous issues that will require additional public input and local evaluation to determine the design approach best suited for the community while still achieving the vision of the master plan. It is within the spirit of flexible collaboration that success in implementing the plan lies. The image at left outlines the implementation steps required to move from the vision of the master plan to actual development of the trail corridors.

Local involvement in the implementation process is of critical importance given the detail design issues that need to be addressed prior to the development of any of the trail corridors considered under the master plan. For example, at the fundamental level, decisions related to basic roadway configurations and cross-sections will have to be made prior to designing the trail itself. Likewise, inherent transportation issues (such as those associated with the South Shore Boulevard trail corridor) and roadway turnback schedules will also have to be addressed as part of the implementation planning. Of equal importance is the need for additional public input into the detail design process to ensure that the general public and property owners directly affected by a given trail corridor have a reasonable chance to participate in the design process to ensure that their interests and concerns are addressed in a responsible and forthright manner.

Implementation Priorities

The master plan does not establish specific priorities for implementation of the individual corridors. Instead, local cities, townships, and counties are encouraged to pursue implementation of the plan as a singular priority with the realization that the pace of implementation will be dictated by several factors:

- Timeframes associated with making final design decisions on specific corridors.
- Degree of success in assembling funding packages from various sources.
- Turnback schedules and timing of upgrades to roadways associated with a given trail corridor.

Realistically, there will be a degree of variability in the timing of implementing the plan due to the variability of the challenges facing each corridor.

Another reason for taking this approach is the interlinked and dependent nature of many of the trail corridors, whereby one trail corridor cannot be easily separated from another and therefore precludes establishing a clearly defined prioritization schedule. Although a homogeneous timeframe for implementing the plan would be the best case scenario, realistically, there will be a degree of variability in the timing of implementing the plan due to the variability of the challenges facing each corridor.

Implementation Team

Assembling an implementation team to oversee the detail planning and design process and coordinate the activities at the local and county level is recommended.

The importance of maintaining an ongoing and coordinated effort between local cities, townships, and counties toward plan implementation cannot be overstated and will be critical to the successful implementation of the master plan. Lacking this, the probability of seeing the plan implemented becomes far less certain. To this end, assembling an implementation team to oversee the detail planning and design process and coordinate the activities at the local and county level is recommended. This is particularly important here where a number of the local cities and townships simply do not have the day-to-day staffing needed to oversee the project and keep it moving forward in a timely, well-coordinated fashion.

It is recommended that the team consist of a representative from each of the cities, townships, and counties affected by the master plan (which was essentially the basis of the Technical Planning Team assembled for this project). In addition, the implementation team can also serve to coordinate and act upon grant opportunities and assembling funding packages. It is also recommended that the implementation team include representation from select outside public agencies with experience in trail development and grants.

Acquisition and Development Cost Projections

The cost projections presented in the master plan define the potential costs associated with each of the trail corridors defined by the master plan.

The cost projections presented in the master plan define the potential costs associated with each of the trail corridors defined by the master plan. The cost figures are intended to be used for budgeting purposes, project phasing, comparing the relative cost of one item to that of another. Although the cost projections are intended to be conservative, it must be recognized that the actual costs will vary depending on detail design and market forces when the plan is implemented.

The cost projections for development are broken down into two primary categories:

- **Base Cost Projection for Trail Development** – refers specifically to the cost to develop the trail itself *without* consideration for other development concerns that might be necessary for the trail to actually be developed.
- **Cost Projection for Associated Development** – refers to development that may be required to construct the trail, such as roadway upgrades and alternatives to the base development package as noted.

The following summarizes the development cost table provided in the master plan.

Trail Development Cost Projections

Trail Segment	Base Cost Projection for Trail Development			Cost Projection for Associated Development		
Bruce Vento Trail	2,012,000	to	2,414,400	626,000	to	751,200
Lake Avenue Trail	655,000	to	786,000	0	to	0
Hwy. 96/Zephyr Line Trail	2,500,000	to	3,000,000	280,000	to	336,000
Hwy. 244 Trail	1,560,000	to	1,872,000	2,810,000	to	3,372,000
Birchwood Trail	447,000	to	536,400	0	to	0
South Shore Trail	575,000	to	690,000	0	to	0
Mahtomedi-Oakdale Trail	700,000	to	840,000	0	to	0
Maplewood-Silver Lake Trail	1,060,000	to	1,272,000	160,000	to	192,000
Total Cost Projection for All Trail Corridors	9,509,000	to	11,410,800	3,876,000	to	4,651,200
Construction Engineering and Design (15%)	1,426,350	to	1,711,620	581,400	to	697,680
Grand Total Cost Projection for All Trail Corridors	**10,935,350**	**to**	**13,122,420**	**4,457,400**	**to**	**5,348,880**

The cost projections for land acquisition for the various trail corridors are intended to be used for budget estimating purposes. The intent is to project as accurately as possible a range of potential costs for land acquisition that would be in addition to the development costs listed above.

Land Acquisitions Cost Projections

Trail Corridor	Cost Projection for Acquisition*		
Bruce Vento Trail	260,000	to	310,000
Lake Avenue Trail	0	to	0
Hwy. 96 Trail	406,000	to	470,000
Hwy. 244 Trail	225,000	to	420,000
Birchwood Trail	0	to	0
South Shore Blvd. Trail	0	to	0
Mahtomedi-Oakdale Trail	60,000	to	75,000
Maplewood-Silver Lake Trail	150,000	to	200,000
Total Potential Cost Range for Land Acquisition	**1,101,000**	**to**	**1,475,000**

* – Range of potential costs is shown to account for some unknowns.

Operations and Maintenance of Trail Corridors

Operation and maintenance of the trail corridors will be a shared responsibility between the local cities, townships, and counties, with the responsibilities of each defined in joint-powers or other forms of agreement.

Operation and maintenance of the trail corridors will be a shared responsibility between the local cities, townships, and counties, with the responsibilities of each defined in joint-powers or other forms of agreement. The trails will be designed and operated to accommodate walkers, joggers, bicycling, and in-line skating. There will be no provision along these trail corridors for other activities such as snowmobiling, horseback riding, or cross-country skiing. With respect to rules and regulations, all trail corridors will comply with the standards of use currently in place for local and regional parks and trails as defined by city and county ordinances. This will ensure consistency in operation of the trail facilities defined in the plan with others found within the study area. Law enforcement associated with the trail will be covered by local police and county sheriff's departments in accordance with current practice and established relationships between the two counties and local cities and townships within the study area. With respect to fees and charges, the trails will be open to the public without fee, which is in line with current practices at the local and county level.

The responsibility for developing and maintaining the trails will depend on whether the trail is local (city, township, or county) or regional and whether it follows a local or county road. A table in the master plan considers development and maintenance responsibilities for each of the trail corridors based on standard practice. Recognize, however, that the responsibilities of the local cities and counties is subject to change in line with specific agreements prepared as part of the implementation process. An important side note to this discussion is that development costs could be significantly offset through special appropriations and grants at the state and federal level for local and regional trails (and roadway upgrades). Given the inherent limitations of local units of government to fund these projects solely on their own, finding alternative means of funding will be an important factor in actually being able to implement the plan.

Funding Options and Opportunities

By creating a recreational value of greater significance than would otherwise be the case, the opportunities for funding from a variety of funding sources opens up substantially.

One of the major advantages of the Lake Links Trail Network Master Plan is that it paints a broad vision for trails within the study area that collectively offers benefits beyond those of the individual local trail systems. By creating a recreational value of greater significance than would otherwise be the case, the opportunities for funding from a variety of funding sources opens up substantially. Equally important, this collective vision can also serve to raise the level of priority given to these trails over what might otherwise be the case. In this context, collaboration between local cities and the county can go a long way toward being successful in securing the funds necessary to build the trails. A table in the master plan provides an overview of potential funding sources.

Public Awareness

Once the initial promotional campaign is complete, it is expected that word-of-mouth will be the most successful promotional tool.

Once completed, public awareness of the trail network will be promoted through the local cities, townships, and counties through a coordinated effort. This would include trail network mapping, brochures, flyers, posters, and so forth to make residents aware of the new trails. Once the initial promotional campaign is complete, it is expected that word-of-mouth will be the most successful promotional tool.

Section I Introduction / Planning Framework

Project Scope

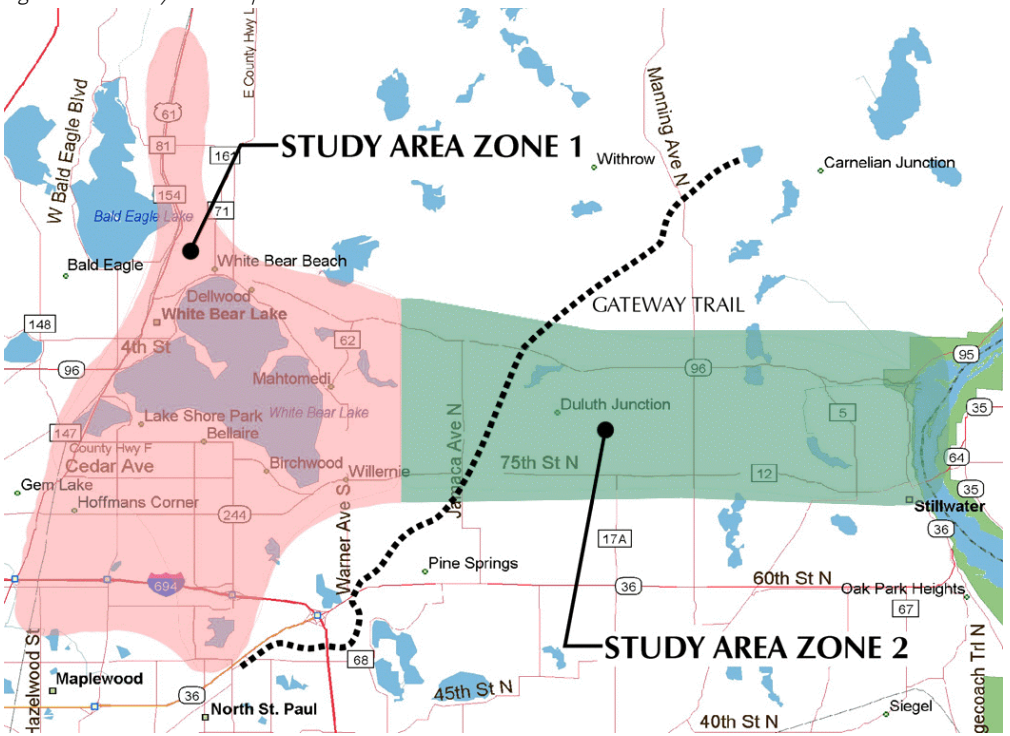
The project focused on the preparation of a comprehensive master plan for Lake Links Trail Network in Washington and Ramsey County.

The project focused on the creation of a comprehensive master plan for Lake Links Trail Network in Washington and Ramsey Counties. Funded through a state grant, the purpose of the project was to cooperatively develop a master plan for the study area, which included:

- A trail loop around White Bear Lake.
- A trail loop around Silver Lake.
- Extension of the Bruce Vento Trail from Maplewood to the Hugo trail system.
- Trail links between each of the above and to the Gateway Trail and Stillwater trail system.

Figure 1.1 illustrates the study area for the project.

Figure 1.1 – Study area map



History and Rationale for Undertaking the Project

This study was a direct outgrowth of years of citizen-led planning initiatives focusing on the development of a comprehensive trail system within the study area.

From a historical perspective, this study was a direct outgrowth of years of citizen-led planning initiatives focusing on the development of a comprehensive trail system within the study area. In some cases, these past initiatives were the impetus behind some of the formalized trail plans of local communities and townships, which over the past decade or so have been implemented to varying degrees. With respect to the broader study area, the citizen-driven report prepared by the *Around the Lake Trail Task Force* brought together many of the planning issues that needed to be addressed. That study and the other local trail planning initiatives were the catalysts behind the broader trail network master plan presented here.

Rationale for Undertaking This Planning Initiative

An interlinking trail system within and between local communities was thought to offer outstanding recreational potential and would be of high community value.

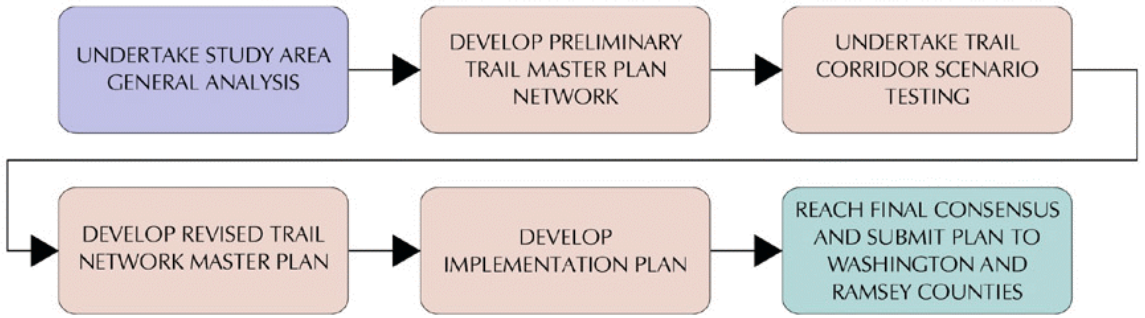
Whether at the local or regional level, the primary rationale behind past planning initiatives was fairly straightforward: An interlinking trail system within and between local communities was thought to offer outstanding recreational potential and would be of high community value. An equally compelling reason behind these past initiatives was the desire for a comprehensive trail system that would alleviate the unsafe conditions now found for pedestrians and bicyclists within the study area. In this regard, the existing and somewhat eclectic system of roadways of varying character and levels of safety leaves much to be desired for the average pedestrian, especially families with young children. In spite of these inherent unsafe conditions, it is still well documented that people use – and will likely continue to use – the existing streets and roads for walking and biking, especially those that encircle the two lakes in the study area.

For these reasons, the State legislature responded to citizen advocacy by sponsoring a grant to develop a comprehensive master plan for the Lake Links Trail Network, with the intent being to determine if the vision of a linked trail system was in fact achievable given the inherent constraints within the study area.

Planning Framework

The planning of the trail network followed a step-by-step process that encouraged public participation and allowed for a series of checks and balances to ensure that conclusions drawn represented those that had the greatest merit. Figure 1.2 provides an overview of the steps in the planning process.

Figure 1.2 – Steps in the planning process



Project Oversight

At the agency level, Washington and Ramsey Counties shared responsibility for overseeing the planning process and ensuring that the requirements of the grant were fulfilled. To support the planning initiative, two committees were formed, as follows:

- **Citizens Advisory Committee (CAC)** – consisted of citizens from each of the local municipalities and township who were responsible for overseeing the planning process and working with the planning team on determining the most appropriate trail routes within the context of the inherent physical constraints and varying public opinion.
- **Technical Advisory Committee (TAC)** – consisted largely of staff from the various municipalities and township who provided the planning team with background information on the study area and insight into the planning issues being faced.

Public Involvement

Given the inherently difficult nature of retrofitting a trail into developed or settled communities, a great deal of emphasis was placed on working with local communities and townships to define local planning issues and determine which trail route options were viable. The public process included a number of steps to ensure that each community had an opportunity to participate and to ensure that planning outcomes were underpinned by an understanding of the local circumstances. Figure 1.3 illustrates the key steps in the public process format. While the graphic depicts a direct linear progression, in numerous instances, the public input process was literally taken down to the individual level to gain a first-hand understanding of the impact that the various routing scenarios would have on private property. These meetings, along with the more structured public meetings, provided much needed guidance on determining which routes would ultimately have validity and be implementable. A summary of the public meeting schedule is provided in the appendix.

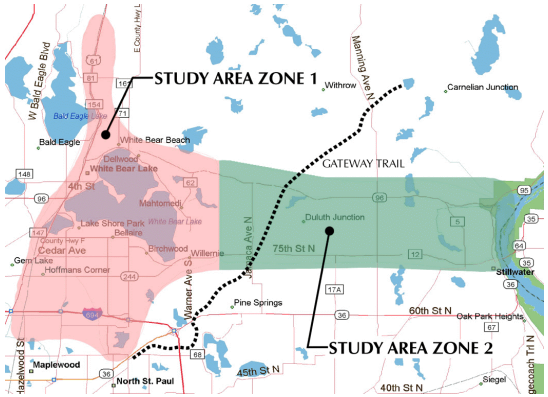
Figure 1.3 – Steps in the public process.

A great deal of emphasis was placed on working with local communities and townships to define local planning issues and determine which trail route options were viable.

Study Area Characteristics

The inherent characteristics of the study area posed the greatest challenge to developing an interlinked trail system. Simply stated, retrofitting a trail system into well-established communities is froth with technical complications and concerns about impacts to private properties. Nonetheless, the community values of developing such a system can also be quite high and make it well worthwhile to explore the possibilities. In general terms, the following defines the overall planning dynamics associated with the study area, which is broken down into a couple of distinct zones based on the different planning challenges posed by each.

Retrofitting a trail system into well-established communities is froth with technical complications and concerns about impacts to private properties.



Study Area Zone 1

Character:

- Nearly fully developed area with a wide variety of housing, roadways, right-of-ways, public spaces, and lake access points.
- Development patterns range from small, almost cabin-style housing to large estates and some newer subdivisions.
- Established community infrastructure.

Opportunities:

- Potential to interconnect an eclectic collection of trail segments already developed in the study area.
- Potential to create a comprehensive and well-defined trail system around the lake.
- Old streetcar and rail right-of-ways, road right-of-ways, and various open lots offer some opportunities for retrofitting trails.

Constraints:

- Retrofitting a trail system into a developed area always offers numerous constraints and challenges.
- Limited right-of-way widths, well-established neighborhoods, lack of publically-owned land at critical points of connection, and individual concerns about encroachment on private property are routine challenges that will need to be surmounted.

Potential:

- Public value of creating a comprehensive system of trails in this zone is very high – especially when that system will include connection to the nearby State and Regional trails.

Study Area Zone 2

Character:

- Low density development patterns with larger acreage lots and some production and hobby/horse farms.
- Rural overall character with rolling countryside offering a variety of ecological systems and agricultural uses.
- Gateway Trail is a major recreational amenity and greenway corridor.

Opportunities:

- Extensive potential for a variety of trail/greenway corridor routes.
- Potential to interconnect trail systems from Zone I with those in Zone 2 and those near Stillwater.
- Location opportunities range from creating an east-west greenway corridor that traverses open countryside, lakes, ponds, and a variety of ecological systems to developing trails within existing right-of-ways.

Constraints:

- Creating a new trail system in a less densely populated area also offers numerous constraints and challenges.
- Private ownership of land and privacy issues led the debate with respect to creating a new greenway corridor.
- Individual concerns about encroachment on private property can be more challenging in these areas due to the expectation of privacy.

Potential:

- Public value of creating a comprehensive system of trails in this zone is very high – especially when that system will include connection to the State and Regional trails nearby.
- Creating an east-west greenway is a particularly appealing opportunity.

Criteria for Developing the Trail Network Master Plan

A set of evaluation criteria were developed to provide a more objective framework for evaluating potential trail routing options.

Given the inherent challenges of developing a trail system within the study area, a set of evaluation criteria were developed to provide a more objective framework for evaluating potential trail routing options. The criteria were broken down into three tiers to provide a progression of evaluation that started with a broad vision of the possibilities and progressed through technical evaluations and public acceptance. The following outlines the criteria used under each tier of evaluation.

Evaluation Criteria – First Tier

Focus was on the overarching project objectives of planning a trail network that offers regional and local values, as well as providing high user-experience value.

Criteria	Evaluation Statement
Regional Values	Trail segment serves as a connection between regionally significant facilities, including regional parks, regional trail corridors, and State trail corridors (the presence of high quality natural resources or other unique features is also highly desirable).
Local Values	Trail segment serves as a key component in a local trail system and provides a key link to regional and/or State trails and parks.
User Experience Values	Trail segment offers a high quality recreational experience for the user, whereby the trail setting is visually appealing, offers continuity with limited interruptions and impediments to travel, is not too difficult of a grade, and is safe to use.

Evaluation Criteria – Second Tier

Focus is on the more technically-oriented issues that affect decisions as to merit, location, and priority of a given trail segment. (These criteria look more closely at the practical nature of one trail alignment versus that of another)

Criteria	Evaluation Statement
Natural Setting	Trail segment is located in a natural setting that offers a pleasant recreational atmosphere.
Separated Trail	Trail segment is physically separated from a roadway, versus being part of the road shoulder.
Natural Resource Issues	Trail segment has limited impact (due to construction) to the natural resource qualities of the area it is traversing. The extent to which impacted areas can be restored is also a consideration.
Acquisition Issues	Trail segment requires acquisition of private properties for the trail corridor (willingness of owner to sell property and options available to acquire are key factors to consider).
Physical Constraints	Trail segment has surmountable physical constraints, including such items as difficult/unsafe road crossing, steep grades, built structures in the trail alignment, and so forth.
Encroachment Issues	Trail segment encroachment on adjacent properties is manageable (this may include stipulated agreements related to buffering and screening in certain situations).
Cost-Benefit	All things considered, the benefit of a particular trail segment versus its cost is justifiable due to its relative value to the region and community.

Evaluation Criteria – Third Tier

Focus is on the public and political acceptance of the trail network and individual trail segments.

Criteria	Evaluation Statement
Public and Political Acceptance	Trail segment is generally accepted by the public-at large in the community it traverses through. (City council/ township board action required to confirm, qualify, or deny support for the trail location prior to submittal to County Boards for approval.)

Property Acquisition Approach

One of the important factors affecting the ultimate location of the trail corridors was the use of a "willing seller" approach by Washington and Ramsey Counties for acquiring property for stand-alone trail corridors.

One of the important factors affecting the ultimate location of the trail corridors was the use of a "willing seller" approach by Washington and Ramsey Counties for acquiring property for stand-alone trail corridors. Under this approach, potential trail corridors that traverse extensive areas of privately-owned property, such as some of the old railroad corridors, pose major challenges for land acquisition and in the end greatly affected the trails plan.

In cases where the trail follows existing road rights-of-way, the willing seller approach translates into trying to stay within the existing right-of-way wherever possible to minimize the need to acquire property. Note, however, that given the eclectic nature of the right-of-ways throughout the study area, acquisition of additional rights-of-way will be required in some areas to accommodate roadway upgrades and trail construction. In most of these situations, right-of-way acquisition is driven largely by roadway construction requirements for grading, stormwater management, and so forth. In these instances, the trail would be placed in the rights-of-way already required for upgrading the roadway.

Section II Community Value Statement

Overview

The Citizen Advisory Committee (CAC) and planning team placed a great deal of emphasis on finding a reasonable and responsible balance between community and personal values.

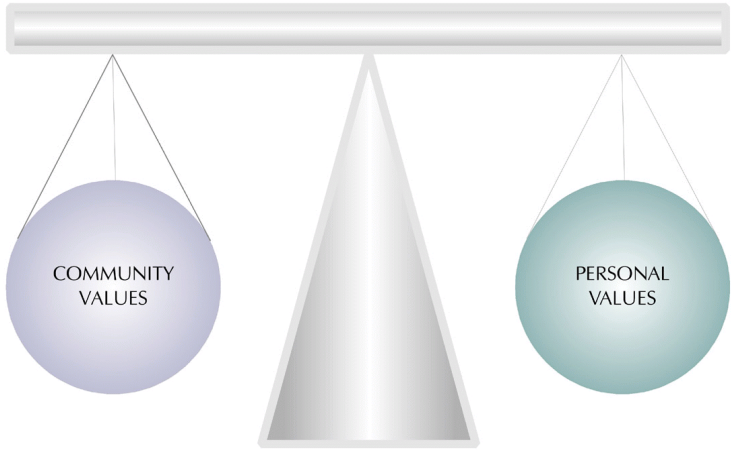
The impetus behind this and past planning initiatives stems from the idea that an interlinking trail network within the study area would be of high community value from a recreational and pedestrian safety perspective. On the other hand, it is also recognized that retrofitting a trail network through developed areas poses both direct and indirect impacts to private properties along each corridor. It also affects personal values related to residents' perceptions of their community and the quality of life they perceive to exist. Depending on one's perspective, developing a comprehensive trail network within the study area may or may not be considered positive.

In recognition of these issues, the Citizen Advisory Committee (CAC) and planning team placed a great deal of emphasis on finding a reasonable and responsible balance between community and personal values, the latter of which referring to issues such as direct impact on personal property, perceived loss of privacy, quality of life, and so forth. Figure 2.1 illustrates this balancing act.

Whereas this approach to working directly and constructively with communities (and the individuals who would be most impacted by planning outcomes) ultimately resulted in some very desirable trail routes being eliminated from consideration, doing otherwise would have undermined the good-faith approach to the public process and resulted in a plan that would be extremely challenging, if not impossible, to implement at the local level.

With this in mind, the following summarizes the findings of the public process and the benefits that the Lake Links Trail Network will bring to the local communities and larger region.

Figure 2.1 – Balancing act between community and personal values.



Community Value of the Trail Network

With respect to the overall benefits of a comprehensive trail network, research suggests that trails offer a very high degree of community value by providing the type of recreational amenity that the majority of the population would actually use and like to have available near their home.

The community value statement essentially defines the benefits that a comprehensive trail network would bring to residents living within the surrounding region relative to its potential impacts across a number of variables, ranging from safety and crime to property values and loss of privacy. Taken as a whole, the community value statement defines whether or not the perceived benefits of the trail outweigh perceived impacts to justify its development. The following statement summarizes these findings.

Community Value Statement

With respect to the overall benefits of a comprehensive trail network, research suggests that trails offer a very high degree of community value by providing the type of recreational amenity that the majority of the population would actually use and like to have available near their home. As defined in the table, recreational trends suggest that trail activities are the highest ranked recreational pursuits in this metropolitan region, far outpacing most other forms of recreation. In addition, the improved safety for pedestrians and bicyclists as they travel along the proposed trail corridors is a value that some would argue is more important than that of the recreational experience. The community value statement is strengthened by evidence that suggests that potential down sides, like crime, trespassing, and littering, generally do not manifest themselves to any great degree. The following table provides an overview of the key variables that affected the CAC's perspective on the community values that would be realized from a trail network within the study area.

Variable	Discussion
Demand for Trails	From a regional perspective, trails are the highest ranked recreational activity. Survey results conclude: ▸ Walking, especially within the neighborhood, is the #1 ranked recreational activity, with 85% of respondents being interested in this activity. ▸ Walking in natural areas and large parks is the #2 ranked recreational activity, with 78% of respondents being interested in this activity. *Source: Recreational trends survey conducted by the University of Minnesota Survey Research Center on behalf of the Metropolitan Council.*
Use of Trails	The following summarizes the dynamics of trail use of the Gateway Trail based on regional trail use surveys: ▸ 80% of trail users are adult. ▸ Median age of trail users is 44-44, although youth use is growing. ▸ 80% of trail users live within the county or city where the trail is located. ▸ Proximity of the trail to one's place of residence is very important to discovering it. ▸ Visiting new areas was not all that important to trail users. ▸ 95% use the trail for recreation, 4% for commuting, and 1% for getting to retail stores. ▸ Walking is the most popular use (39%), biking second (31%), and jogging third (18%). ▸ Use of the trail has increased dramatically in the last sixteen years. *Source: Metropolitan Council – Twin Cities Regional Trail Visitor Study (1999).*

The community value statement is strengthened by evidence that suggests that potential down sides, like crime, trespassing, and littering, generally do not manifest themselves to any great degree.

Variable	Discussion
Impact of New Trails on Adjacent Properties	The following summarizes the results of a survey related to a new trail retrofitted into an area: ▸ Usage – 75% of adjacent property owners use the trail (many of which were against the trail being developed). ▸ Problems – over 95% of the adjacent property owners reported no problems with the trail (such as loitering, litter, and trespassing). ▸ Economic impacts – vast majority reported that they believed that the trail would have no negative impact on their property values, with many believing that it could even increase values. ▸ Values – 75% say living near the trail offers distinct advantages, such as ease of access, convenience, exercise, and so forth. *Source: Lake Wobegon Regional Trail, Stearns County.*
Policing and Crime	Review of policing issues associated with trails within Washington and Ramsey County yields the following: ▸ Incidents of crime associated with trails is so low that they do not keep track of it separately. ▸ The contention that trail users routinely commit crimes to adjacent properties is not supported by crime statistics and evidence. ▸ Biggest area of concern with crime is at parking lots, where occasionally theft from the cars of trail users occurs (Note: Theft from cars in parking lots is not unique to trails, but occurs at parks, shopping centers, and other areas where the opportunity for a quick getaway exists). *Source: Washington and Ramsey County Sheriffs Department.*
Existing Use	Public input and direct observations during the planning process yields the following insights: ▸ Clear evidence suggests that the trail routes being proposed are already being used by bicyclists and pedestrians (this was commonly acknowledged at all public meetings and observed directly by CAC members and the planning team). ▸ Virtually all of those that walk or bike the area have a concern about personal safety – especially as it relates to children walking along the roads without trails. ▸ Drivers routinely complain that walkers and bikers are in the way on the roads within the study area.
Safety of Developed Trails	Discussions with local cities that have retrofitted trails into similar settings yields the following with respect to safety for the trail user: ▸ Actual and perceived pedestrian safety is improved when off-street trails are added along busy roads simply because people are no longer walking along the shoulder of the road where traffic speeds can be up to 55 MPH and shoulder widths are often very narrow. ▸ The incidence of conflict between pedestrians and vehicles at driveway crossings has not been found to be a major issue, with few reported occurrences of accidents (Note, however, that both the driver and the trail user have a responsibility to watch out for each other similar to any crosswalk or sidewalk system common in many cities). ▸ Adhering to generally accepted design standards for trails, including at driveway crossings, is important to maintain consistency in dealing with technical issues and maintaining as safe of pedestrian environment as possible.

It seems quite evident that the community value of the trail network being proposed would be very high.

Based on the information presented in the table and that which was garnered from local public meetings and in-field interviews during the planning process, it seems quite evident that the community value of the trail network being proposed would be very high. This assumes that the personal values and issues defined by the residents and adjoining property owners can be effectively addressed.

General Summary of Public Input

A great deal of emphasis was placed on working with the local communities and townships to define local planning issues and determine which trail route options were viable and which were not.

As noted in Section I, a great deal of emphasis was placed on working with the local communities and townships to define local planning issues and determine which trail route options were viable and which were not. To solicit input at the local level, a series of public open houses and focus group meetings were held. In each case, announcements were posted in local publications notifying residents of the opportunity to participate. In addition, special invitations were sent out to property owners adjacent to new trail corridors being considered to ensure that those most directly impacted by a given trail corridor had an opportunity to express their concerns and opinions.

As would be expected, attendance at the meetings was strongest by those that would be most directly impacted. Although this introduces certain biases of opinion, the comments made and perspectives gained were critical to the planning effort in that they helped shape the development of a master plan that would receive popular support within the context of being acceptable to those most personally affected.

Whereas opinions vary widely and many of the issues raised during the public process relate to details about how a given trail corridor would affect a specific piece of private property, a number of generalizations can be drawn from the public open houses, focus groups, and interviews with local residents, as defined below.

General Findings

From an overall perspective, those attending the public meetings, and those providing input though phone calls and letters, express a general belief that the trail network plan would indeed offer high community value.

From an overall perspective, those attending the public meetings, and those providing input through phone calls and letters, express a general belief that the trail network plan would indeed offer high community value. Although not everyone would agree, this also seems to hold true for those that own property next to one of the corridors and are therefore most directly affected by the master plan.

Under the assumption that there is general support for the trail network within the study area, the concern shifts toward defining, in good faith, ways in which the personal concerns of individual property owners can be addressed to diminish their level of uncertainty as to the impact a given trail will have on their personal property and quality of life. To this end, acceptance of any master plan by those that are most affected can best be defined in terms of a set of expectations that evolved though the public process, as the following defines.

Implementation Expectations

As part of the public consensus building for the trail network, local residents helped establish a set of expectations that they have about how the trail master plan would be implemented. The following defines the key points of these expectations.

Input into the Detail Design Process: Property owners affected by the trail network have an expectation that the implementation process will provide reasonable opportunity for them to participate in the design process to ensure that their interests and concerns are dealt with in a responsible and forthright manner.

Encroachment and Direct Impact to Private Property: Wherever feasible, trail and roadway cross-sections should be kept to the minimal acceptable width in order to minimize encroachment into private properties.

Many of those that accept the master plan do so with the understanding that the planning agencies responsible for implementing the plan will adhere to these expectations and carry the good faith that has been built up thus far into and through the actual implementation process.

Safety: All trail and associated roadway designs should be based on the principle of providing a safe environment for the pedestrian, bicyclist, and the driver of a motor vehicle.

Aesthetic Qualities: Given the inherent and highly regarded character and sense of place within the study area, maintaining or enhancing the aesthetic quality of the trail corridors is of vital importance to both affected property owners as well as the general public.

Use of the Master Plan: The master plan presented here should be used to define the key issues associated with each trail corridor and the expectations of those most impacted by trail development. Equally important, the master plan should be used to frame future discussions to ensure that the understandings that residents have about key planing issues will be reflected in what is actually built.

The last point is of considerable importance in that many of those that accept the master plan do so with the understanding that the planning agencies responsible for implementing the plan will adhere to these expectations and carry the good faith that has been built up thus far into and through the actual implementation process.

Summaries of Public Input at the Local Level

Whereas the general summary defined above provides an overall summation of public input, the following summarizes public input at the local level to more clearly define issues and outcomes of greatest local concern. As was previously noted, attendance at the public meetings was strongest by those that would be most directly impacted. Although this introduces certain biases of opinion, it also helps ensure that the most challenging issues are brought out and addressed, thereby adding strength to, rather than taking away from, planning outcomes.

City of Mahtomedi

The City of Mahtomedi has a history of trail planning at the local level and has actively pursued retrofitting trails along a number of local streets in recent years.

General Perspective: The City of Mahtomedi has a history of trail planning at the local level and has actively pursued retrofitting trails along a number of local streets in recent years. With respect to Lake Links Network, a variety of options were considered, with the primary focus being on determining the viability of routes along Hwy. 244, following an abandoned trolley line right-of-way through the city, or following an existing on-street route along Park Avenue. After considerable discussion, the route along Hwy. 244 offered the greatest potential for the Lake Links Trail Network for a number of reasons:

- Hwy. 244 has a history of being used by pedestrians and bicyclists, even though trail facilities are lacking and the road is thought to be unsafe in some areas to walk along.
- Upgrading of the road is needed, which provides the opportunity to retrofit a trail at the same time
- Adequate R.O.W. exists along Hwy. 244 to accommodate the trail and minimize encroachment into adjacent properties.
- Route along Hwy. 244 provides a strong north-south trail corridor within the city and as such becomes a major component of the local trail system.
- Route along Hwy. 244 ultimately gained stronger support than other options by those attending the public meetings.

Note that the one exception to following Hwy. 244 lies north of the District Center, where the R.O.W. becomes too narrow and structures are too close to the road to easily fit the trail. For this reason, the trail was routed along Briarwood from Quail to Dwinnell, staying within the existing R.O.W.

While the trolley corridor was seriously considered as a potential route to be included as part of the Lake Links Trail Network, in the end it was thought to best serve the community as a local-level trail with a more passive character that would compliment the route along Hwy. 244, as well as other local trails.

While the trolley corridor was seriously considered as a potential route to be included as part of the Lake Links Trail Network, in the end it was thought to best serve the community as a local-level trail with a more passive character that would compliment the route along Hwy. 244, as well as other local trails. From a practical standpoint, this corridor also posed significant short-term issues that would bring into question whether or not it could be implemented in an acceptable timeframe. Most notable amongst these is property acquisition, in which the eight or so private property owners along the route have shown little interest in being willing sellers. Note that although this corridor is not part of the Lake Links Trail Network per se, it still offers considerable local value and merits continued consideration as being part of the long range local trail system plan. The same holds true for the on-street trail along Park Avenue, which too was found to have greater value as a local-level trail that compliments the route along Hwy. 244.

Supporting Factors: As defined above, the Hwy. 244 /Briarwood corridor offers many benefits with few major obstacles. Since the widened shoulder on the east side of the road already acts as a defacto trail (albeit not in very good condition), retrofitting a formalized trail along the road would appear to be relatively easy if done in concert with the upgrading of the road itself. In addition, this route is the most direct corridor through the city and provides continuity with the trail corridor extending south from Dellwood.

Detracting Factors: As with any retrofit situation, upgrading the road and building a trail will have some impact on adjacent properties which will naturally be of concern to affected property owners, even though the widened shoulder already exists for much of this segment. Critical to being successful in developing this trail route is making sure that the expectations associated with implementing the plan (as previously defined under the General Summary of Public Input) are adhered to.

City of Birchwood

General Perspective: The City of Birchwood is a small community with an intimate character. By and large, the streets are narrow and have a low speed limit (20 MPH). Houses, garages, utility poles, and other built features crowd the street edge and right-of-way. Public input and anecdotal evidence suggests that people walk and bike on the streets and feel quite safe in doing so. Bike route signage through the community also helps in defining the shared use of roads through the local neighborhoods. With this in mind, it becomes understandable that the public consensus is to continue the practice of shared-use of the local roads as the preferred option, with upgrades to signage and striping being the primary improvements. While the idea of a one-way road system similar to Lake Ave. in White Bear Lake was debated, it was clear that public acceptance of this approach was lacking at this point in time and would require considerably more public input and detail investigation to determine its merit. Also, it seemed to many that gave input that continuing the existing practice of an on-street, shared-use approach made the most sense since it has worked thus far and evidence to make any major changes has simply not manifested itself. Therefore, while the one-way approach was interesting, it was also thought to be something worthy of consideration in the future only if the on-street approach was found to be inadequate.

Public input and anecdotal evidence suggests that people walk and bike on the streets and feel quite safe in doing so.

It becomes understandable that the public consensus is to continue the practice of shared-use of the local roads as the preferred option, with upgrades to signage and striping being the primary improvements.

With respect to a separated trail with two-way traffic, residents simply found this approach to be unacceptable in that there is not enough room within the right-of-way and that the impact to adjacent properties would be too extensive. Also, it was generally agreed that a trail of this nature would change the character of the streets and city, which too was thought to be unacceptable.

As for routing options, a number of local streets were considered for the designated route that would be included in the Lake Links Trail Network Master Plan. This included routes that followed Wildwood and Lake Avenues, Cedar Avenue, and Birchwood Avenue. While each of these in some ways have similar characteristics, the Wildwood/Lake Avenues route was ultimately thought to offer the greatest potential for a few reasons. First, this route is closest to the lake, which is always of some visual interest to the passer by. Second, this route ties into the local park along Lake Avenue, which is important in that people from the community will be following Wildwood and Lake Avenues to get to the park anyway. Finally, the other routes were thought to be less desirable for a number of reasons. For example, Cedar was considered a bit more busy from a traffic standpoint and had some sight lines that were not very good. Birchwood, while being of similar character to Wildwood, also had a couple of spots where sight lines where poor, especially at some of the intersections.

Supporting Factors: As defined above, it is clear that local residents feel that the on-street approach is the best option and would like to see that reflected in the master plan. With some upgrades to signage and striping along

the roads defined by the plan, it seems reasonable to expect that safe co-existence between vehicles and pedestrians can continue. In addition, since the current approach has worked well, gaining public support for doing otherwise seems unlikely at this time.

While the existing on-street approach has many supporters over other the options and has seemed to work well for the community, concern about safety should always be at the forefront of the decision process as the city considers its options in the future.

Detracting Factors: While the existing on-street approach has many supporters over other the options and has seemed to work well for the community, concern about safety should always be at the forefront of the decision process as the city considers its options in the future. In this light, the city is encouraged to monitor how well the current approach continues to work as time passes and the Lake Links Trail Network master plan becomes implemented. In addition, the city is also encouraged to open up the dialogue with residents in the near term about what a one-way system may entail and the pros and cons that such an approach would have. While it is not being suggested that the city will need to move in this direction, understanding the validity of a given option would seem prudent in making future decisions.

City of White Bear Lake

With certainty, the Lake Avenue trail along the western shore of White Bear Lake is one of the more popular trails within the city, and perhaps the region.

General Perspective: The City of White Bear Lake has an established trail plan for the city, which is in the process of being implemented. With certainty, the existing Lake Avenue trail along the western shore of White Bear Lake is one of the more popular trails within the city. With respect to Lake Links Network, the primary focus is on completing a loop around the lake, extending the Bruce Vento Trail through the city, and making a connection to the existing regional trail along Hwy. 96 that lies west of Hwy. 61.

While the majority of those giving input showed strong support for the existing trail and see it as an asset to the community, there was an overwhelming strong sentiment that much more public input was needed to determine the best solution for the corridor.

With respect to the existing Lake Avenue trail, the focus is on working with the local residents on determining the type of enhancements that would add value and be appropriate – with the underlining issue being that of ensuring pedestrian safety along the corridor. Separating the walking area from the roadway is one option to consider in this regard, although it must be noted that local residents clearly want to look more broadly at design approaches and consider a variety of ways to ensure safety. While the majority of those giving input showed strong support for the existing trail and see it as an asset to the community, there was an overwhelming strong sentiment that much more public input was needed to determine the best solution for the corridor. At this point, there is a strong perspective that leaving the road/trail cross-section as it already exists and limiting improvements to enhancing striping, pavement colors, and other safety measures is the course to follow. The benefits of doing anything beyond this simply have not been proven to residents and therefore will have to substantiated through the detail design process where they can participate in the discussion and decision process. The point here is that local citizens want to make sure that the city does not make any arbitrary decisions on how the trail should look without the benefit of more complete public input. Aside from the issues of the cross-section for the road and trail, a number of other concerns were defined, including uncertainty about:

- Maintaining adjacent property owners access to the lakeshore.
- Legal right-of-way widths, with a stated desire to clearly define legal ownership of the road right-of-way.
- Maintaining aesthetic qualities of the corridor and protecting the mature trees and other features that give the area its character.
- Technical issues such as turning radii, width of drive lanes, crossing driveways, so forth.

With respect to aesthetic issues, those that live along Lake Avenue feel very strongly that the existing sense of place is very important and cannot be lost in the process of making enhancements.

With respect to aesthetic issues, those that live along Lake Ave. feel very strongly that the existing sense of place is very important and cannot be lost in the process of making enhancements. Protecting mature trees is of particular concern, as are other related stormwater management and ecological issues. Also, many feel that the existing on-street walkway works well and that there is no need for any major upgrades. Of clear importance here is the simple concern that wholesale changes to the corridor will adversely change the character of the area that residents hold in high regard. This underscores the importance of their involvement in the detail design process. One final note here relates to the regional versus local classification, whereby more discussion on this is perhaps warranted at the local level so that residents can gain an understanding of what that means in terms of trail design and use levels. Likewise, residents feel that additional discussion should be given to looking at other potential corridors to be designated as a regional trail and weighing the pros and cons of doing so relative to using the Lake Ave. alignment. (Note while this discussion is perhaps warranted, it should be remembered that Lake Ave. was selected due to the simple reality that a majority of people seeking a recreational experience are still likely to use Lake Ave. due to the inherent qualities that it offers. That pattern is unlikely to change irrespective of whether it is designated a local or regional trail.)

With respect to the Hwy. 96 trail corridor, it was clear that the current owners of the property along the lakeshore are <u>not</u> be willing sellers and therefore the trail should be placed within the existing road right-of-way.

With respect to the Hwy. 96 trail corridor, it was clear that the current owners of the property along the lakeshore are <u>not</u> be willing sellers and therefore the trail should be placed within the existing road right-of-way. While most understand and even support the community value of the trail and know the area to be unsafe to walk along, they also have concerns about the technical design of the corridor. The following points were made:

- Keep the trail within the existing right-of-way to minimize encroachment into their properties.
- Provide some form of separation and buffering between the trail and private property to reduce the extent of trespassing that already occurs. This could include fencing, vegetation, ditches, signage, etc.
- Access to private lakeshore properties must be maintained.

In addition to trail related issues, those attending the public meeting also had comment on the road itself, with the main issues being keeping the road as narrow as possible and posting the lowest possible speed limit.

With respect to the South Shore trail corridor, those attending the public meeting showed clear support for a one-way road system with a separated trail similar to that proposed for Lake Avenue.

With respect to the South Shore trail corridor, those attending the public meeting showed support for a one-way road system with a separated trail similar to that proposed for Lake Avenue. Citing safety issues and heavy existing use, residents felt that a trail would be of great value and important to their quality of life. Interestingly, this approach was supported by residents in attendance that would be most inconvenienced by the on-way road system. As a second option, maintaining a two-way road with an urban cross-section and a trail directly adjacent to it was preferred in order to keep to the cross-section of the road and trail as narrow as possible and minimize any encroachment into private property. (Note that the right-of-way is 60' through this area, which is ample.)

As a third option, simply leaving the road as is and providing a separated trail was thought to be better than nothing, but there was also a great deal of concern about encroachment into existing trees, driveways, utility poles, and so forth along the corridor. This is especially a concern of those that have houses and other buildings closer to the road edge. Given these issues, this last option is one that would clearly be the most challenging to gain final consensus on and actually implement.

As for technical concerns, the major points made during public input were dealing with the need to provide places to park along the road, maintaining or enhancing the aesthetic qualities of the area, making sure that lakeshore property owners could maintain access to their property from the road, and maintaining a sense of separation between the trail and the lakeshore properties in areas where the space between the road and lake is narrow.

With respect to the Bruce Vento trail corridor, support was generally very strong, with the community value of this corridor considered to be very high.

With respect to the Bruce Vento trail corridor, support was generally very strong, with the community value of this corridor considered to be very high. In general, those giving input felt that following the existing railroad and road right-of-ways made very good sense and did not really impact private properties to any significant degree. The only exception to this is the area south of the SOO Line railroad tracks crossing, where residents there have a concern about where the trail will go given the limited space. (Note that the plan defines a couple of options in this regard and clearly states the affected property owners should be included in the detail planning of the trail in this area.)

Supporting Factors: As defined above, the supporting factors for each of these trails is that they offer high community value and would also greatly improve pedestrian safety. Maintaining the support for new trails and upgrading existing ones is contingent upon continuing the good-faith public process that brings those most affected by these trails into the design process to ensure that their individual and collective concerns are addressed.

Detracting Factors: The major issue here is not so much should the trails be developed, but to what level of development and how much of an impact will they have on adjacent properties. This again underscores the need to have an inclusive public process as defined above for the detail design of each trail corridor.

White Bear Township

General Perspective: White Bear Township has an established trail plan for the township, which is in the process of being implemented. With respect to Lake Links Network, the primary focus is on completing the Bruce Vento trail corridor and completing a loop around the lake. With respect to the Hwy. 96 trail corridor, the issues remain the same as defined above for the City of White Bear Lake, with it being clear that the current owners of the property along the lakeshore would not be willing sellers and therefore the trail should be placed within the existing right-of-way for the roadway. While most again understand and even support the community value of the trail and know the area to be unsafe to walk along, they have the same concerns about the technical design of the corridor as defined above. In addition to trail related issues, those attending the public meeting again had comment on the road itself, with the main issues being keeping the road as narrow as possible and posting the lowest possible speed limit.

With respect to the Hwy. 96 trail corridor, the issues remain the same as defined above for the City of White Bear Lake, with it being clear that the current owners of the property along the lakeshore would not be willing sellers and therefore the trail should be placed within the existing right-of-way for the roadway.

With respect to the South Shore trail corridor, those attending the public meeting showed clear support again for a one-way road system with a separated trail similar to that proposed for Lake Avenue.

With respect to the South Shore trail corridor, those attending the public meeting showed support again for a one-way road system with a separated trail similar to that proposed for Lake Avenue. Citing safety issues and heavy existing use, residents felt that a trail would be of great value and important to their quality of life. As for second and third options, those defined above by residents of White Bear Lake resonated with residents from the township as well, for the same reasons. As for technical concerns, the major points made during public input were again reflective of those defined by residents of White Bear Lake.

With respect to the Bruce Vento trail corridor, support was generally very strong, with the community value of this corridor considered to be very high.

With respect to the Bruce Vento trail corridor, support was generally very strong, with the community value of this corridor considered to be very high. In general, those giving input felt that following the existing railroad and road right-of-ways made very good sense and did not really impact private properties to any significant degree, with the exception of a stretch of Hugo Rd. south of Bald Eagle Regional Park. With respect to this area, a neighborhood representative stated that there is support for the trail itself (even though part of it involves shared-use of the road), but there are also larger concerns about the road itself that need to be addressed by the Township and County. The major issue here is that residents in this area feel that the traffic along the street is excessive and that pass-through traffic should be terminated on the southern end of the regional park. While this is a stand-alone issue, the idea of terminating the road at this location does in fact bode well for this segment of trail by reducing traffic on Hugo Road and making it safer for shared-use of the road in this very constricted area. Lacking a cul-de-sac type arrangement, traversing the trail through this area in a safe manner becomes more of a challenging proposition.

Supporting Factors: Once again, the supporting factors for each of these trails is that they offer high community value and would also greatly improve pedestrian safety. Maintaining the support for new trails and upgrading existing ones is contingent upon continuing the good faith public process that brings those most affected by these trails into the design process to ensure that their individual and collective concerns are appropriately addressed within the context of the limitations each of these corridors present.

Detracting Factors: The major issue here remains the same as in White Bear Lake, which is that it is not so much a matter of should the trails be developed, but to what extent and how much of an impact will they have on adjacent properties. This again underscores the need to have an inclusive public process as defined above for the detail design of each trail corridor.

City of Dellwood

Whereas the first public meeting residents were very guarded about (and even quite against) the trails, public support for them became more favorable as the process moved forward.

General Perspective: The City of Dellwood posed a unique situation in that many residents came into the public process with many concerns and were generally not too excited about the idea of a trail through the community. Interestingly, though, the collective perspective of those attending the public meetings seemed to evolve as the planning process moved forward and residents became much more aware of the pros and cons that trails through the city would pose. Whereas the first public meeting residents were very guarded about (and even quite against) the trails, public support for them became more favorable as the process moved forward (based on comments made during follow up public meetings, phone calls, and on-site meetings). In fact, there is an enthusiastic contingent of supporters who seem to feel that the city has much more to gain than to lose with the trail project (and the related roadway upgrades).

Support for the trails, however, comes with very high expectations and a good faith understanding that implementation will be done following the parameters defined by this master plan. A key part of that understanding is that the implementation process will continue to include public input to address the detailed concerns that adjacent property owners have as they relate to the trail *and* the adjoining road.

After considerable discussion and in-field review of specific situations with residents, the routes along Hwy. 244 and Hwy. 96 were indeed found to offer the greatest potential for the Lake Links Trail Network.

With respect to finding a trail corridor through the community, a variety of options were considered, with the primary focus being on determining the viability of routes along Hwy. 244 and Hwy. 96, as well as a number of other options. After considerable discussion and in-field review of specific situations with residents, the routes along Hwy. 244 and Hwy. 96 were indeed found to offer the greatest potential for the Lake Links Trail Network for a number of reasons (which parallel those defined by Mahtomedi residents):

- These two corridors have a history of being used by pedestrians and bicyclists, even though trail facilities are lacking and the road is thought to be unsafe in some areas to walk along (this is especially true of Hwy. 244).
- In the case of Hwy. 244, upgrading of the road is needed, which provides a great opportunity for retrofitting the trail at the same time the road is rebuilt.
- Adequate R.O.W. exists along key portions of Hwy. 244 to accommodate trail and minimize encroachment into adjacent properties (Note, however, that additional right-of-way will be needed in some area, although fortunately the impacts to adjacent properties would be relatively minimal).
- Route along Hwy. 244 provides a strong north-south trail corridor within the city and thus becomes a major component of the local trail system.
- Route along Hwy. 96 provides a strong east-west corridor that has regional significance by making a connection from the Bruce Vento and other regional trails to the Gateway trail and over to Stillwater.

The Hwy. 96 trail corridor is important in that it helps spread out trail use in this area, which in turn will take some of the use pressure of the Hwy. 244 corridor.

The Hwy. 96 trail corridor is important in that it helps spread out trail use in this area, which in turn will take some of the use pressure of the Hwy. 244 corridor. This is an important point in that a narrower trail cross-section, which is less than the regional standard of 10'-12', can be used along Hwy. 244 where space is limited. This narrower cross-section also keeps the trail along Hwy. 244 in Dellwood in a local versus regional context, which was an important point to the residents who attended the public meetings.

Also of importance to the discussion is the understanding that when the roadways are upgraded, their cross-sections will be kept as narrow as possible to minimize encroachment into adjoining properties.

Also of importance to the discussion is the understanding that when the roadways are upgraded, their cross-sections will be kept as narrow as possible to minimize encroachment into adjoining properties. Likewise, maintaining or enhancing the aesthetic qualities of the corridor was also very important to residents. It is the expectation of private entities, such as the White Bear Lake Yacht Club, that facilities critical to their day-to-day function are not compromised and that upgrades to the road and trail interface well with existing features along the roadway corridor. This includes issues such as parking, buildings, crosswalks, and other existing features of importance.

While public support for the trails was much stronger at the end of the process than at the beginning, some opposition does remain for a variety of reasons. Most notable of these is the feeling that some residents have that the trail is being forced upon them, a perceived loss of personal privacy, and concerns about safety of the trail at driveway interfaces. Whereas the opposing view was ultimately held by a minority of those attending the meetings and giving input through phone calls, the CAC was respectful of varying perspectives and directed the planning team to address as many of the issues up front as possible as part of the master planning process – including on-site reviews with property owners to address individual concerns and follow up on issues such as crime and safety.

Supporting Factors: The Hwy. 244 and Hwy.96 corridors are clearly vital links in the Lake Links Trail Network and have the potential to provide high recreational value and greatly improve pedestrian safety along these trail routes.

Detracting Factors: As with any retrofit situation, upgrading the road and building a trail will have some impact on adjacent properties which will naturally be of concern to the property owners. Critical to being successful in developing these trail corridors is making sure that the expectations associated with implementing the plan (as previously defined under the General Summary of Public Input) are adhered to.

City of Grant

The idea of another cross-country trail was not well received, especially by those that would have to sell their property to make it happen.

General Perspective: The City of Grant offered different challenges than those of the other cities because of its rural overall character and residents concerns that a trail corridor through the city would infringe too heavily on private property. Although the Gateway trail has shown marked success and posed very few problems, the idea of another cross-country trail was not well received, especially by those that would have to sell their property to make it happen.

With respect to finding an acceptable trail corridor through the community, a couple of options were considered. The first was following an old, mostly privately owned railroad right-of-way that bisects the community from Mahtomedi over to the Gateway trail. Whereas this option showed great promise for a recreational trail, it was clear from public input that the current property owners have no interest in selling their property for a trail corridor for a variety of reasons, ranging from privacy issues to the desire to restore the old rail bed to natural vegetation. After considerable debate, it was clear that while this corridor would be of high value, the likelihood of gaining property ownership and general local support for the trail was rather remote. As a result, the primary focus for a trail corridor through the city shifted over to Hwy. 96 for a number of reasons:

- This corridor has a history of being used by pedestrians and bicyclists, even though trail facilities are lacking and the road is thought to be unsafe in some areas to walk or bike along.
- Adequate R.O.W. exists along most of the Hwy. 96 corridor through Grant to accommodate the trail.
- Route along Hwy. 96 provides a strong east-west corridor that has regional significance by making a connection from the Bruce Vento and other regional trails to the Gateway trail and over to Stillwater.

As with other communities, a key part of accepting the trail corridor along Hwy. 96 is the understanding that the implementation process will continue to include public input to address the detailed concerns that adjacent property owners have as they relate to the trail <u>and</u> the adjoining road.

Residents attitudes about the Hwy. 96, as judged by those attending the public meetings and follow up phone calls, ranged from very enthusiastic to simple acceptance, and, in some cases, unsupportive. Those that are less enthused about the trail cite uncertainties about the impact the trail would have on private property or simply feel that a trail along Hwy. 96 is not necessary. As with other communities, a key part of accepting the trail corridor along Hwy. 96 is the understanding that the implementation process will continue to include public input to address the detailed concerns that adjacent property owners have as they relate to the trail <u>and</u> the adjoining road. Also of importance to this discussion is the understanding that when the roadway is upgraded, its cross-section will be kept as narrow as possible to minimize encroachment into adjoining properties. Likewise, maintaining or enhancing the scenic qualities of the corridor was also very important to residents.

One other option that was cited during the public process was to simply continue the use of the County Rd. 12 trail corridor as the only route through the city. While this corridor is important to maintain, it was determined by the CAC and planning team that the Hwy. 96 trail corridor is also important in that it serves to make a more direct link between the Bruce Vento trail corridor and the Gateway trail. In addition, the Hwy. 96 route helps spread out trail use in this area, which is important to residents in Dellwood and Mahtomedi who want to make sure that the Hwy. 244 corridor remains more of a local, versus regional, trail for a variety of reasons as noted above.

The Hwy.96 corridor is an important route in the Lake Links Trail Network because of the regional connections that it makes.

Another issue raised is the need to accommodate horses along the roadways, including making provisions for them to cross the trail. Also, concern was expressed about who would be responsible for potential increased costs associated with emergency services for incidents happening along the trail. Likewise, operations and maintenance responsibilities also needs to be clearly defined prior to development.

Supporting Factors: The Hwy.96 corridor is an important route in the Lake Links Trail Network because of the regional connections that it makes. Also, since the trail essentially stays within the public right-of-way, there will be very limited, if any, impact to adjoining private properties.

Detracting Factors: As with any retrofit situation, building a trail along this corridor will pose some disruptions within the public right-of-way. Otherwise, given that the right-of-way is ample through the city of Grant, there should be only minor and short-term disruptions to adjoining private properties at the time that the trail is built.

There was great enthusiasm for completing the trail loop around Silver Lake, making the connection between the Oakwood and Mahtomedi trail systems, and making an east-west trail connection from Silver Lake over to the Bruce Vento trail.

Cities of Maplewood, N. St. Paul, and Oakdale

General Perspective: In general, there was great enthusiasm for completing the trail loop around Silver Lake, making the connection between the Oakwood and Mahtomedi trail systems via a pedestrian bridge across I-694, and making an east-west trail connection on the north side of Maplewood from Silver Lake over to the Bruce Vento trail following the powerline easement. Since each of these have been considered in the past at the local level, the idea of furthering that thinking by including them in the Lake Links Trail Network master plan was thought to be prudent and would strengthen the collective value of these local trails.

There was complete support for developing a trail along Hwy. 120, where pedestrian safety has been an issue.

With respect to completing the trail loop around Silver Lake, there was complete support for developing a trail along Hwy. 120, where pedestrian safety has been an issue. There was also support for upgrading the trails in the parks on the north and south shores, which would be important parts of the loop trail around the lake as well as meeting in-park trail needs. Maintaining the existing on-street trail on Lake Blvd. was thought to be appropriate given the relatively light traffic and lack of space for an off-street trail to be developed. As for the bridge crossing of I-694, the idea of connecting the existing trails in Mahtomedi with those of Oakdale was well received, as was the idea of using a separate pedestrian bridge rather than the Hwy. 120 bridge crossing since it would be a much more pleasant and safer crossing.

With respect to the east-west trail corridor following the powerline, this too was well received by those attending the public meetings. Since this corridor is already defined in the City's park and trail system plan, gaining broad local support would appear likely. The major challenge here lies in gaining access to the powerline right-of-way, especially in the westerly segments where private properties abut both sides of the powerline corridor. Critical to making this alignment work will be involving adjacent property owners in the design process so that their specific concerns about encroachment and buffering can be addressed. Should this not be attainable, support was gained for an alternative alignment along County Rd. D.

Supporting Factors: Since many of these trail corridors and points of connection either already exist or are planned, tying them together into a cohesive whole through the Lake Links Trail Network master plan seems prudent and well conceived.

Detracting Factors: As with any retrofit situation, there will be some technical challenges that will have to be worked out as part of the detail design process, none of which are perceived to be insurmountable.

City of Stillwater

General Perspective: The City of Stillwater has a history of trail planning at the local level and has actively pursued construction of trails along a number of local streets and within new development areas in recent years. With respect to Lake Links Network, the major question raised was where was the best location for a regional level trail to interconnect with the local trail system. To this point, County Rd. 64 / McKusick Rd. alignment was thought to be a possibility at one point, in addition to the Zephyr Line right-of-way and the Hwy. 96 corridor. However, in the end, the County Rd. 64 alignment was thought to be best suited as a local trail and that either the Hwy. 96 or Zephyr Line right-of-way would be more desirable. With respect to the Zephyr Line as the primary route, it was seen as an interesting option that was worthy of consideration. At the same time, it was also recognized that the line is privately owned and that acquiring it was froth with uncertainty. As such, the Hwy. 96 corridor provides a practical fallback position to be considered at the time the trail is implemented. Note also that the city expressed a desire to continue the regional trail into the downtown area along Hwy. 95, which would then provide a completed link from Stillwater to the larger Lake Links Trail Network. (Note: This is addressed in Section III.)

Supporting Factors: In general, linking the city's trail system to the Lake Links Trail Network was thought to make sense and would be of value to the community.

Detracting Factors: Aside from the technical challenges of retrofitting the trail, there are no major detracting factors that came to light during the planning process.

City of Hugo

General Perspective: Although the City of Hugo is on the periphery of the study area, connecting the Lakes Links Trail Network to the existing Hardwood Creek trail and the evolving Clearwater Creek trail corridor was thought to be important by those representing the city on the CAC and citizens-at-large who provided input during the planning process. The Clearwater Creek trail corridor in particular holds promise in that it would link the Bruce Vento and Hardwood Creek trail corridors to the Rice Creek Chain of Lakes trail system in Centerville/Lino Lakes.

Supporting Factors: Making the connections defined above greatly expands regional trail opportunities.

Detracting Factors: As defined by Hugo city staff, the actual route along the Clearwater Creek corridor has yet to be completely defined. However, recent development projects along the corridor do have a provision for trails along the creek, which is a major step toward the realization of this trail corridor.

CAC Community Value Conclusions

In consideration of the issues defined above, the CAC came to the conclusion that the overall value of the trail network justifies its development and that the routes ultimately selected for inclusion in the master plan are those that offer the greatest community value with the fewest impacts to private properties and personal interests.

In consideration of the findings defined on the previous pages, the CAC came to the conclusion that the overall value of the trail network justifies its development and that the routes ultimately selected for inclusion in the master plan are those that offer the greatest community value with the fewest impacts to private properties and personal interests. Whereas there were alternative routes that offered outstanding trail opportunities, the ones ultimately selected were those that were thought to serve the need while still being reasonable and practical to implement, everything considered. Other conclusions related to the overall community value of the trail network include the following:

- Demand for trails is well established and will likely continue to grow in the future.
- Past citizen-driven planning efforts and public input during this study suggest that an integrated trail network in the study area would offer high community values.
- In-field observations suggests that trail routes defined by the master plan are already being used by pedestrians and bicyclists even though no formal trail exists.
- Public safety remains a major concern and is a significant factor in the selection of the trail routes.

Responding to Personal Values

Developing a viable master plan that is implementable requires an understanding of, and empathy for, the concerns of those most affected.

Whereas the community values as defined above suggest that a looped trail network would be of high community value, developing a viable master plan that is implementable requires an understanding of, and empathy for, the concerns of those most affected. Whereas the community values of the trail network are pronounced, the CAC also recognized that inevitably every trail alignment affects private properties and personal values to varying degrees. In light of this, the CAC was committed to working toward minimizing the direct impacts to private properties to the degree possible. In addition, the CAC asked the planning team to define the expressed concerns and opinions of property owners and to determine their expectations related to the trail alignment and character along each proposed corridor to ensure that those considerations were brought forward to the point of implementation. Forthcoming sections of the report considers these issues in greater detail and defines the development issues and constraints that need to be addressed as part of the implementation phase of the project.

Section III Trail Network Master Plan

Master Plan Overview

The final plan represents a network of trails that fulfill the objectives set for the study.

The trail network consists of eight trail corridors, which tie into several existing or planned corridors at the State, regional, and county level.

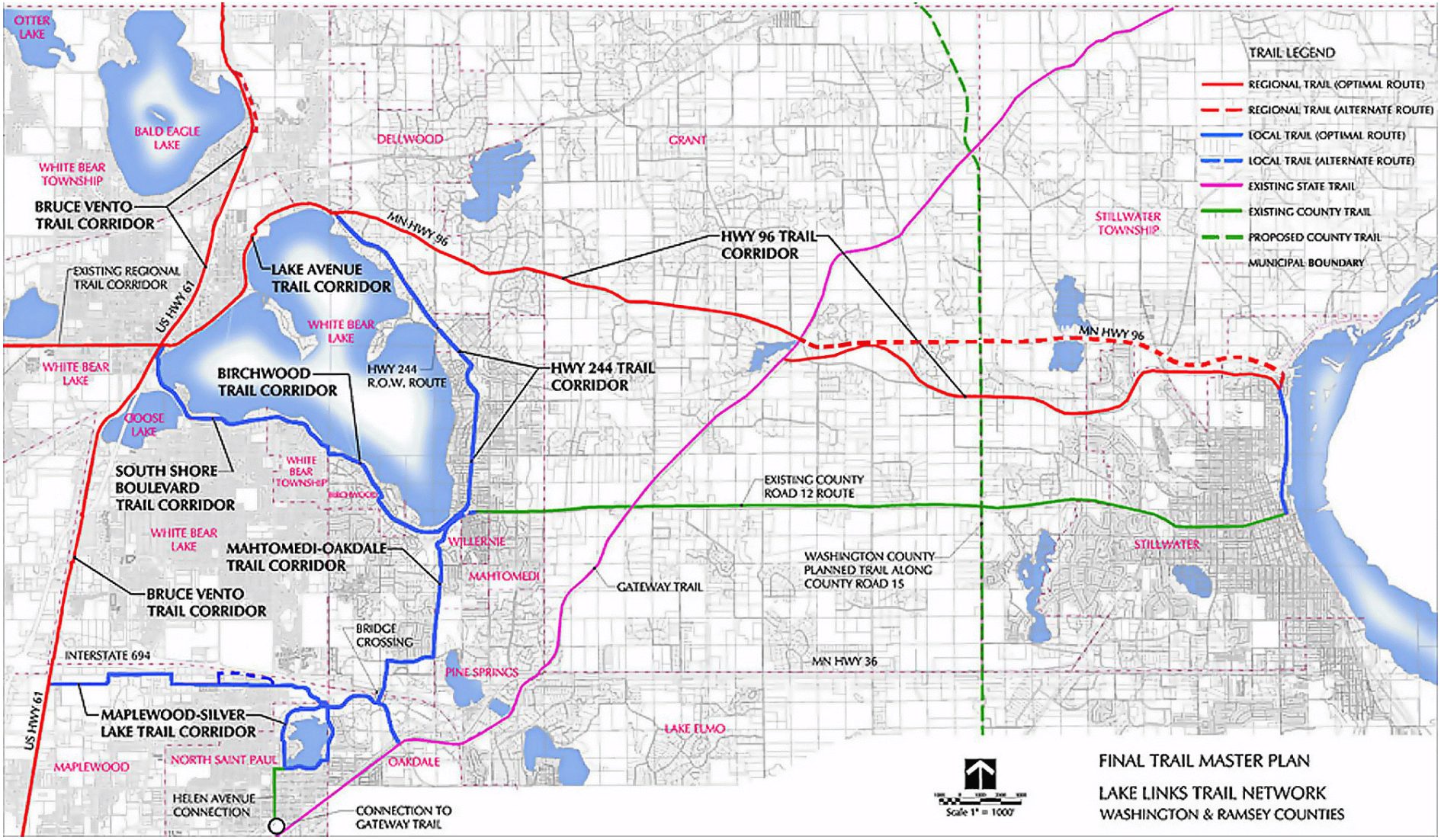
The trail network master plan is the end result of the planning and public process. The final plan represents a network of trails that fulfill the objectives set for the study. The master plan also represents a trail network that was molded as much by the limitations of the planning area as it was by the opportunities it offered. In spite of the challenges, it is believed that the trail network presented here offers very high recreational value to the surrounding communities and greatly improves pedestrian safety along the trail corridors.

The trail network consists of eight trail corridors, which tie into several existing or planned corridors at the State, regional, and county level. In addition, the trail network interlinks with a series of existing and planned local trails that, ultimately, will provide a seamless and expansive system of trails within the study area. The following table provides an overview of the trail corridors defined under the master plan. *Total trail mileage is 34.1*.

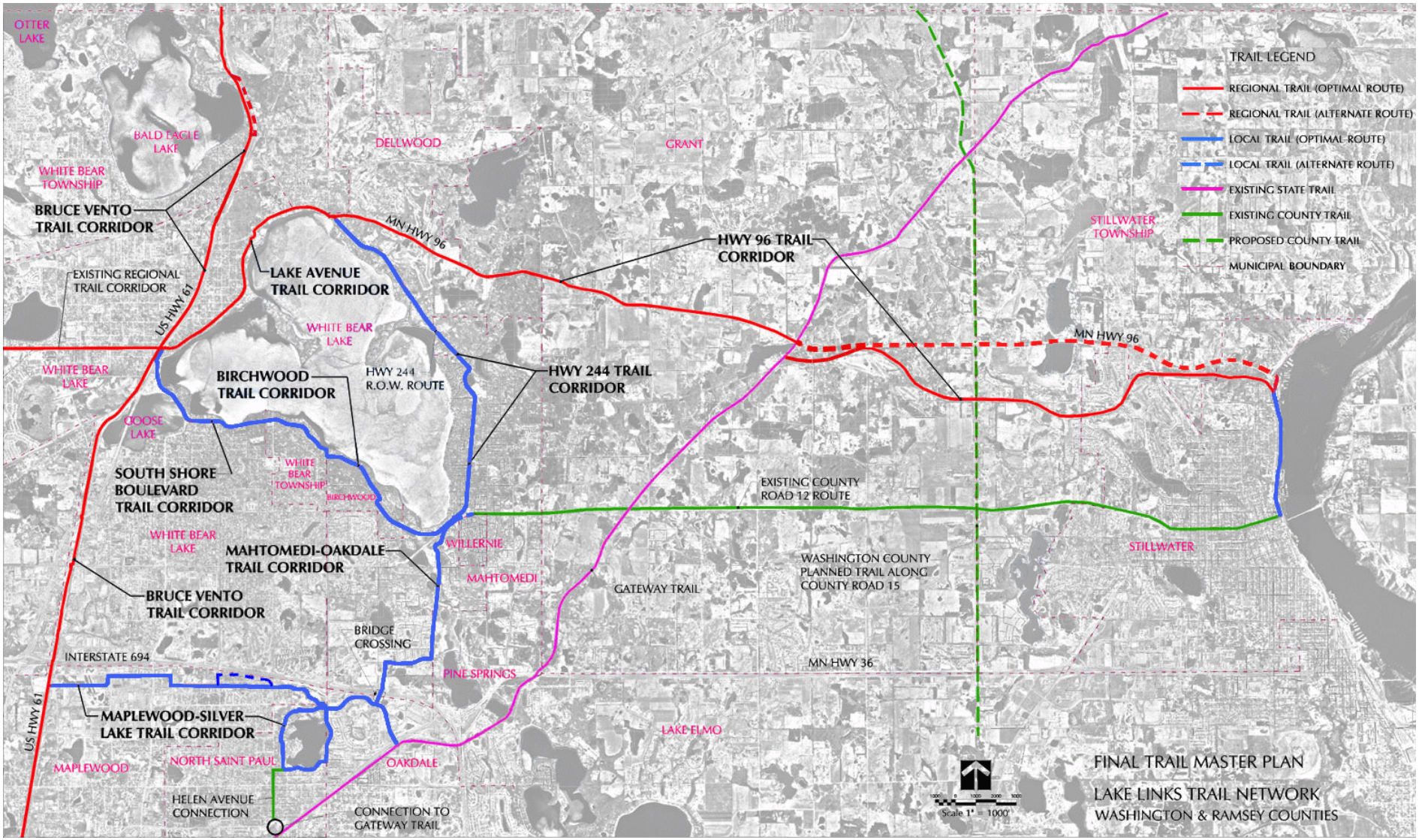
Trail Corridor	Description
Bruce Vento Trail Corridor (7.3 miles)	North-south regional trail that extends the existing trail from Beam Avenue in Maplewood north into Hugo, where it will continue on to link with other regional-level trails. The corridor generally follows the Burlington Northern railroad alignment, as well as existing adjacent roadways.
Lake Avenue Trail Corridor (2.1 miles)	Regional trail corridor that follows an existing trail corridor from Lions Park north along Lake Avenue on the west side of White Bear Lake in the City of White Bear Lake.
Hwy. 96 Trail Corridor (10.3 miles)	Regional trail corridor that follows the Hwy. 96/Zephyr Line rights-of-way from Ramsey Beach all the way to Stillwater.
Hwy. 244 Trail Corridor (3.5 miles)	Trail corridor that follows the Hwy. 244 right-of-way from Hwy. 96 south to the downtown area of Mahtomedi and Willernie.
Birchwood Trail Corridor (1.7 miles)	Trail corridor that follows Wildwood and Lake Avenues through the City of Birchwood. Given limited road right-of-way through this area, an on-street bike route is proposed for this segment.
South Shore Blvd. Trail Corridor (1.5 miles)	Trail corridor that follows South Shore Blvd. from East County Line to Goose Lake area.
Mahtomedi-Oakdale Trail Corridor (3.1 Miles)	Trail corridor that starts in downtown Mahtomedi and heads south to connect with an existing trail in Oakdale. This corridor includes a proposed pedestrian bridge across I-694.
Maplewood- Silver Lake Trail Corridor (4.6 Miles)	Trail corridor that provides a loop around Silver Lake and then heads west along the northern edge of Maplewood following a powerline easement and local streets to make a connection with the Bruce Vento trail corridor.

Figures 3.1 and 3.2 on the next two pages provide an overview of the Lake Links Trail Network.

Overall Trail Network Master Plan Map



Overall Trail Network Master Plan Map – Aerial View



Trail Network Evaluation Against Stated Criteria

As defined in the previous section, a set of evaluation criteria were applied to provide an objective framework for evaluating potential trail routing options. The following briefly summarizes the evaluation of the overall trail network against those criteria.

Evaluation Summary – First Tier Criteria

Criteria	Evaluation Statement
Regional Values	The trail network offers significant regional values, especially by providing: ▸ An interconnection between existing regional and State trail corridors and between local communities. ▸ A new regional-level recreational amenity that provides a new system of interconnected trails that allows trail users to travel through several communities.
Local Values	Trail network offers significant value to the local communities in a number of ways, including: ▸ Providing a safe place for pedestrians and bicyclists to walk, ride bikes, and in-line skate. ▸ Providing high demand recreational amenities for local residents to use and enjoy. ▸ Expanding local trail options beyond the local community to create a larger, more complete system.
User Experience Values	The trail network around the two lakes offers high recreational value in very desirable settings. Expanding the regionally-based trail system through the creation of the Lake Links Network also provides extensive recreational value by greatly expanding trail options offering a vast array of settings and lengths.

Evaluation Criteria – Second Tier

Criteria	Evaluation Statement
Natural Setting	Even though the proposed trail corridors follow existing road and railroad rights-of-way, the lakes they encircle along with interconnections made with regional parks and local parks/natural open space areas offer high aesthetic and recreational value.
Separated Trail	With a few exceptions, the Lake Links Trail network consists of separated trails that greatly improve user safety and enhance the recreational experience.
Natural Resource Issues	Since virtually all of the trail corridors follow existing road and railroad right-of-way, the direct impact to natural areas is relatively minimal. Although trail construction (and roadway upgrades) will have some impact to adjacent wetlands and natural vegetation in select locations along Hwy. 96 and Hwy. 244, this can be kept to a minimum and any impacts would be appropriately mitigated.
Acquisition Issues	Since the trail corridors generally stay within existing road and railroad rights-of-way, acquisition of private properties is relatively minimal and generally limited to instances where the right-of-way is simply too narrow for trail (and roadway) upgrading occur.
Physical Constraints	Although impediments exist, the inherent physical constraints along the proposed corridors are surmountable and technically feasible to overcome.
Encroachment Issues	Minimizing the level of encroachment into adjacent properties and keeping the trail/roadway cross-section as narrow as possible within the right-of-way is a fundamental objective of the master plan and of critical importance to affected property owners.

Cost-Benefit	Given the high demand for trails in the region, along with the high recreational value and improved safety that these trails would provide to the surrounding communities, the long-term cost-benefit of Lake Links Trail Network appears justifiable.

Evaluation Criteria – Third Tier

Criteria	Evaluation Statement
Public and Political Acceptance	Based on the results of the public process, there is a general consensus that the trail network would offer high community value. However, there is also an expectation that the implementation of the trail would be done with sensitivity toward minimizing impacts to adjacent properties and maintaining the character of the corridors it follows. Acceptance of the plan is also based on the expectation that local communities will be directly involved in the implementation process and that local citizens will have an opportunity to participate in the detail design of the trail (and roadways) in their community.

When considered against the evaluation criteria, it is clear that the Lake Links Trail Network measures up very well and that an interlinking trail system would offer high regional and local values.

When considered against the evaluation criteria, it is clear that the Lake Links Trail Network measures up very well and that an interlinking trail system would offer high regional and local values. In addition, the evaluation statements suggest that while technical and public/political issues remain to be fully addressed as part of implementing the plan, the actual development of the trail network seems very feasible. Whereas the expectations are high as to how the plan will be implemented (as defined in the last section), there is also a reasonable degree of good faith built between the public and the CAC and planning team to ensure that personal concerns will be given due consideration as the project moves forward. While impacts to right-of-ways and, in some cases, adjacent properties are inevitable, expectations are high that implementing agencies will work toward minimizing encroachment and ensuring that the aesthetic qualities of the proposed corridors are not diminished.

Regional and Local Trail Designations

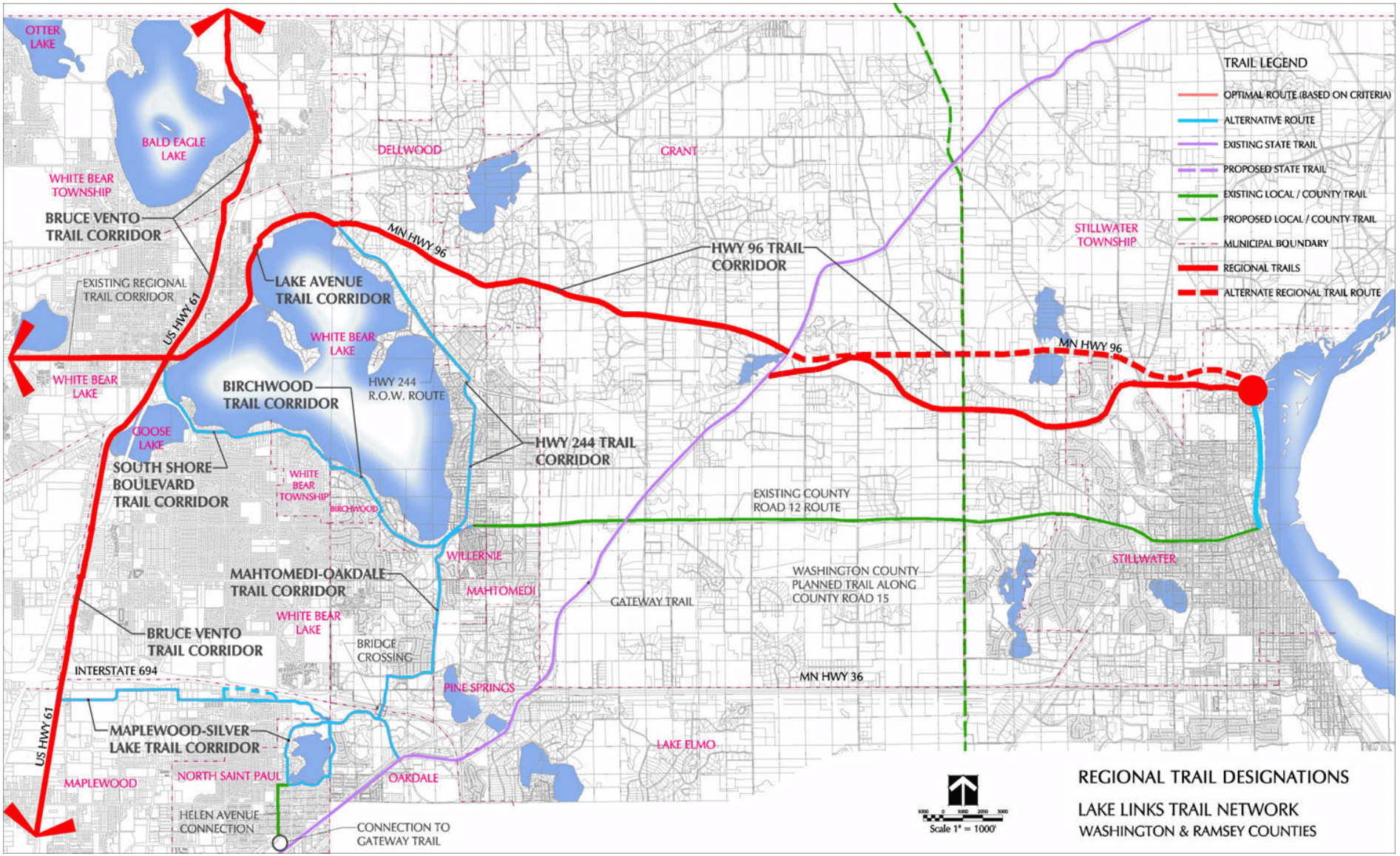
Whereas the trail network master plan serves to form a cohesive system of trails within the study area, there is a distinction between trail corridors that are locally-based and those that are regionally-based.

Whereas the trail network master plan serves to form a cohesive system of trails within the study area, there is a distinction between trail corridors that are locally-based and those that are regionally-based. As figure 3.3 on the next page illustrates, two of the corridors included under the Lake Links Trail Network are designated as regional trails: The Bruce Vento trail corridor and the Hwy. 96 trail corridor. These trails are given regional designation because they meet the criteria as defined by Regional Recreation Open Space Policy Plan Update (November, 2000). This includes:

- Providing access to or traverse through regional parks or park reserves and serve to link these parks together.
- Providing linkages between existing regional and state trails.
- Traversing interesting developed areas.
- Traversing high quality natural areas.

The remaining trails within the network are defined as local-level trails (city, township, and county), whereby their focus is on meeting local trail needs and providing connections to the regional and state trails. Note here that one of the advantages of the local trail designation is that it offers a higher degree of latitude in their location and width, which is important in situations where narrower trails (i.e., less than the 10' to 12' regional standard) may be desired to maintain its local level context (and perhaps necessary given space limitations in certain areas).

Regional Trail Designations Map



From an implementation standpoint, the most important distinction between trail types is the potential avenues available for funding.

From an implementation standpoint, the most important distinction between trail types is the potential avenues available for funding. Under the regional park designation, regional trails will likely be funded through programs administered though the Metropolitan Council through a competitive ranking process. Local trails, on the other hand, are funded at the local level or through a variety of trail funding programs at the County, State and Federal level. Whereas none of these sources are guaranteed, the inclusion of local trails within the Lake Links Trail Network master plan shows the inter-connective nature of these trails, which in turn provides the platform for local cities, counties, and townships to collaborate on seeking funding opportunities for development.

Technical Overview of Individual Trail Corridors

The purpose of the review is to more clearly define trail alignment and other important planning outcomes and issues.

The latter part of this section provides a technical review of the individual trail corridors defined by the master plan. The purpose of the review is to more clearly define trail alignment and other important planning outcomes and issues. These in turn will set the stage for implementing the plan and serve as an underpinning for continued public input to ensure that the expectations of those most affected by trail development are ultimately met. The following table provides an overview of each of the trail corridors.

Trail Corridor	Design Overview	Major Issues
Bruce Vento Trail Corridor	A separated trail with a 12' wide cross-section is recommended to accommodate heavy use and a variety of users.	▸ Uncertainty of future multi-modal transportation needs along this railroad corridor. ▸ Retrofitting the trail in areas where space is limited. ▸ Ensuring that local residents have an opportunity to give input into the detail design process.
Lake Avenue Trail Corridor	Enhancements to trail cross-section to ensure pedestrian safety is recommended.	▸ Working with local residents to determine the type of improvements that are justified and add value.
Hwy. 96 Trail Corridor	A separated 10' trail adjacent to the roadway is recommended given the regional status of this trail corridor.	▸ Retrofitting the trail in areas where space is limited. ▸ Ensuring that local residents have an opportunity to give input into the detail design process.
Hwy. 244 Trail Corridor	A separated 8' to 10' trail as part of upgrading the roadway is recommended (local input is needed on final width).	▸ Retrofitting the trail in areas where space is limited. ▸ Ensuring that local residents have an opportunity to give input into the detail design process.
Birchwood Trail Corridor	Maintaining existing on-road shared-use system is recommended, with upgrades.	▸ Ensuring that local residents have an opportunity to give input into the detail design process.
South Shore Blvd. Trail Corridor	A separated 8' to 10' trail adjacent to the roadway is recommended, preferably with one-way road system.	▸ Determining which roadway cross-section best serves need ▸ Ensuring that local residents have an opportunity to give input into the detail design process.
Mahtomedi-Oakdale Trail Corridor	Making connection between two established trails via a bridge across I-694 is recommended.	▸ Determining the best location for the crossing and working with MNDOT to actually implement.
Maplewood-Silver Lake Trail Corridor	A separated 10' trail along the powerline in Maplewood and completing the loop around Silver Lake is recommended.	▸ Retrofitting the trail in areas where space is limited. ▸ Ensuring that local residents have an opportunity to give input into the detail design process.

Turnback Status of Roadway Affected by the Trail Corridors

The timing of turning back some of the roads within the study area from the State to the County, and from the County to the local city or township is an important aspect of implementing the master plan.

The timing of turning back some of the roads within the study area from the State to the County, and from the County to the local city or township is an important aspect of implementing the master plan. Turnback essentially refers to a shift of responsibility for upgrading, maintaining, and operating a roadway from one agency to the other as part of the overall transportation plan for the region. The following table provides an overview of the roads that fall under the turnback program and their current status.

Roadway	Turnback To/From	Status	Impact on Trail Development
Hwy. 244	State to County	On turnback list, but unfunded under the current funding program. Likely to be a minimum of five, perhaps even ten, years before funding would be available to upgrade the road as part of a turnback agreement.	Upgrading the road as part of a turnback agreement is vital to this trail corridor in that the trail cannot be built without doing so. As it stands now, the timing of the turnback limits the short-term prospects for developing the trail. Note, however, that collaboration between the County and local cities could initiate a reassessment of the timing of this segment given the greater community values that would be realized with the development of the trail.
Hwy. 96	State to County	On the turnback list but unfunded under the current funding program. Likely to be a minimum of ten, perhaps even fifteen, years before funding would be available to upgrade the road as part of a turnback agreement.	Retrofitting the trail along the Hwy. 96 corridor will impact the road itself in some areas, especially the western half from the Ramsey County Beach to Ideal Ave. N. In these areas, the trail would either lie directly adjacent to the road behind a curb or be separated by a relatively narrow boulevard. To accomplish this, upgrading the road itself or shifting its location within the right-of-way may be necessary. In areas where the right-of-way is wider and ample room is available for the trail, no upgrading of the road would be needed to accommodate the trail. The most critical area of this road in the short-term is the stretch on the north side of White Bear Lake, where making the connection from the Ramsey County Beach to Hwy. 244 is critical to the trail loop around the lake.

Roadway	Turnback To/From	Status	Impact on Trail Development
County Road 94 / South Shore Blvd.	County to City and Township	County has desire to turnback to City of White Bear Lake and White Bear Township, but negotiations remain incomplete for a variety of reasons.	Retrofitting the trail along the South Shore corridor will impact the roadway in a variety of potential ways, depending on final decisions as to which road/trail cross-section is most appropriate. However, under each scenario the road will require some redesign to accommodate the trail. Given this, addressing turnback issues as part of implementing the trail master plan seems unavoidable.
County Road 154 / Hugo Road	County to Township	County has desire to turnback to White Bear Township, but negotiations remain incomplete for a variety of reasons.	Retrofitting the trail along Hugo Road will impact the roadway in a variety of potential ways, with the most important one being the issue of a cul-de-sac near Bald Eagle Lake. Given this, addressing turnback issues as part of implementing the trail master plan seems unavoidable.

In reality, the development of the trails along these corridors will be lock-stepped with the timing of the upgrading and turning back of the adjoining roadway from the State to the County and from the County to the local cities and township.

As the table defines, the turnback schedule associated with each of these roadways is quite important to a number of the trail corridors. In reality, the development of the trails along these corridors will be lock-stepped with the timing of the upgrading and turning back of the adjoining roadway from the State to the County and from the County to the local cities and township.

Design for Roadways on Turnback Schedule

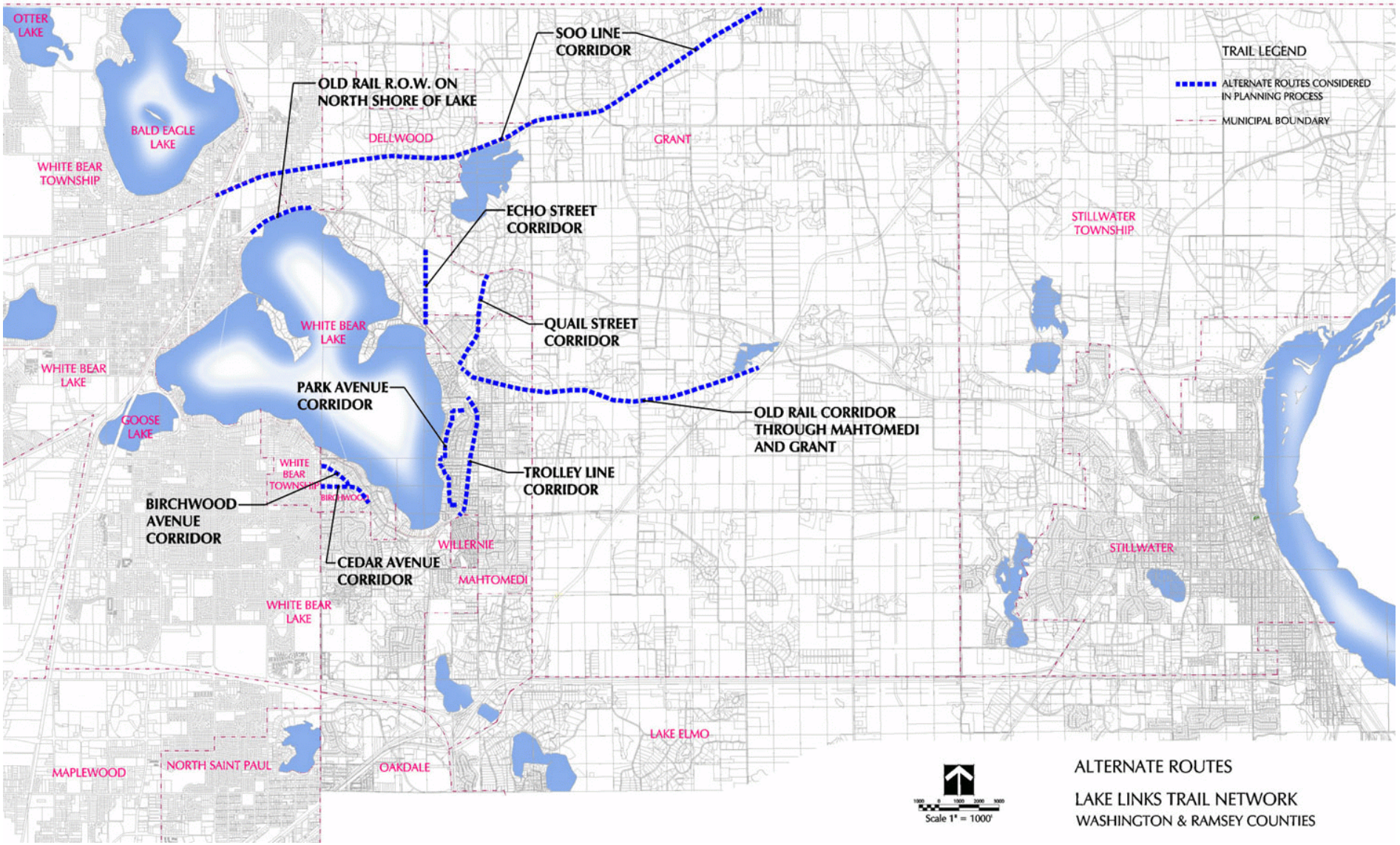
The design for the roadways on the turnback schedule would follow the standards defined by MNDOT and the County. Note, however, that both Washington and Ramsey Counties recognize that some degree of flexibility may be required in order to incorporate a trail along these corridors and preserve their existing aesthetic qualities. As defined by this master plan, there is also the expressed desire by local residents to keep the roadway cross-sections as narrow as possible to help calm traffic and maintain the existing sense of place. To this end, the cross-sections shown under the technical reviews for each of the trail corridors define the roadway/trail cross-sections found to be most advantageous to the CAC, with the understanding that they each meet minimum safety standards defined by MNDOT. The intent is to use these cross-sections as the starting point for future roadway designs.

Alternative Trail Corridors Considered During the Planning Process

A number of alternative trail corridors were considered during the planning process.

As previously noted, a number of alternative trail corridors were considered during the planning process. Whereas these routes were ultimately excluded from further consideration for various reasons, some of them held great promise when first considered against the first tier evaluation criteria. However, when measured against second and third tier criteria, it became clear that these routes were either not the best option and/or would simply not be implementable and therefore did not warrant further consideration. Figure 3.3 on the next page illustrates the alternative routes considered during the planning process. The figure is subsequently followed by a table that summarizes the rationale for their ultimate exclusion from the plan as primary routes.

Map of Alternative Trail Corridors Considered



Review of Alternative Trail Corridors

The following table defines the rationale for considering and ultimately excluding a number of alternative routes that were reviewed as part of the planning process. Note here that while each of these options did not make the final plan, some of them continue to have merit as part of local trail systems and, in some cases, may be worthy of a second look should the primary routes defined by the master plan fail to materialize.

The table defines the rationale for considering and ultimately excluding a number of alternative routes that were reviewed as part of the planning process.

Alternative Route	Overview and Rationale for Excluding from Master Plan
Old Railroad Right-of-Way on North Shore of White Bear Lake along Hwy. 96	This corridor would follow an old rail/trolley line right-of-way on the north side of White Bear Lake between Ramsey County Beach and Hwy 244. The right-of-way lies about midway between the highway and the lakeshore. Although some portions of this right-of-way are publically-owned, much of it is not. Although this alignment offered very high recreational values, it was eliminated from consideration due to the clear lack of interest by property owners in selling their lakeshore property or having it bisected by a trail easement. Under the circumstances, it was determined that working within the existing road right-of-way wherever possible was the most implementable approach to developing this segment of the Hwy. 96 trail corridor. (Note, however, that some impacts to adjoining properties are unavoidable along this segment of the trail, as defined in the technical review of this corridor.)
Old Railroad Corridor Through Mahtomedi and Grant	This old railroad corridor starts at about Briarwood and Quail Street in Mahtomedi and proceeds east through Grant until it reaches the Gateway trail. Whereas the portion of the corridor through Mahtomedi is largely publically owned, the remainder in Grant is privately-owned. Although this alignment offered very high recreational values, it was eliminated from consideration due to the clear lack of interest by property owners in Grant to sell their rights for a variety of reasons, ranging from privacy issues to simply disliking the idea of the trail corridor on its own merit. Under the circumstances, it was clear that this alignment would simply not be implementable under the willing-seller approach to land acquisition.
Echo Street and Quail Street Corridors	These two parallel streets were considered as an alternative to the northern part of the Hwy. 244 corridor. After careful review, the Hwy. 244 route was determined to have the greatest merit for these reasons: ▸ Completion of a cohesive around-the-lake loop was thought to be very important. ▸ The established pattern of use along Hwy. 244 is unlikely to change (people simply like going around the lake via the most direct route). ▸ Inherent safety issues associated with the current Hwy. 244 cross-section cannot be ignored. ▸ Continuity and directness of the Hwy. 244 route makes it the most prudent alignment. ▸ Constraints to developing a trail along either of these streets is similar to, if not greater than, those found along Hwy. 244. For these reasons, the Hwy. 244 trail corridor was found to have the greatest merit.

Alternative Route	Overview and Rationale for Excluding from Master Plan
SOO Line Rail Corridor	This corridor was considered as an alternative to the Hwy. 96 corridor or the old rail corridor through Mahtomedi and Grant to get from the Bruce Vento trail corridor to the Gateway trail. Whereas the corridor has some long-term potential for a significant regional-level trail corridor, it was found that it would not achieve the objectives set for this trail network and was therefore eliminated as an option.
Cedar and Birchwood Avenues Corridors	Cedar and Birchwood Avenues traverse through the city of Birchwood south of Wildwood and Lake Avenues. Although each of these were considered options, Wildwood and Lake Avenues were selected because they tied into an existing park, brought people closer to the lakeshore, offered relatively low traffic volumes, have reasonable sight lines, and were interesting to walk or bike along.
Trolley Line and Park Avenue Corridors in Mahtomedi	As defined in Section II, each of these two corridor options were considered as an alternative to the Hwy. 244 corridor. In the end, however, it was found that each of these are best suited to be local-level trails and that the Hwy. 244 corridor would best serve as the through corridor that would link the local trail system with the Lake Links Trail Network. Also, since Hwy. 244 is already used by pedestrians and bicyclists, upgrading the trail (and road) to improve safety was thought to be needed.

Interconnection with Local Level Trail Systems

As noted previously, the interconnection between the Lake Links Trail Network and existing and planned local systems is a fundamental objective of the planning process. While the master plan presented here focused on the Lake Links Trail Network, the local trail systems play a significant role in creating a comprehensive network of trails that provide a safe place for pedestrians and bicyclists to walk, ride bike, and in-line skate. Although the degree to which local level trail systems are defined and implemented varies between local cities, the maps shown in Appendix B provide an overview of local system plans that have been prepared and considered as part of this study. These maps also lend a broader understanding of the importance of the Lake Links Trail Network in making the key interconnections between and within local communities.

Trail (and Roadway)Design Guidelines

The trail design guidelines that would be applied to the trail corridors defined by this master plan would follow those commonly used for Regional, State, and Federal projects.

The trail design guidelines that would be applied to the trail corridors defined by this master plan would follow those commonly used for Regional, State, and Federal projects. Design manuals that would be referenced include:

- American Association of State Highway and Transportation Officials (AASHTO): Guide for the Development of Bicycle Facilities
- MNDOT: Minnesota Bicycle Transportation Planning and Design Guidelines
- State-Aid Bicycle Facilities Design Criteria
- Metropolitan Council Policy Plan for Regional Trails

The use of these guidelines is of importance for a couple of reasons:

- To ensure the development of consistent and safe trail corridors that are in sync with accepted design practices.
- To ensure that the trail corridors qualify for various trail funding programs that are sponsored at the Metropolitan Council, State, and Federal level.

Whereas the first of these last bullet points is important for logical reasons, the latter one is also of importance in that gaining access to a variety of funding programs will be critical to implementing the master plan. Whereas the trail corridors defined by the master plan can be implemented solely through local-level capital investment, the potential cost of doing so would likely make this approach very challenging, if not unrealistic. As such, adhering to the accepted standards wherever possible is advised.

With respect to trail signage, the master plan also calls for adherence to the previously defined design manuals as well as those prepared by MNDOT that relate specifically to trail and roadway signage.

Support Facilities for the Trail Network

One of the advantages of developing the trail network is that it links together numerous existing parks and public spaces, which in turn offers an important side benefit in that many of these areas already have, or will in the future, facilities that support the trails. This includes public parking, restrooms, picnic spaces, and sitting areas. In addition, connection to the downtown areas of the local communities provides ample opportunity for refreshments and food. Since this rather extensive infrastructure of facilities already exists, the trail network master plan itself does not call for development of any major new support facilities. Note, however, that the detail design for individual trail corridors should provide trail links from the main trails to existing support facilities, along with the necessary signage to ensure trail users are aware of these facilities. Detail design should also take into consider logical locations for trash receptacles and benches, which are standard aspects of trail development. With respect to parking, it is believed that the existing public parking available within the parks and the local communities should be ample to support the new trails. Additionally, residents along virtually all of the corridors were generally against developing new parking lots in areas where the trail traversed through residential areas.

For a more complete understanding of the locations of support facilities refer to the *Technical Overview of Individual Trail Corridors* later in this section.

Affect of Multi-modal Transportation Plans on Trail System Planning

One of the factors that was considered as part of the planning for the Bruce Vento trail extension along the Burlington Northern railroad corridor was the potential for use of that corridor for multi-modal transportation, which ranges from buses to light and heavy rail. Whereas there is a great deal of uncertainty as to where this will ultimately lead, it is clear from various Metropolitan Council transit studies that some form of transit use of the corridor can be anticipated in future years. With this understanding, the intent of the Lake Links Trail Network master plan is to set the trail within the Burlington Northern railroad corridor on the periphery of the right-of-way, or even outside of it, wherever possible to minimize the potential for future conflicts.

Bruce Vento Trail Corridor Technical Review

Overall Corridor Description / Character

The Bruce Vento trail corridor begins with a connection to the existing trail that currently ends at Beam Avenue in Maplewood. The existing trail is located within the railroad right-of-way. From there, the trail corridor proceeds north generally following the railroad corridor until it ultimately makes a connection with the existing Hardwood Creek Trail in Hugo, which also lies within the railroad right-of-way. This trail corridor offers a variety of settings, ranging from a fairly rural character along the southern half of the trail, to an urbanized character in the White Bear Lake area, and then to a park setting in the Bald Eagle Lake area. Although various at-grade and separated road crossings will be required, this trail corridor offers a relatively uninterrupted experience for the trail user.

Trail Route and Design Options and Recommendations

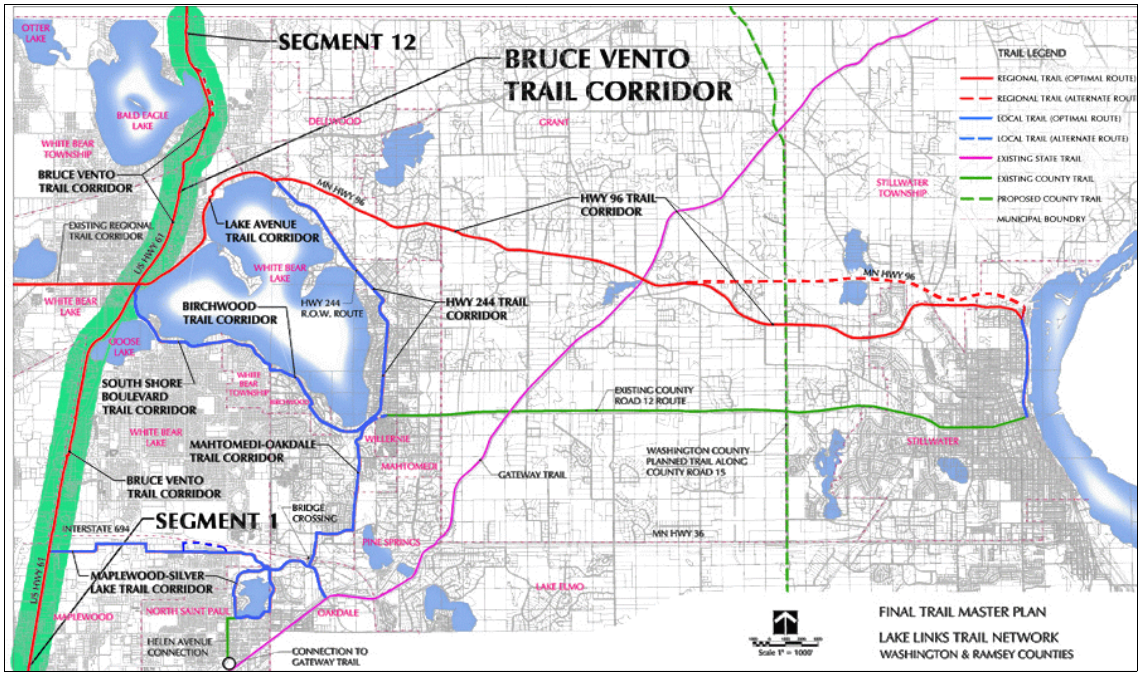
The trail route along this corridor is fairly straightforward, with the trail being located either within the railroad rights-of-way or that of an adjacent road, depending on which is the most cost effective and technically feasible at the time the trail plan is implemented. As a regional level facility, a separated trail with a 12' wide cross-section is recommended to accommodate heavy use and a variety of users, including walkers, bicyclists, and in-line skaters. However, in some situations a narrower trail width might be required where space is too limited. Also, retrofitting the trail into some of the developed areas where space is limited will be a bit more of a challenge, albeit a manageable one. Given the uncertainty of future multi-modal transportation needs along this rail corridor, locating the trail on the edge of the railroad right-of-way or within adjoining roadway rights-of-way is also recommended to reduce the potential for conflicts.

Overall Trail Values Gained

Given the character of this corridor, along with its interconnection with numerous existing trails and overall continuity, this trail offers very high recreational value and is worthy of being a high implementation priority.

Total Trail Mileage this Corridor: 7.3 miles.

Location Map of Trail Corridor



Summary of Public Input/Implementation Expectations

Public input into this trail corridor was generally very positive, with most considering it to be of high recreational value. The more difficult challenge lies with impacts to private property on the northern end of the trail where the SOO Line and Burlington Northern rail lines cross each other and near Bald Eagle Lake along Hugo road. In both cases, the main issue is dealing with limited road and railroad rights-of-way, which in turn pose some encroachment issues that will have to be addressed.

As for implementation expectations, the most critical factor is making sure that those that are directly affected by the trail have an opportunity to give input into the design process and have a clear understanding of options available to address their concerns. Also, aesthetic qualities and privacy issues are concerns requiring detailed review with affected property owners.

Lake Avenue Trail Corridor Technical Review

Overall Corridor Description / Character

The Lake Avenue trail corridor starts at the intersection of the junction of S. Lake Ave. and White Bear Ave. (Triangle Area Redevelopment Zone/Lions Park Area) and proceeds north along Lake Ave. to Hwy. 96 near Ramsey Beach, where it connects to the Hwy. 96 Trail Corridor. For the most part, this corridor follows an existing trail alignment along Lake Ave., which has proven itself to be very successful and well accepted by the community. The overall character of the trail corridor is one of a pleasant lakeside neighborhood with easy access to the nearby downtown business district, numerous local parks, and the Ramsey County Beach. Whereas the trail already exists along an existing one-way road, there are opportunities to enhance it for safety and aesthetic reasons.

Trail Route and Design Options and Recommendations

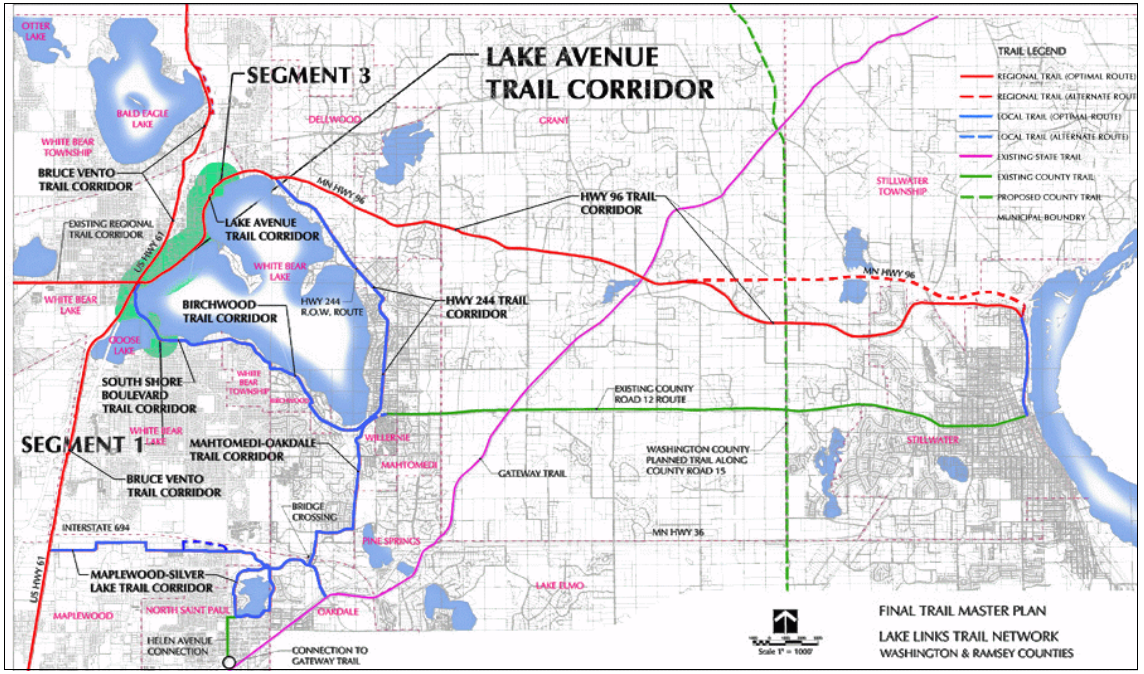
Since it is already established, the focus for the Lake Ave. portion of this trail is working with the local residents on determining the type of enhancements that would add value and be appropriate – with the underlining issue being that of ensuring pedestrian safety along the corridor. Separating the walking area from the roadway is one option to consider in this regard, although it must be noted that local residents clearly want to look more broadly at design approaches and consider a variety of ways to ensure safety. In the Triangle Area Redevelopment Zone, the final location of the trail will be determined as part of the master planning process for that area, although it can be expected that a separated trail will traverse through this area in close proximity to the waterfront. In general terms, a 10' wide trail would be optimal in areas where there is enough space throughout this corridor. However, it is clear from public input that any enhancements to the Lake Ave. segment will require more public input to determine what design solution is best under the circumstances.

Overall Trail Values Gained

Since this trail corridor is already established, the community has already realized many of its recreational values. However, linking the Lake Ave. trail to the other trail corridors will greatly expand the recreational opportunities available to residents.

Trail Mileage this Corridor: 2.1 miles.

Location Map of Trail Corridor



Summary of Public Input/Implementation Expectations

As defined in Section II, the majority of those giving input showed strong support for the existing trail and see it as an asset to the community. However, there was an overwhelming strong sentiment that much more public input was needed to determine the best design solution for the corridor. At this point, there is a strong perspective that leaving the road/trail cross-section as it already exists and limiting improvements to enhancing striping, pavement colors, and other safety measures is the course to follow. The benefits of doing anything beyond this simply have not been proven to residents and therefore will have to be substantiated through the detail design process where they can participate in the discussion and decision process. The point here is that local citizens want to make sure that the city does not make any arbitrary decisions on how the trail should look without the benefit of more complete public input. With respect to aesthetic issues, those that live along Lake Ave. feel very strongly that the existing sense of place is very important and cannot be lost in the process of making enhancements. Protecting mature trees is of particular concern, as are other related stormwater management and ecological issues. Also, many feel that the existing on-street walkway works well and that there is no need for any major upgrades. Of clear importance here is the simple concern that wholesale changes to the corridor will adversely change the character of the area that residents hold in high regard. Note that for a more complete overview of public input into this segment, refer to Section II – Community Value Statement page 2.8. This includes discussion about the regional versus local designation of the trail.

Hwy. 96 Trail Corridor Technical Review

Overall Corridor Description / Character

The Hwy. 96 trail corridor starts at Ramsey County Beach and heads east toward Stillwater. From the beach to the Gateway trail, the trail would stay within the highway right-of-way. Once there, the primary route would shift to the Zephyr Line railroad right-of-way, which is privately owned. Although acquiring the rail corridor is far from certain, that alignment is so compelling that it is shown as the preferred route. Given the uncertainties of acquiring this corridor, Hwy. 96 is shown as the alternative route from the Gateway on into Stillwater. With respect to the highway corridor, the biggest challenge lies with the eclectic right-of-way width and the location of the road within that right-of-way. This is especially the case from Ramsey Beach to about the Grant-Dellwood city line, where the right-of-way is highly variable. Once into Grant, the right-of-way opens up. However, ponds, wetlands, and vegetation along the way will require some creativity to get past. Also note that Hwy. 96 is on a turn-back schedule between the State and Washington County, which is an important factor in the implementation strategy for this trail corridor.

Trail Route and Design Options and Recommendations

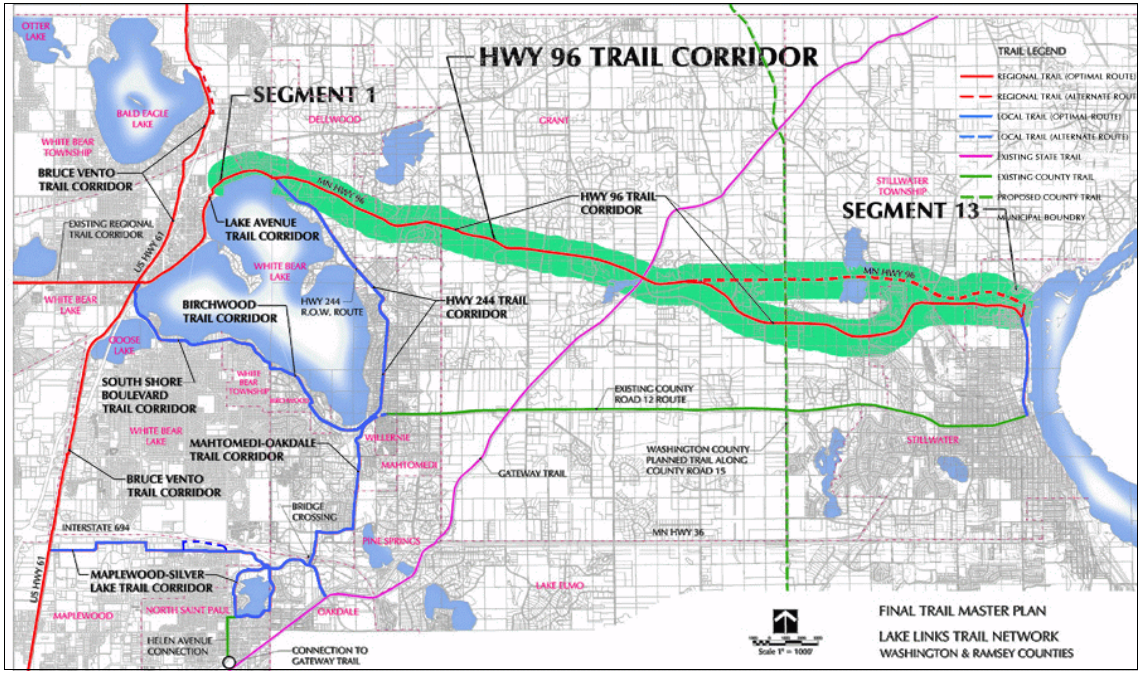
Aside from the issues defined above, the actual trail route along this corridor is fairly straightforward, as defined in the forthcoming pages. As for trail width, a 10' wide trail is recommended for the entire length of the corridor. In fact, a 12' wide trail would be desirable along the Zephyr Line corridor given the setting and potential for heavier use.

Overall Trail Values Gained

This trail corridor is an important link in the overall Lake Links Network and offers high recreational value. It also would provide a much safer environment for pedestrians and bicyclists than currently exists. The Zephyr Line corridor in particular would be an outstanding recreational trail, assuming that it can be acquired at some point.

Trail Mileage this Corridor: 10.3 miles.

Location Map of Trail Corridor



Summary of Public Input/Implementation Expectations

Whereas support for the trail along Hwy. 96 through the local communities was gained, even enthusiastically, after much public input, it comes with high expectations and a good faith understanding that implementation will be done following the parameters defined by this master plan. A key part of that understanding is that the implementation process will continue to include public input to address the detailed concerns that adjacent property owners have as they relate to the trail *and* the road.

While the majority attending the public meeting showed support for the trail, some opposition does remain from those along the north shore of the lake. The most pressing concerns here relate to issues about encroachment into private property and potential for an increase in trespassing. Maintaining access from the highway was also a concern shared by most of the property owners. An issue raised by the City of Grant relates to the need to accommodate horses along the roadways in the Grant area. Also, concern was expressed about who would be responsible for potential increased costs associated with emergency services for incidents happening along the trail. Likewise, operations and maintenance responsibility also needs to be clearly defined prior to development. The CAC was respectful of these perspectives and issues and directed the planning team to address as many of them as possible as part of the master planning process.

Hwy. 244 Trail Corridor Technical Review

Overall Corridor Description / Character

The Hwy. 244 trail corridor starts at the intersection of Hwy. 96 and proceeds south to its junction with County Road 12 in downtown Mahtomedi. With the exception of the Briarwood segment, the trail will be located directly adjacent to the east side of the roadway for its entire length. Critical to this trail alignment is the necessity of upgrading the road itself to an urban road section in order to accommodate the trail in an area with limited rights-of-way and where adjacent property owners have expressed concern about encroachment issues, loss of aesthetic qualities, and other direct and indirect impacts to their private properties. In consideration of these issues, the master plan calls for the combined road and trail cross-section to be as narrow as technically feasible to minimize the built footprint and maintain the character, aesthetic qualities, and sense of place that residents hold in very high regard. The character sketches on the following pages define the design parameters discussed with the public and generally define their expectations as to how the upgraded road/trail cross-section will look. Also note that Hwy. 244 is on a turn-back schedule between the State and Washington County, which is an important factor in the implementation strategy for this trail corridor.

Trail Route and Design Options and Recommendations

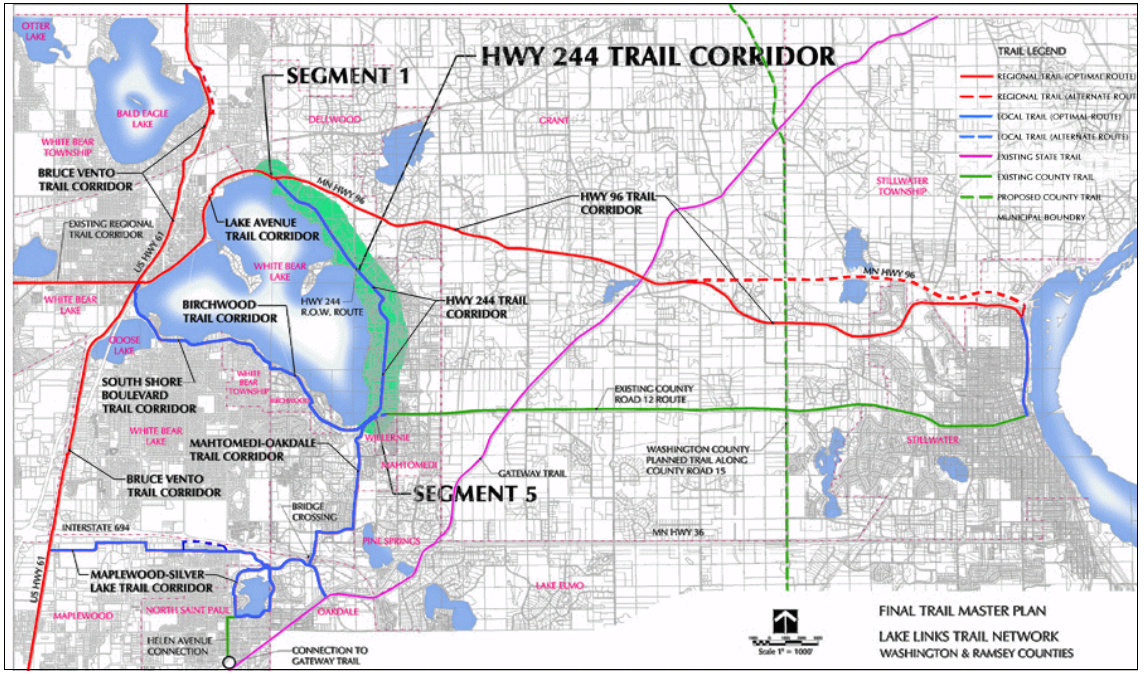
Aside from the issues defined above, the actual trail route along this corridor is fairly straightforward, as defined in the forthcoming pages. It should be noted, however, that a number of other routes through Dellwood and Mahtomedi were also considered (as defined earlier in this section), but ultimately found by the CAC to be less desirable than the Hwy. 244 corridor. Whereas a 10' wide trail would be ideal for the entire length of the corridor, local sentiment in Dellwood and limited space in certain areas suggest that an 8' width may be better suited for the segment from Hwy. 96 down to the District Center.

Overall Trail Values Gained

This trail corridor is an important link in the overall Lake Links Network and offers high recreational value. It also would provide a much safer environment for pedestrians and bicyclists than currently exists.

Trail Mileage this Corridor: 3.5 miles.

Location Map of Trail Corridor



Summary of Public Input/Implementation Expectations

Whereas support for the trail along Hwy. 244 through Dellwood and Mahtomedi was ultimately gained, even enthusiastically, after much public input, it comes with high expectations and a good faith understanding that implementation will be done following the parameters defined by this master plan. A key part of that understanding is that the implementation process will continue to include public input to address the detailed concerns that adjacent property owners have as they relate to the trail *and* the road.

While the majority attending the public meeting showed support for the trail, some opposition does remain for a variety of reasons, most namely the feeling that the trail is being forced upon them, perceived loss of privacy, and concerns about safety of the trail at driveway interfaces. Whereas the opposing view was ultimately held by a minority of those attending the meetings, the CAC was respectful of varying perspectives and directed the planning team to address as many of the issues as possible as part of the master planning process – including on-site reviews with property owners to address individual concerns and follow up on issues such as crime and safety (which are defined in Section II).

Birchwood Trail Corridor Technical Review

Overall Corridor Description / Character

The Birchwood trail corridor starts at the intersection of Birchwood Road and Beach Road and heads west through the City of Birchwood following Wildwood and Lake Avenues. The overall character of this trail corridor is very pleasant and appealing in that it traverses through a quaint lakeside community with narrow streets and an intimate feel. The local park adjacent to Lake Avenue also adds to the character of this corridor and provides a point of destination.

Trail Route and Design Options and Recommendations

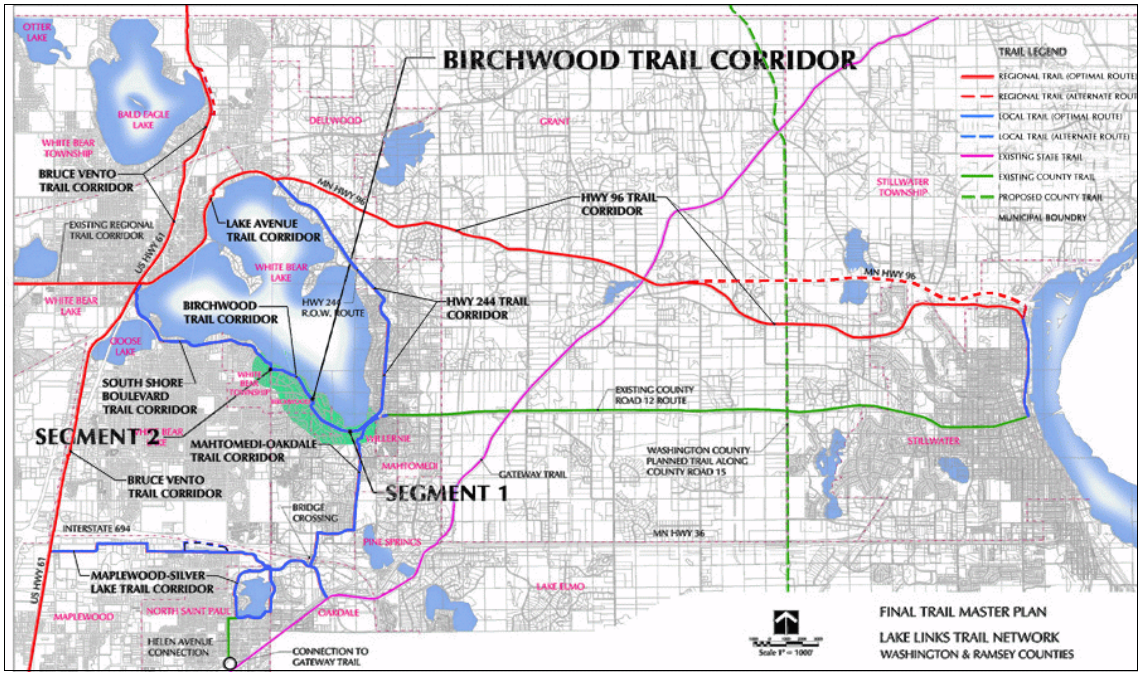
The first segment of the trail, which is proposed to be a separated trail, follows Birchwood Road westerly to Wildwood Avenue. From Wildwood, the trail turns into an on-road bike route that follows Wildwood and Lake Avenues through the city until East County Road Line. The on-road bike route is proposed along Wildwood and Lake Avenues for three primary reasons: 1) history of co-use of the road by pedestrians and automobiles; 2) lack of adequate space for retrofitting an off-street trail (assuming two way traffic); and 3) relatively light vehicular traffic. Note, however, that a second option would be a one-way road configuration that allows part of the existing road to be designed for the exclusive use of pedestrians and bicyclists. Whereas the on-street approach received the strongest public support (by a wide margin), a one-way approach should be considered by the city should the shared-use approach prove inadequate in future years.

Overall Trail Values Gained

Although the trail corridor is mostly proposed to be on-street, a history of co-use suggests that this approach has worked well and is the least disruptive to the neighborhood dynamic. In spite of being on-street, this trail corridor is both a key local recreational amenity as well as an important link within the larger Lake Links Trail Network.

Trail Mileage this Corridor: 1.7 miles.

Location Map of Trail Corridor



Summary of Public Input/Implementation Expectations

Based on public input at the public open house and individual phone calls received from interested citizens, continuing the on-street approach is by far the most accepted alternative. In most cases, residents felt that this approach has proven itself to be safe and in sync with the character of the community. Anecdotal evidence from in-field interviews with pedestrians suggests that personal safety has not been a major issue. With respect to a one-way road configuration, local reaction was more guarded, with the prevailing opinion being to first see how well the on-street approach works before doing anything “more drastic”. To be more frank, virtually all of the residents giving input were not interested in a one-way road configuration, at least at this time. Note also that considerably more public input from affected property owners would also be needed should the one-way approach become more of an issue in the future. With respect to a completely separated trail adjacent to the existing road, residents clearly stated their opposition to this approach based on the simple fact that there is no room to retrofit a trail along the roadway without major impacts to adjoining properties. To that end, this approach does not seem very viable. As for implementation expectations, the most critical factor is to keep residents up to date on any new signage and road striping that would be incorporated to more clearly define the bike route and notifying drivers of shared use of the road with pedestrians.

South Shore Trail Corridor Technical Review

Overall Corridor Description / Character

The South Shore Trail corridor follows South Shore Blvd. from East County Line to Goose Lake area. The road receives fairly heavy traffic and is perceived by residents to be unsafe to walk along. Although there are numerous driveways, vegetation, and other built features adjacent to the road, the right-of way is adequate to accommodate a separated trail under both a one-way and two-way configuration, although the latter would require a wider cross-section than the former. Whereas there is adequate space, adjacent property owners have expressed concerns about encroachment issues, loss of aesthetic qualities, and other direct and indirect impacts to their private properties. Also of importance is maintaining access to lake shore property that lies directly adjacent to the roadway.

Trail Route and Design Options and Recommendations

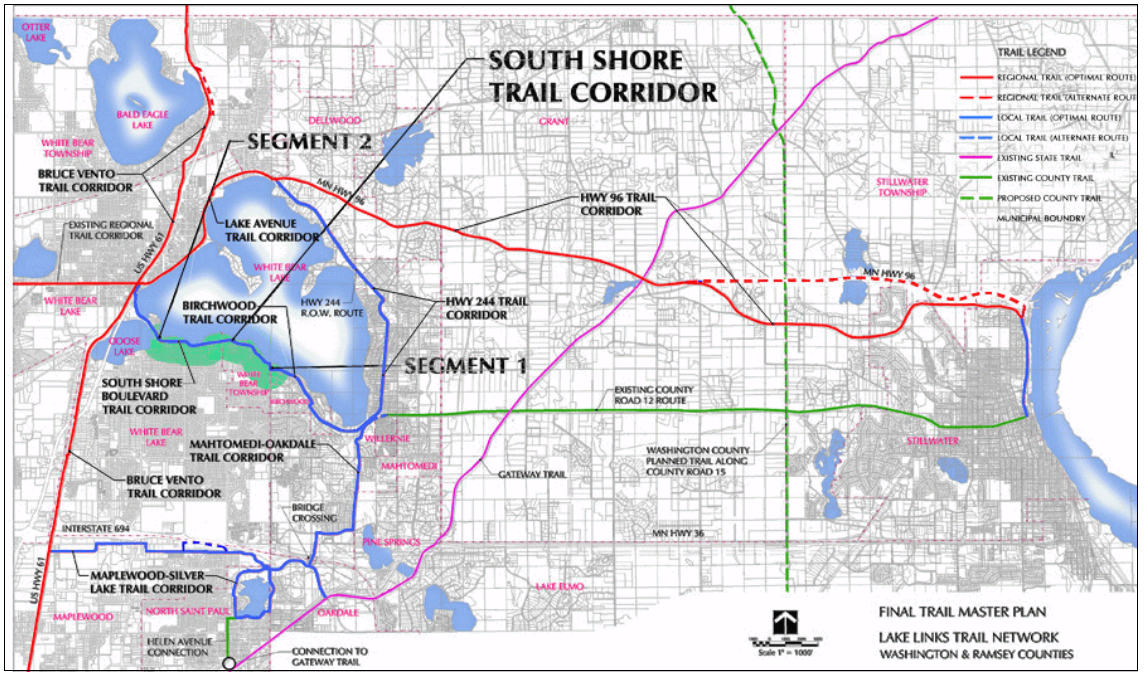
Based on public input, a one-way configuration with a separated trail (similar to Lake Avenue) was the most desired and offers certain advantages from the standpoint of minimizing the road/trail cross-section and creating an appealing parkway-type setting with a boulevard and trees. Whether there are advantages to this configuration from a traffic standpoint is an issue that needs further investigation (see Traffic Impact Assessment latter in this section.) If a one-way configuration is not found to be acceptable from a traffic perspective, a two-way urban section with a separated trail behind the curb would be the second most desirable scenario in that its overall cross-section would be less than that of a rural section (which exists today) with a separated trail. The rural cross-section requires the most space and would likely have the greatest impact on the character of the roadway.

Overall Trail Values Gained

This trail corridor is an important link in the overall Lake Links Network and vital to making a complete loop around the lake. Equally important, a separated trail along this corridor would offer high recreational value and provide a much safer environment for pedestrians and bicyclists than currently is the case.

Trail Mileage this Corridor: 1.5 miles.

Location Map of Trail Corridor



Summary of Public Input/Implementation Expectations

Based on public focus groups at the city and township level, there was a strong consensus that a one-way road with a separated trail was the most desired option because it was perceived that it would make South Shore Boulevard much safer at both a pedestrian and vehicular level. Interestingly, this opinion was held by some of those that would be most impacted by the one-way configuration. Second to this approach was going with an urban road section with a separated trail directly adjacent to it. Finally, a rural section with a separated trail is still preferred over the existing condition, but concern about encroachment and direct impacts to adjacent property was much more of an issue.

Whereas public support for the trail along South Shore Boulevard was strong, even enthusiastic, it comes with the good faith understanding that implementation will continue to include public input to address the detailed concerns that adjacent property owners have as they relate to the trail *and* the road. Also, while the majority attending the public meetings were in support of the trail, given the range of options, additional public input is warranted to allow those not in attendance to voice there concerns and express their opinions, especially about the roadway configuration.

Mahtomedi-Oakdale Trail Corridor Technical Review

Overall Corridor Description / Character

The Mahtomedi-Oakdale trail corridor starts with a connection to the existing trail near the intersection of Hwy. 244 and County Rd. 12 near the downtown area and heads south following an old publically-owned railroad track easement along Lincolntown Ave. to Long Lake Road, where it heads west to Century Ave. With the exception of the stretch along Old Wildwood Road, this trail segment is already constructed. The old rail bed provides a very suitable location for this trail.

From Long Lake Road, the master plan calls for a new pedestrian-only bridge crossing of I-694 to make the connection to the existing trail along Hadley Ave. , which then links to the trails proposed for around Silver Lake as well as back to the Gateway Trail near Hwy. 36.

Trail Route and Design Options and Recommendations

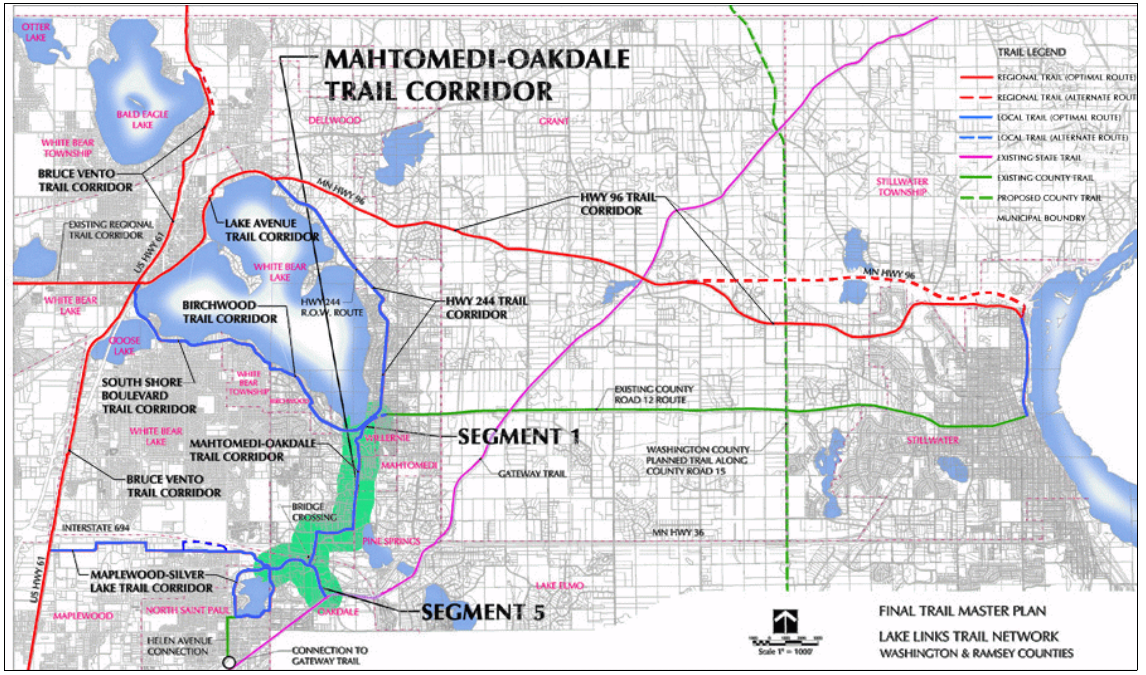
Since much of this trail corridor is already completed, the primary focus is on making the I-694 crossing, where a pedestrian-only bridge is proposed. The objective with the bridge is to make the connection between existing trail systems in a safe manner away from the very busy intersection of Century Ave. and I-694.

Overall Trail Values Gained

Making the interconnection between the two existing trail corridors would greatly enhance their value at the local level, as well as in the context of the Lake Links Trail Network. The character of the trail along Lincolntown Ave. is very appealing with high recreational value.

Trail Mileage this Corridor: 3.1 miles.

Location Map of Trail Corridor



Summary of Public Input/Implementation Expectations

Public input into this trail corridor was generally very positive, with most of those attending the public focus group meetings considering it to be of high recreational value and an important part of the larger trail network. The idea of connecting the trail in Mahtomedi and Oakdale was thought to be a good idea and an important link in the overall trail network. Developing a pedestrian-only crossing was also thought to be important given the excessive traffic at the intersection of Century Ave. and I-694.

Providing a bridge crossing of Hwy. 36 from Hadley to the Gateway trail was also raised as an issue by the public. Public sentiment for this seemed to be fairly strong, although the difficulties of doing so were also recognized.

Maplewood-Silver Lake Trail Corridor Technical Review

Overall Corridor Description / Character

The Maplewood-Silver Lake trail corridor starts with a connection to the existing trail along Hadley Avenue that ends at the intersection with Hwy. 120/Century Avenue. From there, the trail provides a loop around Silver Lake, including tying into the city park on the south shore of the lake and Joy Park on the north side. From the Joy Park area, the trail traverses through public open space west of Hwy. 120 and continues west following an existing powerline easement until it reaches the Maplewood Mall area, where it follows the County Road D right-of-way. Once west of the mall, the trail again follows the powerline easement until its connection with the Bruce Vento Trail Corridor.

Although the trail corridor skirts the Maplewood Mall area, the powerline easement, coupled with frequent public open spaces and parks along the way, provides a very pleasant trail setting with relatively high recreational value. The loop around Silver Lake provides high recreational value as well and serves to link two community parks more cohesively together. Taken as a whole, this trail corridor is both a key local amenity as well as an important link within the larger Lake Links Trail Network.

Trail Route and Design Options and Recommendations

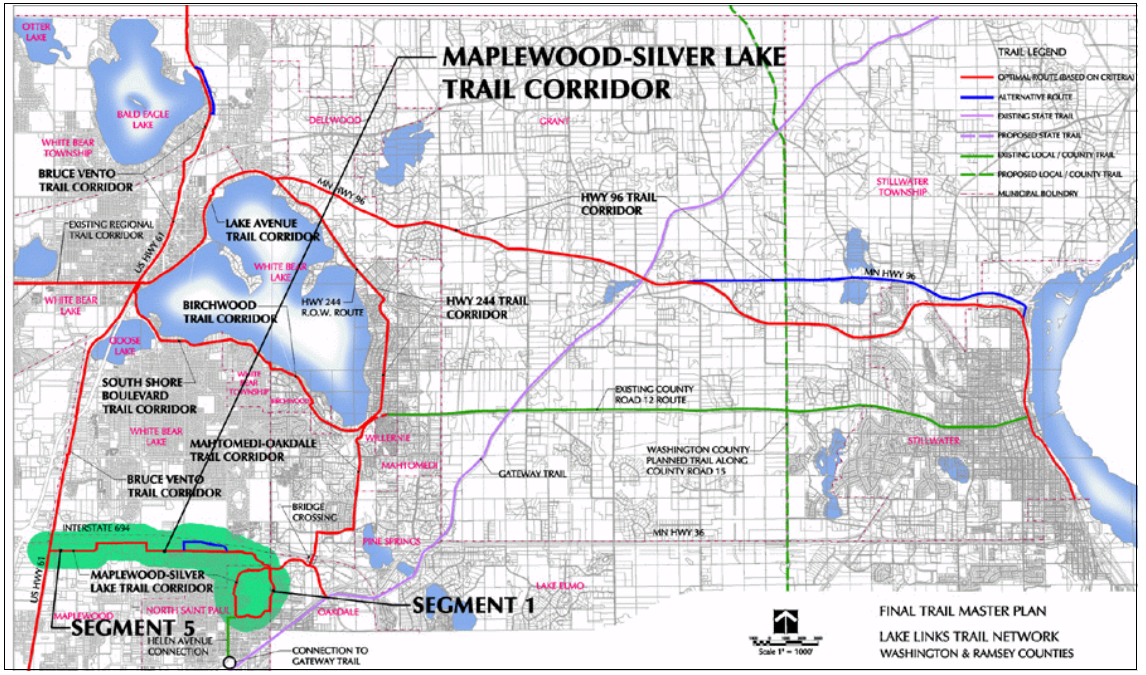
The trail route is fairly straightforward along this corridor in that the trail would be located either within the powerline easement or nearby road rights-of-way. Since the trail serves to connect regional and local trails and parks together, a separated trail with a 10' wide minimum cross-section is recommended to accommodate heavy use and a variety of users, including walkers, bicyclists, and in-line skaters.

Overall Trail Values Gained

Taken as a whole, this trail corridor is both a key local recreational amenity as well as an important link within the larger Lake Links Trail Network.

Trail Mileage this Corridor: 4.6 miles.

Location Map of Trail Corridor



Summary of Public Input/Implementation Expectations

Public input into this trail corridor was generally very positive, with most of those attending the public focus group meetings considering it to be of high recreational value and an important part of the larger trail network. The idea of looping the trail around Silver Lake was particularly well received, especially adding a separated trail along Hwy. 120, where it is known to be unsafe to walk along. The public also responded favorably to the trail following the powerline easement.

As for implementation expectations, the most critical factor is making sure that those that are directly affected by the trail (especially those adjacent to the powerline easement) have an opportunity to give input into the design process and have a clear understanding of options available to address their concerns. This especially the case along the powerline easement between Bellaire Avenue and McKnight Road, where right-of-way and property ownership issues are likely to be a bit complex. Also, aesthetic qualities and privacy issues are concerns requiring detailed review with affected property owners.

Maplewood-Silver Lake Trail Corridor – Segment 1 of 5

Segment Description / Overall Character

This segment of the trail corridor entails a trail route around Silver Lake, which effectively ties together a couple of city parks and public open spaces to form a significant park, trail and open space amenity for the local communities. Since an on-road trail route already exist on the west side of the lake (Lake Blvd.) and an existing trail is located within the park on the south side, the critical missing links to completing the loop are developing the trail along Hwy. 120 and one through Joy Park (which will be master planned by the local cities in 2001).

Development Issues / Constraints

Specific issues include:

- Retrofitting the trail along Hwy. 120 will likely require some shifting of the roadway to the east to create adequate room for the trail. Adding a curb and potentially a retaining wall (as shown in the character sketch) may also be required to fit the trail along the road in this area. Also, retrofitting the trail along Hwy. 120 from 54th St. to 51st St. will impact about 10 driveways, which will require special attention and input from the property owners.
- Which trail/roadway option is best suited for 20th Ave. (as defined on the right) will require input from both the city engineer and the adjacent property owner. Given the low traffic volumes, striping and signing the road would provide a reasonable short-term solution with minimal disruption, assuming that it proves to be safe after initial testing. From a long-term perspective, a separated trail would be the preferred option, if the on-street option proved inadequate.
- Upgrading the trail within the park on the south shore will be challenging due to lack of space in certain areas.

Private Property Encroachment / Acquisition Issues

Since the trail stays within the public right-of-way, property acquisition will not be an issue.

Specific Trail Values Gained

Completing a <u>safe</u> loop around the lake creates a significant park, trail and open space amenity that offers very high recreational value.

Photo 1 – looking south along Hwy. 120/Century Avenue with Silver Lake off to the west (right) side. Shifting of road may be required to retro fit trail.

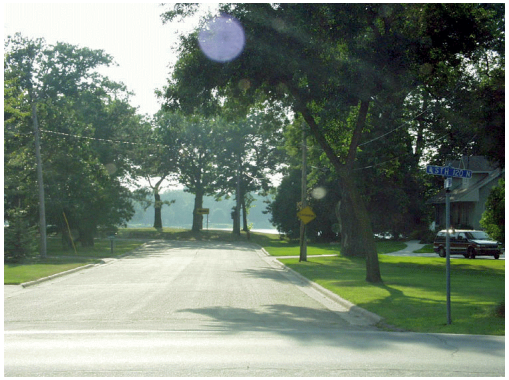


Photo 2 – looking west along 20th Ave. from Hwy. 120 toward the park. The trail would be on the right side of the road.

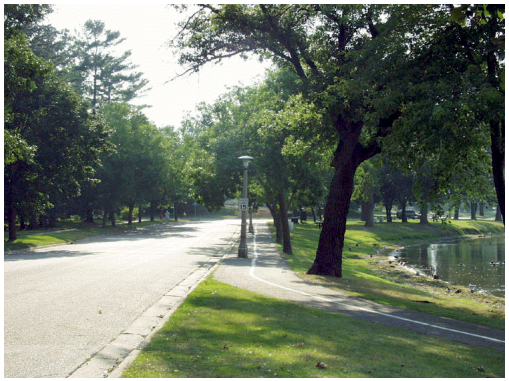
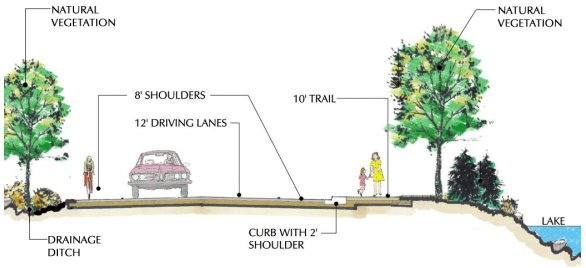


Photo 3 – looking west along 19th Ave., where the trail traverses through the park. The trail is in need of upgrading.



The character sketch illustrates the location of the trail relative to the existing road and lake. Given space limitations, an urban road section with a curb to create separation is likely needed.

Note that several options are available for making the connection from Hwy. 120 to the existing park following 20th Ave. including: 1) striping and signing the road for an on-street bike lane; 2) a separated trail directly adjacent to the existing curb line; and 3) turning the road into a one-way street and putting the trail behind a relocated curb that falls within the existing road cross-section. Which of these options proves most effective and appropriate requires additional evaluation at the local level with input from the adjacent property owners.

Photo 4 – looking north along Lake Blvd, where an on-street bike lane is provided. Given the light traffic volumes, this approach has proven sufficient to accommodate bicyclist and walkers.


TRAIL ALIGNMENT WITHIN JOY PARK TO BE DETERMINED AS PART OF FUTURE PARK MASTER PLAN
LAKE BLVD
JOY PARK
CHALLENGING INTERSECTION FOR AT-GRADE TRAIL CROSSING (SIGNALIZED INTERSECTION NEEDED
5
EXISTING TRAIL IN OAKDALE
ON STREET TRAIL CONNECTS TO DOROTHY PARK (N. ST. PAUL)
DOROTHY PARK
TRAIL LOCATED ON WEST SIDE OF ROAD ADJACENT TO LAKE
37' OF EXISTING ROADWAY PAVEMENT WIDTH
1
80' +/- STREET R.O.W. THIS SEGMENT
SILVER LAKE
SHIFTING OF ROADWAY WITHIN EXISTING R.O.W. POTENTIALLY NEEDED TO ACCOMMODATE TRAIL ON WEST SIDE
4
STEEP SLOPE FROM ROAD EDGE TO LAKE EDGE (3:1)
EXISTING ON-STREET BIKE LANE ON LAKE BLVD.
APPROX. 10 RESIDENTIAL PROPERTIES WITH DRIVEWAY ACCESS ARE LOCATED IN THIS AREA
54TH ST.
SWAN AVE
ONE RESIDENTIAL PROPERTY ALONG 20TH AVE.
TRAIL CONNECTS TO ON-STREET BIKE LANE ON LAKE BLVD.
HELEN ST
TRAIL LAYOUT WITHIN PARK NEEDS TO BE COORDINATED WITH FUTURE CITY OF N. ST. PAUL PLANS FOR UPGRADING
2
LOCAL TRAIL CONNECTION FROM PARK TO HELEN STREET AS PART OF LOCAL TRAIL SYSTEM PLAN
19TH AVE
DIVISION ST
51ST STREET
TRAIL IN PARK IS NARROW AND OLD (UPGRADING REQUIRED)
3

Maplewood-Silver Lake Trail Corridor – Segment 2 of 5

Segment Description / Overall Character

This segment of the trail corridor starts at Joy Park and heads west first through public open space and then follows the powerline easement. The public open space in particular provides an appealing setting for the trail. Whereas following the powerline easement is preferred and received strong support at the public focus group meeting, an alternative route is also shown and could be used if the easement following the powerline cannot be gained. While the alternative route is feasible, the space is limited and the setting is not as pleasant as the powerline alignment.

Development Issues / Constraints

Specific issues include:

- Gaining easement rights along the powerline will be the most challenging part of developing this trail corridor. Working with adjacent property owners to ensure that their concerns about the trail can be effectively addressed will be important.
- If the alternative route is used, retrofitting the trail adjacent to County Road "D" will be tight, but technically feasible, especially if an urban section or one-way road configuration is used.

Private Property Encroachment / Acquisition Issues

As noted above, gaining easement rights along the powerline is the most challenging aspect of this trail alignment, along with addressing the encroachment issues associated with adjacent properties. Otherwise, the trail would be located within a public open space or road right-of-way and would not pose any significant acquisition issues.

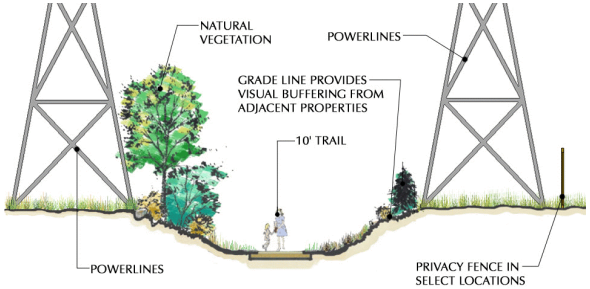
Specific Trail Values Gained

Locating the trail within the public open space offers very high recreational value, as would following the powerline easement.

Photo 5 – looking west from Hadley Ave. toward the intersection with Hwy. 120.

The intersection of Hadley and Hwy. 120 is currently not signalized and poses a significant safety issue in that the traffic speed and volume makes it challenging for a pedestrians and bicyclists to safely cross the street.

Photo 6 – looking west from Bellaire Ave. toward the powerline easement, which offers ample space, but also lies behind a number of private residences.



The character sketch above illustrates that the trail could follow the easement and offer a pleasant setting. As shown, there are also a number of techniques that can be used to buffer adjacent properties.


ALTERNATE TRAIL ALIGNMENT IS ON NORTH SIDE OF COUNTY ROAD D
LIMITED R.O.W. AND NARROW WORKING AREA ALONG CO. ROAD D
COUNTY ROAD D
INTERSTATE 694
CENTURY AVE
GALL AVE
AT-GRADE CROSSING
TRAIL FOLLOWS EXISTING POWERLINE EASEMENT (LOCATION OF TRAIL IS APPROXIMATE, FINAL LOCATION TO BE DETERMINED BASED ON EASEMENT LOCATION)
6
BELLAIRE AVE
LAKE ST
TRAIL TRAVERSES THROUGH PUBLIC OPEN SPACE/PARK LAND
MAPLEWOOD NEIGHBORHOOD PRESERVE AREA
DIVISION ST
LYDIA AVE
TRAIL ALIGNMENT WITHIN JOY PARK TO BE DETERMINED AS PART OF FUTURE PARK MASTER PLAN
LAKE BLVD
JOY PARK
CHALLENGING INTERSECTION FOR AT-GRADE TRAIL CROSSING (SIGNALIZED INTERSECTION NEEDED)
5

Maplewood-Silver Lake Trail Corridor – Segment 3 of 5

Segment Description / Overall Character

This segment of the trail corridor continues to follow the powerline easement heading west toward another large public open space parcel. As with the last segment, the public open space in particular provides an appealing setting for the trail. Again as with the last segment, following the powerline easement is the preferred route, although the alternative route along County Road D is also shown.

Development Issues / Constraints

Specific issues include:

- Gaining easement rights along the powerline will continue to be the most challenging part of developing this trail corridor. Working with adjacent property owners to ensure that their concerns about the trail can be effectively addressed will be important.
- If the alternative route is used, retrofitting the trail adjacent to County Road "D" will be tight, but technically feasible, especially if an urban section or one-way road configuration is used.
- The mid-block crossing of McKnight is one of the drawbacks to the powerline alignment and will require in-depth technical evaluation to determine its feasibility and what alternatives may be acceptable.
- Layout of the trail through the public open space should be done in concert with a master plan for the area.

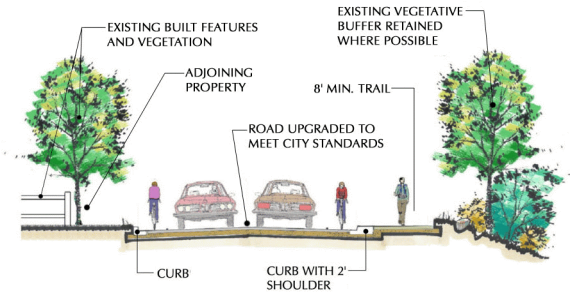
Private Property Encroachment / Acquisition Issues

As noted above, gaining easement rights along the powerline is the most challenging aspect of this trail alignment, along with addressing the encroachment issues associated with adjacent properties. Otherwise, the trail would be located within a public open space or road right-of-way and would not pose any significant acquisition issues.

Specific Trail Values Gained

Locating the trail within the public open space offers very high recreational value, as would following the powerline easement.

Photo 7 – looking west along County Road "D", which illustrates the limited width of the existing road (23') and adjacent R.O.W.



The character sketch illustrates the trail located on the north side of County Road D with two-way traffic maintained. An alternative to this is going with a one-way road, which effectively narrows the road trail cross-section by 12'-14'.

Photo 8 – looking north along McKnight at crossing point, which would be mid-block across four lanes.

Photo 9 – looking west at intersection of County Road "D" and McKnight, where the crossing is controlled by a four-way stop.

Photo 10 – looking west from McKnight into the public open space and along the powerline easement.


INTERSTATE 694
EXISTING ROADWAY PAVEMENT WIDTH IS 23'
AT-GRADE CROSSING
AT GRADE CROSSING
COUNTY ROAD D
7
9
ALTERNATE TRAIL ALIGNMENT IS ON NORTH SIDE OF COUNTY ROAD D
TRAIL TRAVERSES THROUGH PUBLIC OPEN SPACE/PARK LAND
MID-BLOCK, AT GRADE CROSSING
PUBLIC OPEN SPACE/PARK LAND
10
8
TRAIL FOLLOWS EXISTING POWERLINE EASEMENT (LOCATION OF TRAIL IS APPROXIMATE, FINAL LOCATION TO BE DETERMINED BASED ON EASEMENT LOCATION)
WOODLYN AVE
ARIAL ST
MCKNIGHT ROAD
STANDRIDGE ST
LYDIA AVE

Maplewood-Silver Lake Trail Corridor – Segment 4 of 5

Segment Description / Overall Character

This segment of the trail corridor heads west from the public open space by following County Road D (in the public right-of-way) from Arial Street to Southlawn Drive, where it once again finds its way back to the powerline easement. Whereas this segment is less interesting than the others along this corridor, the right-of-way is of adequate width to accommodate the trail in a relatively safe manner. Also, although there are some at-grade crossings to contend with, there are fewer than might be expected. The most challenging of these is at White Bear Avenue, where although the crossing is signalized, it is also fairly wide and will have to be well marked.

Development Issues / Constraints

Specific issues include:

- The at-grade crossings, especially White Bear Avenue, will be the most challenging design issue, although each should be technically feasible.
- Gaining easement rights along the powerline will be an issue – albeit with no residential properties adjoining the easement, perhaps less of a challenge than further to the east.

Private Property Encroachment / Acquisition Issues

As noted above, gaining easement rights along the powerline remains an issue. Otherwise, the trail would be located within public open space or road right-of-way and would not pose any significant acquisition issues.

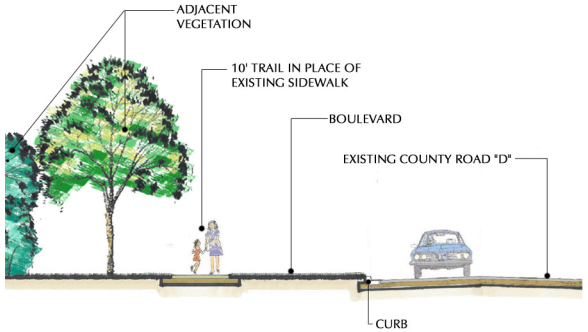
Specific Trail Values Gained

Although not as pleasant of a setting as the public open space and the powerline easement, the trail still offers significant value by providing a safe travel way for pedestrians and bicyclists in a very busy area with heavy traffic volumes.

Photo 11 – looking west at the intersection of County Road "D" and White Bear Ave., which is the most challenging at-grade crossing to contend with.

Photo 12 – looking west along County Road "D", where the existing sidewalk is close to where the trail would be located.

Photo 13 – looking south along Southlawn Drive, where the trail would be located on the west (right) side of the road and tie back into the powerline easement.



The character sketch illustrates the trail located on the south side of County Road D, where there is adequate R.O.W. to provide a boulevard between the trail and road.

Maplewood-Silver Lake Trail Corridor – Segment 5 of 5

Segment Description / Overall Character

This segment of the trail corridor heads west along the powerline easement until it connects with the Bruce Vento Trail corridor near the NSP substation. Since the area remains undeveloped, the character of easement is similar to the other public open spaces further to the east along this corridor. Aside from some grading to make the connection to the Bruce Vento Trail and crossing a drainage ditch, there are very few technical issues to deal with along this segment.

Development Issues / Constraints

Specific issues include:

- The at-grade crossings of Hazelwood Street is mid-block. Since traffic volumes are relatively low, it should not be a major issue (but still requires more critical review as part of the detail design process).
- Crossing a small drainage ditch and making the connection to the Bruce Vento trail are the only other significant design issues, albeit very manageable.

Private Property Encroachment / Acquisition Issues

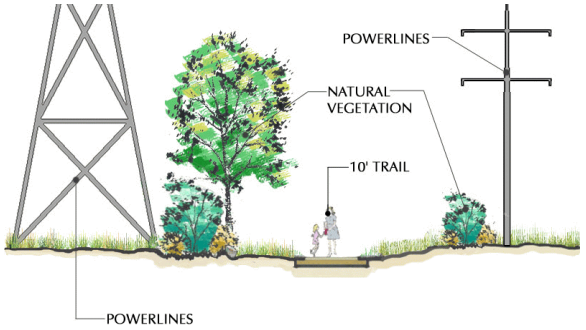
Gaining easement rights along the powerline is the only significant acquisition issue along this segment.

Specific Trail Values Gained

This segment provides a pleasant setting for a trail and offers high recreational value.

Photo 14 – looking west along the powerline easement from Southlawn Drive.

Photo 15 – looking east along the powerline easement from the Bruce Vento trail/NSP substation area.



The character sketch illustrates the trail located within the powerline easement.

Section IV Implementation Plan

Collaborative Underpinning

Implementation of the Lake Links Trail Network will require strong collaboration between local cites, townships and counties if a cohesive and complete trail system is to be realized.

Implementation of the Lake Links Trail Network will require strong collaboration between local cites, townships and counties if a cohesive and complete trail system is to be realized. While each of the trail corridors proposed offers numerous local benefits, the real opportunity lies in the broader vision of the plan that would result in a truly exciting regional asset offering outstanding recreational values. In many ways, the collective value of the larger trail network is greater than the sum of the individual parts.

Although collaboration across municipal boundaries can have its challenges, it also offers greater potential to implement the plan over communities acting solely on their own. This refers to both maintaining momentum in moving the plan forward into implementation and securing the funding needed to do so. Through a shared common vision, opportunities for becoming a higher priority for receiving non-local funding can be enhanced over that which would otherwise be available to local units of government. Given the potential costs associated with implementing the plan, these outside sources of funding will likely be needed to offset the fiscal limitations facing local cities and townships within the study area. To this end, this section of the report establishes a framework and an overall strategy for achieving the vision defined by the master plan. This starts with an overview of the key implementation steps.

Implementation Strategy

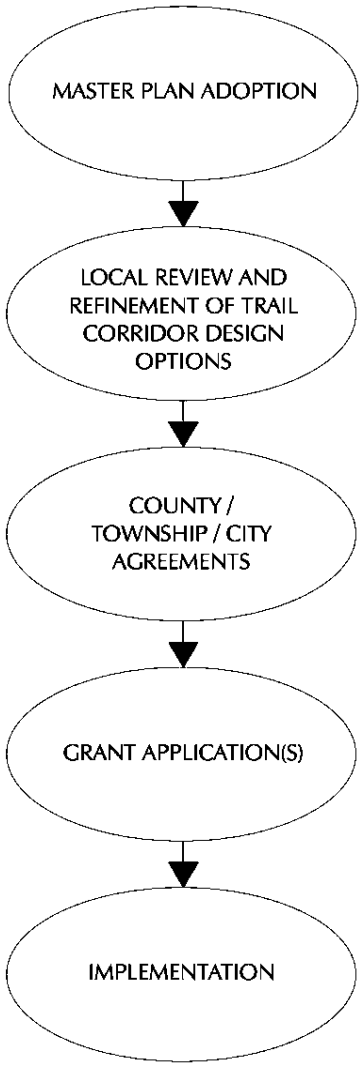
Implementation of the master plan will require a coordinated effort between local communities, townships, and counties – starting with the adoption of the master plan.

Implementation of the master plan will require a coordinated effort between local communities, townships, and counties – starting with the adoption of the master plan. This, of course, is based on the collective understanding that the options for each of the trail corridors defined in the master plan are subject to local review and refinement as part of the implementation process. This statement is critical in that each of the trail corridors defined by the plan raise numerous issues that will require additional public input and local evaluation to determine the design approach best suited for the community while still achieving the vision of the master plan. It is within the spirit of flexible collaboration that success in implementing the plan lies.

Implementation Steps

Figure 4.1 on the next page outlines the implementation steps required to move from the vision of the master plan to actual development of the trail corridors. The accompanying table provides additional detail.

Figure 4.1 – Implementation steps.



Step	Overview	Timing
Master Plan Adoption	Adopting the master plan through local resolution is the first step toward implementation and shows the commitments made at the city, township, and county level to collaborate on achieving a common goal while still retaining the flexibility needed to work out detail design issues at the local level.	Adoption of the master plan through local resolution as soon as possible establishes a starting point for implementation planning and design. (Note: Local resolutions received to-date are included in the Appendix.)
Local Review and Refinement of Trail Corridor Design Options	This step focuses on local review and selection of the trail corridor option(s) best suited to address the needs of the community while still achieving the overall vision of the master plan. This would include additional public input on critical issues affecting trail alignments and determining the level and type of development that is appropriate given local circumstances. Note that in many cases, the design process will involve the local city or township and county since the corridors being followed are often county roads or defined as regional trail corridors.	Each of the local cities, townships, and counties are encouraged to undertake this process as soon as possible given the lengthy timeframe involved in submitting, receiving, and implementing grant applications and/or appropriating local funds.
County/Township/ City Agreements	Once the design for the individual trails are resolved at the local level, formal agreements between cities, townships, and counties will need to be adopted. Typically, these agreements clearly define development, operations, and maintenance costs and responsibilities for a given trail segment. Note that these agreements are typically required prior to grant applications to illustrate the shared commitment between public agencies to implement the master plan.	Preparation of agreements can run concurrent with local level review, or can be the next step once local issues are resolved.
Grant Applications	The opportunity to collaborate on grant applications is one of the strengths of the master plan by opening up the avenues that can be pursued for funding. Typically, the higher the level of collaboration on planning and grant applications between agencies, the greater the likelihood of receiving funding priority.	Expediency in preparing grant applications is important in that the grant cycles are often several years out from the time of application to actually receiving the funding.
Implementation	With the above steps completed, actual implementation can occur. Note that this will likely continue to involve collaboration between the local cities, townships, and counties in accordance with the agreements.	The pace of implementation will simply be lock-stepped with success in securing funding. Even if the completion of the above steps went extremely well, if would be hard to envision actual construction of the trails for at least three, and perhaps even five or more, years.

Local Involvement in the Implementation Process

Local involvement in the implementation process is of critical importance given the detail design issues that need to be addressed prior to the development of any of the trail corridors considered under the master plan.

As defined in Section II – Community Value Statement, local involvement in the implementation process is of critical importance given the detail design issues that need to be addressed prior to the development of any of the trail corridors considered under the master plan. For example, at the fundamental level, decisions related to basic roadway configurations and cross-sections will have to be made prior to designing the trail itself. Likewise, inherent transportation issues (such as those associated with the South Shore Boulevard trail corridor) and roadway turnback schedules will also have to be addressed as part of the implementation planning.

Of equal importance is the need for additional public input into the detail design process to ensure that the general public and property owners directly affected by a given trail corridor have a reasonable chance to participate in the design process to ensure that their interests and concerns are addressed in a responsible and forthright manner. The goal here is for local cities, townships, and counties to work collaboratively toward implementation of the master plan, with the understanding that the options for each trail corridor defined under the plan are subject to local review and refinement as an inherent part of the process.

Implementation Priorities

Local cities, townships, and counties are encouraged to pursue implementation of the plan as a singular priority.

The master plan does not establish specific priorities for implementation of the individual corridors. Instead, local cities, townships, and counties are encouraged to pursue implementation of the plan as a singular priority with the realization that the pace of implementation will be dictated by several factors:

- Timeframes associated with making final design decisions on specific corridors.
- Degree of success in assembling funding packages from various sources.
- Turnback schedules and timing of upgrades to roadways associated with a given trail corridor.

Another reason for taking this approach is the interlinked and dependent nature of many of the trail corridors, whereby one trail corridor cannot be easily separated from another and therefore precludes establishing a clearly defined prioritization schedule. As an example, completing the trail along Highway 244 will be of greater value if the segment along Highway 96 on the north shore of White Bear Lake is also completed. As such, drawing priority distinctions between trail corridors becomes difficult and as such suggests that working collaboratively on an aggressive timeframe on all trail corridors will produce the greatest overall results.

Although a homogeneous timeframe for implementing the plan would be the best case scenario, realistically, there will be a degree of variability in the timing of implementing the plan due to the variability of the challenges facing each corridor, as outlined in the following table.

Trail Corridor	Key Challenges Affecting Implementation Timing
Bruce Vento Trail Corridor	▸ Securing easement rights from the railroad authority. ▸ Determining potential conflicts with future multi-modal transportation use of the corridor. ▸ Addressing roadway impact issues, especially those associated with the development of a cul-de-sac on Hugo Road. ▸ Addressing roadway turnback issues associated with Hugo Road. ▸ Working with the local neighborhoods and adjacent property owners on detail design of the trail corridor – especially along Hugo Road near Bald Eagle Lake.
Lake Avenue Trail Corridor	▸ Working with the local neighborhoods and adjacent property owners on detail design of the trail corridor.
Hwy. 96 Trail Corridor	▸ Addressing right-of-ways issues, which might include shifting of the road and/or acquiring additional right-of way in select locations. ▸ Addressing roadway turnback issues. ▸ Working with the adjacent property owners on detail design of the trail corridor, especially the area along the north side of White Bear Lake and in Dellwood through the golf course area.
Hwy. 244 Trail Corridor	▸ Addressing rights-of-way issues, which will likely include acquiring additional right-of way in select locations. ▸ Addressing roadway turnback issues. ▸ Working with the adjacent property owners on detail design of the trail corridor.
Birchwood Trail Corridor	▸ Working with local neighborhoods and adjacent property owners on detail design of signage and striping program for local streets.
South Shore Blvd. Trail Corridor	▸ Determining feasibility of one-way roadway. This would include an in-depth examination of related transportation issues. ▸ Addressing roadway turnback issues. ▸ Working with the adjacent property owners on detail design of the trail corridor.
Mahtomedi-Oakdale Trail Corridor	▸ Obtaining a trail easement to make the connection from the existing trails to the proposed bridge location, especially on the Mahtomedi side of the freeway. ▸ Working with MNDOT on site selection and feasibility study for constructing a pedestrian bridge in the location as defined in the master plan.
Maplewood-Silver Lake Trail Corridor	▸ Obtaining a trail easement along the powerline easement. ▸ Working with the adjacent property owners on detail design of the trail corridor, especially in the area where the powerline easement is bordered by homes on either side.

Implementation Team

Assembling an implementation team to oversee the detail planning and design process and coordinate the activities at the local and county level is recommended.

The importance of maintaining an ongoing and coordinated effort between local cities, townships, and counties toward plan implementation cannot be overstated and will be critical to the successful implementation of the master plan. Lacking this, the probability of seeing the plan implemented becomes far less certain.

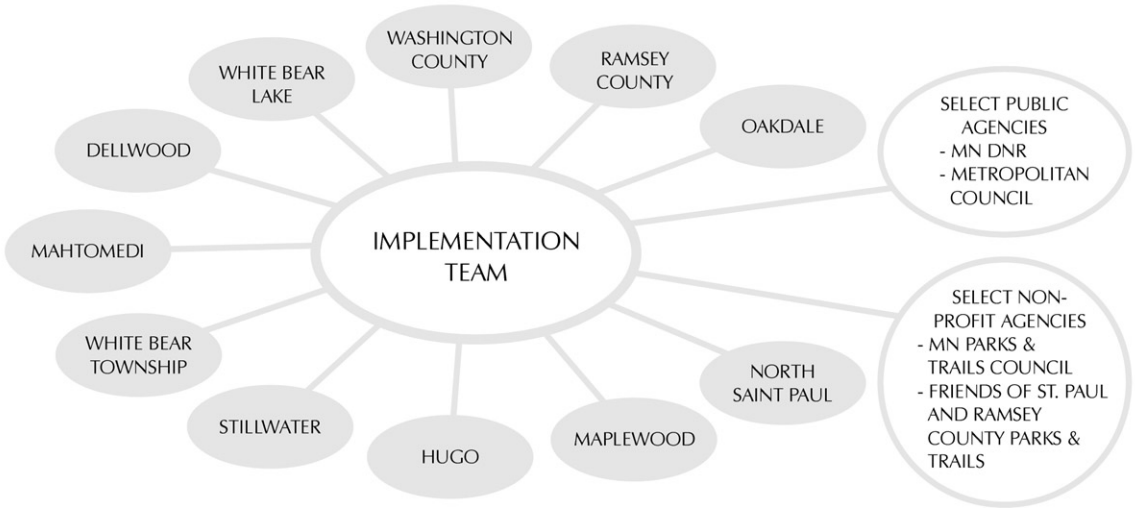
To this end, assembling an implementation team to oversee the detail planning and design process and coordinate the activities at the local and county level is recommended. This is particularly important here where a number of the local cities and townships simply do not have the day-to-day staffing needed to oversee the project and keep it moving forward in a timely, well-coordinated fashion.

It is recommended that the team consist of a representative from each of the cities, townships, and counties affected by the master plan (which was essentially the basis of the Technical Planning Team assembled for this project). In addition, the implementation team can also serve to coordinate and act upon grant opportunities and assembling funding packages.

It is also recommended that the implementation team include representation from select outside public agencies with experience in trail development and grants. For example, representation could include individuals from the MNDNR and Metropolitan Council who can bring practical experience to the process. Likewise, including representatives from select non-profit organizations could be invaluable in that they can be strong advocates for trail development and also bring their expertise in the area of grants and public relations to the team. The Minnesota Parks and Trails Council and Friends of St. Paul and Ramsey County Parks and Trails are examples of non-profit organizations who have long served the region as strong advocates for trail (and park) development.

The following figure illustrates the potential makeup of an implementation team for the Lake Links Trail Network.

Figure 4.2 – Potential makeup of an implementation team for the Lake Links Trail Network.



Acquisition and Development Cost Projections

The forthcoming cost projections define the potential costs associated with each of the trail corridors defined by the master plan.

The forthcoming cost projections define the potential costs associated with each of the trail corridors defined by the master plan. The costs are based on a combination of site specific acquisition and development issues as well as projects of similar size and complexity. The cost figures are intended to be used for budgeting purposes, project phasing, comparing the relative cost of one item to that of another. The costs are in 2000 dollars. Although the cost projections are intended to be conservative, it must be recognized that the actual costs will vary depending on detail design and market forces when the plan is implemented. Lacking detail design information, there are numerous unknowns that can affect the ultimate costs, perhaps markedly so. The forthcoming cost projection tables are broken down by individual trail corridor and options within that corridor. This was done to aid in evaluating the cost of one option over that of another. As shown, the major factors included under each cost projection are listed.

Trail Network Development Costs

The forthcoming cost projections are broken down into two primary categories:

- **Base Cost Projection for Trail Development** – refers specifically to the cost to develop the trail itself *without* consideration for other development concerns that might be necessary for the trail to actually be developed.
- **Cost Projection for Associated Development** – refers to development that may be required to construct the trail, such as roadway upgrades and alternatives to the base development package as noted.

Bruce Vento Trail Corridor

(Range of costs represents a 20% contingency for unknowns.)

Cost Projection Component	Factors Considered	Base Cost Projection for Trail Development	Cost Projection for Associated Development
Base trail development	▸ Separate trail ▸ Grading, site preparation, storm sewer, etc. ▸ Curb in areas where trail is located adjacent to road ▸ Cul-de-sac ▸ Retaining walls ▸ Fencing and railings ▸ Landscaping and buffering in critical areas	2,012,000 to 2,414,400	
On-grade crossings at 244 and 61	▸ Additional costs if on-grade crossings are required at these two roadways, versus going under the existing bridges within the railroad R.O.W.		58,000 to 69,600
Alternate route at Eagle Ave./SOO line crossing	▸ Additional costs for following alternate route		13,000 to 15,600
Alternate to Cul-de-sac	▸ Additional costs for building structural retaining wall in lieu of cul-de-sac along Hugo Road		350,000 to 420,000
Alternate route from Buffalo to Bald Eagle	▸ Additional costs for following alternate route from Buffalo to Bald Eagle Regional Park (on east side of railroad tracks, with underpass)		205,000 to 246,000
Total Cost Projections This Corridor		**2,012,000 to 2,414,400**	**626,000 to 751,200**

Lake Avenue Trail Corridor

(Range of costs represents a 20% contingency for unknowns.)

Cost Projection Component	Factors Considered	Base Cost Projection for Trail Development	Cost Projection for Associated Development
Base trail development	▸ Separate trail ▸ Grading, site preparation, storm sewer, etc. ▸ Curb in areas where trail is located adjacent to road ▸ Landscaping and buffering in critical areas ▸ Streetscape improvements along Hwy. 61	655,000 to 786,000	
Total Cost Projections This Corridor		**655,000 786,000**	**0 0**

Hwy. 96/Zephyr Line Trail Corridor

(Range of costs represents a 20% contingency for unknowns.)

Cost Projection Component	Factors Considered	Base Cost Projection for Trail Development	Cost Projection for Associated Development
Base trail development for Hwy. 96 corridor	▸ Separate trail ▸ Grading, site preparation, storm sewer, etc. ▸ Curb in areas where trail is located adjacent to road ▸ Miscellaneous improvements (fencing, railings, boardwalks, etc.) ▸ Retaining walls ▸ Landscaping and buffering in critical areas ▸ Extend underpass at golf course ▸ Underpass at County Rd. 64 intersection	2,500,000 to 3,000,000	
Follow Zephyr Line Corridor	▸ Additional costs if the Zephyr Line railroad corridor is followed in lieu of Hwy. 96 from Gateway into Stillwater		280,000 to 336,000
Total Cost Projections This Corridor		**2,500,000 to 3,000,000**	**280,000 to 336,000**

Hwy. 244 Trail Corridor

(Range of costs represents a 20% contingency for unknowns.)

Cost Projection Component	Factors Considered	Base Cost Projection for Trail Development	Cost Projection for Associated Development
Base trail development	▸ Separate trail ▸ Grading, site preparation, etc. for trail only ▸ Miscellaneous improvements (fencing, railings, boardwalks, etc.) ▸ Streetscaping and miscellaneous improvements in Yacht Club area ▸ Retaining walls ▸ Landscaping and buffering in critical areas ▸ Utility adjustments (power poles, etc.) ▸ Pedestrian bridge near District Center to cross ditch	1,560,000 to 1,872,000	

Reconstruct Hwy. 244	▸ Additional costs to reconstruct Hwy. 244 to urban section to allow for trail to be developed (includes storm sewer and ponding, does not include other utilities that may need upgrading, such as water service, sanitary sewer, etc.)			2,810,000	to	3,372,000
Total Cost Projections This Corridor		**1,560,000**	**to**	**1,872,000**	**2,810,000**	**to** **3,372,000**

Birchwood Trail Corridor

(Range of costs represents a 20% contingency for unknowns.)

Cost Projection Component	Factors Considered	Base Cost Projection for Trail Development			Cost Projection for Associated Development		
Enhancements along bike routes	▸ Signage and striping for Lake Ave. and Wildwood ▸ Separated trail through city park	51,000	to	61,200			
Base trail development – for trail segment along Cedar Avenue	▸ Separated trail ▸ Grading, site preparation, storm sewer, etc. ▸ Curb in areas where trail is located adjacent to road ▸ Boardwalks through wetlands/ponds ▸ Retaining walls ▸ Fencing and railings ▸ Landscaping and buffering in critical areas	396,000	to	475,200			
Total Cost Projections This Corridor		**447,000**	**to**	**536,400**	**0**	**to**	**0**

South Shore Blvd. Trail Corridor

(Range of costs represents a 20% contingency for unknowns.)

Cost Projection Component	Factors Considered	Base Cost Projection for Trail Development			Cost Projection for Associated Development		
Base trail development (for two-way traffic with adding a curb and trail to north side of road)	▸ Separate trail ▸ Grading, site preparation, storm sewer, etc. ▸ Curb along north side of road ▸ Retaining walls ▸ Fencing and railings ▸ Landscaping and buffering in critical areas ▸ Miscellaneous improvements	575,000	to	690,000			
Total Cost Projections This Corridor		**575,000**	**to**	**690,000**	**0**	**to**	**0**

Mahtomedi-Oakdale Trail Corridor

(Range of costs represents a 20% contingency for unknowns.)

Cost Projection Component	Factors Considered	Base Cost Projection for Trail Development			Cost Projection for Associated Development		
Base trail development	▸ Separate trail for remaining trail segments ▸ Grading, site preparation, storm sewer, etc. ▸ Pedestrian overpass	700,000	to	840,000			
Total Cost Projections This Corridor		**700,000**	**to**	**840,000**	**0**	**to**	**0**

Maplewood-Silver Lake Trail Corridor (Range of costs represents a 20% contingency for unknowns.)

Cost Projection Component	Factors Considered	Base Cost Projection for Trail Development	Cost Projection for Associated Development
Base trail development around Silver Lake	▸ Separate trail along Hwy. 120 and on park property ▸ Grading, site preparation, storm sewer, etc. ▸ Curb in areas where trail is located adjacent to road ▸ Retaining walls ▸ Fencing and railings ▸ Landscaping and buffering in critical areas ▸ Pedestrian bridge near Silver Lake	475,000 to 570,000	
Base trail development for powerline from Silver Lake to Vento trail	▸ Separate trail ▸ Grading, site preparation, storm sewer, etc. ▸ Retaining walls ▸ Fencing and railings ▸ Landscaping and buffering in critical areas	585,000 to 702,000	
Alternate alignment along County Rd. D	▸ Additional costs for following alternate alignment along County Rd. D in lieu of following powerline easement		160,000 to 192,000
Total Cost Projections This Corridor		**1,060,000 to 1,272,000**	**160,000 to 192,000**

Overall Cost Projections for Trail Development	Base Cost Projection for Trail Development		Cost Projection for Associated Development	
Total Cost Projection for All Trail Corridors	9,509,000	11,410,800	3,876,000	4,651,200
Construction Engineering and Design (15%)	1,426,350	1,711,620	581,400	697,680
Grand Total Cost Projection for All Trail Corridors	**10,935,350 to**	**13,122,420**	**4,457,400 to**	**5,348,880**

Trail Network Acquisition Costs

The forthcoming cost projections for land acquisition for the various trail corridors are intended to be used for budget estimating purposes. The intent is to project as accurately as possible a range of potential costs for land acquisition that would be in addition to the development costs listed above. Taken together, a more complete understanding of the overall potential capital investments that are needed to complete the trail network can be ascertained. Note, however, that the cost projection table should not be construed to provide definitive values for acquiring property for each of the corridors. That level of cost evaluation cannot be ascertained without the benefit of more detailed layouts for each of the trail corridors. Once specific detailed layouts are completed, more site-specific property acquisition needs and costs can be determined. Note also that an estimate for acquiring the Zephyr Line easement has not been considered at this point given the expectation that it would not be availbale for acquisition in the near future. (Note: A more complete statement on methodology for projecting acquisition costs is provided in the appendix.)

Trail Corridor	Criteria Used	Related Issues	Potential for Cost Avoidance	Cost Projection for Acquisition*
Bruce Vento Trail	Assumes about 3.8 miles of trail easement required within railroad right-of-way. At 20' wide, about 9.2 acres of land would be needed at $28,000/ac.	Assumes that about half of the trail would be located within roadway right-of-ways that are already publically owned.	Locating more of the trail within existing roadway rights-of-way adjacent to this corridor could reduce acquisition costs. Detailed review of actual right-of-way lines required to determine the potential for this to occur.	260,000 to 310,000
Lake Avenue Trail	No acquisition is anticipated at this time.	N/A	N/A	0 to 0
Hwy. 96 Trail	Assumes that about 3750 lineal feet of additional right-of-way would be needed on the north side of White Bear Lake in areas where the existing road is close to the edge of the existing right-of-way. At 20' wide, about 1.7 acres would be needed at $200,000/ac. Also assumes that about 2,000 lineal feet of additional right-of-way will be needed in the area of the Dellwood Hills Golf Course and White Bear Yacht Club where the existing right-of-way is narrow. At 20' wide, about 1.0 acre would be needed at $65,000 to $125,000/ac. Note that acquisition needed for any new ponding is not factored into the above figures.	The big issue with the area on the north side of the lake is the location of the road. Whereas adequate right-of-way exists, the road is not always in the middle of it. If the road is shifted to the north, the need for additional right-of-way is diminished or even eliminated. With respect to the area by the golf course, future upgrades to the road itself would require additional right-of-way irrespective of the trail. In this context, the only reason to acquire additional right-of-way for the trail is if it is developed prior to upgrading the roadway.	The only potential way to avoid the cost of land acquisition for the trail on the north side of the lake is to shift the road itself to the north, which too has costs involved. Also, property owners on both sides of the road also need to be brought into the process to consider options and ramifications. With respect to the area by the golf course, the only option to avoid costs now is to wait until the road is upgraded and then build the trail within the right-of-way that would be acquired for the road upgrading.	$406,000 to 470,000
Hwy. 244 Trail	Assumes that about 2,000 lineal feet of additional right-of-way would be needed in the area south of Meadow Lane where the existing road right-of-way is too narrow. Note here that in order for the road to be upgraded in this area, an additional 25' of easement width would be needed, irrespective of the trail. This totals about 3.0 acres at $75,000 to $140,00/ac. Note also that acquisition needed for any new ponding is not factored into the above figures.	The need for additional right-of-way along Hwy. 244 is driven primarily by roadway upgrading requirements and not the trail. The trail would simply be located in the right-of-way acquired for upgrading the road.	No real potential to avoid these costs as part of the roadway upgrading. However, the per acre cost could be greatly influenced by the cost-to-cure values associated with loss of buffers and so forth, should that be encountered.	225,000 to 420,000
Birchwood Trail	No acquisition is anticipated at this time.	N/A	N/A	0 to 0
South Shore Blvd. Trail	No acquisition is anticipated at this time.	N/A	N/A	0 to 0
Mahtomedi-Oakdale Trail	Assumes that an easement will be needed for making the trail connections from existing trails on the north and south side of the freeway to the proposed new pedestrian bridge crossing. This totals about 0.65 acres at $87,000/ac. on the north side of the road. Acquisition on the south side should be very limited and cost about $5,000	The final location of the bridge will have a bearing on the cost for easements. The costs as shown assume that the trail easement is along a property line, rather than splitting a property in half (which would cost more).	No real options to avoid acquisition costs in this case.	60,000 to 75,000
Maplewood-Silver Lake Trail	Assumes that about 1.9 acres would be needed on the west end of the trail (commercial land) at $32,700/ac. and 1.6 acres needed on the east end of the trail (residential land) at $54,000/ac.	Assumes that the land is already encumbered with an overhead powerline easement, which typically reduces the costs for acquiring a trail easement relative to fee title.	Only potential to avoid these costs is to follow existing road rights-of-way instead of the powerline easement.	150,000 to 200,000
* – Range of potential costs is shown to account for some unknowns.			**Total Potential Cost Range for Land Acquisition**	**1,101,000 to 1,475,000**

Operations and Maintenance of Trail Corridors

Operation and maintenance of the trail corridors will be shared responsibility between the local cities, townships, and counties, with the responsibilities of each defined in joint-powers or other forms of agreement.

Operation and maintenance of the trail corridors will be a shared responsibility between the local cities, townships, and counties, with the responsibilities of each defined in joint-powers or other forms of agreement. The following considers these in greater detail.

Operation of the Trails

The trails will be designed and operated to accommodate walkers, joggers, bicycling, and in-line skating. There will be no provision along these trail corridors for other activities such as snowmobiling, horseback riding, or cross-country skiing. (Note: Horseback riding through Grant within the Highway 96 right-of-way is a local issue requiring consideration as part of the detail design of this corridor.)

With respect to rules and regulations, all trail corridors will comply with the standards of use currently in place for local and regional parks and trails as defined by city and county ordinances. This will ensure consistency in operation of the trail facilities defined in the plan with others found within the study area. Issues addressed under these ordinances include:

- Regulation of public use and activities
- General conduct and behavior
- General trail operation guidelines
- Enforcement

Law enforcement associated with the trail will be covered by local police and county sheriff's departments in accordance with current practice and established relationships between the two counties and local cities and townships within the study area.

With respect to fees and charges, the trails will be open to the public without fee, which is in line with current practices at the local and county level.

Development and Maintenance of the Trails

The responsibility for developing and maintaining the trails will depend on whether the trail is local (city, tTownship, or county) or regional and whether it follows a local or county road. The following table considers development and maintenance responsibilities for each of the trail corridors based on standard practice. Recognize, however, that the responsibilities of the local cities and counties is subject to change in line with specific agreements prepared as part of the implementation process. An important side note to the forthcoming table is that development costs could be significantly offset through special appropriations and grants at the state and federal level for local and regional trails (and roadway upgrades). Given the inherent limitations of local units of government to fund these projects solely on their own, finding alternative means of funding will be an important factor in actually being able to implement the plan. The following discussion on funding options considers this in greater detail.

The responsibility for developing and maintaining the trails will depend on whether the trail is local (city, Township, or county) or regional and whether it follows a local or county road.

Trail Corridor	Context	Development Responsibility	Maintenance Responsibility
Bruce Vento Trail	Regional-level trail within railroad and road rights-of-way.	County is typically responsible.	County is typically responsible.
Lake Avenue Trail	Regional (and local)-level trail within a local road right-of-way.	County responsible for trail, cost share on roadway upgrades. City responsible for streetscape elements. (City responsible for trail segment south of Hwy. 61/Lake Ave.)	To be determined. (Cooperative agreement likely with some shared responsibility.)
Hwy. 96 Trail	Regional-level trail within a county road right-of-way (after turnback).	County is responsible for development.	To be determined. (Cooperative agreement likely with some shared responsibility.)
Hwy. 244 Trail	Local-level trail along a county road (after turnback).	County is responsible for development.	To be determined. (Cooperative agreement likely with some shared responsibility.)
Birchwood Trail	Local-level, on-street trail along a local road	City is responsible.	City is responsible.
South Shore Blvd. Trail	Local-level trail along a local road (after turnback).	City is responsible.	City is responsible.
Mahtomedi-Oakdale Trail	Local-level trails, with pedestrian bridge across I-694 being the major development issue.	City is responsible for trails, although special appropriations support is likely needed for pedestrian bridge.	City is responsible for trails. To be determined on bridge.
Maplewood-Silver Lake Trail	Local-level trails along county and local roads	City is responsible for powerline trail and local trails around lake. County responsible for Hwy. 120 segment by Silver Lake.	City is responsible.

Funding Options and Opportunities

One of the major advantages of the Lake Links Trail Network Master Plan is that it paints a broad vision for trails within the study area that collectively offers benefits beyond those of the individual local trail systems. By creating a recreational value of greater significance than would otherwise be the case, the opportunities for funding from a variety of funding sources opens up substantially. Equally important, this collective vision can also serve to raise the level of priority given to these trails over what might otherwise be the case. In this context, collaboration between local cities and the county can go a long way toward being successful in securing the funds necessary to build the trails. The table on the following page provides an overview of potential funding sources.

Funding Sources for Trail Development

Source	Description/Overview	Probability
Regional Parks and Trails Grant Program (Metropolitan Council)	Funding through the Metropolitan Council for regional parks and trails development projects. Funding is awarded through a competitive application process, where applicants are ranked against each other on a priority basis.	Competitive, but potential is reasonably high for projects of such significance. Still, likelihood is that it could take a number of years on priority list before actually being funded. Critical to this is getting on the funding priority list as soon as possible.
Local Trail Connections Grant Program – (MNDNR)	Funding through a MNDNR grant program for local trail connections to promote access between people and desirable destinations. Can be used as part of the local match for TEA-21 Enhancement Projects. $50,000 maximum value.	Strong potential given that the local trails defined under the master plan provide significant connections to regional and other local trails. Also, use of this grant to help offset local match obligations adds to its appeal. Local match requirement is still a key factor to keep in mind.
Outdoor Recreation Grant Program (MNDNR)	Funding through a MNDNR grant program for local parks and recreation improvements. Provides a 50% match with local funding sources. Trails can qualify for this program.	Good potential and worth pursuing as part of overall grant package. 50% local match requirement is a key factor to keep in mind.
National Recreation Trail Grant Program (MNDNR)	Funding through a MNDNR grant program for local parks and recreation improvements. Provides a 50% match with local funding sources. $100,000 maximum value.	Some potential and worth pursuing as part of overall grant package. 50% local match requirement is a key factor to keep in mind.
TEA - 21	The federal government allocates monies each year for alternative forms of transportation, which includes bicycle trails. The programs of note under this bill include the Congestion Mitigation and Air Quality Improvement Program, Transportation Enhancement Program, and Recreation Trails Program.	Funding availability through this bill has been fairly robust in recent years and offers good potential for trail development projects under the listed programs. Very much worth pursuing.
Turnback Program	As noted, a number of the roadways in the study area are part of turnback programs. In these instances, upgrading of the roadway could be part of the turnback agreements between agencies, which could include a provision for trails.	Case by case basis agreements, depending on the particular circumstances and the agencies involved. Potential here is to "piggyback" trail development on these projects, potentially resulting in substantial savings.
Local Property Taxes and Bonds	Minnesota statutes authorize cities to levy taxes on all taxable property in the city as needed to fund trail development. Minnesota statutes enable cities to issue bonds for trail acquisition or improvements.	Primary funding sources at the local level. Bonds are often used for larger-scale projects or general improvements that are beyond the reach of the annual CIP funding. Limitation here is the practical capacity of smaller cities in the study area. However, local funds can be leveraged to a high degree through the various grant programs listed.
Special Appropriations (State)	Relates to special appropriations for upgrading roadways and/or construction of trails. Turnback roads could be a particular focus here.	Significant opportunity given multiple values of upgrading roads and adding trails to the local community, county, and region.
Donations	Relates to cash donations, gifts, volunteerism, and professional services donated to the planning, acquisition, or development of trails.	Limited potential.

Public Awareness

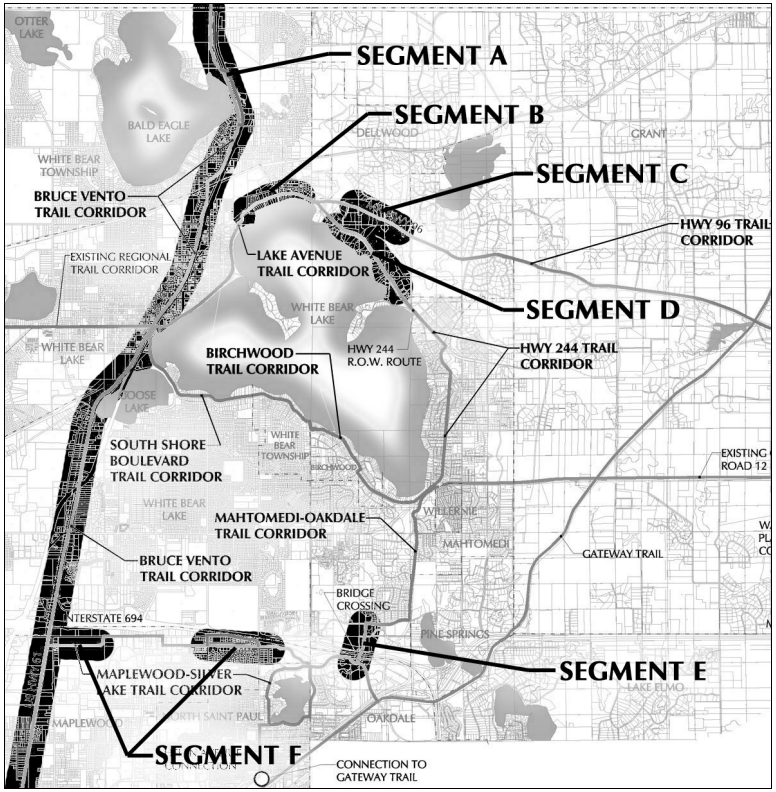
It is anticipated that any new trails added to the existing infrastructure will need very little direct promotion to make residents aware of their existence.

Once completed, public awareness of the trail network will be promoted through the local cities, townships, and counties through a coordinated effort. This would include trail network mapping, brochures, flyers, posters, and so forth to make residents aware of the new trails. Once the initial promotional campaign is complete, it is expected that word-of-mouth will be the most successful promotional tool. Given the history of past use of these corridors even without developed trails, plus the success of existing trails, it is anticipated that any new trails added to the existing infrastructure will need very little direct promotion to make residents aware of their existence.

Appendix A – Methodology for Determining Potential Acquisition Costs

Overview

The following provides background information related to the various land cost estimates for the different trail segments identified on the accompanying map. For descriptive purposes, the various trail segments are identified as segments A - F. Note that the estimates do not constitute an appraisal. The research performed is not specific enough to each parcel within the specified trail segments. This report is to be used solely for budget estimate purposes, with definitive values not being ascertainable until further research specific to each property is performed. Certain assumptions are incorporated, and are included herein.



Forthcoming are the detail the land costs on a per acre for the segments shown on the map.

Segment A (Bruce Vento Trail Corridor)

Segment A is the current Burlington Northern Santa Fe (BNSF) Railway line traversing generally along T.H. 61 from Beam Avenue on the south, to the Bald Eagle Otter Lake Regional Park on the north. It is proposed to place the trail within this right-of-way, which is already owned (presumably in fee) by BNSF. The railway traverses through various land uses, which include primarily commercial and residential. There is a lack of data to support a fee value for the railway, and across-the-fence values (values based on values of abutting land uses) were not deemed applicable, as the railway corridor in and of itself does not have a highest and best use consistent with the abutting land uses. Therefore, we have relied upon a value assigned for the corridor itself, and assume that the presence of a trailway adjacent to the existing rail line would not diminish the other potential uses for this corridor, including a snow mobile trail, a light rail line, etc. There is adequate width within this corridor to support adjacent uses other than just this trail. We are determining a value for this corridor at about $.65/s.f., or about $28,300/acre.

Segment B (Hwy. 96 Trail Corridor – North Side of White Bear Lake)

Segment B is a proposed segment of trail along the north side of White Bear Lake, generally along Highway 96, from Northwest Avenue on the west, to the 244/96 intersection to the east. The trail is planned on the south side of the roadway for a variety of reasons: topographical challenges exist on the north side of the road which would require significant cut and slope easements, thus increasing the width of the acquisitions; a minor amount of landscaping (buffer trees) may be impacted; there would be more public enjoyment of lake views and cohesion of the trail segment which would connect Ramsey County Beach to White Bear Beach Community Club to Ruthford Park, all of which are on the south side of the road; there are more marginal soils on the south side of the road, however a ridge exists that appears to be of appropriate width for a trail; an overhead utility line exists on the north side of the road, which may make trail placement challenging, or require removal/reinstallation of the line. The property on the south side is basically used for lake front recreation as adjoined to parcels on the north side of the road. None of the land on the south side of the road is considered buildable. Nonetheless, this land has a high recreation value, due to its lakefront on White Bear Lake. We have assigned a value for this segment of trail at $200,000/acre. There is only one sale of lakefront land in this area that is not buildable: a .46 acre tract that sold for $45,000 in 1995. After application of an adjustment for the passage of time, and lakefront natural enhancements, a final value of $200,000/acre is determined.

Segment C (Hwy. 96 Trail Corridor – Golf Course Area)

Segment C is a portion of the trail that is located along Highway 96, basically from the 96/244 intersection on the west, to Hadley Avenue on the east. The majority of property ownership on the north side of Highway 96 is of two property owners: the Dellwood Hills Golf Course and the White Bear Yacht Club. There are very few private ownerships on the north side of the road. The topography and soils are challenging on this side of the road, so the trail would likely be on the south side of the road. The south side of the road has primarily privately-owned residential properties on acreage-sized lots, with the exception of a small amount of ownership by the White Bear Yacht Club. Along the south side of the road, there are various wooded pockets, which serve as visual buffers to the road from the upper bracket residences. The need for buffers may be minimized by the deep setback of several of these residences. Therefore, acquisition along the south side may include increased costs for reestablishing some type of visual buffer under a cost-to-cure scenario. Additionally, there is an overhead utility line on this side of the road. If it is possible to place the overhead utility line underground, there would be some mitigating offsets to the loss of a tree buffer. Furthermore, if it is possible to place the trail within the already-encumbered overhead power line easement corridor, acquisition costs could be greatly limited.

We will provide values for the various scenarios below.

Acquisition on the south side of the road outside of the overhead utility line corridor: Land values for this are based on the per acre value for lot sales and offerings within Dellwood. Applicable sales indicate a range of values per acre from $36,424/acre for larger lots (over 4 acres), to $70,752/acre for smaller lots (under 2.5 acres). However, there is a void of data for properties that have recently sold, so we have also considered current offerings. There is a total of 21 lots listed for sale within Dellwood. The average prices per acre range typically from $32,300/acre to $174,000/acre. The higher per acre values are for lots abutting the golf course, or that have a pond, or other desirable natural enhancements. The majority of lots are within the $55,000 to $75,000/acre range. We are determining a price per acre for the properties at $75,000/acre. Additionally, we need to assign some cost-to-cure amounts for the loss of the visual buffer. This is best done with evergreen trees planted every ten- to fifteen-feet, staggered. Spading in these trees could add conservatively an additional $50,000/acre. This is based on 1 tree at $250-$275, staggered every 12.5 feet. Therefore, the total acquisition cost per acre is about $125,000 (value of the land and cost-to-cure).

Acquisition on the south side of the road inside the overhead utility line corridor: We are assuming the utility corridor to be easement, where the underlying fee ownership is to the individual property owners. Assuming that a trail could be placed within this corridor, the acquisition would be on already-encumbered, and significantly lower-valued land. It is estimated that the easement within an easement value would be perhaps 50% lower than the value of the fee, or $40,000/acre. Additionally, it is possible that there would be tree removal in excess of the trees that would be removed or cut as a result of their presence within the utility corridor, so we need to add some cost-to-cure of approximately half of our prior-determined amount of $50,000/acre, or $25,000/acre.. Therefore, the total acquisition cost would be about $65,000/acre with this scenario.

Segment D (Hwy. 244 Trail Corridor – South of Meadow Lane)

Segment D is a portion of the trail located on Highway 244, south from the 96/244 intersection to approximately Dwinnell or Quail Avenues. This is a difficult portion of the roadway to construct a trail segment due to the already-narrow width of the roadway right-of-way. On both sides of the road are upper-bracket residences. On the west side are numerous lake-front properties along the "Gold Coast" of White Bear Lake. On the east side of the road are various properties located in Dellwood. It is preliminarily identified that acquisition will be from the east side of the road, where the properties are setback a greater distance, and acquisition would be typically from the rear yards, not the front yards, as would be the case for the properties on the west side of the road. Due to the narrow road width, it may be likely that additional roadway right-of-way be acquired to insure safe distance of the trail from the lanes of vehicular travel.

To determine the value per acre of acquisition along this portion of the trail segment, we considered various lot sales within Dellwood. Applicable sales indicate a range of values per acre from $36,424/acre for larger lots (over 4 acres), to $70,752/acre for smaller lots (under 2.5 acres). However, there is a void of data for properties that have recently sold, so we also considered current offerings. There is a total of 21 lots listed for sale within Dellwood. The average prices per acre range typically from $32,300/acre to $174,000/acre. The higher per acre values are for lots abutting the golf course, or that have a pond, or other desirable natural enhancements.

The majority of lots are within the $55,000 to $75,000/acre range. We are determining a price per acre for the properties at $75,000/acre. Additionally, it is possible that some landscaping may be acquired in the form of retaining walls, plantings, and volunteer trees which serve as a buffer to the road. We feel it necessary to add an additional $65,000 for cost-to-cure landscaping and reestablishment of some buffers. Therefore the total per acre acquisition cost is estimated at $140,000 (value of land and cost-to-cure).

Segment E (Mahtomedi - Oakdale Trail Corridor – I-694 Crossing)

Segment E is referred to as the I-694 crossing. Here the trail goes northerly from Hadley Avenue, just west of the Fleet Farm development, across I-694 (presumably with a foot bridge) to the Century College Truck Driving Center, along Echo Lake Avenue, to 60th Street. On the south side of I-694, the trail traverses through land that is not buildable (either due to marginal soils, or limited depth along the interstate frontage). On the north side of I-694, the trail enters onto the Century College Driving Center prior to following along the Echo Lake Avenue right-of-way truncating at 60th Street. Located along the north side of 60th Street is the Northeast Metro Business Center, where there is land still available for sale.

We have divided this trail segment into two distinct subcategories: land on the south side of I-694, and land on the north side of I-694. The land value on the south side is deemed nominal in nature due to the lack of the land being able to have a significant highest and best use. We have assigned the land value at $10,000/acre. This is based on metro-area wetland sales, the majority of which have been purchased by government entities or developers.

The land on the north side of I-694 has a value based on the sales and offerings within the proximate Northeast Metro Business Park that is zoned Light Industrial. According to Clyde Fish, the owner and listing Realtor of the Park, the land has sold for $1.95 to $1.98/s.f. over the past three years. This includes one property currently under contract. There is one lot currently being offered at $1.77/s.f., however, this is zoned office (valued slightly less than Light Industrial, according to Clyde Fish), and has some wetland area. We have determined a value for this portion of the trail segment at $2.00/s.f., or about $87,000/acre. In order to alleviate any potential amount for severance damage, it is recommended that the trail be located along the perimeter of properties (specifically, RPS and Century College Truck Driving Center).

Segment B (Maplewood - Sliver Lake Trail Corridor – Powerline Easement)

Segment F is referred to as the power line easement area. Here the trail generally traverses along an east-west overhead power line. This power line traverses through various land uses, including commercial (near the Regional Maplewood Mall), and residential. The trail segment at the mall area does follow along already existing roadway right-of-way alleviating the need to acquire from expensive commercial properties near this regional mall. According to Larry Holmberg, Ramsey County, the power line appears to be an easement, as denoted on the county plat map. Therefore, any further acquisition of this within the confines of the power line easement would need approval from both the power company (assumed to be now Xcel Energy, formally NSP), and the individual properties it traverses through. The acquisition costs should be lower than the fee value, as the land is already encumbered with an overhead power line easement, and the trail use would likely be deemed as less obtrusive than the already-existing overhead power line. Nonetheless, we have assigned two values to this trail segment: commercial value and residential value.

The commercial land area is located on the east side of Highway 61, west of the Maplewood Mall Area. This area in undeveloped, and has typically existing open and residential land uses. Some of the residential land is being marketed for commercial purposes, but as of yet, has not met the transition to commercial use. Therefore, due to the market demand, this land, although suitable for commercial use, is not deemed to be high-valued due to the lack of immediate demand. Additionally, the area needed for the trail is already encumbered with a power line easement. We are assigning a value for this land at $.75/s.f., or about $32,700/acre.

The residential land is fully developed. The majority of residential use is single family detached housing, and single family attached housing, most typically double-homes. As this area is fully developed, there are no vacant land sales for which to analyze. Instead, land values are based on extraction. Typically, the land value equates to about $2.50/s.f. (e.g., 10,000 s.f. lot at about $25,000 value), however the area for the trail is on land already encumbered with an overhead utility line easement, so we have subtracted about 50%, to arrive at a value for the residential land at about $1.25/s.f., or about $54,500/acre.

Assumptions Incorporated into this Budget Analysis

Please note the following assumptions:

- The values are based on historic data, and are approximate as of the date of this report. The actual acquisition will occur at a future date, therefore all values determined herein are subject to change based on new data which may become available and/or a typical market increase for the passage of time.
- We assume that severance damage is not applicable. All acquisitions are adjacent to existing roadway rights-of-ways, or within pre-existing easements. Therefore, without further analysis of each property impacted by a potential acquisition, it is assumed that severance damage is not applicable.
- We are assuming all trail segments to be purchased in permanent easement, not fee. We are however deeming that the value of the permanent easement to be the same as fee, due to the fact that the trail will encompass the property and render the land it sets on useless to the balance of the property. While this is a generous assumption, it is consistent with other right-of-way acquisitions for roadway, drainage, and utility purposes.
- We have not been provided information on temporary easements, slope easements, drainage, easements, or any other easements that would need to be created to facilitate this trail project. Therefore, the additional compensable value for these easements is not contained herein.
- For budgetary purposes, it is recommended that a 10-foot wide temporary easement be placed parallel and adjacent to the trail easement. Using a five-year temporary easement period, with a two-year floating period, (meaning that the land will be encumbered a total of five years, but it is expected that the land be temporarily used only for about a two-year period within the five-year period), using a reversionary method of temporary easement valuation with an 8.75% reversionary factor, the applicable rate for these temporary easements would be about 15 to 20% of the permanent easement value.
- For budgetary purposes, it is recommended that any slope or drainage easement be acquired as a permanent easement, consistent with its permanent slope or drainage use.
- To the best of this appraiser's belief, the information contained in this report is true and reported correctly. The information in this report, while not guaranteed, but has been taken from sources or records believed to be reliable.

Appendix B – Local Trail Plans

The following provides maps of various local trail plans. Note that each map is subject to change without notice. The individual city or township should be contacted for up-to-date information on their trail system mapping.

City of Hugo Trail System Map

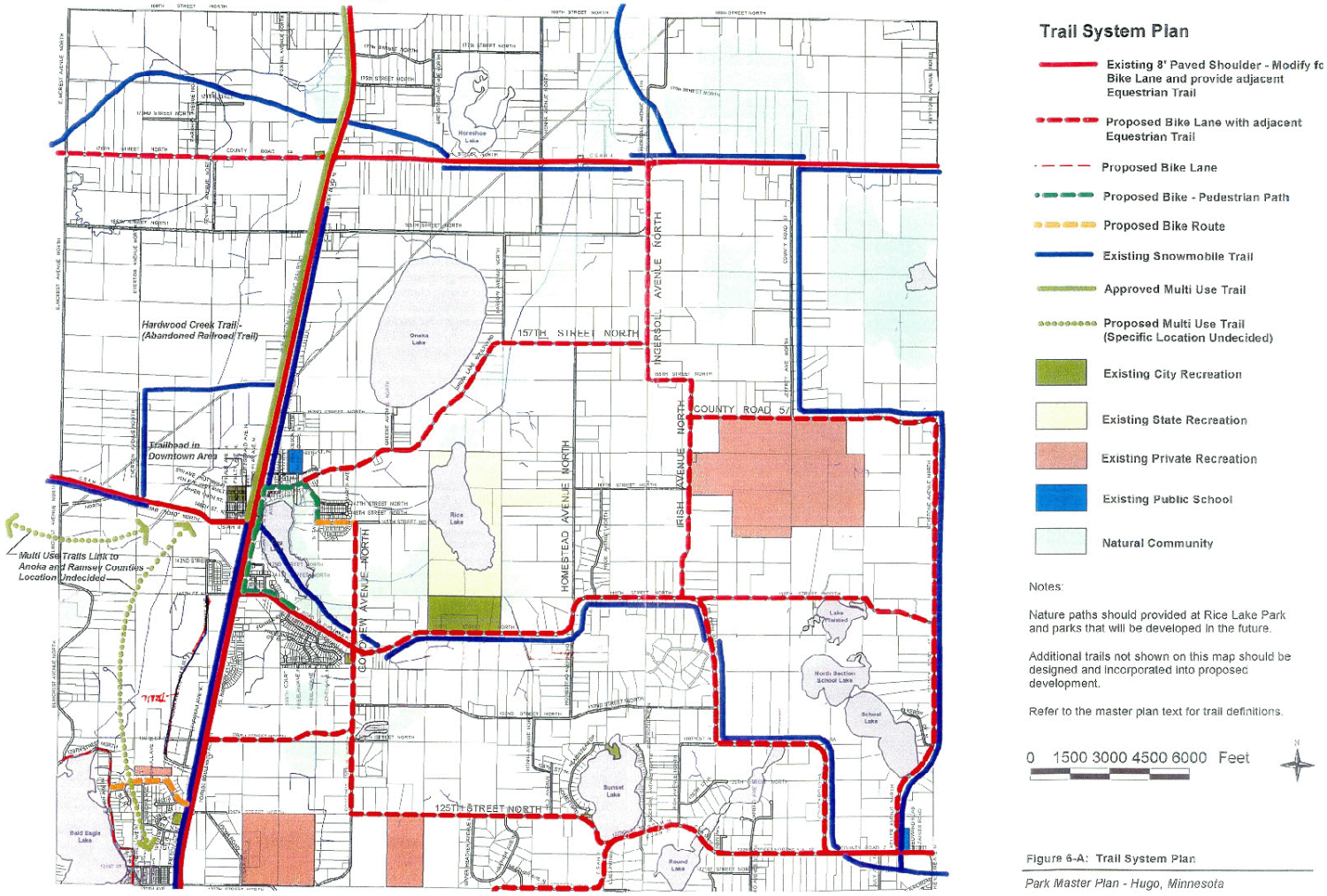
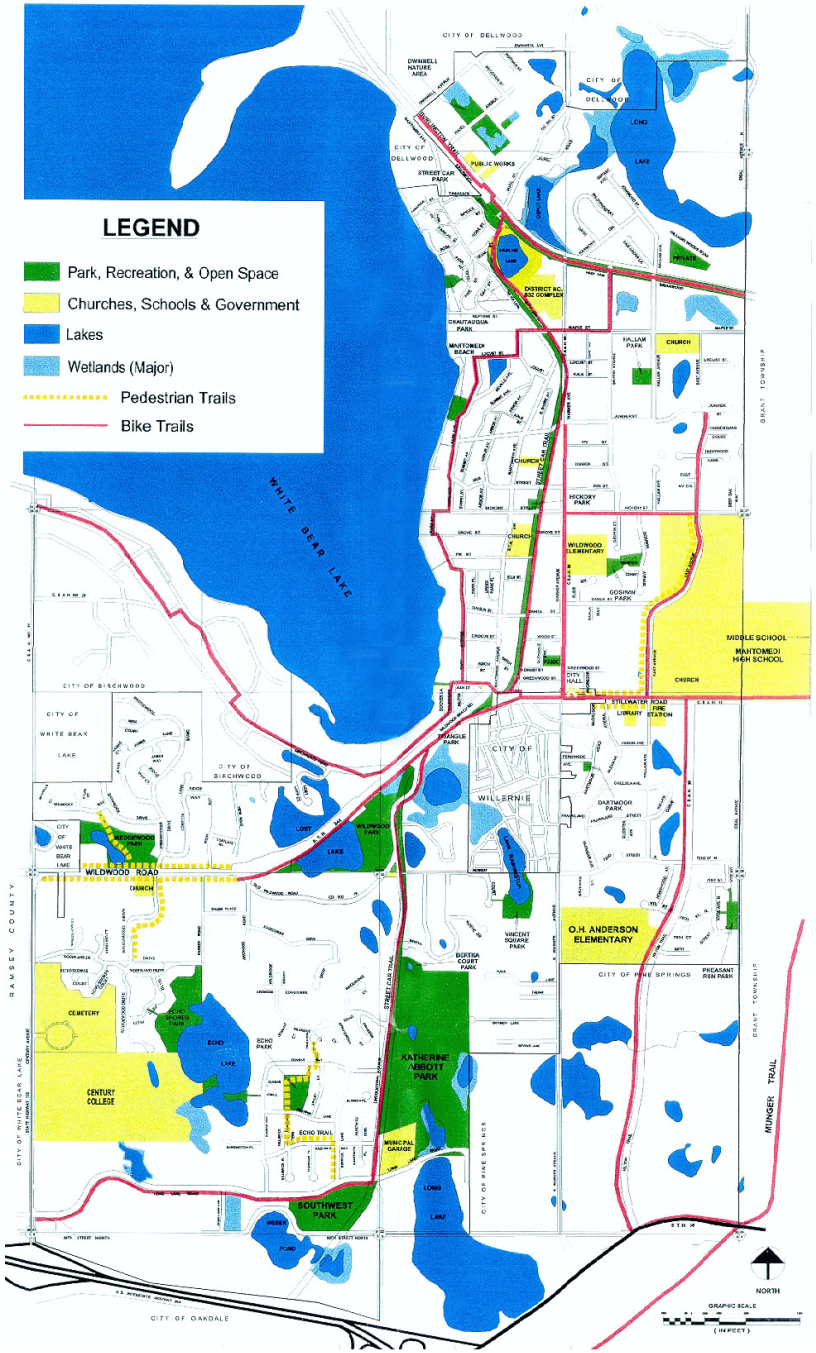


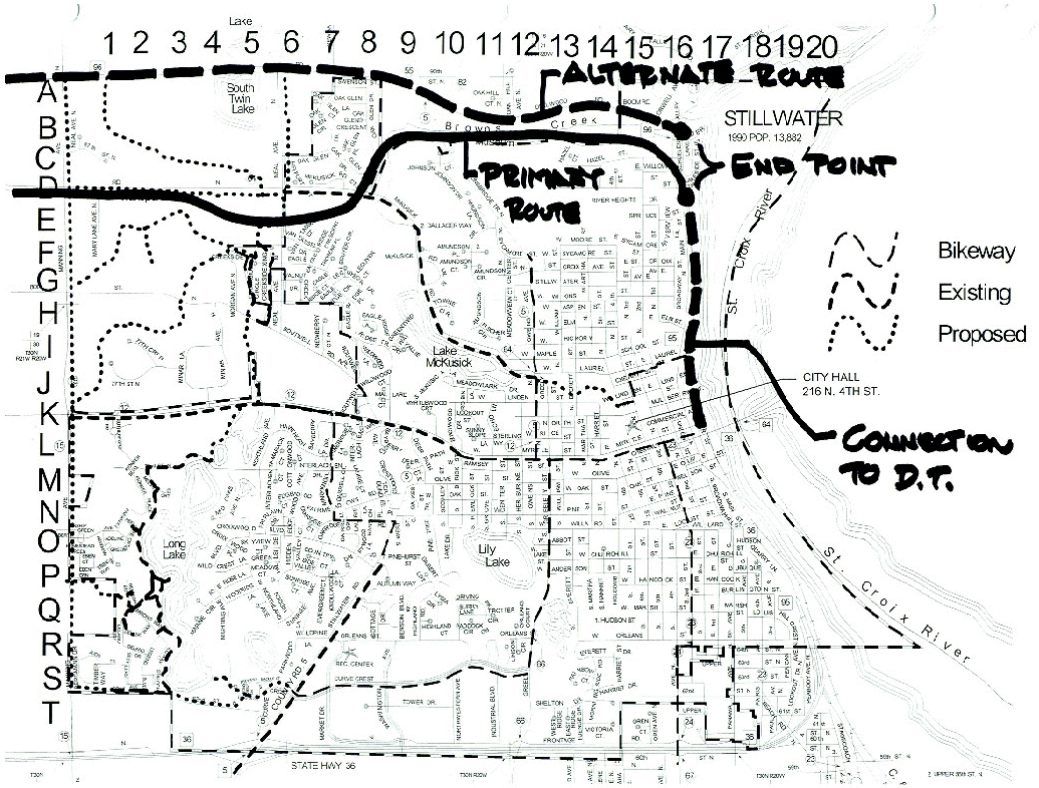
Figure 6-A: Trail System Plan

Park Master Plan - Hugo, Minnesota

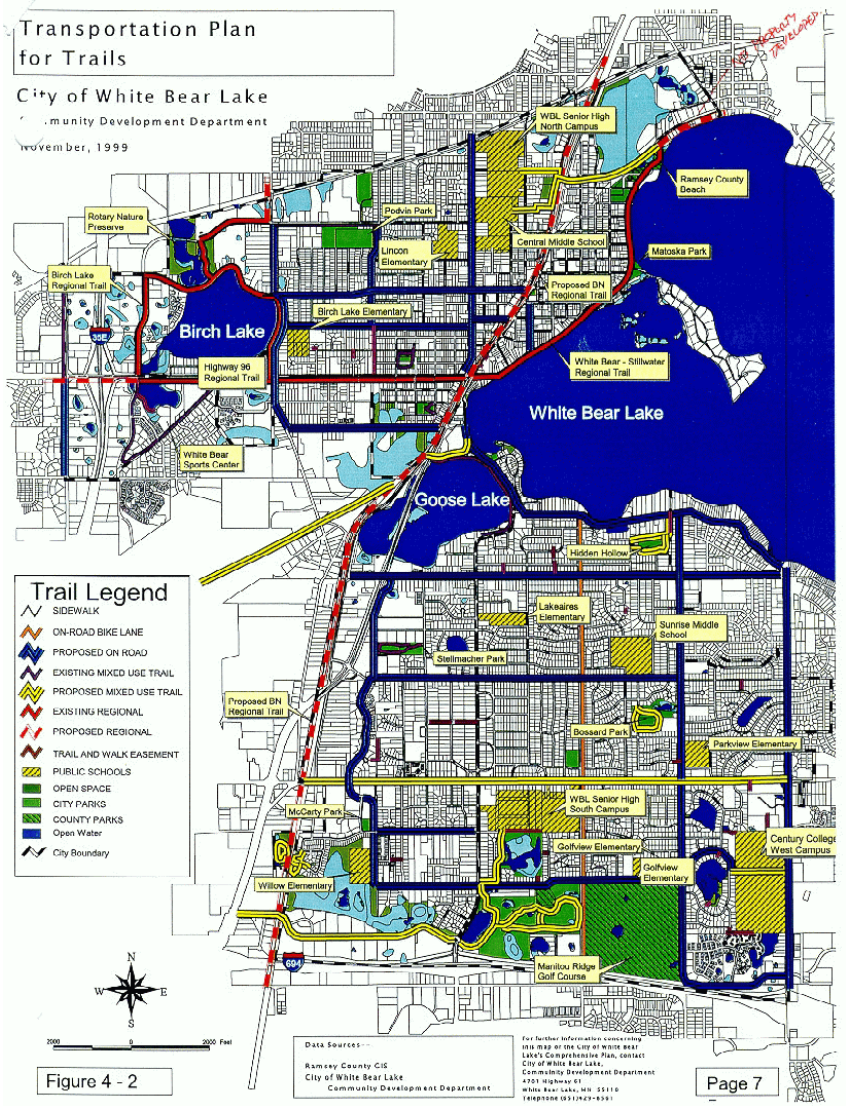
City of Mahtomedi Trail System Map



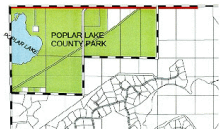
City of Stillwater Trail System Map

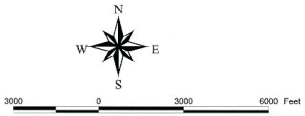


City of White Bear Lake Trail System Map



White Bear Township Trail System Map



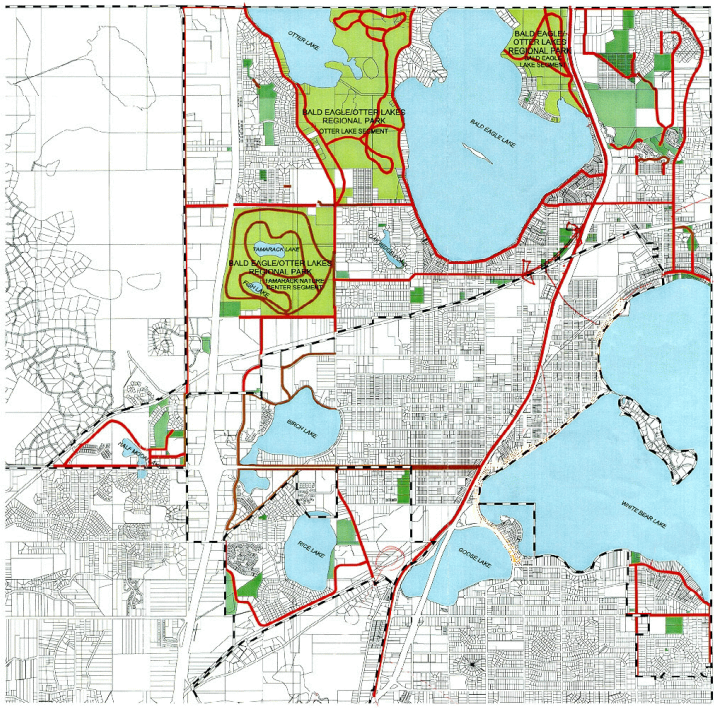


LEGEND

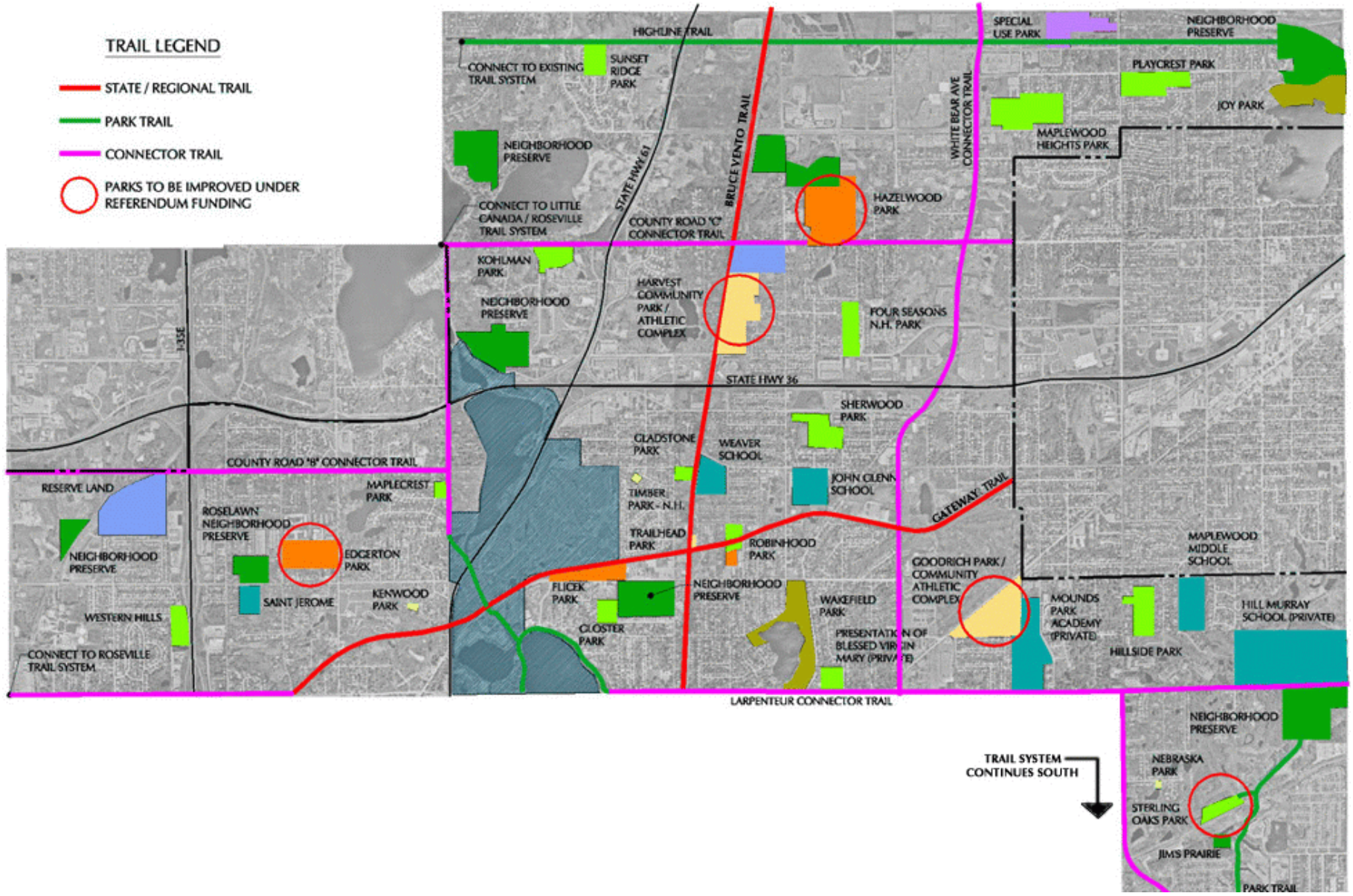
Trail/Sidewalk
- Existing Trail/Sidewalk
- Future Trail/Sidewalk

Park/Open Space
- Township Park
- Township Open Space
- County Park/Open Space
- Township/City Boundary

WHITE BEAR TOWNSHIP
TRAIL PLAN MAP



City of Maplewood Trail System Map



RAMSEY COUNTY-WIDE

Pedestrian & Bicycle Plan

Active Living Ramsey Communities

A Program of RAMSEY COUNTY

Executive Summary

Section 1 Purpose, Vision and Goals

Section 2A The State of Walking and Biking Environment

Section 2B Gap and Barriers in Ramsey County

Section 3 Community Engagement

Section 4 The Connected Ramsey Communities Network

Section 5 Implementation Plan

List of Maps

RAMSEY COUNTY-WIDE

Pedestrian & Bicycle Plan

Executive Summary

Introduction

For over 10 years, Active Living Ramsey Communities (ALRC), with all of its community partners, has facilitated change to create environments that make it safe and easy for everyone of all ages and abilities to be physically active in their daily routine. Active Living Ramsey Communities encourages healthy lifestyles by bringing people and resources together to build active, bikeable and walkable communities. Their vision and collaborative efforts inform all aspects of this plan and support active transportation in Ramsey County.

This plan is a resource and a framework for development of a connected Ramsey County where communities and residents are engaged in the process of building a great place for walking and bicycling.

This is not a typical plan focused on specific projects for an individual jurisdiction, but rather a set of tools, analyses and actions to engage community members at all levels in supporting a place where people of all ages and abilities can safely and comfortably walk and bicycle.

Active Living Ramsey Communities (ALRC) encourages healthy lifestyles by bringing people and resources together to build active, bikeable and walkable communities that make it safe and convenient for people to integrate physical activity in their daily routine.

Vision And Goals

VISION:

Pedestrians and bicyclists move freely on a safe and well integrated system that connects people and places in Ramsey County.

Walking and bicycling is a comfortable and integral part of daily life in Ramsey County for people of all ages and abilities.

GOAL 1
Healthy and Active Mobility for all

GOAL 2
A Complete and Connected Multi-Modal Network

GOAL 3
A Safe Transportation System for Pedestrians and Bicyclists of all Ages and Abilities

GOAL 4
Equity and Social Justice in Transportation System Development

GOAL 5
A Coordinated Approach to Filling Gaps in the Pedestrian and Bicycle System

GOAL 6
A Transportation System that Contributes to Sustainable and Prosperous Communities

A walkable and bikable community is one that people of all ages and abilities are able to enjoy.

All ages means that children as young as 8 can walk and bike independently from their parents. It means that the elderly can get around comfortably without a car. Facility needs vary by age and there is no “one size fits all” solution.

All abilities means that those using mobility devices or those with vision impairments are not faced with barriers. Crossings, intersections and facilities must be designed with users of all abilities in mind.

Gaps + Barriers Analysis

The Gaps and Barriers Analysis identifies the areas in Ramsey County that are most deficient in walking and bicycling infrastructure and that would benefit the most from investment. Key findings include the following:

- While there is good sidewalk coverage in parts of Ramsey County, such as St. Paul, downtown White Bear Lake and areas of Falcon Heights, other parts of the county have, particularly in lower density residential areas.

- For bicycling, county-wide network connections along local roadways may be considered candidates for speed management. By lowering vehicle speeds on local roads, streets may become lower stress and be considered suitable for bicyclists of all ages and abilities.

Building A Common Language

PRIMERS

Infrastructure Design

- Discusses the infrastructure needed to support a walkable and bikable community for all ages and abilities. (see example below)

Transportation Funding

- An overview of how bike and pedestrian facilities are funded.

Legal Primer

- Describes the legal framework for non-motorized transportation at the local, state and federal levels.

Community Engagement

- Shares meaningful strategies for engaging with a diverse set of stakeholders in the transportation planning process. The primers are located in Section 3 of the plan.

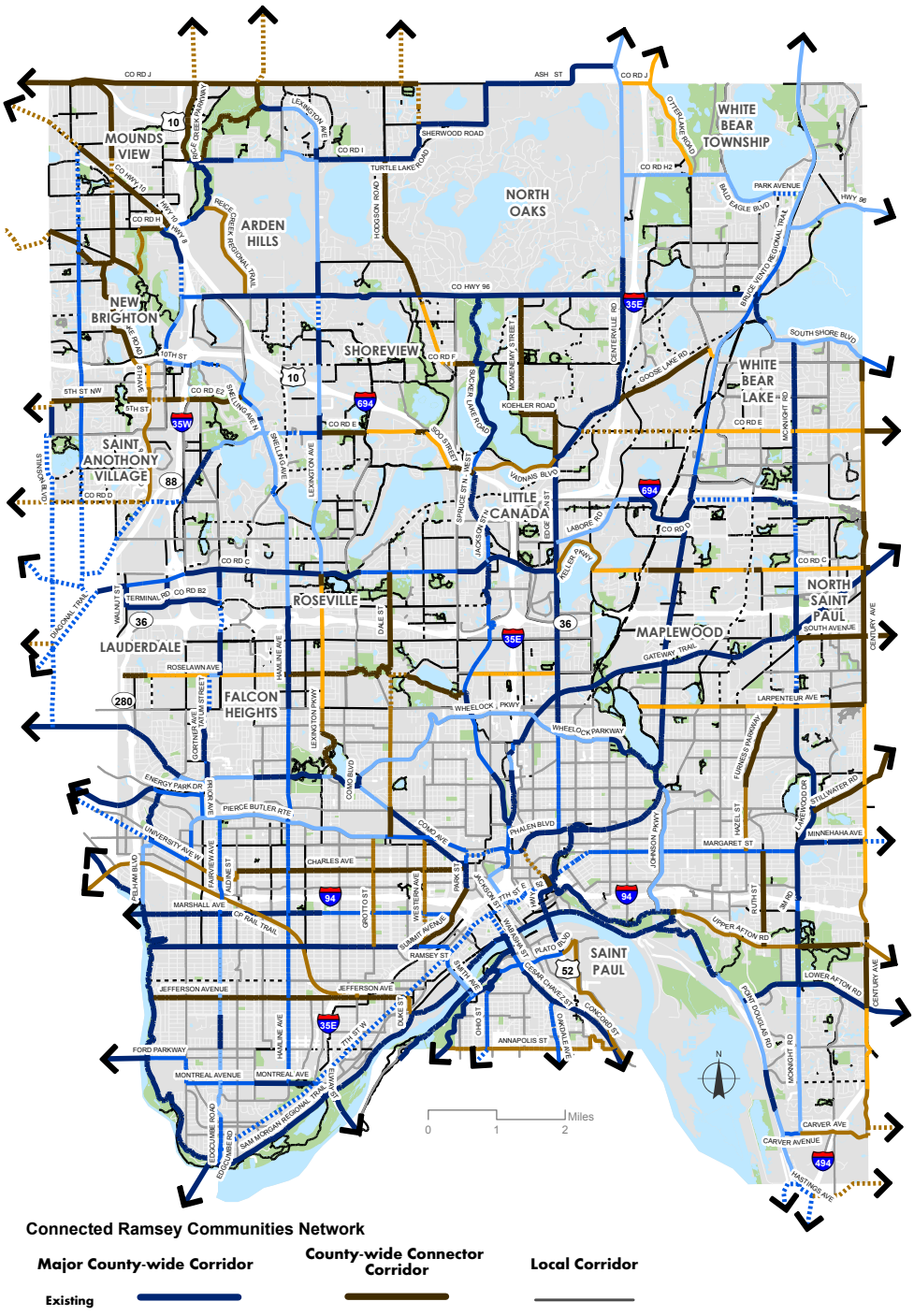
THE STATE OF WALKING & BICYCLING ENVIRONMENT

The document is a reference to the current conditions related to walking and biking in Ramsey County and explores how population, land use, safety, and infrastructure work together to influence everyday choices related to transportation. This section is located in Section 2 of the plan.

Connected Ramsey Communities Network

The Connected Ramsey Communities network is a planning framework for the County and local jurisdictions to refer to when planning, prioritizing and designing an active transportation network.

These are the countywide connections that bring people from important place to important place throughout Ramsey County, and when built out to a high quality, will act as a county-wide backbone between communities.



Implementation

SIX PRIMARY RECOMMENDATIONS

Connected Ramsey Communities Network

Through collaboration with Ramsey County stakeholders and implementing agencies, establish and build a connected network of pedestrian and bicycle facilities. The emphasis is on building high quality transportation and recreation facilities.

All Ages and Abilities Network

Active Living Ramsey Communities will identify specific opportunities to support local communities in developing design guidance that support all members of the community. This will include developing walkable and bikeable communities that offer easier access and connections to transit.

Performance Monitoring Report

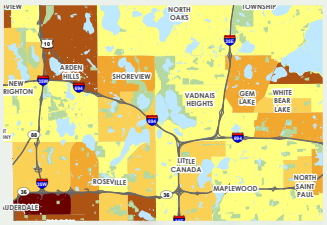
Active Living Ramsey Communities will publish an annual report to help raise the profile of successes and challenges for walking and bicycling in Ramsey County. The report will focus on safety, connectivity, health equity, social and economic development, and the quality of life improved by the county-wide active transportation system.

Annual Performance Evaluation Summit

Facilitated by Active Living Ramsey Communities, this annual forum is an opportunity for communities to evaluate their efforts, share best practices, and collaborate on priorities for the coming year. This annual meeting will serve as an opportunity to identify successes and discuss challenges.

GIS Clearinghouse

Geographic Information Systems (GIS) is a mapping tool that can represent all kinds of spatial and geographic data. It is used to map, visualize, analyze and interpret data to better understand relationships, patterns and trends.



Coordinated Count Program

A count program documents the numbers of people using bicycle and pedestrian infrastructure, such as sidewalks, trails or particular intersections. Understanding how people are using existing facilities can help to prioritize future projects and help evaluate the success of investments.

RAMSEY COUNTY-WIDE

Pedestrian & Bicycle Plan

Purpose, Vision & Goals

Introduction

For over 10 years, Active Living Ramsey Communities, with all of its community partners, has facilitated change to create environments that make it safe and easy for people of all ages and abilities to be physically active in their daily routine. Active Living Ramsey Communities encourages healthy lifestyles by bringing people and resources together to build active, bikeable and walkable communities. Their vision and collaborative efforts inform all aspects of this plan and support active transportation in Ramsey County.

This plan is a resource and a framework for development of a connected Ramsey County where communities and residents are engaged in the process of building a great place for walking and bicycling.

This is not a typical plan focused on specific projects for an individual jurisdiction, but rather a set of tools, analyses and actions to engage community members at all levels in supporting a place where people of all ages and abilities can safely and comfortably walk and bicycle.

Active Living Ramsey Communities Background

State, county, municipality, school, business, health care and nonprofit representatives, community groups and local residents came together to create Active Living Ramsey Communities in December 2004. Community engagement formed the core of the organization's mission. The organization promotes and creates environments that make it safe and easy for everyone to integrate physical activity into their daily routine.

The graphic below illustrates many highlights of Active Living Ramsey Communities accomplishments over the past ten years.

ACTIVE LIVING RAMSEY COMMUNITIES HIGHLIGHTS INCLUDE:

- Engaging the community to improve health by collaborating with nearly 19 Ramsey County municipalities, leaders, practitioners and residents to create and promote environments to make it safe and easy for everyone to be physically active in their daily routine.
- Developing the Go Ramsey mapping portal for residents and visitors to find all the green spaces and fun places to be active in Ramsey County. http://goramsey.co.ramsey.mn.us/Pages/default.aspx
- Building pathways to health through the Be Active! Be Green! Recycling Bench Initiative. https://parks.co.ramsey.mn.us/alrc/Pages/benches.aspx
- Incorporating health and active living into County and municipal comprehensive plans. https://parks.co.ramsey.mn.us/Documents/working_with.pdf
- Developing comprehensive, county-wide Geographic Information Systems (GIS) data layers and maps of all the pedestrian and bicycle facilities and connectivity gaps. https://parks.co.ramsey.mn.us/alrc/Pages/gapmaps.aspx
- Creating a Ramsey County parks and trails wayfinding master plan. https://parks.co.ramsey.mn.us/alrc/Documents/Ramsey%20County%20Wayfinding%20Masterplan.pdf
- Facilitating the Active Living Ramsey Communities Biking and Walking Team which works to create a safe, efficient and accessible recreation and transportation system for pedestrians, bicyclists and transit users.
- Implementing an Active Living policy initiative in Ramsey County departments which resulted in bike parking, Sheriff's Cross-fit training program, library bike lock check out and the Ramsey County Employees Committed to Health Steering Committee (REACH).
- Sponsoring the Active Minds! Active Lives! summer reading program at Ramsey County libraries.
- Developing a Bicycle and Pedestrian System Gap Analysis to create a safe, efficient and accessible biking and walking system.
- Conducting a community survey on physical activities, safety issues, city-suburb differences, walking and bicycling.
    - Initial Findings, Fall 2005 https://parks.co.ramsey.mn.us/Documents/2005_residential_survey_initial.pdf
    - Full Report, Spring 2006 https://parks.co.ramsey.mn.us/Documents/2005_residential_survey_complete.pdf
- Winning awards from the Association of Minnesota Counties, Blue Cross Blue Shield, Minnesota Recreation and Parks Association and League of American Bicyclists.

Active Living Ramsey Communities Identified Four Overlapping Strategies:

TRANSFORM SYSTEMS

Creating change in organizations and advancing broad efforts.

IDENTIFY POLICY

Effecting change through identifying evidence based internal and external policies and practices.

ENHANCE BUILT ENVIRONMENT

Through smart decisions about transportation infrastructure, land use, zoning and community design.

ENGAGE COMMUNITIES

Involving leaders, practitioners and residents in improving health by creating and promoting environments, so it is safe and easy for everyone to be physically active in their daily routine.

Projects in the areas of overlap across these strategies have the highest potential for impact and will help advance the mission in multiple ways. For example, developing this plan to support cities in implementing walking and cycling infrastructure and programs lies directly in the overlap area of all four strategies. This effort influences each strategy directly and clearly.

Planning Process

The purpose of this plan is to develop a county-wide resource that integrates with Ramsey County municipalities to provide a seamless transition of pedestrian and bicycle facilities across the communities.

Active Living Ramsey Communities recognizes that disparities exist in how its residents access and use transportation and recreation resources. Recommendations in this plan support the elimination of these disparities by focusing additional attention toward improving conditions for walking and biking in communities experiencing disparities.

The tools and resources provided in this plan were developed through a collaborative process. The collaborative activities included public outreach and engagement, involvement of two advisory committees, coordination with local groups and agencies and technical analysis. The analyses and discussions take a county-wide view and envision a web of communities fully connected with safe and comfortable facilities for pedestrians and bicyclists throughout the county.

STAKEHOLDER ADVISORY TEAMS

Active Living Ramsey Communities enlisted its partners aligned with the overall mission, those with a key stake in or responsibility for implementation of pedestrian and bicycle facilities and programs as well as community members who are impacted by safe, efficient and accessible walking and biking facilities. Two advisory committees were engaged throughout the planning process and are described below.

PROJECT ADVISORY TEAM

The Project Advisory Team included community advocates, agency and community group representatives and County staff. This team advised the planning team on process and methods and served as liaisons to their representative groups, sharing information about the plan.

SYSTEM ADVISORY TEAM

The System Advisory Team included representatives from municipalities and implementation partners throughout the county, with representatives focused on community and economic development, parks and recreation and public works. This team provided peer review on strategies and analysis.

Purpose Of Creating Vibrant, Livable, Walkable & Bikeable Communities

A walkable and bikeable community is one where people walk and ride bicycles, because it is a convenient, fun, safe and healthy choice. It is a community in which people of all ages and abilities walk and bicycle in their daily routine for many types of trips. This plan provides a framework for Ramsey County communities to come together to create vibrant, livable, walkable and bikeable neighborhoods.

There is tremendous opportunity to increase physical activity in our daily routine through recreation and active transportation like walking, biking and using transit. A connected network for walking and bicycling can help support health and prosperity for all people in Ramsey County.

Improve The Overall Quality Of Life For All

by creating a community where it is easy to walk and bike, engage in physical activity, access resources, enjoy nature and interact with others.

Studies show that walkable neighborhoods "foster greater social cohesion and a sense of community," than auto-oriented neighborhoods.[1]

40%

of Minnesotans do not drive.[2]

Increase Mobility For All People

by considering the transportation needs of people of all ages, abilities and preferences.

Increase Social Interaction & Physical Movement In Public Spaces

which can support improved health for Ramsey County community members.

Currently, only

44%

of Ramsey County residents report engaging in any physical activity.[3]

According to a recent survey,

86%

of Millenials want to live in a city that offers opportunities to live and work without relying on a car.[4]

Foster Economic Prosperity & Growth

by attracting a diverse and educated workforce and creating jobs and economic development that all community members will benefit from.

Increase Opportunities For Active Transportation

by creating safe, convenient and enjoyable places for walking and biking. This includes increasing connections to public transportation.

In Ramsey County,

9%

of adults bike or walk to work.[5]

While only 9% of all trips are made by walking and biking nationally,

13%

of all vehicle crash deaths are cyclists and pedestrians.[6]

Increase Bicycle & Pedestrian Safety

through the design and implementation of safe and convenient active transportation corridors and crossing locations. This includes educating all road users on how to act safely and responsibly.

Improve Community & Individual Health

by creating a place with increased opportunities to engage in healthy activities that reduce the burden of chronic disease and increase positive health outcomes for everyone in Ramsey County.

Residents in a HIGHLY WALKABLE NEIGHBORHOOD complete about

70 ***MORE MINUTES PER WEEK***

of moderate & vigorous physical activity than residents in low-walkability neighborhoods.[7]

Every

10 ***MILE BIKE TRIP***

saves

1/2 ***GALLON OF GAS***

Reducing 10 miles of driving every week would eliminate about 500 pounds of carbon dioxide emissions a year.[8]

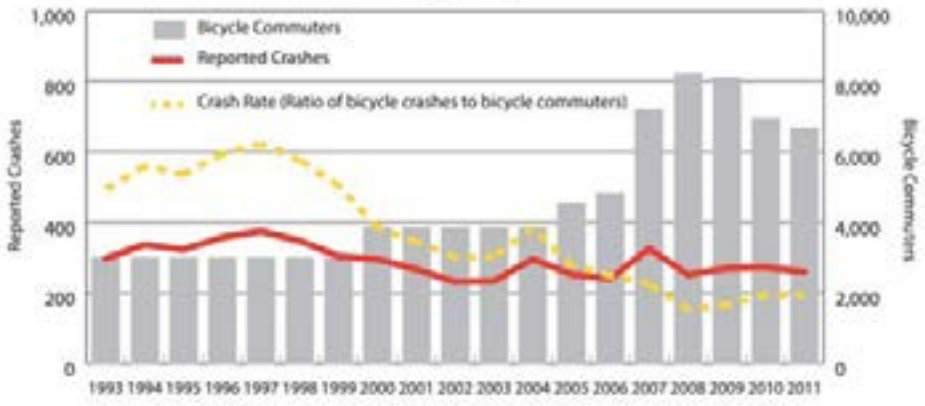
Improve The Health Of The Natural Environment

and reduce greenhouse gas emissions from the transportation system by encouraging the use of energy-efficient, non-polluting and healthy forms of transportation.

The Vision For Ramsey County

Communities within Ramsey County are not alone in the effort to become walkable and bikeable places. Other communities have achieved success in transforming from auto-oriented places into places where walking and biking are safe and normal daily activities. Cities like neighboring Minneapolis and Portland, Oregon have seen a large increase in the cycling mode share, while experiencing a decrease in crash rates.

Bicycle Ridership Increase and Crash Rate Decrease in Minneapolis, MN



CREATING WALKABLE & BIKEABLE PLACES

Ramsey County can look to other communities as a precedent for creating walkable and bikeable places. As seen in the US and worldwide, there are several important components that all successful walkable and bikeable cities share:

- Dedicated infrastructure for biking and walking, including on-street bike lanes, physically separated bike lanes, sidewalks, trails and wayfinding systems.
- A connected system that creates access to key destinations and public transportation.
- Fun events that create opportunities to get out and ride or walk, make social connections and get familiarized with existing infrastructure.

Minneapolis, MN

- As part of the 2005 federal transportation funding bill, Minneapolis and the surrounding area received $24 million to participate in the Non-motorized Transportation Pilot Program to fund local bicycle and pedestrian investments.
- While cycling rates have increased, the number of bicycle involved crashes has stayed the roughly the same since 1993, resulting in a decreased crash rate.
- Extensive investment in bicycle networks, in particular, the off street path system
- 4.1% of commuters bike to work, six times the national average of 0.6% .
- In some neighborhoods, over 12% of commuters bike to work.

Portland, OR

- Bicycle ridership rates have tripled since 2001.
- While cycling rates have increased, the number of bicycle involved crashes has stayed the same since 1995, resulting in a decreased crash rate.
- Extensive investment in bicycle networks, including bike boulevards and on-street bike lanes
- The country's first bike/pedestrian/transit only bridge - no cars, Tilikum Crossing, which opened in September 2015
- 6% of commuters bike to work, about 10 times the national average.
- In some neighborhoods, over 20% of commuters bike to work.

Boulder, CO

- Installed more than 300 miles of dedicated bikeways
- Consistent, long-term community efforts and urban planning
- Designated Gold-Level Walk Friendly Community
- Pedestrian-only Pearl Street Mall attracts residents and tourism.
- 10% of commuters walk to work.
- Comprehensive transit system with 90% of bus stops accessible by wheelchair
- 78 bicycle and pedestrian underpasses to create a more connected network.

Houten, The Netherlands

- Suburban town of about 49,000 people
- 26% of all commuter trips are taken by bike.
- Lowest bike fatality rate in the world, 5 times less than in the U.S.
- Almost every major street features safe and protected bicycle facilities.
- Bike facilities include separated bike lanes, bike signals and bike highways.

Vision And Goals

VISION:

PEDESTRIANS AND BICYCLISTS MOVE FREELY ON A SAFE AND WELL INTEGRATED SYSTEM THAT CONNECTS PEOPLE AND PLACES IN RAMSEY COUNTY.

WALKING AND BICYCLING IS A COMFORTABLE AND INTEGRAL PART OF DAILY LIFE IN RAMSEY COUNTY FOR PEOPLE OF ALL AGES AND ABILITIES.

Turning the vision into action can be simplified into a process of establishing clear goals, identifying key objectives and tracking measurable benchmarks to keep on the right track.

GOALS	The goals provide guidance for achieving the vision.
OBJECTIVES	Objectives achieve and measure progress toward realizing each goal.
PERFORMANCE MEASURES	Potential measurable targets describe progress and performance towards plan implementation.

BUILDING ON 10 YEARS OF ACTIVE LIVING RAMSEY COMMUNITIES

Built on 10 years of history, engagement and collaboration, the goals and objectives on the next page offer communities in Ramsey County a starting point for framing their local efforts to implement plans, improve walking and biking conditions and collectively develop a world class, county-wide walking and biking system.

GOAL: HEALTHY AND ACTIVE MOBILITY FOR ALL

Increased walking and bicycling has the potential to increase physical activity levels and improve health and quality of life for people in Ramsey County.

Objectives:

- Increase walking and bicycling for short trips as part of people's daily routine
- Increase the number of trips made by walking and bicycling for recreation and transportation in the county.
- Improve connectivity, quality and reliability of pedestrian and bicycling facilities
- Develop locally-oriented design guidelines for the transportation system that support safety and mobility for the most vulnerable users
- Improve opportunities for people to commute to work and school by walking and bicycling

GOAL: A COMPLETE AND CONNECTED MULTI-MODAL NETWORK

In order for a pedestrian and bicycle system to be heavily used, it must be connected and get people conveniently to their destinations: work, shopping, school, parks and transit stations.

Objectives:

- Build and enhance pedestrian and bicycle connections to transit
- Support development of links between communities to create a complete network
- Coordinate with transit and leverage transit lines and stops
- Improve system efficiency through connected networks for all modes
- Employ best practices and context sensitivity to design bicycling and walking facilities for as many people as possible

GOAL: A SAFE TRANSPORTATION SYSTEM FOR PEDESTRIANS AND BICYCLISTS OF ALL AGES AND ABILITIES

Bicyclists and pedestrians are particularly vulnerable users of the transportation system. Improving facilities and design standards can enhance safety and increase predictability, not only for pedestrians and people riding bicycles, but also for transit users and drivers of cars and trucks.

Objectives:

- Reduce the number and severity of crashes involving bicyclists and pedestrians

GOAL: EQUITY AND SOCIAL JUSTICE IN TRANSPORTATION SYSTEM DEVELOPMENT

Objectives:

- Comply with civil rights laws for all transportation projects
- Support inclusive public participation for transportation system and project planning
- Incorporate an equity framework in transportation policy and project implementation in the County
- Engage vulnerable communities in discussions about walking and bicycling and their transportation needs

GOAL: A COORDINATED APPROACH TO FILLING GAPS IN THE PEDESTRIAN AND BICYCLE SYSTEM

Objectives:

- Create a shared understanding and common language about pedestrian and bicycle planning issues
- Engage community leaders, practitioners and residents to contribute, review, buy into and help implement the pedestrian and bicycle system plan, especially those who live in underrepresented and underserved communities
- Improve coordination between communities in support of bicycling and walking
- Improve coordination and communication among responsible governmental units, as well as with the public
- Create aspirational vision for walking and cycling among the general public

GOAL: A TRANSPORTATION SYSTEM THAT CONTRIBUTES TO SUSTAINABLE AND PROSPEROUS COMMUNITIES

Objectives:

- Create educational resources on bicycle and pedestrian benefits, laws, definitions and best practices
- Support transportation that responds to disparities and helps to close the opportunity gap

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3. What Millenials Want. City Lab. http://www.citylab.com/housing/2014/05/what-millennials-wantand-why-cities-are-right-pay-them-so-much-attention/9032/

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5. Pucher, J. and J. L. Renne (2003). "Socioeconomics of urban travel: evidence from the 2001 NHTS." Transportation Quarterly 57(3): 49-77.

6. B.E. Saelens et al., "Neighborhood Based Differences in Physical Activity: An Environmental Scale Evaluation." Am. J. PH. 93 (2003):1552-1558

7. University of Michigan. Green Facts. http://hr.umich.edu/mhealthy/programs/activity/pdf/green-facts.pdf

RAMSEY COUNTY-WIDE

Pedestrian & Bicycle Plan

State of Walking & Biking Environment

State of Walking and Biking

The following report serves as a reference to the current conditions related to walking and biking in Ramsey County. Population, land use, safety and infrastructure work together to influence everyday choices related to transportation. While many things influence our travel choices, some factors can be adjusted through public policy, engineering and community engagement to better support safe and comfortable walking and bicycling.

Planning Context

State, county and local planning and policy documents support the Ramsey Communities Countywide Pedestrian and Bicycle Plan. Some documents provide a policy basis for the plan, while others provide specific design and safety objectives that support the plan goals and objectives.

The targeted plan review focused on policy support, performance evaluation and benchmarking to understand and track progress toward community goals. The following plans are included in the review:

LOCAL MUNICIPAL PLANS

City of Maplewood Living Streets Policy

Country Drive Off-Street Walk Feasibility Study

Lauderdale Parks and Open Space Plan

Maplewood Parks, Trails and Open Space Plan

North St. Paul Living Streets Plan

Roseville Pathway Master Plan

St Paul Bicycle Plan

St Paul Street Design Manual

St. Paul Great River Passage Master Plan

White Bear Lake Parks Trails and Open Space Plan

CORRIDOR PLANS AND REPORTS

I-694 Crossing Study*

Mississippi National River and Recreation Area Alternative Transportation Implementation Plan

Snelling Avenue Multi-Modal Transportation Plan

HEALTH IMPACT ASSESSMENTS

Arden Hills Healthy City Planning Workshop.

Gateway Corridor Health Impact Assessment*

Making Strides: Last Mile to the Green Line

TRANSIT PLANS

Gateway Corridor Alternatives Analysis Study

Northeast Diagonal Land Use and Transit Study

Riverview Corridor Pre-Project Development Study

Rush Line Transit Study*

RAMSEY COUNTY PLANS

Ramsey County Parks and Recreation System Plan (Including the Regional Park Master Plan and Regional Trail Master Plan)

Ramsey County Parks and Recreation Wayfinding Master Plan

REGIONAL PLANS

2040 Regional Parks Policy Plan

Bicycle and Pedestrian Connections to Transit Infrastructure Study

Lake Links Regional Trail Plan

Met Council Regional Bicycle System Study

Met Council Choice, Place and Opportunity: An Equity Assessment of the Twin Cities Region

MetCouncil 2040 Transportation Policy Plan

STATEWIDE PLANS AND REPORTS

I-35E MnPASS*

Minnesota Towards Zero Deaths Initiative

MnDOT Complete Streets Plan, Policy, and Tech Memo

MnDOT Ramsey County Pedestrian Crash Study*

MnDOT Statewide Bicycle Plan and Policy Plan*

Statewide Multimodal Transportation Plan Bicycle and Pedestrian Connections to Transit Infrastructure Study

Ramsey County Pedestrian Facility and Serious Injury Study

*Reports marked with an asterisk were under development during the creation of the Ramsey Communities Pedestrian and Bicycle Plan. Where possible and appropriate, the project team referred to available draft project materials in these cases.

Subset of Planning Documents Informing the Ramsey Communities' Pedestrian and Bicycle Plan

Ramsey County Plans

Ramsey County
Parks and Recreation System Plan
2006

Ramsey County
Ramsey County Wayfinding Master Plan
2011

Local Community Plans

★ **Local Community Comprehensive Plans** with trails, pedestrian, or bicycle elements.

Corridor Plans

MnDOT
Snelling Avenue Multimodal Transportation Plan
2013

District Council Collaborative
Last Mile to the Green Line
2014

National Park Service
Mississippi National River and Recreation Area Alternative Transportation Plan
2013

State and Regional Plans

Met Council
Twin Cities Regional Bicycle System Study
2014

Met Council
2040 Regional Parks Policy Plan
2015

Metropolitan Transit
Bicycle and Pedestrian Connections to Transit Infrastructure Study
2009

MnDOT
Statewide Multimodal-Transportation Plan
2012

MnDOT
Complete Streets Technical Memorandum: Complete Streets Guidance and Procedures
2014

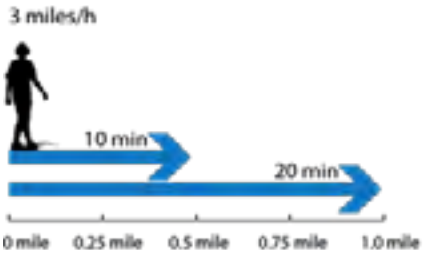
Our Unique Opportunities

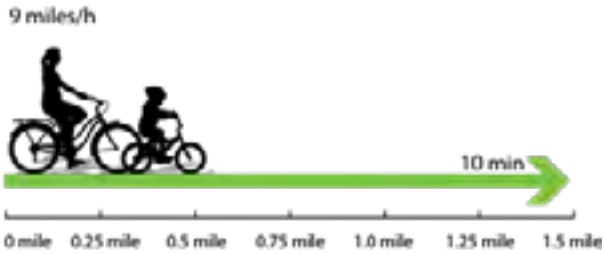
The communities of Ramsey County have a hidden, untapped potential for establishing themselves as premier walking and biking communities. The population and employment density, geographic size, and tight-knit community centers, connected with St Paul as a strong regional destination offer a recipe for lifestyles compatible with active transportation. With a length of approximately 16 miles and width of 12 miles, most activity centers are accessible to residents from all parts of the County.

The Hidden Potential

Walking and biking can be easy everyday means of traveling around the community. The average walking speed is three miles per hour, which lets people travel to the store, park or community destination a mile away in under 20 minutes.

Bicyclists can extend that range and go farther and faster, while still benefiting from increased activity. Most people, regardless of age, can ride at nine miles per hour. In 20 minutes, bicyclists can travel three miles. That is almost one third of the way across Ramsey County.

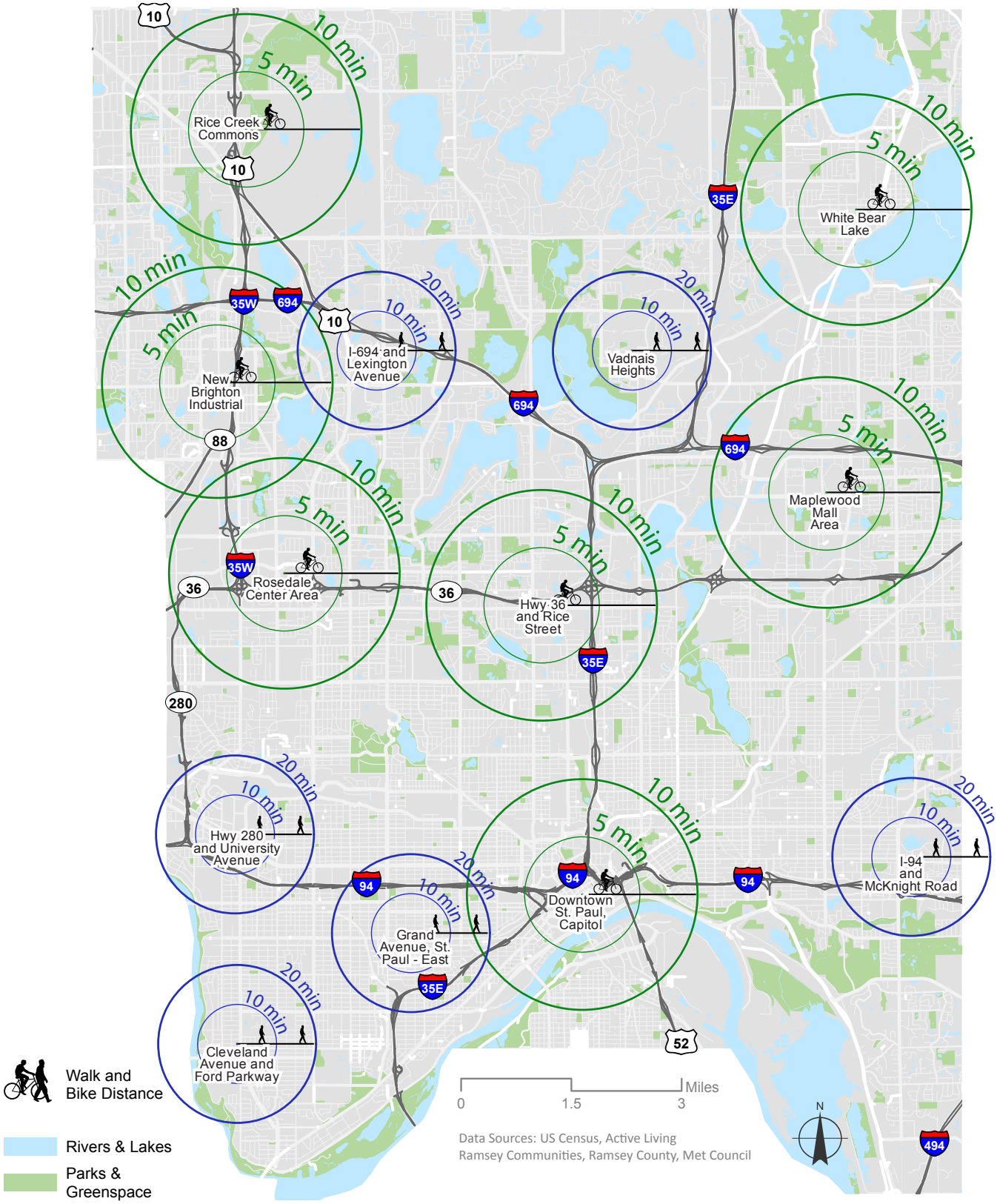




The map on the following page illustrates walking and bicycling distances from various activity centers in Ramsey County. Each activity center has parks, greenspace and waterways within a 20 minute walk or ride. Even areas that seem spread out are accessible to a significant portion of the surrounding neighborhoods.

It's not just the distance to these activity centers that is easily walkable or bikeable. Distances between these activity centers is often less than 3 miles, which translates into a leisurely 20 minute bicycle ride. Based on national averages, over 40% of trips are 3 miles or less.[1] Today, these short trips are often done in a single occupancy vehicle, but offer a huge potential for future active transportation trips.

Map 2A-1: Potential for Walking and Biking in Ramsey County



The Challenges

Achieving the vision will not be easy. It will require coordination across jurisdictional boundaries and transformative change in the way agencies approach the creation of sidewalks, bike lanes and streets.

For many reasons, from safety, to health, to the natural environment, it is important to enhance everyone's ability to walk and bike.

Fatality & Injury from Vehicle Collision

The rates of injury and death to people walking and riding bikes in Ramsey County are notably higher than other parts of Minnesota.[2]

In Ramsey County,

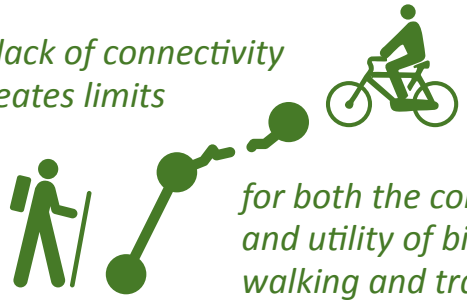
40% *of all crash fatalities are pedestrians*

4x *the state average*

3% *of all crash fatalities are bicyclists*

1.5x *the state average*

A lack of connectivity creates limits



for both the comfort and utility of biking, walking and transit facilities.

Disconnected Bike & Pedestrian System

A lack of coordination in the planning process has resulted in a system that lacks connection and cohesion. Features of the built and natural environment, such as railroad tracks, interstates, lakes and rivers can further limit access across the county.

Disparities & Gaps Related to Income, Education & Health

A diverse transportation system can reduce disparities by improving opportunities for access to education, employment, and critical services, such as health care, across Ramsey County.

Top Barriers to Receiving Health Care in Ramsey County:

1. *Lack of Transportation*
2. *Lack of Health Insurance*
3. *Lack of Access to Mental Health Services*

17%

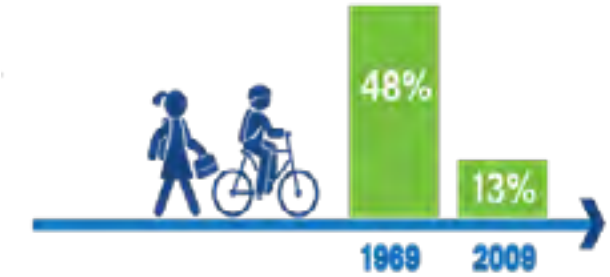
of people in Ramsey County live in poverty, compared to ***11.5%*** *in Minnesota overall.*[3]

Poverty

In Ramsey County, there are concentrations of poverty where residents want and need better connections to jobs, schools, libraries and recreational activities. Improved bicycle and pedestrian access can help residents enhance their lives.

Youth and Learning

Children who use active modes to get to school are more attentive and able concentrate in class, have advanced mental alertness and gain additional minutes of physical activity each day.



44%

of people in St. Paul identify as people of color, compared to ***33%*** *in Ramsey County.*[4]

Diversity

Its diverse population reflects Ramsey County's dynamic urban nature. However, the diversity also indicates the need to respond to different social and cultural needs. These communities typically include communities of color, immigrants and low income households who have less access to transportation systems. They may also include people from countries where walking and cycling are more common forms of transportation.

Transportation costs

Transportation costs affect all people, particularly those with the fewest options. It is also important to consider the time costs associated with different modes and how the increased transportation time impacts daily life. Additionally, there are 23,666 households in the county with no access to a vehicle.[5]

According to AAA, it costs

$8,698

annually to own and operate a vehicle.

Ramsey County earned an

"F"

grade for air quality in a recent American Lung Association report.[6]

Environmental Concerns

Ramsey County air quality is the worst in the entire metro area, and has been declining since 2009. Pollution has particularly negative consequences for Environmental Justice populations in the region, who already bear a disproportionate burden.

Atlas of Existing Conditions

The following section is a collection of datasets, facts and influential factors related to walking and biking. It is meant to serve as a resource for all Ramsey County communities. These conditions can influence an active lifestyle, and through examination may reveal opportunities to enhance, grow and shift the direction of Ramsey County communities toward a vibrant, walkable and bikeable future.

Using this Document

On the pages that follow, each content topic is presented in map or graphic form, paired with a description of what the dataset shows and what value it brings to the exploration of walking and biking in Ramsey County.

Population and Land Use Characteristics

A successful walking and biking plan recognizes that the people of Ramsey County are the most important aspect of the decision to walk and bike. Where people live, work and play can determine whether walking and biking are feasible transportation options.

Key Points of Interest that produce higher levels of travel demand include schools, healthcare facilities, recreation facilities, arts/museums, shopping and employment centers.[7] Walking and biking networks should connect to and between these destinations.

Over 95% of Ramsey County residents agree that opportunities for physical activity such as trails, contribute to the quality of life in Ramsey County.[8]

The 2009 National Household Travel Survey tells us that a large percentage of people walk to destinations, but only if they are close. When distances are under one mile, walking becomes an easier transportation option.

Ramsey County Land Uses

Ramsey County is the most densely populated county (3,464 people per sq. mile) in the state and one of the most densely populated in the country. It is also has the highest number of jobs per square mile (2,102) in Minnesota. This creates a great potential for transportation by walking and bicycling. However, much of the county's land is separated into areas with dedicated uses, with little mix of zoning and land uses.

Map Highlights

The Land Use Designation Map displays the varied land uses across Ramsey County. This map shows land uses in eight categories; industrial and undeveloped, institutional, parks and open spaces, major highway, water, residential, office/commercial and mixed use. The most prominent land uses across Ramsey County are residential, parks and open spaces, and water. Along major highways, land uses include office and commercial, mixed use and industrial. In downtown Saint Paul, the most prominent land uses include mixed use, office/commercial and institutional.

The Foundation for Connecting Ramsey Communities

A singular land use, such as a residential only area, creates a place where residents are dependent on motor vehicles for every trip and errand. Separating types of land uses creates greater distances between housing, workplaces, retail, businesses and other destinations.

What Are The Impacts Of Zoning On Walking And Bicycling?

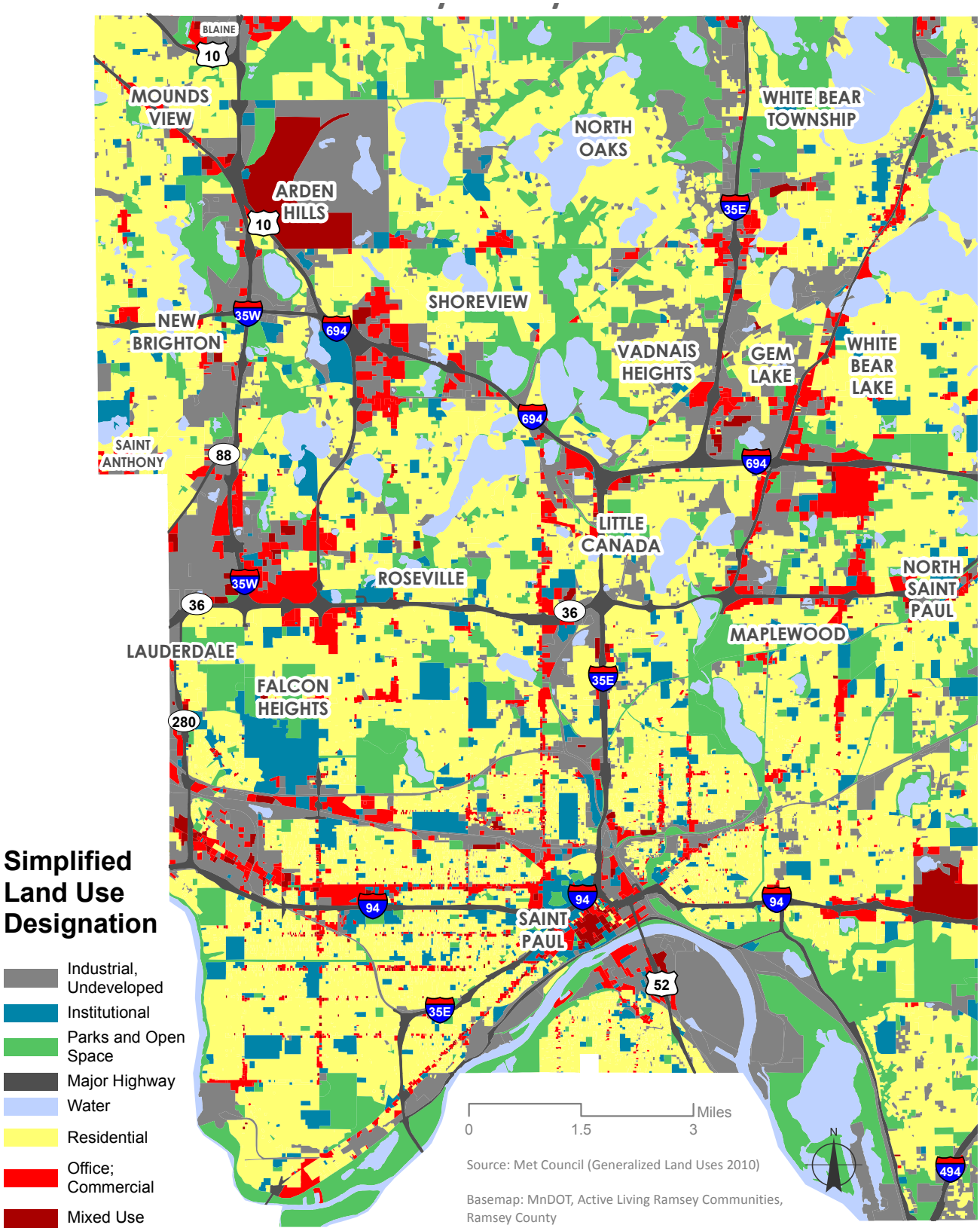
Having a zoning code that allows for a mix of land uses creates destinations for walking and biking. Absence of nearby destinations of interest is a major barrier to walking and bicycling for people of all ages. Mixed land uses promotes the use of active transportation for daily activities and errands.

A diversity of activities and destinations not only encourages biking and walking for daily trips, but also gets residents outside and encourages social interaction. This type of active community is especially attractive to young populations; 50% of Millennials prefer living within an easy walk of other places, and 51% prefer living in attached housing, such as a townhouse or condo, where they can walk to shops and have a shorter commute.[9] Millennials are moving to places that create these kinds of environments.

Implications for the Future Vision

Integrating different land uses throughout Ramsey County has many positive impacts on communities throughout the county, including reduced distance and travel time between residential areas and destinations, more compact development and less sprawl and more convenient and comfortable bicycling and pedestrian environments.

Map 2A-2: Ramsey County Land Uses



Ramsey County Residential Population Density

Ramsey County is the most densely populated county (5.4 people per acre) in the state and one of the most densely populated in the country.[10] Areas with high levels of residential density will see all-day travel demand, and concentrated trip making during commute hours.

Map Highlights

The Residential Population Density Map displays the number of people per acre living in Ramsey County. The areas with the highest population density are the inner neighborhoods of Saint Paul that ring downtown. These neighborhoods reach densities of 20-40 people per acre. Suburban communities reach up to ten residents per acre, and the outer suburban residential areas are under five people per acre. Downtown Saint Paul itself has low residential density similar to outer suburban areas, due to a high concentration of single-use employment buildings and a lack of residential units.

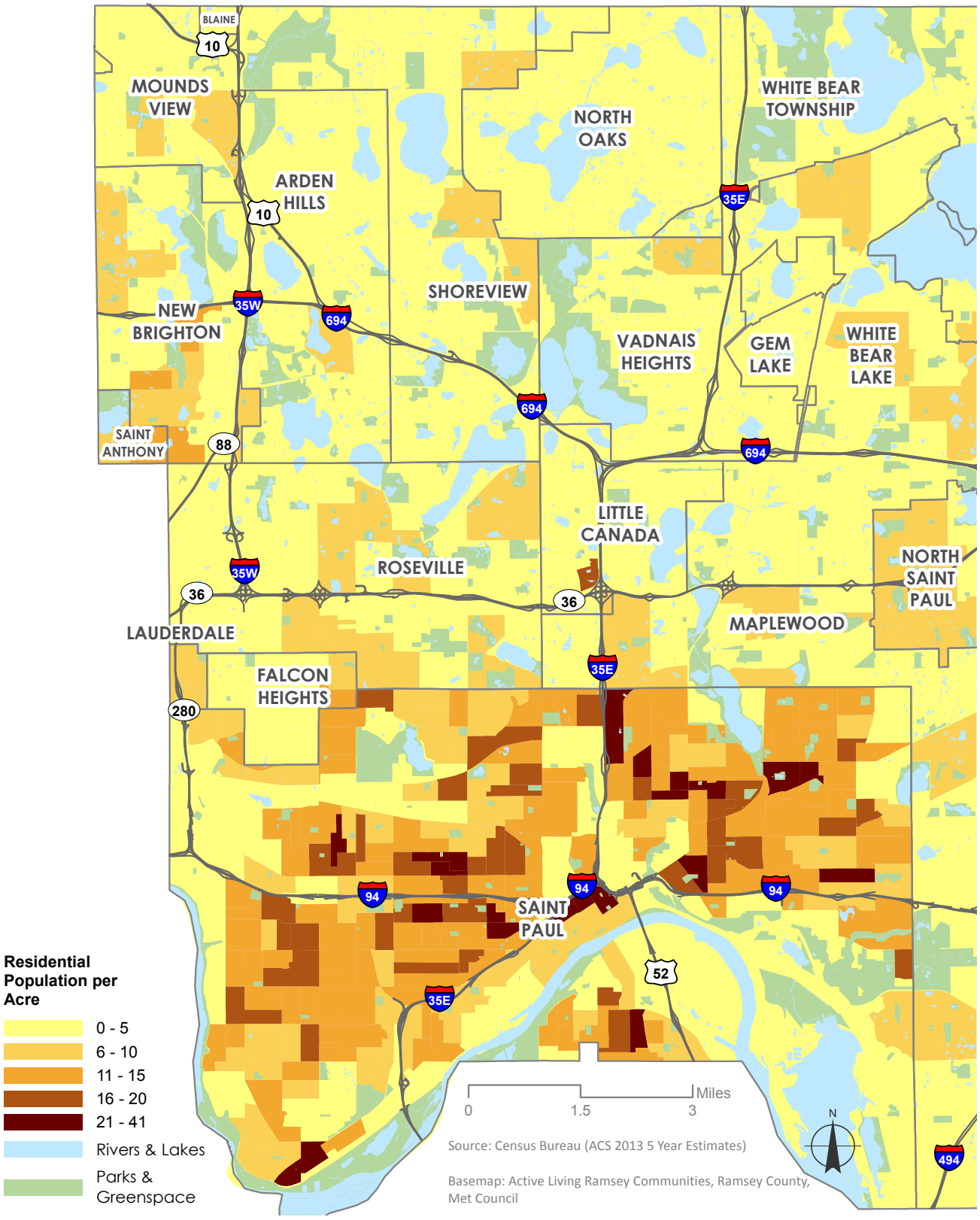
The Foundation for Connecting Ramsey Communities

Higher population densities typically have a greater mix of land uses, shorter distances between destinations and better connectivity, making these areas more attractive places to bike and walk. The Connected Ramsey Communities network should join these dense areas of activity and integrate well with local walking and biking networks to maximize the level of use and usefulness to Ramsey County residents.

Implications for the Future Vision

While the County's overall population density is high, it varies between urban areas with higher densities and lower density suburban areas. These pockets of higher densities offer great potential for transportation by walking and bicycling. Rates of walking and bicycling increase in areas with higher density.[11] The concentrated areas of high residential density support current and future infrastructure demand for pedestrians and bicyclists, while the very low density areas will need to focus their investments carefully to increase levels of walking and biking for transportation.

Map 2A-3: Ramsey County Residential Population Density



Ramsey County Employment Density

Employment density can reach much higher concentrations than residential density, bringing many workers into one area during the workday. These areas will see high levels of mid-day travel demand. Employment areas with mixes of retail, commercial and employment have the potential for short trips on foot or by bike.

Map Highlights

The Employment Density Map shows the number of jobs per acre across Ramsey County. Downtown Saint Paul stands out clearly with the highest employment density in the county. Other commercial centers in suburban communities also stand out from the neighboring single-use residential areas. Downtown Census tracts with office buildings hold over 100 jobs per acre. Concentrated employment areas such as the 3M Campus reach up to 25 jobs per acre. Suburban commercial centers such as Roseville or Maplewood Malls have five to ten jobs per acre.

The Foundation for Connecting Ramsey Communities

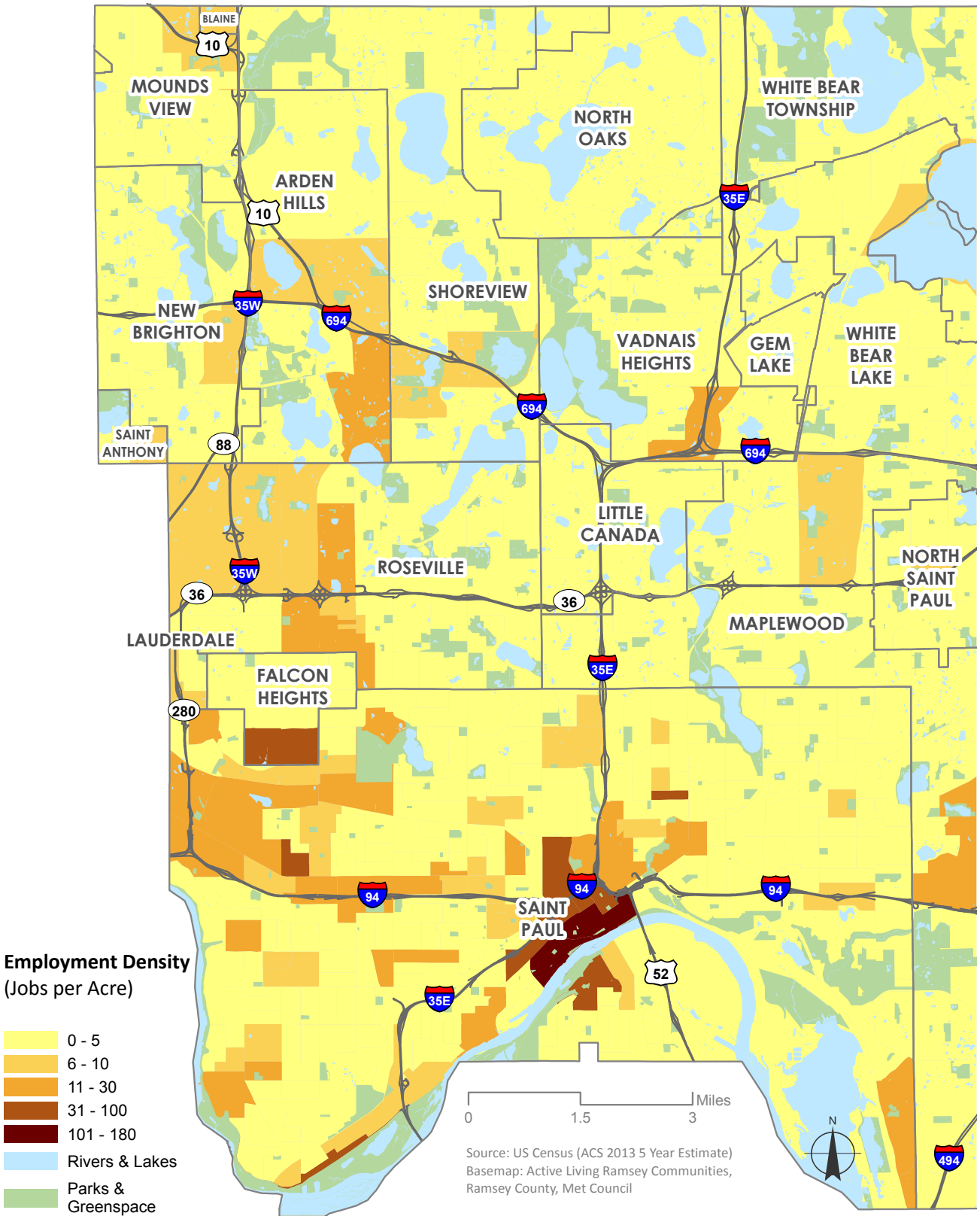
Like residential population density, high employment densities typically have a greater mix of land uses, shorter distances between destinations and better connectivity, making these areas more attractive places to bike and walk. There are only a few highly concentrated employment areas in Ramsey County. These are important destinations for the Connected Ramsey Communities network to provide access to so that commuting by bicycle can become a viable option.

Implications for the Future Vision

Because of longer distances, bicycling may be the preferred mode of active transportation to reach high employment density areas.

Within these high density employment areas, walking is likely to be the most important mode. Walking between destinations during the day can be supported through infrastructure such as sidewalks and paths, and amenities such as benches and tree canopies. In the larger high density employment areas bicycling can be supported by bike share systems such as Nice Ride.

Map 2A-4: Ramsey County Employment Density



Key Destinations and Activity Centers in Ramsey County

Activity centers provide a density of commercial, retail and other key destinations throughout Ramsey County. Even in less dense, less active areas, schools, colleges and universities are located in communities throughout Ramsey County.

Map Highlights

The Key Destination and Activity Centers Map displays the varied destinations and activities across Ramsey County. This map shows destinations and activities in six categories; malls and shopping, academic institutions, major activity centers, rivers and lakes, and parks and greenspaces. The map shows downtown Saint Paul as a major activity center with multiple malls and shopping destinations such as Carriage Town Square, Hill Plaza and Galtier Plaza. Activities centers are identified between Roseville and Falcon Heights, and near White Bear Lake. Academic institutions, which includes schools, colleges and universities, are the next prominent feature on the map and are spread throughout Ramsey County, with the University of Minnesota campus in Falcon Heights and Bethel University being the most prominent.

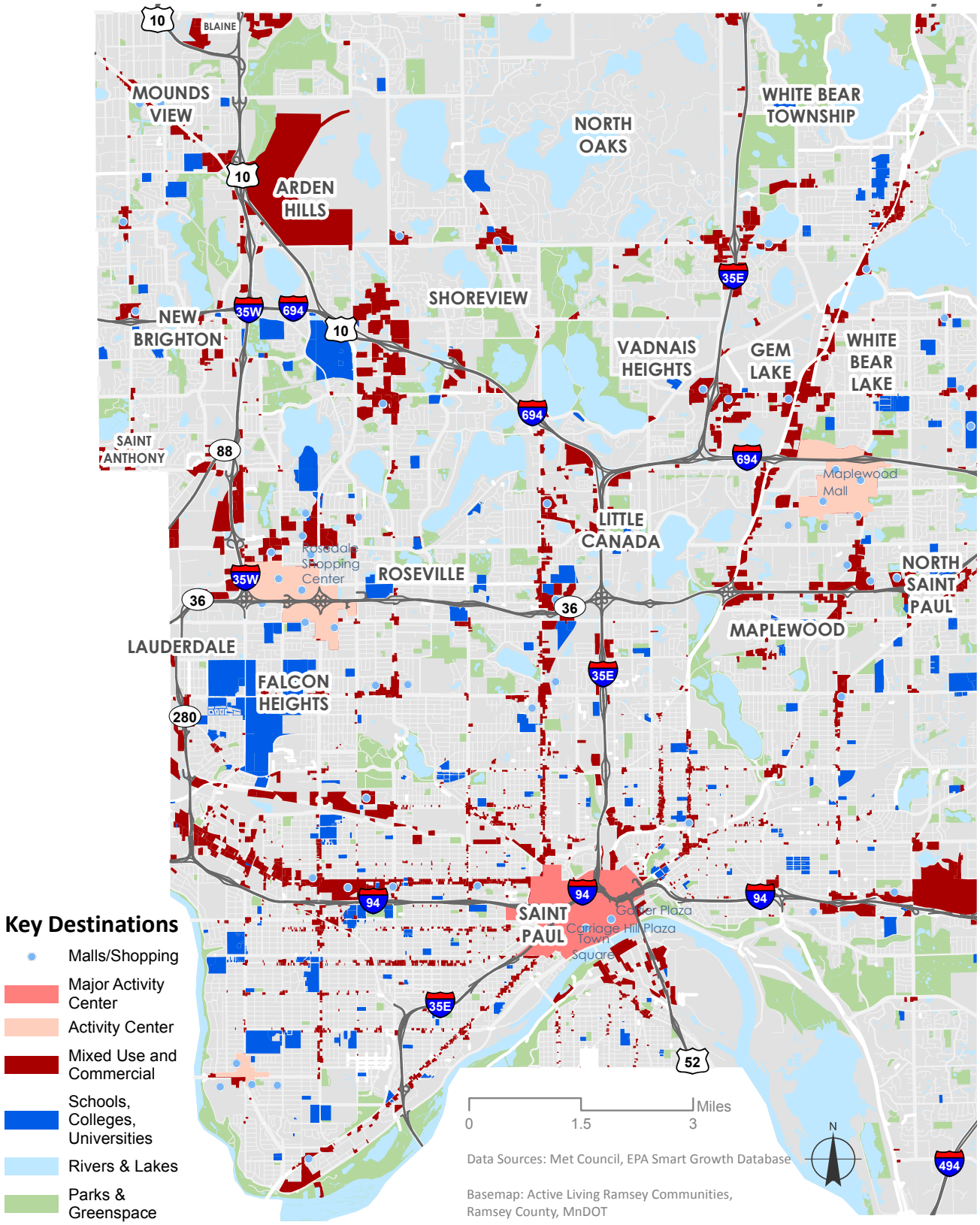
The Foundation for Connecting Ramsey Communities

Walkable activity centers that are compact and easy to navigate on foot or by bike create a more interesting and safe environment for all people. The large number of colleges and universities in Ramsey County is an asset for biking and walking. Colleges and universities have high rates of bicycling, walking, and transit use. The culture of active commuting on campuses, combined with the high population density, makes them enjoyable and safe places to bike and walk.

Implications for the Future Vision

Activity centers, core commercial areas and concentrations of educational institutions are the critical destination centers of the Connected Ramsey Communities network.

Map 2A-5: Key Destinations and Activity Centers in Ramsey County



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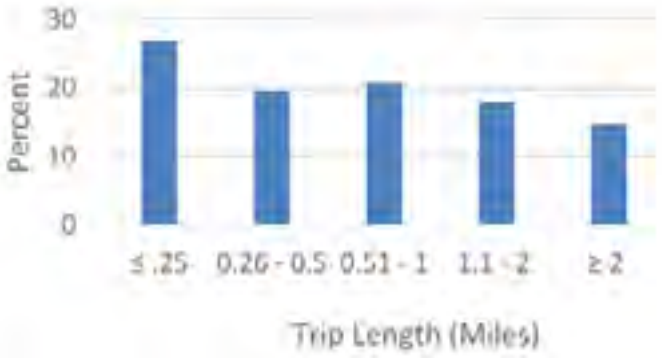
Walking And Biking Activity And Facilities

Safe, comfortable facilities are needed to promote active transportation. If the physical infrastructure is missing, incomplete or uncomfortable, the trip is unlikely to be made on foot or by bike.

A complete network of walking and biking routes that connects people from where they live to where they work, shop and play is the cornerstone of a walking and biking community. These facilities should be constructed to a high standard and be provided in response to the adjacent roadway context. Streets with increased levels of traffic should have a more separated walking and biking facility to maintain user comfort.

A study of the Twin Cities reported that the sidewalk length, streetlights, traffic calming and other measures of connected street patterns correlate to increases in walking in walking.[12]

How Far do People Usually Walk?



How Far do People Usually Bike?

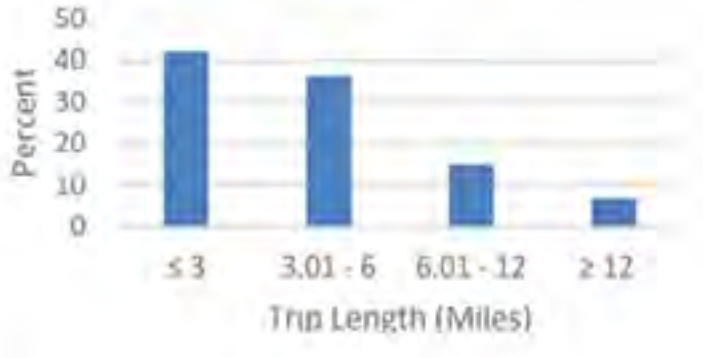


Table 2-1: Walking Mode Share in Ramsey County Communities (Largest to Smallest)

City	Average Walk Mode Share (%)
Lauderdale	10.06
Falcon Heights	7.37
Saint Paul	4.31
Roseville	3.24
Spring Lake Park	2.90
Arden Hills	2.60
New Brighton	2.04
North Saint Paul	1.67
Mounds View	1.64
Vadnais Heights	1.57
Maplewood	1.35
Blaine	1.25
Little Canada	1.24
Saint Anthony	1.22
White Bear Township	1.10
Gem Lake	1.07
White Bear Lake	1.07
Shoreview	0.98
North Oaks	0.67

Table 2-2: Cycling Mode Share in Ramsey County Communities (Largest to Smallest)

City	Average Bike Mode Share (%)
Lauderdale	4.62
Falcon Heights	3.81
Roseville	1.93
Saint Paul	1.31
Spring Lake Park	1.30
Mounds View	1.23
New Brighton	0.64
Saint Anthony Village	0.62
White Bear Lake	0.47
Little Canada	0.40
Arden Hills	0.38
Gem Lake	0.37
White Bear Township	0.35
North Saint Paul	0.34
Maplewood	0.33
Vadnais Heights	0.31
Shoreview	0.31
Blaine	0.25
North Oaks	0.13

Census Bureau. ACS 2013 5 Year Estimate

Ramsey County Walking for Transportation

Walking is a valuable form of transportation to work in some parts of Ramsey County. Commute to work by walking is as high as 36% in the downtown core of Saint Paul and reaches around 20% near the University of Minnesota. In the majority of Ramsey County, walking to work is under five percent of trips.

Map Highlights

The Percent Commuters Who Walk to Work Map displays the percentage of people who walk to work per census tract across Ramsey County. Ten to 36% of commuters walk in downtown Saint Paul, neighborhoods west of downtown Saint Paul, and in some neighborhoods in Falcon Heights and Arden Hills. One to ten percent of commuters walk in the neighborhoods that surround downtown Saint Paul and in section of Roseville.

The Foundation for Connecting Ramsey Communities

Because walking is most suitable for short trips, it will not become a common method of transportation between different Ramsey communities. However, no matter what mode is taken, everyone is a pedestrian upon reaching the destination. Providing for a walkable environment with walking-compatible densities can let residents, visitors and workers walk during their time in Ramsey County.

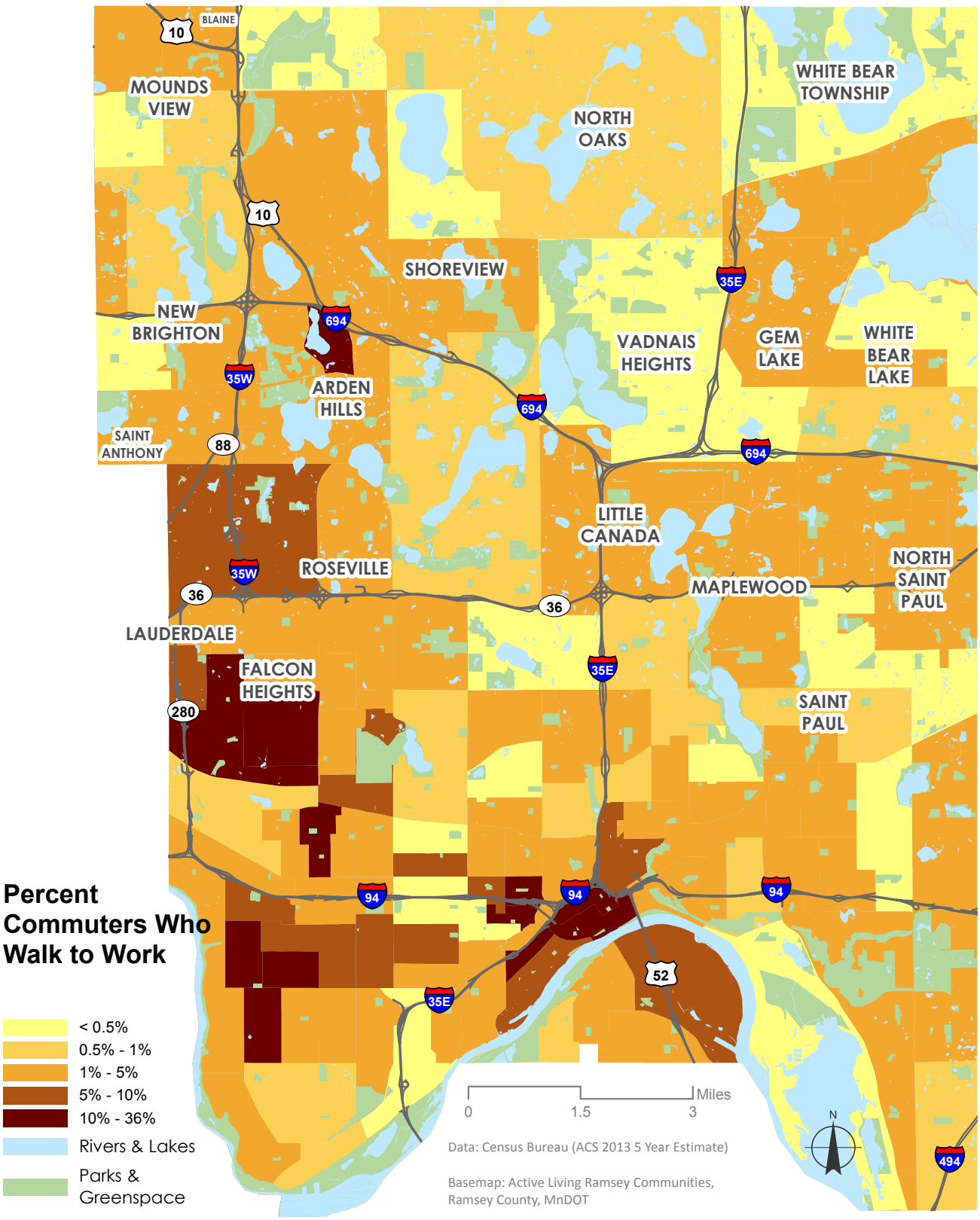
Implications for the Future Vision

For short trips within communities, walking has the potential to become a primary mode of transportation.

Schools have the potential to become central focus points for walking. With targeted Safe Routes to School (SRTS) programs, walking mode shares may be able to increase to 1960s levels, when over 40% of children walked or biked to school.

Walkable commercial centers like the historic Downtown White Bear Lake are immensely walkable places, even though the majority of visitors arrive by car. Building more walkable commercial centers, with a grid of small-scaled streets, human-scale buildings and unobtrusive parking can help create a walkable fabric for communities to build upon.

Map 2A-6: Percent Commuters Who Walk to Work in Ramsey County



Ramsey County Bicycling for Transportation

Bicycling is a growing form of transportation. In 1990, no areas within Ramsey County had a bicycle commute mode share greater than five percent. Today, pockets of activity that great are scattered across the County in parts of Saint Paul, Falcon Heights and Roseville.

Map Highlights

The Percent Commuters Who Bike to Work Map displays the percentage of people who bike to work per Census tract across Ramsey County. Commuting by bike to work is highest west of downtown Saint Paul and in Falcon Heights at one to eight percent. Neighborhoods in Mounds View also show relatively high percentage of bike commuters at one to five percent.

The Foundation for Connecting Ramsey Communities

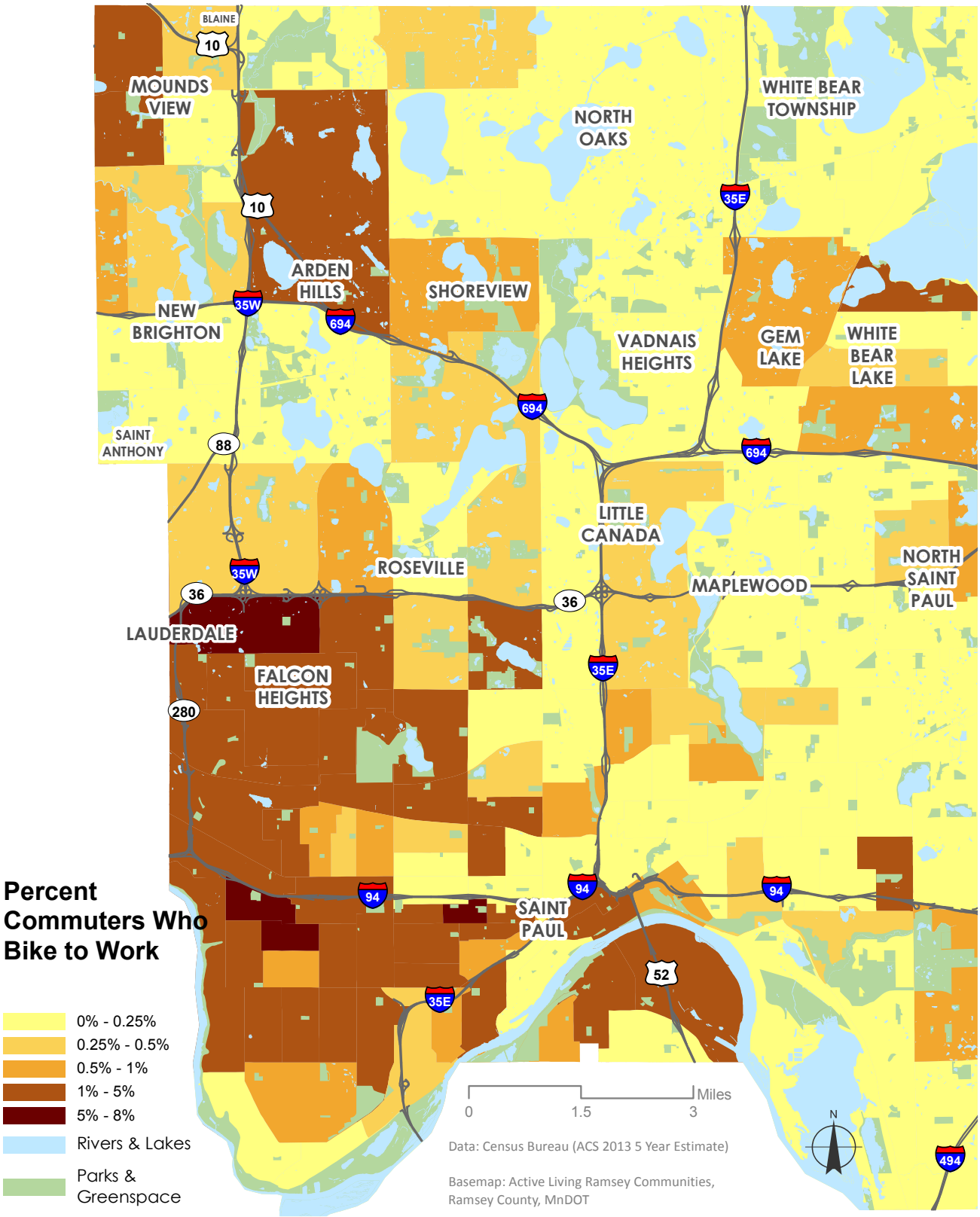
Building a strong bicycling network between communities can transform how people get around Ramsey County. Connecting current moderate ridership areas can boost their activity level even higher, and build a strong constituency for a connected bike network across the county.

Implications for the Future Vision

The Ramsey County bicycling network today only accommodates one to five percent of today's population, as evidenced by the commute mode share data reported by the Census Bureau. A fully built county wide network of all ages and abilities routes should expect to see a commute mode share five times that amount. (Central neighborhoods in Portland, Oregon see modes shares of 20-15% commute by bicycle).

Establishing a target commute mode share for the County and its communities can be a good way to target and track progress toward goals. Establishing this target will involve detailed discussion with communities and transportation departments to come to a shared understanding of the level of investment and trade offs necessary to achieve increased mode shares.

Map 2A-7: Percent Commuters Who Bike to Work in Ramsey County



Ramsey County Transit Use For Transportation

Parts of Falcon Heights achieve 30% commute by transit mode share. Falcon Heights is uniquely positioned to take advantage of transit for commuting due to its location near the University of Minnesota and between the two downtowns. It also has pedestrian access in some areas. The relatively high use of transit, walking and bicycling indicate that they may be relatively competitive with driving.

Other close-in communities, such as southern Maplewood, have up to five percent transit mode share. In communities further from Saint Paul, transit commute mode share drops to less than 2.5%.

Map Highlights

The Percent Commuters Who Take Transit to Work Map displays the percentage of commuters who take public transit to get to work per Census tract across Ramsey County. Transit use is highest in the neighborhoods that ring downtown Saint Paul, particularly to the west of downtown. In the neighborhoods west of downtown, 5-30% of commuters use transit to get to work.

The Foundation for Connecting Ramsey Communities

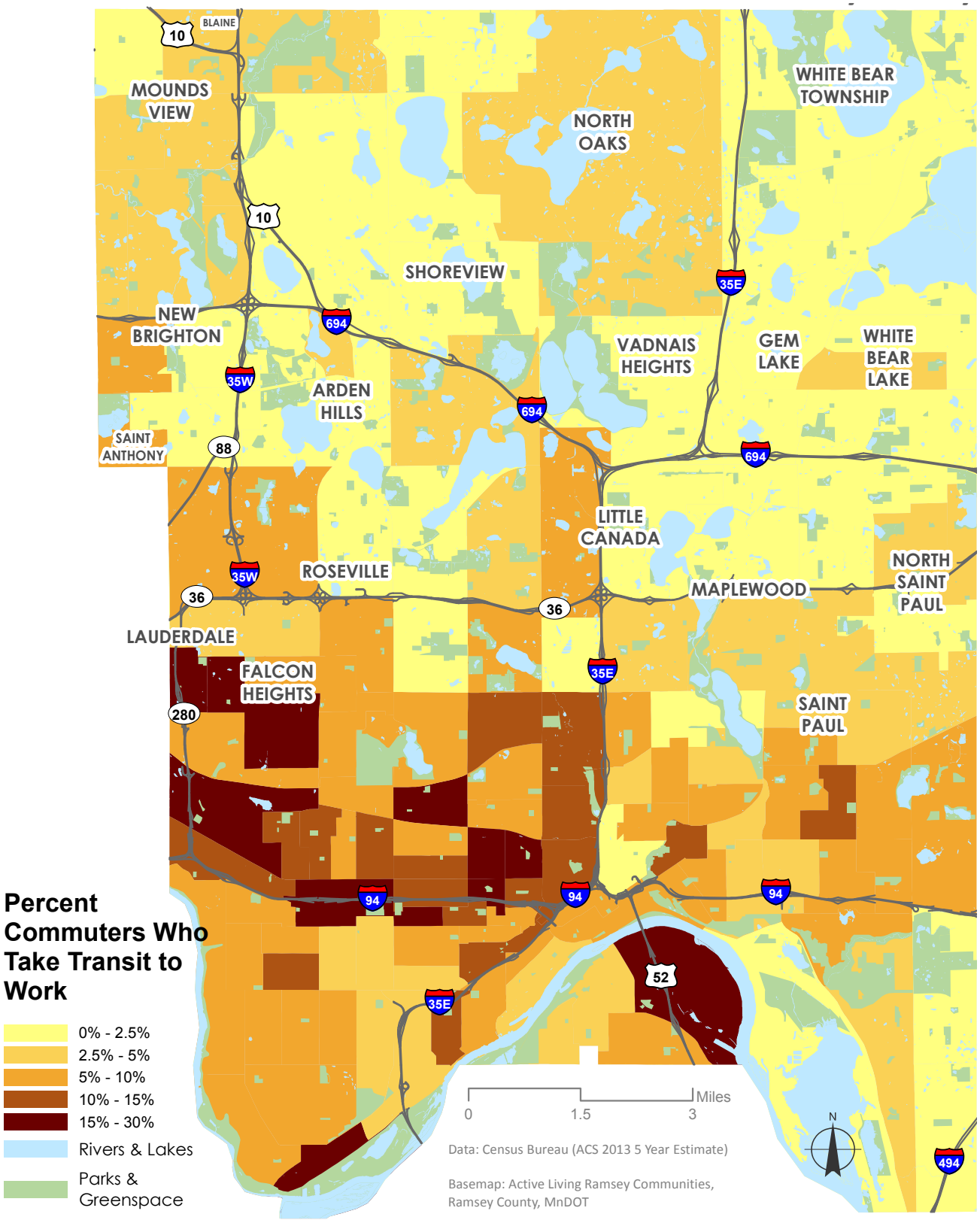
All transit trips are also pedestrian trips between the transit stop and the destination. Transit service allows pedestrians to travel longer distances than they could on foot.

Implications for the Future Vision

Supporting walking investments around the transit network can leverage their complementary nature and increase both walking and transit use simultaneously.

Lower density areas, where few people are within walking distance to transit stops, may instead focus on bicycling as a method to support and connect to transit.

Map 2A-8: Percent Commuters Who Take Transit to Work in Ramsey County



Ramsey County Pedestrian Network

Understanding where sidewalks and trails currently exist and where there are gaps in coverage is an important first step in creating a more connected Ramsey County. Existing facilities are shown in solid lines, and proposed routes identified in other planning efforts show the pedestrian network's planned expansion.

Map Highlights

Ramsey County's pedestrian network consists of sidewalks and trails. Trails cover the county, connecting natural areas, bordering lakes and rivers, and running along busy arterial streets. Notable areas with significant sidewalk coverage include Saint Paul, downtown White Bear Lake, and parts of North Saint Paul and Falcon Heights. Across the county, sidewalks are often provided along major commercial streets.

Planned sidewalks and trails are illustrated on the Existing and Planned Pedestrian Network Map, identifying where local or regional planning efforts hope to implement future infrastructure.

The Foundation for Connecting Ramsey Communities

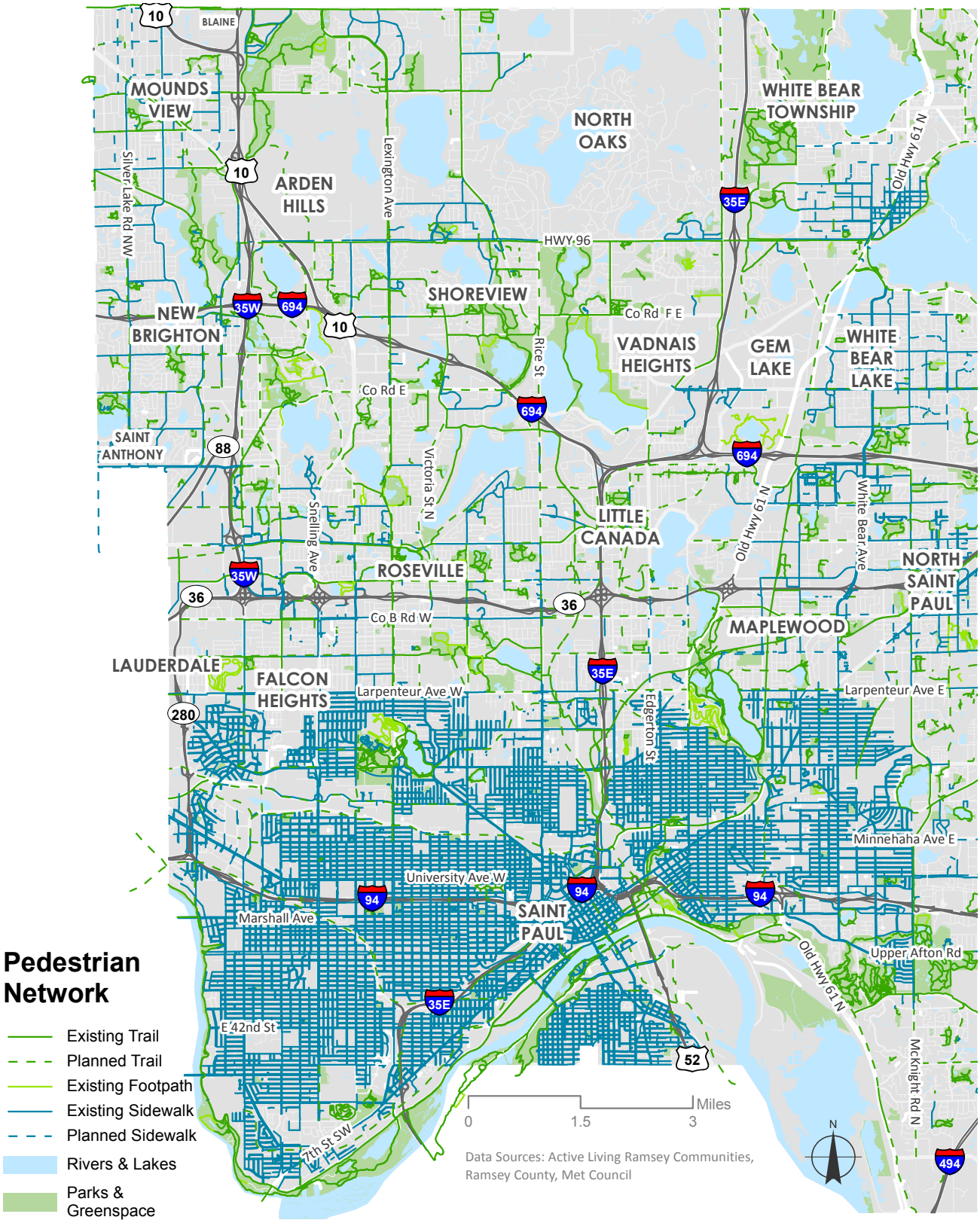
By analyzing the existing sidewalk and trail network, it is clear to see where the gaps are located, as well as the progress the communities in Ramsey County have made toward creating a cohesive network. A sidewalk and trails map can show the disparities that exist throughout the county and where additional investment may be needed.

Implications for the Future Vision

Walking networks support county-wide travel by providing a way to get around on foot within a city or destination area. Some communities, such as Saint Paul, offer a mature sidewalk network within their city, while others, such as Roseville, limit sidewalks to only a few primary corridors.

White Bear Lake offers a model for smaller communities within Ramsey County, an integrated network of sidewalks in the downtown, supporting walking and short trips within a highly walkable defined area.

Map 2A-9: Ramsey County Existing and Planned Pedestrian Network



Ramsey County Bicycle Network

The bicycle network in Ramsey County is comprised of various bicycle infrastructure types related to the degree of separation from moving traffic. Most of the county is covered by existing or planned routes, although the level of comfort of many routes may not be adequate for users of all ages and abilities.

Map Highlights

The Existing and Planned Bicycle Network map shows existing and planned bicycle facilities in communities across Ramsey County. Existing facilities are shown in solid lines, and proposed routes identified in other planning documents are shown in dashed lines.

Saint Paul has the most mature planned and existing bicycle network, with a combination of facility types forming a grid across Saint Paul. Saint Paul has more bike lanes than any other city in Ramsey County, and is the only community with existing bicycle boulevards.

Outside of Saint Paul, striped shoulders are the most common form of bicycle facility. Most of these shoulders are part of the existing network, providing connectivity for some types bicyclists today. Some of the corridors, such as parts of Snelling Ave and County Rd B, have dual designations as an existing shoulder facility and a future planned trail.

The Foundation for Connecting Ramsey Communities

If completed, the proposed bicycle network would blanket Ramsey County. No part of Ramsey County is completely abandoned by current bicycle network plans, and a connected Ramsey County network can be built upon these past planning efforts.

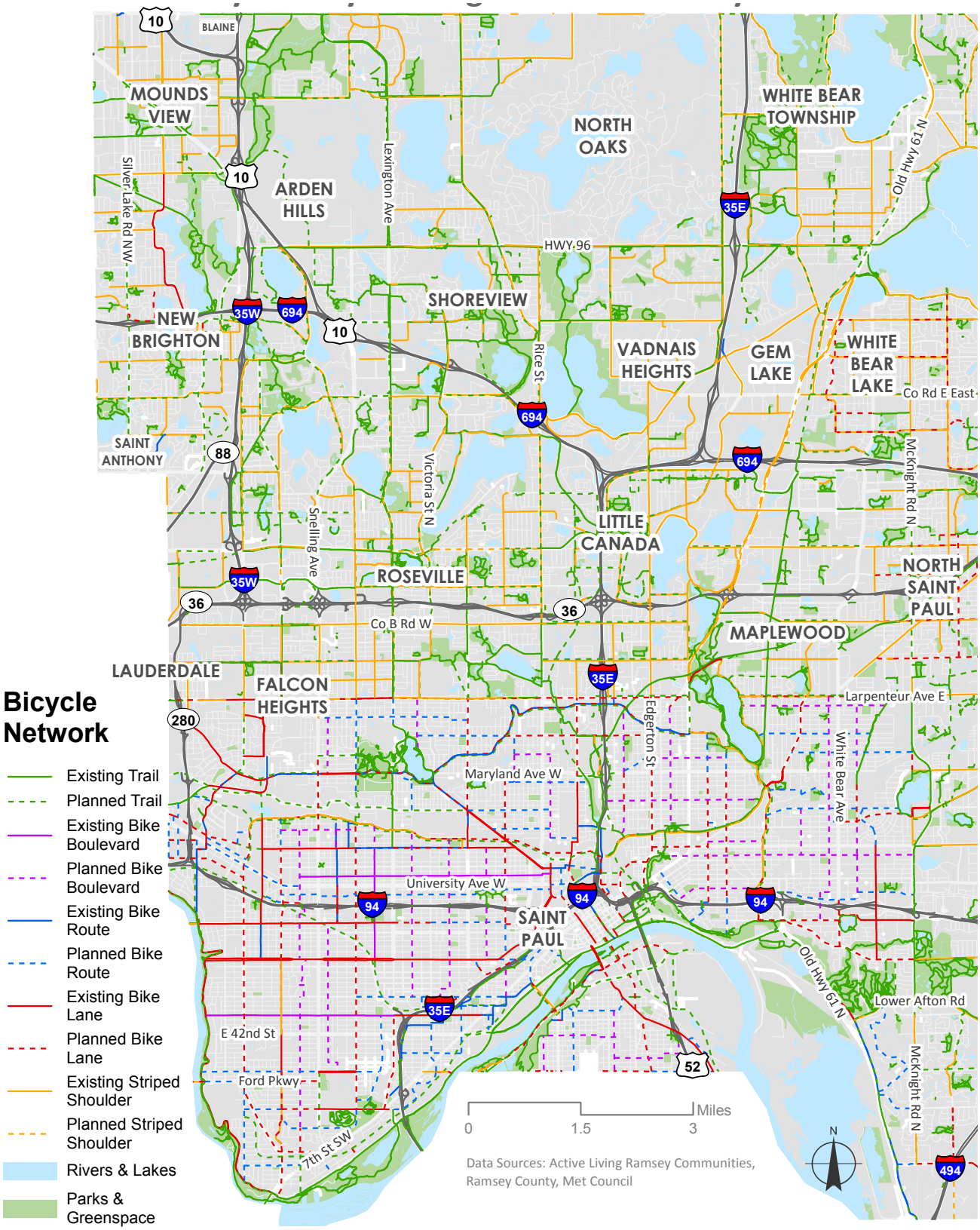
Bicycle Infrastructure Types

Trails (also called shared use paths) are pedestrian and bicycle facilities separated from traffic by a curb or landscaping. Bike lanes are narrow lanes designated exclusively for bicycle travel, separated from vehicle travel lanes by striping, pavement stencils and signs. Bicycle-friendly treatments are used on bike lanes at intersections to maintain comfort and priority for bicyclists. Shoulders are similar to bike lanes, but are found in more rural areas. Shoulders are not designed specifically for bicyclists and may be used for parking, broken down vehicles, or right turn lanes at intersections. Bike routes are shared roadway streets bicyclists and motor vehicles mix within the same roadway space. This may include a wide outside travel lane where bicyclists and motor vehicles travel side-by-side, or a narrow lane where motor vehicles must use the adjacent lane to pass. Bicycle boulevards are a special class of shared roadways designed for a broad spectrum of bicyclists. They are low-volume local streets where motorists and bicyclists share the same travel lane.

Implications for the Future Vision

While current coverage of bicycle facilities in general is functional to reach Ramsey County residents, the design of particular facility types may not be. Some parts of Ramsey County rely on paved shoulders to connect the bicycle network. While these facilities do function as a type of facility for bicyclists, they are generally not adequate for people of all ages and abilities.

Map 2A-10: Ramsey County Existing and Planned Bicycle Network



Ramsey County Public Transit Stops

Every public transit rider is a pedestrian at some point during their journey. As such, it is important to create walkable communities with convenient access to public transportation.

Map Highlights

The Transit Stops and Centers Map displays public transit stops and transit centers located throughout Ramsey County. There are a total of eleven transit centers, five of which are located in downtown Saint Paul. Transit stops are most dense in Saint Paul. Transit stops are shown to the north of Saint Paul into Shoreline, New Brighton, and White Bear Lake, but the network of transit stops is not as dense as in the city.

The Foundation for Connecting Ramsey Communities

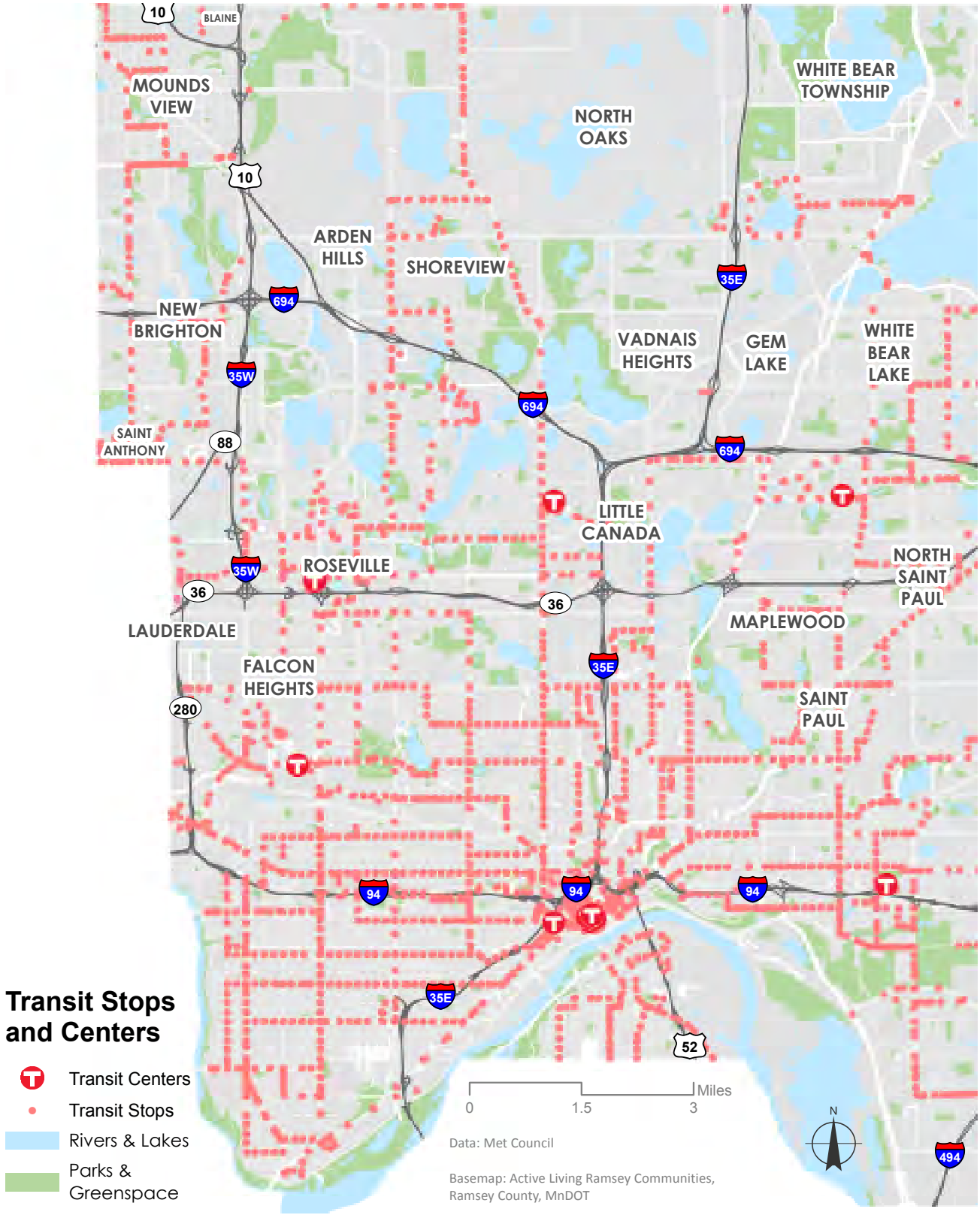
A well connected bicycle and pedestrian network helps to solve the "first and last mile" problem of public transit, where users have difficulty getting from their starting and ending point to transit stops. Addressing gaps in the bicycle and pedestrian infrastructure, in addition to potential barriers to biking and walking, are important to creating a more complete network.

Implications for the Future Vision

Low density and suburban land use patterns often create communities where transit users have difficulty accessing transit stops. Encouraging higher density development will create a larger population to support the transit investments.

While the majority of the region's residents are able to access one of these stops within a roughly five minute walk (0.25 mile), residents may encounter difficulty accessing transit, due to missing or poorly maintained biking and walking infrastructure, even though it is located a short distance away.

Map 2A-11: Transit Stops and Centers in Ramsey County



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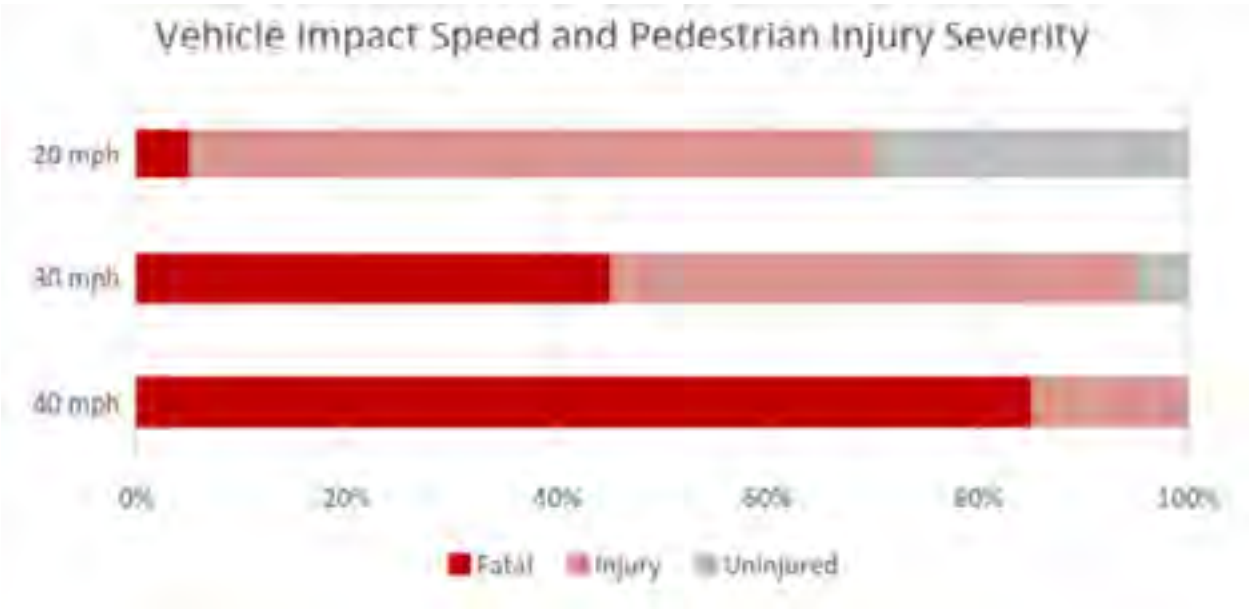
Traffic Safety

One of the top reasons people cite for not walking and biking more is concern about safety. The threat of collision is real, and years of collision data show us that some places are safer than others.

Ramsey County is not meeting the Healthy People 2020 goal for motor vehicle injuries among adults ages 20-30 years old.[13] Among the many factors to consider in addressing this issue, especially concerning pedestrian and bicyclist crashes, is vehicle speed. Lowering speed limits, changes to roadway design and increasing enforcement slows drivers and keeps people safer.

A person struck by a car traveling at 40 miles per hour has an 85% chance of dying. At 30 miles per hour, they have a 45% chance of dying and at 20 mph, they have only a 5% chance of dying.[14]



Ramsey County Pedestrian Involved Collisions

Understanding where vehicle and pedestrian collisions have occurred throughout Ramsey County provides insight into potentially unsafe conditions.

Map Highlights

The pedestrian involved collisions map displays the locations of collisions and fatalities across Ramsey County. The result shows clear corridors where pedestrian-involved collisions appear to be a frequent occurrence. These tend to be streets with high volumes of car traffic and higher levels of pedestrian activity, such as:

- Downtown Saint Paul
- University Avenue W
- Snelling Avenue
- Summit Avenue
- Minnehaha Avenue E
- White Bear Avenue
- US 61 through White Bear Lake

The Foundation for Connecting Ramsey Communities

A well connected pedestrian network must also be a safe pedestrian network. Analyzing the location, frequency and severity of pedestrian collisions is a first step in creating a safer environment for all road users. When deciding where infrastructure investments are to be made, locations with a high rates of collisions should be prioritized.

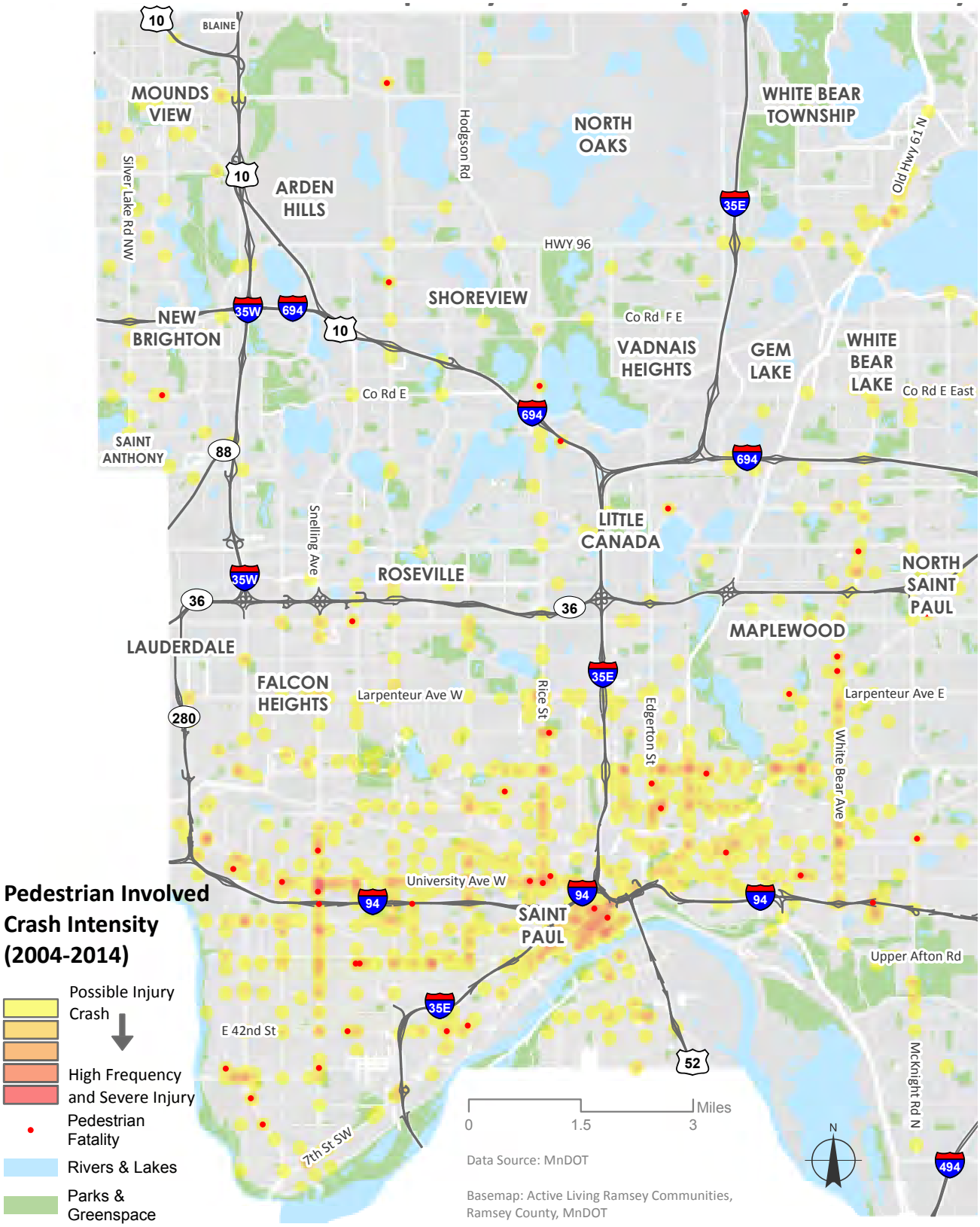
The locations of pedestrian fatalities are identified on the map. These locations indicate a potential problem area, although specific analysis of the crash details is necessary to understand the circumstances surrounding the particular incident.

Implications for the Future Vision

Safety concerns are one of the leading reasons people decide not to walk or bike. This analysis indicates that in some parts of Ramsey County the safety risk is real. Corridors with high levels of crash activity act as barriers to increased walking and local jurisdictions should explore investments to improve pedestrian conditions in these areas.

In some cases, such as University Avenue or Snelling Avenue, the high-crash corridor is a commercial corridor. These areas see high levels of pedestrian activity and the traffic environment should be improved to reflect a pedestrian-priority. This may include lower design speeds, enhanced marked crossings and improved signal timing at intersections.

Map 2A-12: Pedestrian Crash Frequency and Severity in Ramsey County



Ramsey County Bicycle Collisions

Understanding where vehicle and bicycle collisions have occurred throughout Ramsey County provides insight into unsafe conditions that need to be addressed.

Map Summary

The bicycle involved collisions map displays the locations of collisions and fatalities across Ramsey County. The result shows clear corridors where bicycle-involved collisions appear to be a frequent occurrence. These tend to be streets with high volumes of cars and higher levels of bicycle activity, such as:

- University Avenue W
- Snelling Avenue
- Rice Street
- Summit Avenue

The Foundation for Connecting Ramsey Communities

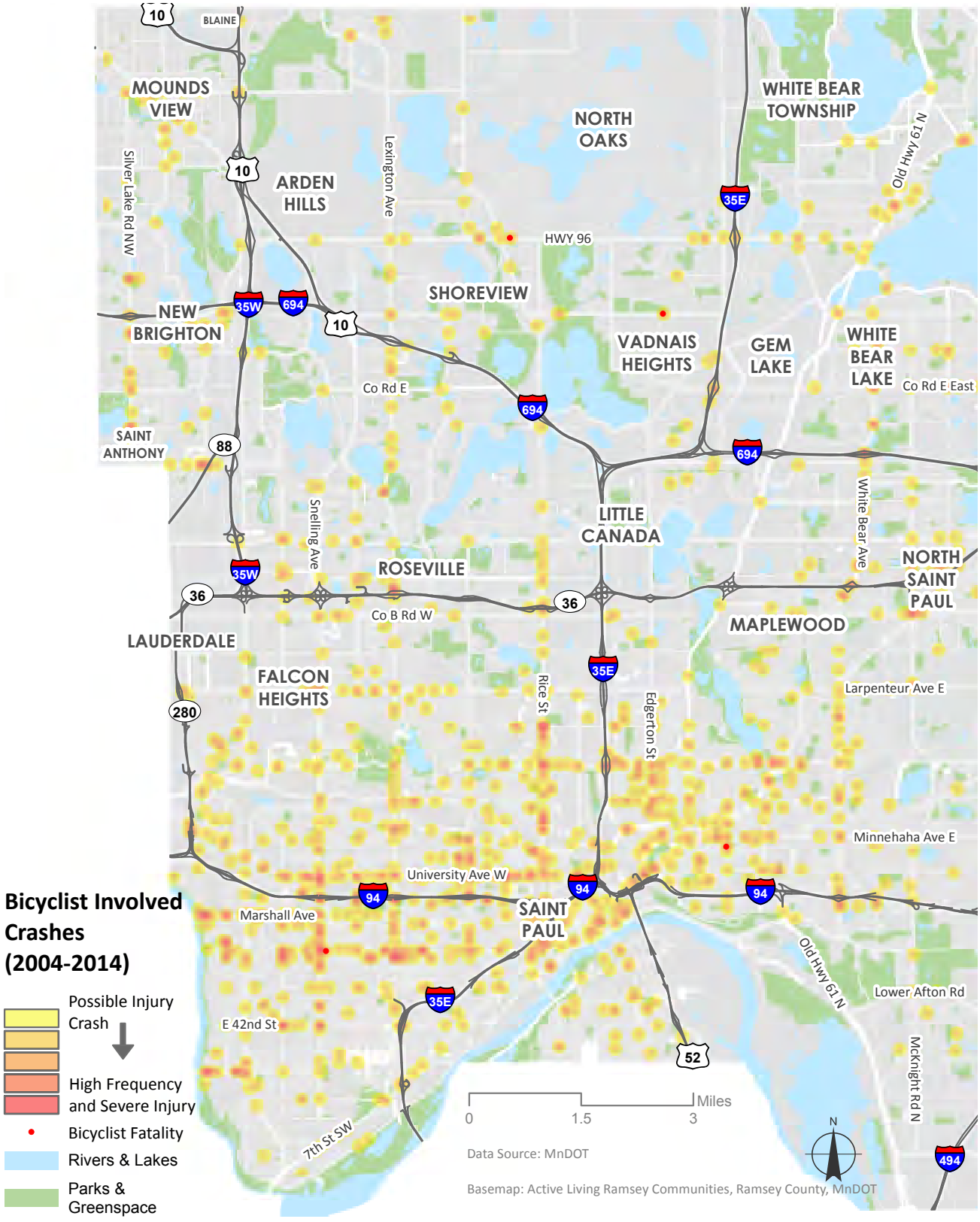
The Connected Ramsey Communities network has an opportunity to overcome the barriers of high-crash corridors. The network alignments can act as a bridge across these high crash areas, or if they run along them, can transform the safety of an entire corridor.

Even if a high-crash corridor is not a part of the county-wide network, local communities will see benefits from removing risks and improving safety for the most vulnerable users of these roads.

Note: For the pedestrian and bicyclist crash analysis, both collision frequency (number of collisions) and severity of injury have been combined. Crashes with injuries, serious injuries or fatalities are weighted more heavily, resulting in a composite safety ranking.

The composite provides an at-a-glace view of the traffic safety conditions on Ramsey County Streets.

Map 2A-13: Bicycle Crash Frequency and Severity in Ramsey County



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Health

Active transportation is an easy way for people to integrate health into their daily lives. Jogging and walking are fun activities that promote health. Regular physical activity, such as walking, jogging and bicycling reduces the risk of many chronic diseases, including cardiovascular disease, diabetes and some cancers.[15]

Surveys indicate that childhood obesity is ranked fourth among top public health concerns in Ramsey County.[16] According to 2007 YRBS data from the four Steps to a HealthierMN communities, 45 percent of St. Paul high school students meet federal recommendations for physical activity per week. As a further area of concern, far fewer high school girls meet the requirements than high school boys.[17]

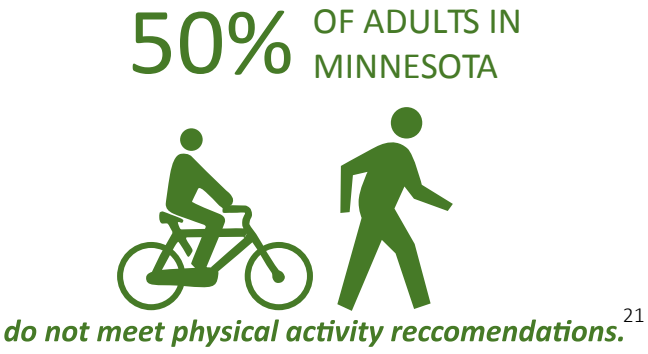
Walking and biking can be part of a solution to inactivity. Living near recreation facilities such as trails and parks leads to higher levels of physical activity.[18]

Incorporating active living into daily life

Daily physical activity is important for all people, particularly children and adolescents. Establishing healthy habits at a young age is important for life-long healthy living. County-wide, less than half of all 6th, 9th, and 12th graders report engaging in 30 minutes of moderate physical activity five or more days a week.[19]

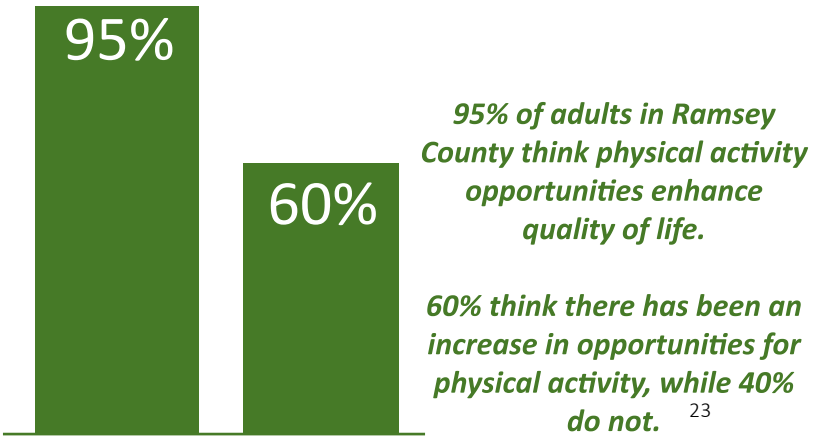
Creating Opportunities for Activity

In a 2005 survey of Ramsey County residents, the following key barriers to biking, walking and physical activity were identified: poor street lighting, fear of crime, lack of sidewalks and heavy traffic.[22] A safe and connected active transportation system creates more opportunities for physical activity by addressing these barriers.



Physical Activity & Quality of Life

Physical activity has a positive impact on overall health, including physical, mental and emotional well-being.



Recreational Running Activity In Ramsey County

In order to improve the active transportation networks throughout Ramsey County, it is important to understand the routes people are currently utilizing for both recreation and transportation trips.

Map Highlights of Recreational Running Activity in Ramsey County

This map displays the usage of streets and trails for recreational running. Popular streets and trails are highlighted in colors ranging from light blue to bright red. Light blue indicates moderate use while bright red indicates high use. High use corridors in Saint Paul are located along the Mississippi River and Summit Avenue. High running activity occurs throughout Ramsey County primarily along or near lakes, parks and natural areas.

The Foundation for Connecting Ramsey Communities

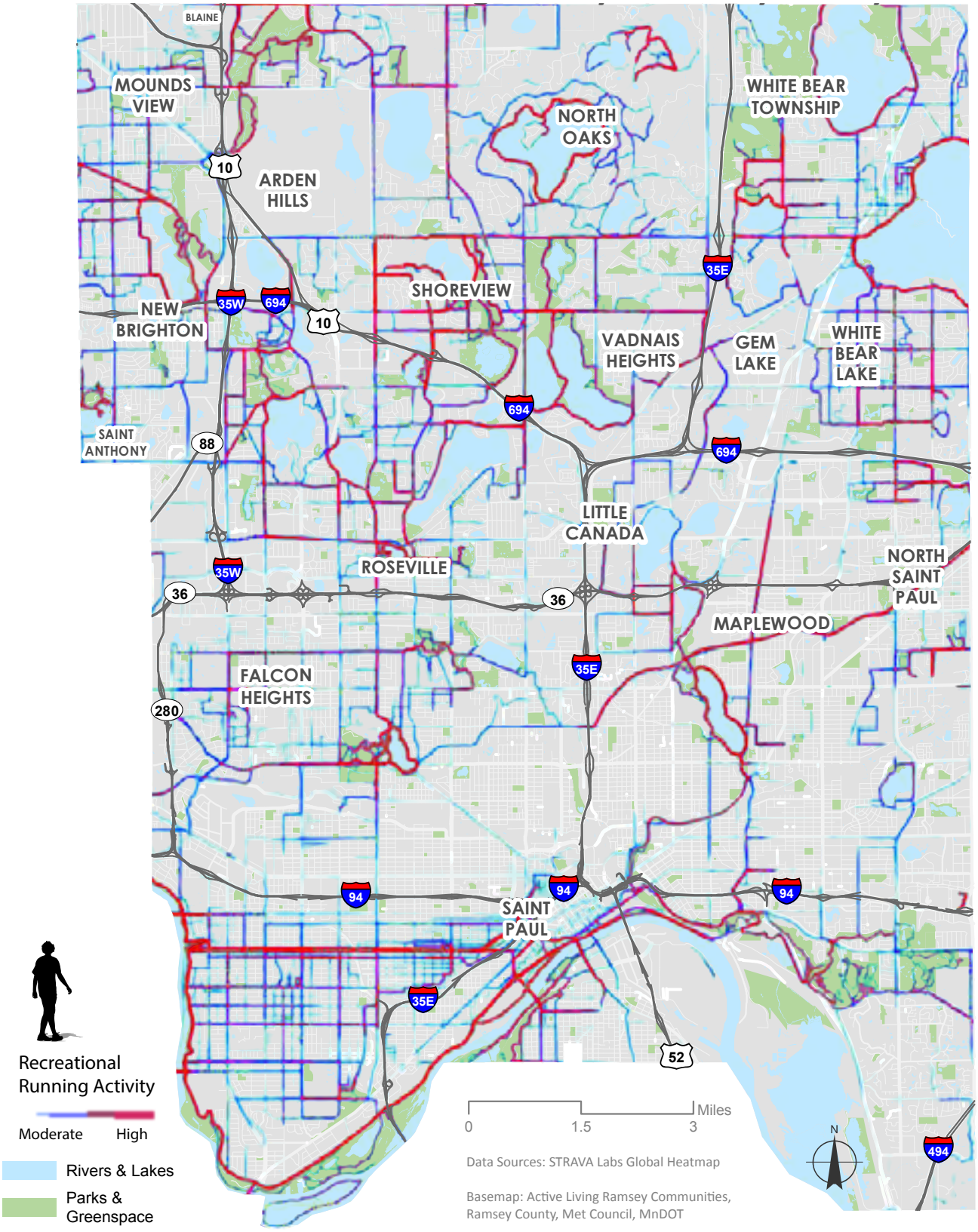
Analyzing the running routes that people are currently using shows where people are running, both in urban and less urbanized areas of the county. This provides insight into how people are using the network, as many of these trails are short segments or small loops. A system of disconnected segments and loops may be acceptable for recreational trips, but would not be useful as an active transportation network.

Data from the STRAVA activity tracking software used to create this map relies on self reported datasets and requires users to own a smart phone and as such, is subject to sample bias.

Implications for the Future Vision

Recreation is a visible element of the lives of Ramsey County residents. The mature system of recreational routes offers many community members an option for outdoor recreation and fitness, although people may need to drive to reach the trailheads and parks with these amenities. One strategy for building support for future investment in walking and biking is to promote the benefits of non-motorized access to the existing amenities of the parks and regional trail systems.

Map 2A-14: Recreational Running Activity in Ramsey County



Recreational Bicycling Activity In Ramsey County

In order to improve the active transportation networks throughout Ramsey County, it is important to understand the routes people are currently utilizing for both recreation and transportation trips.

Map Highlights of Recreational Bicycling Activity in Ramsey County

This map displays the usage of streets and trails for recreational bicycling. Popular streets and trails are highlighted from in colors ranging light blue to bright red. Light blue indicates moderate use while bright red indicates high use. High use corridors are shown in Saint Paul along the Mississippi River, in downtown and along Summit Avenue. In north Ramsey County, high use corridors are found near lakes and natural areas, and along Shoreview Avenue from Arden Hills to White Bear Lake. Overall, several corridors are moderately used throughout the county for recreational bicycling.

The Foundation for Connecting Ramsey Communities

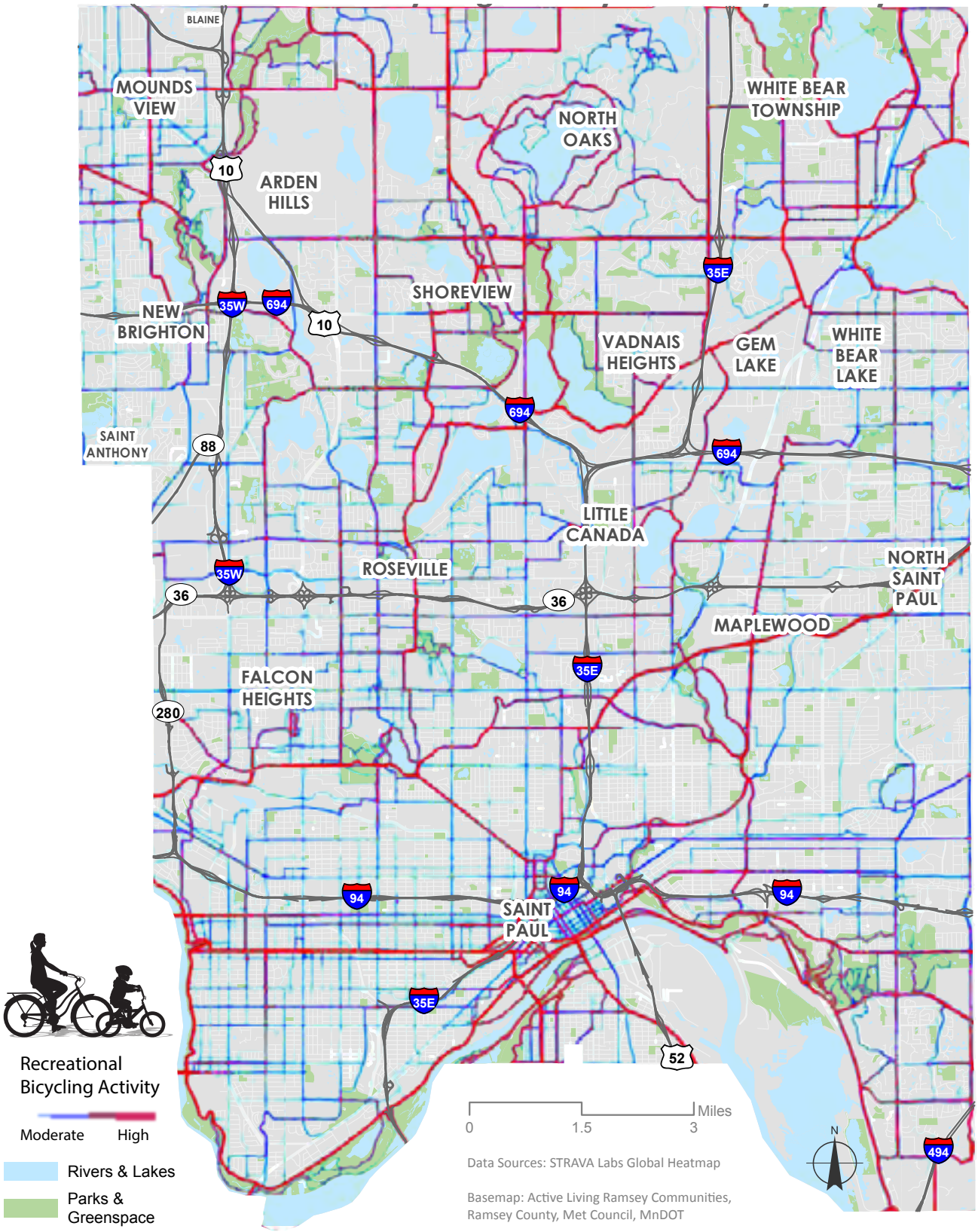
Data from the STRAVA activity tracking software[24] offers a glimpse at the most popular locations for running/walking for recreation. Bold red lines indicate high volume routes, and blue lines indicate popular secondary routes.

Data from the STRAVA activity tracking software used to create this map relies on self reported datasets and requires users to own a smart phone and as such, is subject to sample bias.

Implications for the Future Vision

Recreation is a visible element of the lives of Ramsey County residents. The mature system of recreational routes offers many community members an option for outdoor recreation and fitness, although today they may need to drive to reach the trailheads and parks with these amenities. One strategy for building support for future investment in walking and biking is to promote the benefits of non-motorized access to the existing amenities of the parks and regional trail systems.

Map 2A-15: Recreational Bicycling Activity in Ramsey County



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EQUITY

Good transportation is vital for access to activities and essential services that are needed to fully participate in our society. In automobile dependent communities, those who do not have the ability to drive or do not have access to vehicles can be at a great economic and social disadvantage. Many experts note that approximately 40% of all-age populations do not drive for various reasons.

Communities without adequate quality and quantity of transportation, including facilities for bicycling and walking, place residents at a distinct disadvantage when trying to access jobs, school, medical services or other daily needs.

MnDOT has identified the following populations as possible priorities for pedestrian-level improvements throughout Minnesota:[25]

- Small Rural Core Communities
- American Indian populations
- Low-Income Urban Populations
- Older Adults
- Persons with Disabilities
- Children and Youth

High Impact Populations In Ramsey County

The aggregate data for equity populations shows areas where bicycling and walking infrastructure investment would have the most impact on people with the least transportation options. Considering the planning process through an equity lens will create a different outcome than a more traditional approach, as it strives to serve those who have historically been left out of the planning process and under-served by investments.

Percent of Population at or Below Poverty Level in Ramsey County

The Population at or Below Poverty Map displays the percentage of people in poverty per Census tract across Ramsey County. The poverty level is a measure of income issued annually by the U.S. Department of Health and Human Services. The percentage of population at or below the poverty level in Ramsey County is highest in the inner neighborhoods of Saint Paul that ring the downtown. In these neighborhoods, 20-65% of the residents are living at or below the poverty level. Suburban communities show a lower percentage of poverty at 20% or less.

Bicycling and walking are no cost or low cost transportation options that ought to be provided for all people in Ramsey County. Ramsey County has the largest contiguous area of concentrated poverty in the metro area and a large share of people in poverty are workers: 8% worked full- time and 40% worked at least part-time. Many of the of the poor are young, with 26% of kids under age 5 years living in poverty. The largest proportions of low-income people as a percentage of the population are clustered in Saint Paul and other portions of the County's southern area. The percentage of people living in poverty in these areas exceeds 30% of the population. Suburban census tracts located in Maplewood, Roseville, Falcon Heights, New Brighton and other municipalities also have high concentrations of people living below the Federally-established poverty line.

Percent of Population over 65 Years Old in Ramsey County

This map displays the percentage of people over the age of 65 per Census tract across Ramsey County. The percentage of population over 65 years old is highest in the northern parts of Ramsey County, with Roseville, North Oaks and a portion of Arden Hills having 20-35% the population over age 65. Saint Paul shows a lower concentration of people over the age of 65. Neighborhoods around downtown Saint Paul show that 0-15% of the population is 65 years of age or older. However, there is one exception in Saint Paul; directly south of downtown across the Mississippi River there is one neighborhood where 16-20% of the population is over the age of 65.

As people age, they are more likely to use more medications and develop physical cognitive disabilities. According to the AAA, "Seniors are outliving their ability to drive safely by an average of 7 to 10 years." Ramsey County has the highest percentage of residents who are 65 and older (12.4%) among counties in the metro area. With a few notable exceptions, people older than 65 years old live outside of the region's downtown core of Saint Paul.

Percent of Population with a Disability in Ramsey County

The Population with a Disability Map displays the percentage of people with a disability per Census tract across Ramsey County. Across most of Ramsey County, 6-15% of the population lives with a disability. There are high concentrations of populations with a disability located within six Census tracts in Saint Paul.

Each of these Census tracts has a population of 21-30% with a disability, which is higher than the national average of 19%.[26] These populations are located along or near Interstates 94 and 35E.

An equitable transportation system is one that addresses the needs of all residents, regardless of ability. Pedestrian facilities significantly affect the way that individuals with disabilities navigate the built environment. In a sample of disabled adults, 60% reported that lack of sidewalks influenced their daily activity.[27]

Youth Aged population in Ramsey County

The Youth Aged Population Map displays the percentage of people 15 years of age or younger per Census tract across Ramsey County. North Oaks, Arden Hills, Gem Lake and Roseville have the lowest percentage of youth at 15% or less. The highest percentage of youth can be found in Saint Paul. Several neighborhoods in Saint Paul have 25-35% of the population being people aged 15 years old or younger. These areas of concentrated youth are found in the inner neighborhoods of Saint Paul that ring downtown.

Children perceive traffic and traffic safety different than adults do, making them particularly susceptible to traffic related injuries and death. Designing a pedestrian and bicycle network with children in mind may result in a safer environment for users of all ages. Youth and children age 15 and under live in the area surrounding Saint Paul's downtown. The Census tracts with higher proportions of young people have low numbers of elderly residents.

Native American Population Share in Ramsey County

The Native American Population Map displays the percentage of people that identify as Native American per Census Tract across Ramsey County. The percentage of the population that identifies as Native American is most prominent in Saint Paul. This population is located in the inner neighborhoods that ring downtown. Three to five percent of the populations in these neighborhoods identify as Native American and one neighborhood shows that five to six percent of the population identifies as Native American. The next prominent city to show a significant population of Native Americans is White Bear Lake with some neighborhoods at two to five percent Native American.

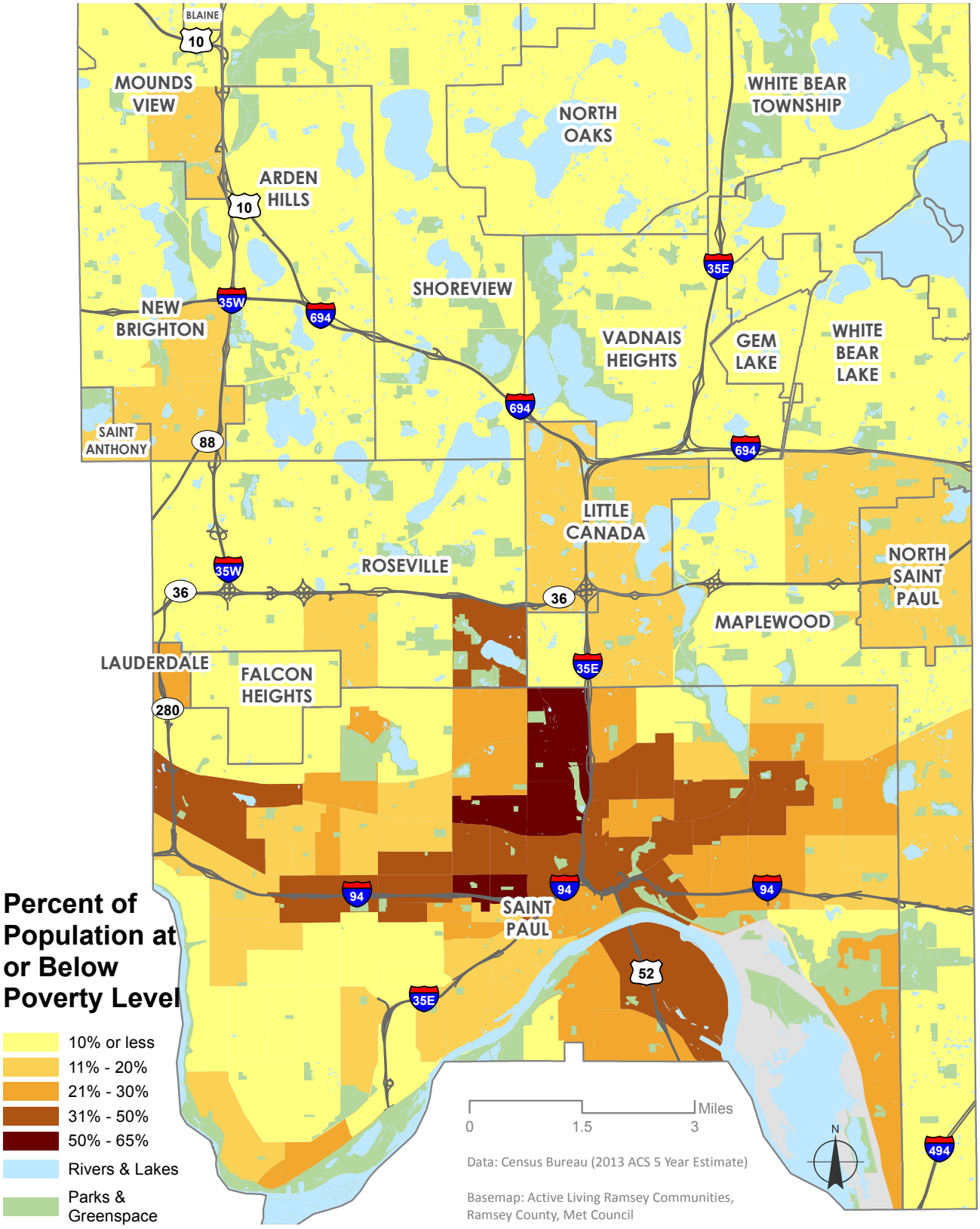
Non-White Population Share in Ramsey County

The Non-White Population Map displays the percentage of people that identify as non-white per Census tract across Ramsey County. The percentage of the population that identifies as non-white is highest in Saint Paul. Downtown Saint Paul shows a 26-40% non-white population, while neighborhoods located to the northwest and northeast of downtown show the highest concentrations of non-white population, with 26-64 percent non-white. North Saint Paul shows the second highest concentration of non-white populations clustered towards the northeast at 41-50%. Parts of Little Canada, Roseville, Arden Hills, New Brighton and Mounds View have neighborhoods with 11-40% non-white population.

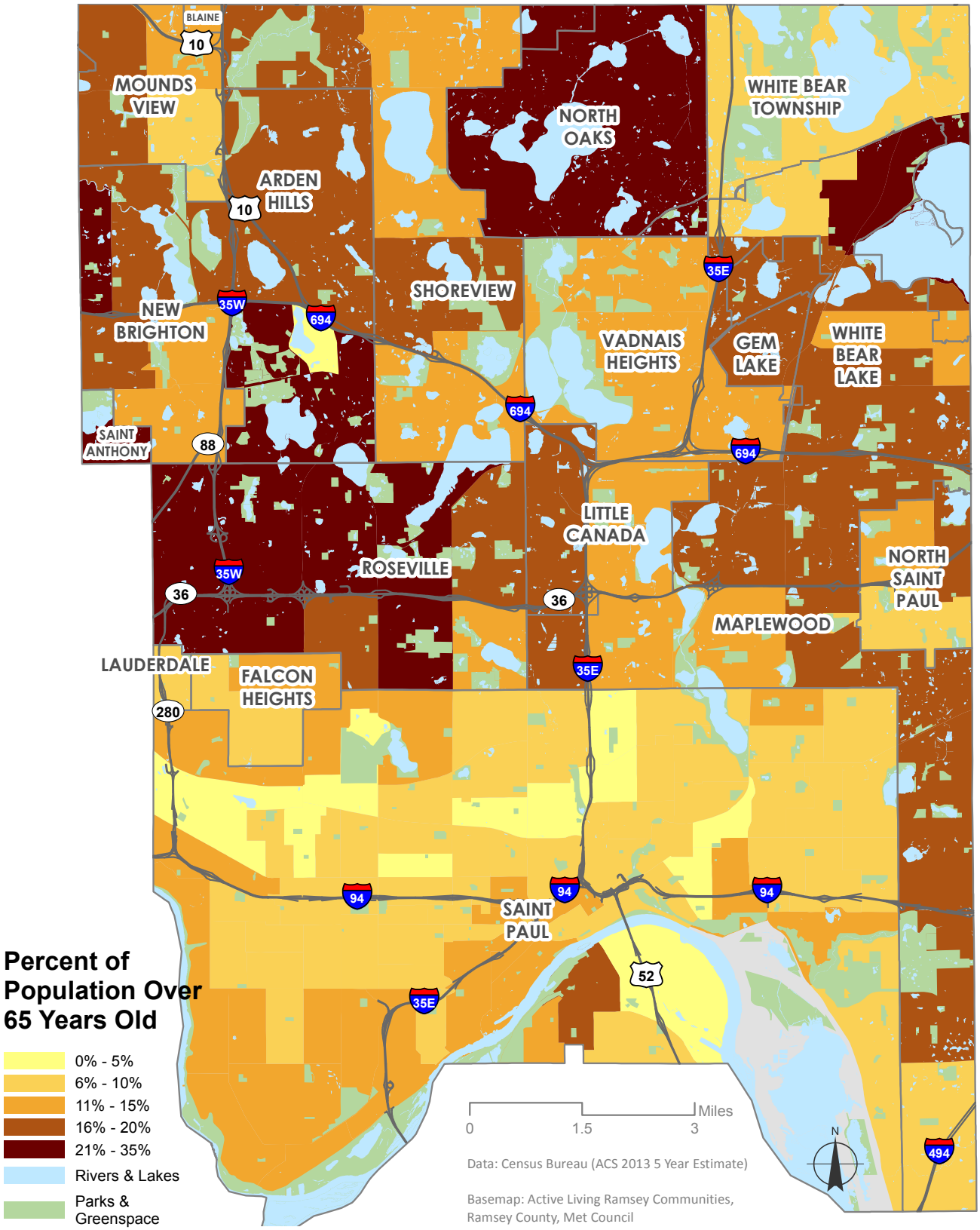
Composite Ranking of High Impact Population Concentrations in Ramsey County

This map displays a composite of tracts with concentrations of high impact equity populations. These include populations with disabilities, low-income populations, youth and elderly populations and non-white populations. When these populations are combined, they show the percentage of high impact populations per acre across Ramsey County. High impact populations are concentrated within the neighborhoods that surround downtown Saint Paul.

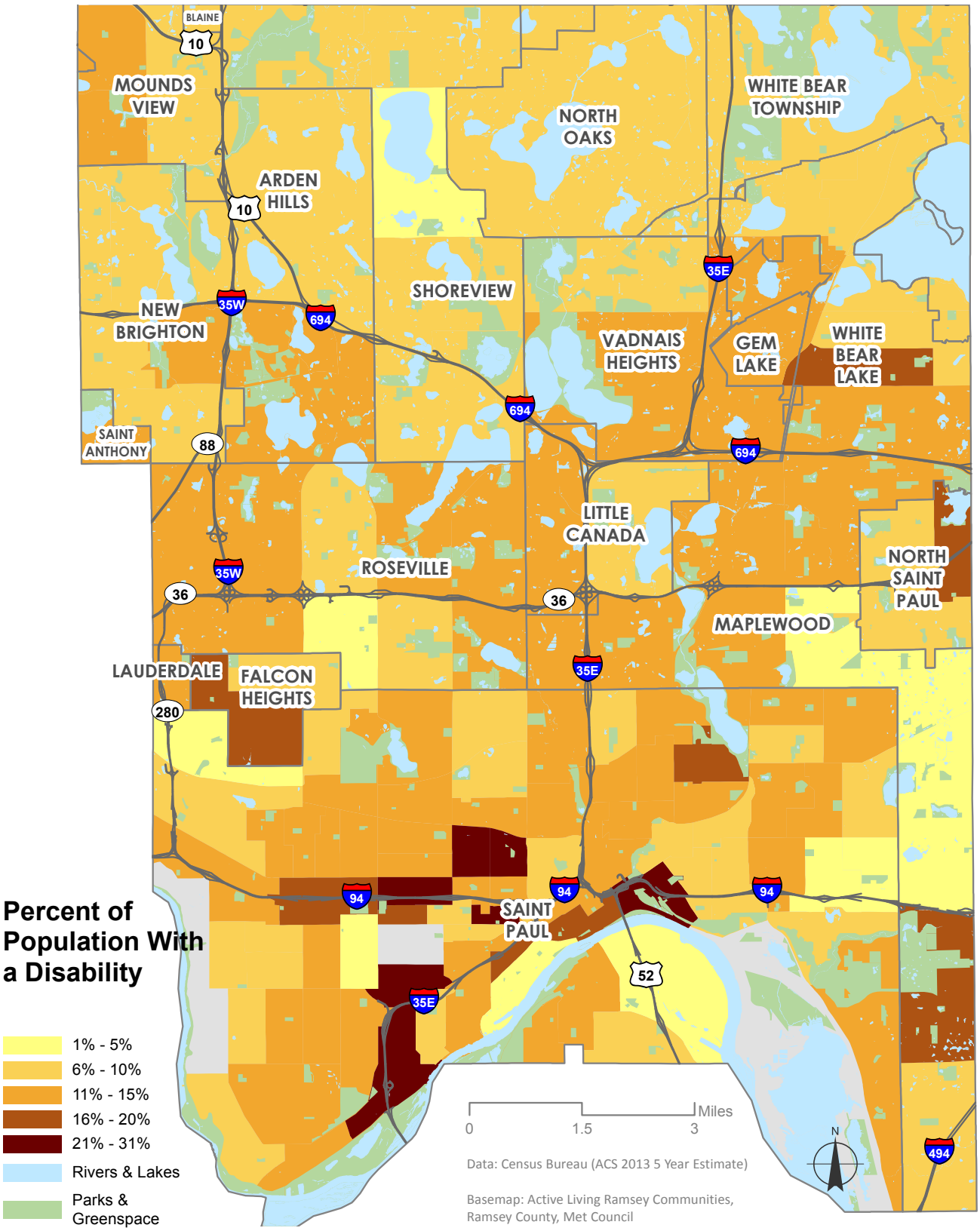
Map 2A-16: Percent of Population at or Below Poverty Level in Ramsey County



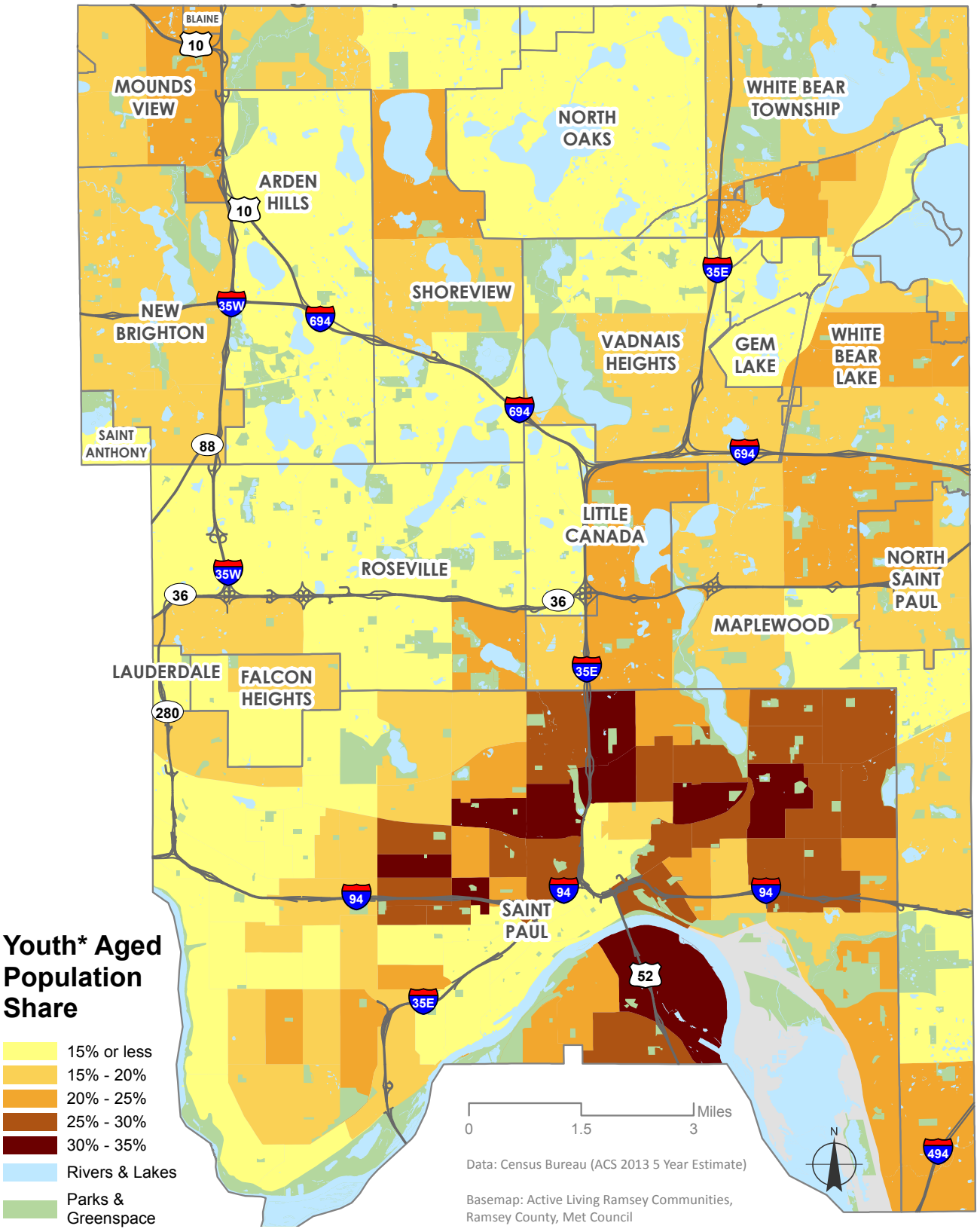
Map 2A-17: Percent of Population Over 65 Years Old in Ramsey County



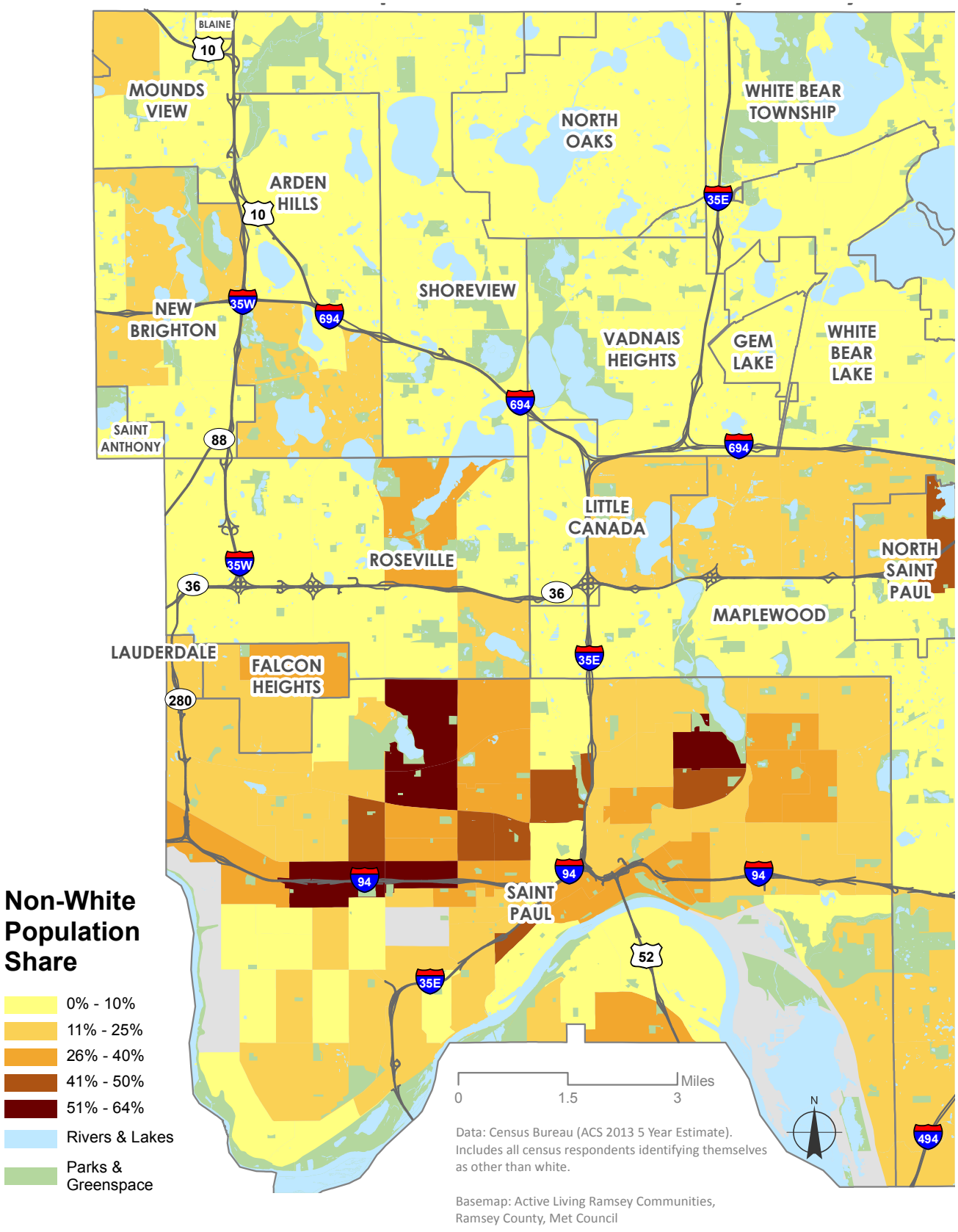
Map 2A-18: Percent of Population With a Disability in Ramsey County



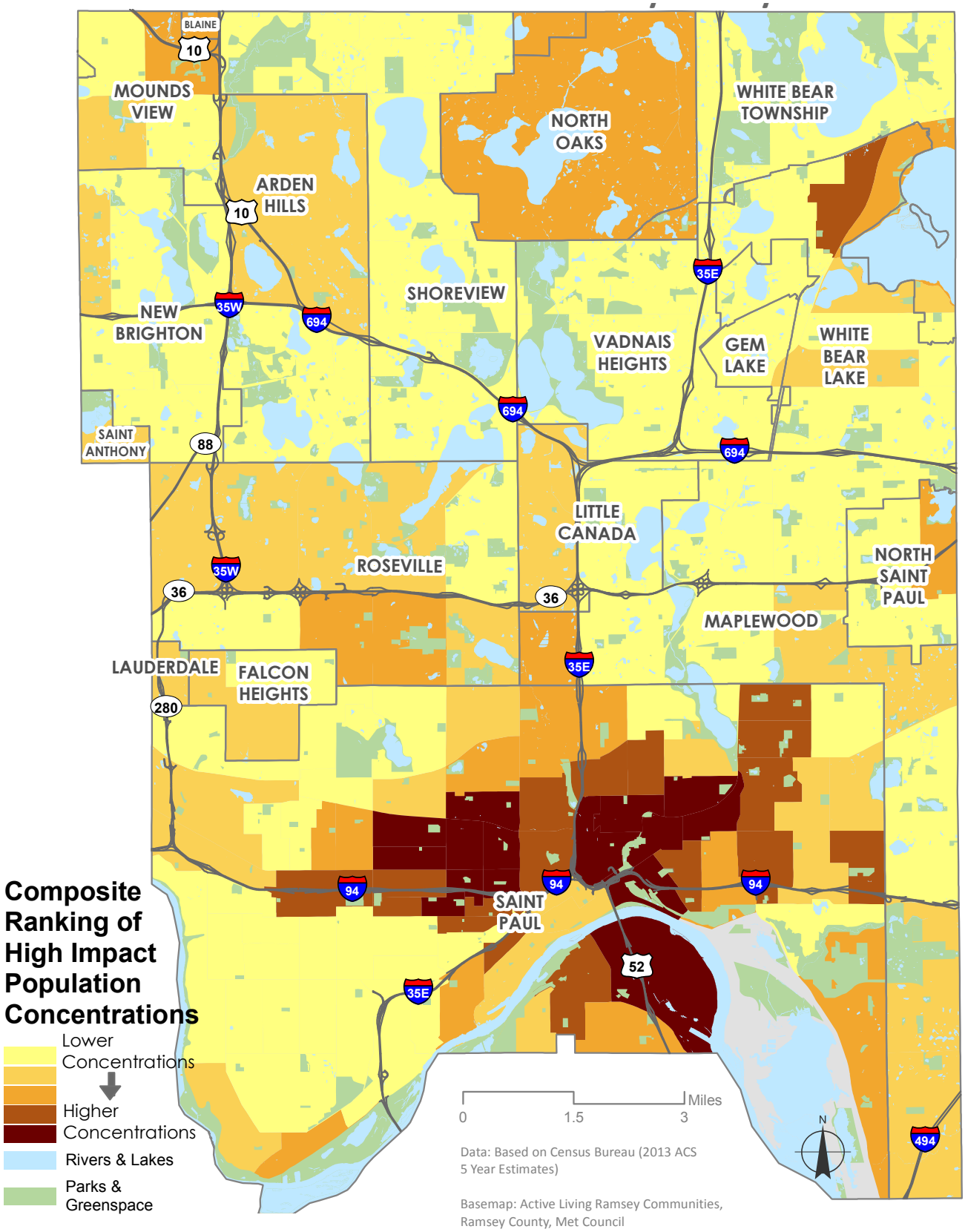
Map 2A-19: Youth Aged Population Share in Ramsey County



Map 2A-20: Non-White Population Share in Ramsey County



Map 2A-21: Composite Ranking of High Impact Population Concentrations in Ramsey County



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ECONOMIC PROSPERITY

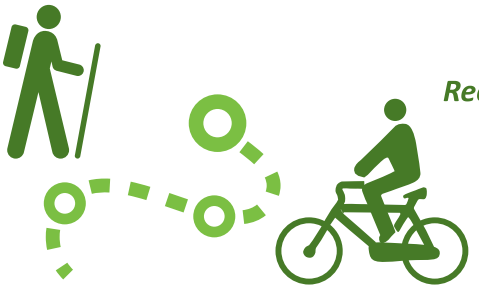
A community that supports prosperity for all of its residents and businesses must have a thriving network of resources that build a web of opportunity. Transportation and health are key parts of the web.

Walking and biking infrastructure can pay back dividends in the form of increasing access to jobs and education, improving health, increasing attractiveness and real estate development, adding value to home prices and attracting talented workers to local communities and companies.

Bicycling trails and routes for commuting can bring economic development benefits that are felt by individuals and entire communities. More trails can translate into more recreation and economic development. By encouraging employees to commute by bike, the Minnesota company QBP saved $170,000 in health care costs over three years and $301,136 in employee productivity every year.[28]

Active Living as an Income Generator

Walking and biking facilities have the ability to become destinations and draw visitors, who in turn spend money at local businesses. Studies have found that trails are used "as an important recruiting tool by local businesses, chambers of commerce, and public agencies. In addition, the trails attract people with special skills or talents, and encourage new and expanding businesses."[29]



Recreational trails bring

$481
MILLION
to the Minnesota economy annually.

Adding Value

Ramsey County and Hennepin County residents already know the value of trail amenities, and the local real estate market is responding accordingly, with homes adjacent to trails increasing in value faster than those further from trail amenities.

In Minneapolis-St. Paul, for every

400
METERS

closer a home is to an off-street bike facility, it's value increases by

$510[30]

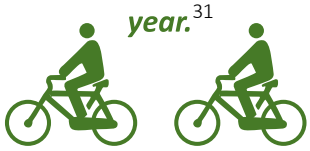
Economic Benefits of Bike Share

Bike share users, like those who use their personal bikes or who walk to work, spend less money on commuting per year, freeing up budget for entertainment, household purchases and more. Increasing the ease of walking and biking in equity focus areas means these benefits can easily reach those in most need of such economic support.

Cyclists spend an extra

$150,000

at restaurants near Nice Ride bike share stations in Minneapolis every year.[31]



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RAMSEY COUNTY-WIDE

Pedestrian & Bicycle Plan

Gaps & Barriers in Ramsey County

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System Analysis Introduction and Overview

Budgets are not unlimited, needs are not equal and some places may see more net benefits than others in a given time period. The system analysis described below identifies those areas most deficient in walking and biking infrastructure as those areas of most potential for benefit.

A county-scale, data-driven approach was used to identify network gaps throughout Ramsey County. This analysis identified barriers to connectivity and put them in the context of community need and potential demand.

Analysis Approach

The report analyzes where people are, where they want to travel and what kind of system facilities they need. The analysis performed here is based on the principles of supply and demand.

The supply side represents the provision of pedestrian and bicycle facilities and the safety history of the streets in Ramsey County. Most often, this is a ***lack*** of supply of safe and comfortable facilities for walking and biking.

The demand side represents where people are located, where they want to travel and concentrations of historically disadvantaged populations that may have greater needs for transportation options and investment.

Balancing supply and demand can help guide investments, identify priorities and get the most community value for funding when upgrading or implementing facilities.

Mapping Street-by-Street

Each analysis area and data point is mapped and assigned to the individual street itself, even if these are not traditionally thought of as street characteristics. For example, population density data from the Census Bureau is translated from the census tract level geography and assigned to the streets within the area. This doesn't identify the individual block-by-block population density, but it does allow a block-by-block analysis using the general density in the vicinity of a particular street.

Outcomes

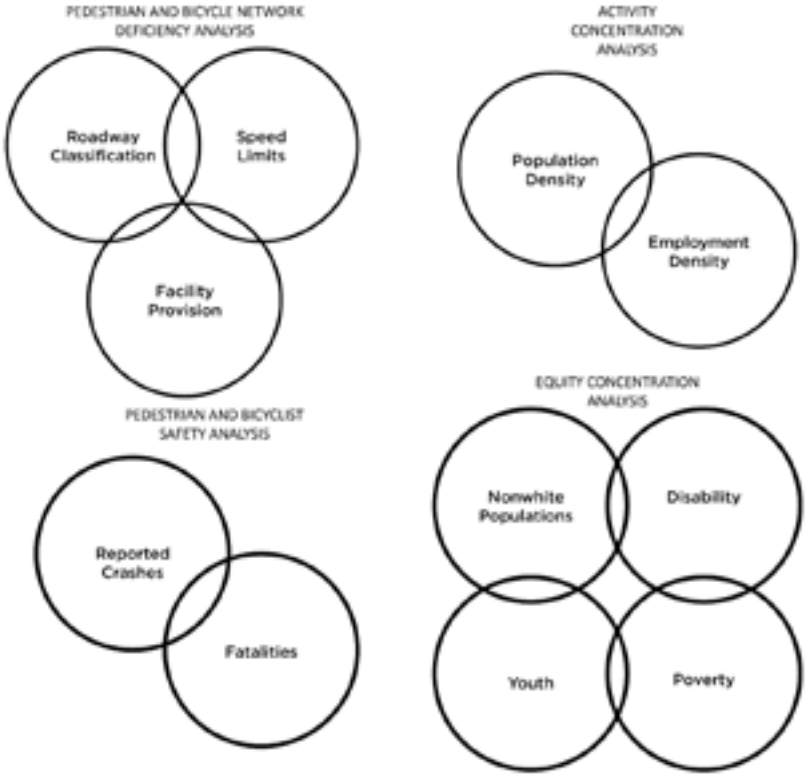
The analysis provides an overview of conditions for pedestrians and bicyclists on streets within the County. The result reflects the quality of streets and the experience for walking and cycling rather than a simple documentation of the existing facilities. Maps showing existing and planned facilities are available in the State of Walking and Biking Environment Report.

In addition, the system analysis provides additional information to inform future implementation of the Connected Ramsey Communities network. Evaluating network quality, barriers and key population concentrations supports both the route identification process and knowledge about needs for improvement or new facilities.

Four Analysis Areas

The technical analysis of the Ramsey County walking and biking network covers four areas. These analysis areas can be referenced independently to better understand the street-by-street conditions or can be combined to understand a comprehensive picture of street by street gaps, barriers and opportunities.

Each analysis area is composed of two or more factors. The Pedestrian and Bicyclist Safety Analysis, for example, is built upon datasets of reported crashes and locations of fatalities. Each analysis area is depicted below, identifying the primary inputs used in the analysis.



ACTIVITY CONCENTRATION

Constructing new facilities in locations where there will be higher levels of use helps make effective use of resources as the larger network is built out over time.

Trip making demand is tied to residential and employment population density, mix of land uses and trip length. Residential and employment population density is very important for walking and biking demand because as density increases, trip lengths tend to decrease.[1] The shorter the trip, the more likely it can be made by walking and biking.

High residential and employment population densities also result in more viable transit service and use.[2] Most people making a trip by transit start and end as a pedestrian, relying on sidewalks and crosswalks to get them to their final destination.

Employment is also a significant trip generator and attractor. The journey to work is one of the most consistent trips in a person's day. It is a standard measure tracked by the Census Bureau and is one of the most common ways to report and track the levels of walking and biking in local communities.

To represent trip demand in the analysis, the Population Density Index measures the composite density of population and employment, representing the general level of potential activity on a particular street.

Activity Concentration Analysis Results

While Saint Paul shows the highest level of activity concentration across the county, other communities have their own local areas of concentrated activity, such as Roseville Mall or employer campus areas. Not every community in Ramsey County has areas of high levels of activity. These locations are places where residents and employees are likely to make frequent short trips, ideal for increased walking and biking.

Activity Concentration Analysis Map Summary

The activity concentration analysis map displays a street-by-street assessment of surrounding residential and employment density. Color intensity indicates overall activity concentration on a relative scale of "Lower Activity" to "Higher Activity." Absolute values for density factors are displayed and discussed in detail in the **State of Walking and Biking Report**.

Limited access highways are displayed in gray and are excluded from this analysis.

Findings and Notable Results

The major population center in Ramsey County is the City of Saint Paul. The downtown core is filled with dense employment activity. Other notable population activity areas include the 3M campus in Maplewood and along the Snelling Avenue corridor in Falcon Heights and Roseville.

Pockets of activity areas are also concentrated in the historic downtown White Bear Lake, the neighborhood around Berwood Park in Vadnais Heights and areas in St. Paul such as University Avenue, Energy Park Drive and the University of Minnesota St. Paul Campus.

Future development areas, such as Rice Creek Commons in Arden Hills, the New Brighton Exchange in New Brighton and the Ford Plant in St. Paul, are identified on the map. While these areas today are not yet developed to their future potential, these sites are planned for new residential and employment development. This will result higher activity levels than the surrounding areas.

Implications to the Future Vision

Areas with high levels of activity concentration are the backbone of the Connected Ramsey Community networks. These locations represent the most common origins and destinations for county-wide transportation trips and are most likely to have high demand for internal short-distance trips.

Not all areas with high activity concentration have the same needs for leveraging that activity. Downtown Saint Paul has the street grid, sidewalks and crossing opportunities to promote high levels of walking activity between destinations.

The high levels of activity around Roseville Mall lack the developed street grid and complete sidewalks of Saint Paul. Promoting walking and biking here should emphasize county-wide connections to the mall area, include high quality bike parking and provide comfortable walking corridors for trips between commercial developments.

Analysis Details and Data

The activity concentration analysis is based on 2013 Census five-year ACS data of employment density and residential density. Both factors were assigned a one to five scale from least dense to most dense, and those scales were combined to identify areas of both high residential and employment density.

There are areas within Ramsey County that have high concentrations of activity, including in North St. Paul. For the full map, see page 2B-36.

PEDESTRIAN AND BICYCLE NETWORK DEFICIENCY

Not every street is safe or comfortable for walking and biking in its current form. Missing sidewalks and curb ramps or a lack of separated bike facilities on busy streets can easily prevent people from walking or biking.

Measures of pedestrian and bicycle deficiencies are analyzed by comparing the provision of walkways and bikeways with the roadway characteristics.

The Pedestrian Deficiency Index was measured by comparing the presence of a separated sidewalk or path to the type of roadway next to it. Busy streets without a separated walkway or with a walkway on only one side of the street are considered deficient.

Not all streets need a separated sidewalk to be comfortable for walking. On low-speed, low-volume local streets, the lack of a sidewalk may not be a barrier and is not considered deficient.

The Bicycle Deficiency Index measures streets in a similar way, by comparing the level of motorized traffic to the type of bikeway provided. In this analysis, street segments are classified into one of four levels of traffic stress based on the anticipated user comfort.

Pedestrian Network Deficiency Analysis Results

The analysis results illustrate a diverse Ramsey County street network formed by historic roadway standards. Facility quality varies widely across Ramsey County. Some local streets have complete sidewalks or paths on both sides while some large streets with significant levels of traffic are lacking any sort of pedestrian facilities.

Pedestrian Network Deficiency Analysis

Map Summary

The Pedestrian Network Deficiency Analysis map displays the analysis results of the pedestrian level of service calculation. Different colors indicate different levels of completeness. Streets considered most deficient are illustrated in red. These tend to be fast arterial streets with missing or incomplete sidewalks.

Light brown segments are the next level of deficiency in the analysis. These may be local streets with intermittent sidewalk coverage, or arterial streets with a sidewalk on only one side of the street.

Light green segments are those calculated to have minor deficiencies. These segments include moderate speed streets with a sidewalk on one side of the street, or local streets lacking sidewalks.

Dark green segments indicate the streets considered least deficient and least stressful. To qualify for this categorization, the street must have sidewalks on both sides of the street, and have traffic operating at low speeds.

Limited access highways are displayed in gray and are excluded from this analysis.

Findings and Notable Results

Streets with full sidewalk coverage are concentrated in the parts of Ramsey County with older development. This includes most of St Paul, the historic center of White Bear Lake and areas of Falcon Heights south of Larpenteur such as University Grove. These streets were built in an era when sidewalk provision was standard on all types of streets and the presence of sidewalks supports walking in these communities to this day.

Neighborhood development in areas outside of Saint Paul followed less consistent design standards and did not require sidewalks as a part of construction. This is particularly noticeable in lower density single family home neighborhoods. Most of these streets are considered deficient in the analysis because of the lack of sidewalks combined with a 30 mph default speed limit.

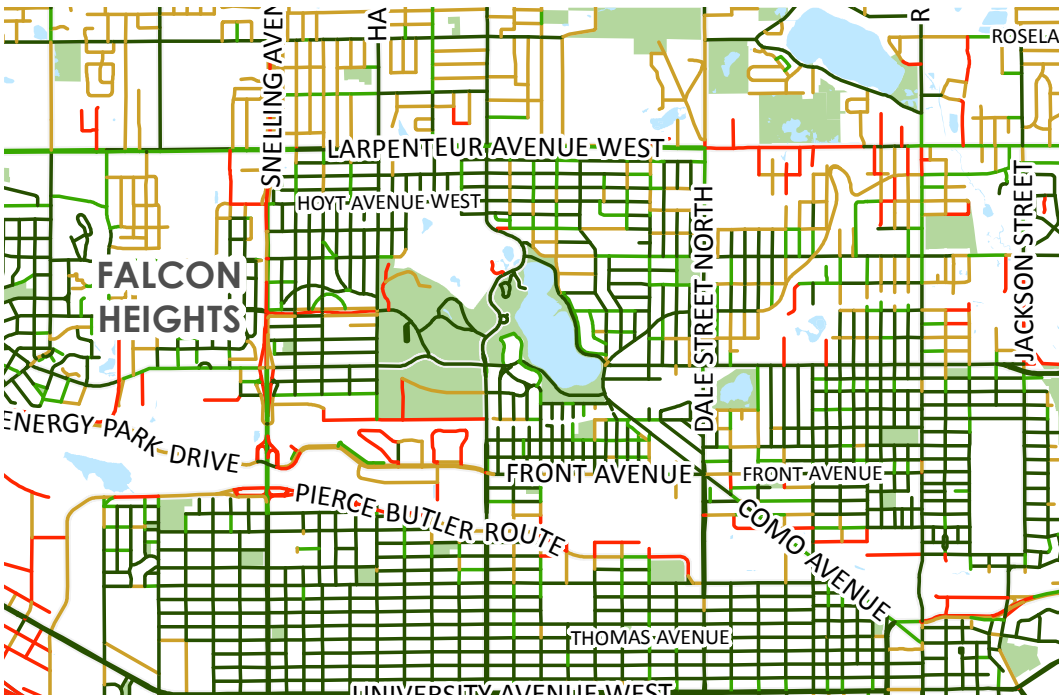
In outer suburban parts of Ramsey County, streets with paths are often the most complete street segments available for pedestrians because of their separated space for people to walk. While the analysis includes recreational paths in independent corridors less suitable for transportation purposes, this category also includes large streets with adjacent paths.

Implications to the Future Vision

The current design of a street has a dramatic influence over the potential for future investments to support pedestrian activity. To create safe and comfortable conditions high levels of traffic must be mitigated either with traffic calming or with increased separation between pedestrians and moving motor vehicles.

These investments in complete streets are most needed in the lower density suburban areas of Ramsey County.

However, unimproved streets that currently lack curbs, gutters and drainage may offer a future opportunity. Because these streets have little investment today, they offer a lower cost opportunity to construct to a high quality pedestrian facility than an existing complete street which would need to be reconstructed.



Sidewalk coverage varies across the county, with higher concentrations of sidewalks in areas like Falcon Heights. For the full map, see page 2B-37.

Analysis Details and Data

The pedestrian facility deficiency analysis is based on 2014 MnDOT street data describing speed limit, sidewalk data identifying the location and completeness of sidewalks, shoulder data indicating some form of walkable shoulder space and street classification for identifying local roadways.[3]

Shoulders are not considered a significant walking facility in this analysis. Providing a shoulder on these streets is considered a minor improvement over no shoulder, but is generally not enough to provide a high level of service for pedestrians.

The scoring matrix for the pedestrian level of service analysis is displayed below. Higher values are considered more deficient.

Table 2B-1: Scoring Matrix for Pedestrian Level of Service Analysis

	Pedestrian Facility Provision*			
Speed Limit	**Complete sidewalk**	**Sidewalk on one side**	**Partial sidewalk**	**No side-walk**
25 mph or Less	0	3	4	5
30 mph	1	4	5	6
35-40 mph	2	5	6	7
45 mph or higher	3	6	7	8

* If the street is residential, the deficiency level decreases by 2 points and provision of a shoulder decreases the score by 1 point. Streets with paths are assigned a score of zero (not deficient).`4321

Bicycle Network Deficiency Analysis Results

The bicycle network deficiency analysis shows that much of Ramsey County is traversable by skilled adult riders. Less skilled, more traffic averse riders, such as children or casual riders, are faced with network gaps, stressful situations and other barriers to bicycling.

Bicycle Network Deficiency Analysis Map Summary

The Bicycle Network Deficiency Analysis map identifies those streets that are most and least suitable for traveling by users of all ages and abilities as determined by the level of traffic stress analysis, described at the end of this section. A color scale of red to green reports the overall stress level.

Those streets classified as extreme stress are displayed in red. These are street segments that lack facilities or contain facilities inadequate for the intensity of traffic on the street. This classification is common on portions of state or county highways, and on portions of arterial streets with high levels of traffic.

Streets classified as high stress are displayed in orange. These street segments are arterial or collector roads with high speeds and volumes, often with a minimum width conventional bicycle lane.

Moderate stress streets are displayed in light green and include most local streets. The analysis considers most local streets to be stressful due to the default 30 mph speed limit. Because most bicyclist travel between 10 and 15 mph, the high speed limit indicates that motor vehicle speed differentials are too high for riders of all ages and abilities to be comfortable.

Low stress streets are displayed in dark green. These are considered to be functional for users of all ages and abilities. This includes recreational trails, streets with paths running adjacent to them, and some local streets with speed limits below 30 miles per hour.

Limited access highways are displayed in gray and are excluded from this analysis.

Other streets that are more than ¼ mile from the bicycle network are also displayed in gray to indicate the lack of convenient access to the network.

Findings and Notable Results

Most state or county highways are classified as extreme stress due to multiple lanes of fast moving traffic, with minimal separation from bicycle users. Arterial streets with high levels of traffic and no bicycle facilities are also classified as extreme stress, such as portions of Snelling Avenue and Larpeneur Ave.

Arterials streets with a separated shared use path running along them achieve a stress rating appropriate for users of all ages and abilities. Highway 96 is an example of an otherwise stressful street that achieves a low-stress rating due to the adjacent path.

Most streets in downtown Saint Paul are classified as high stress along with arterial streets such as portions of Como Avenue and University Ave W. These streets have too many lanes or traffic traveling too quickly to permit comfortable travel by bicycle, even if a bicycle lane is provided.

While local streets are often considered low stress, this analysis classifies most local segments in Ramsey County as moderate stress. Because the default speed limit is 30 mph, travel speeds are assumed to be too high for users of all ages and abilities to ride in mixed traffic.

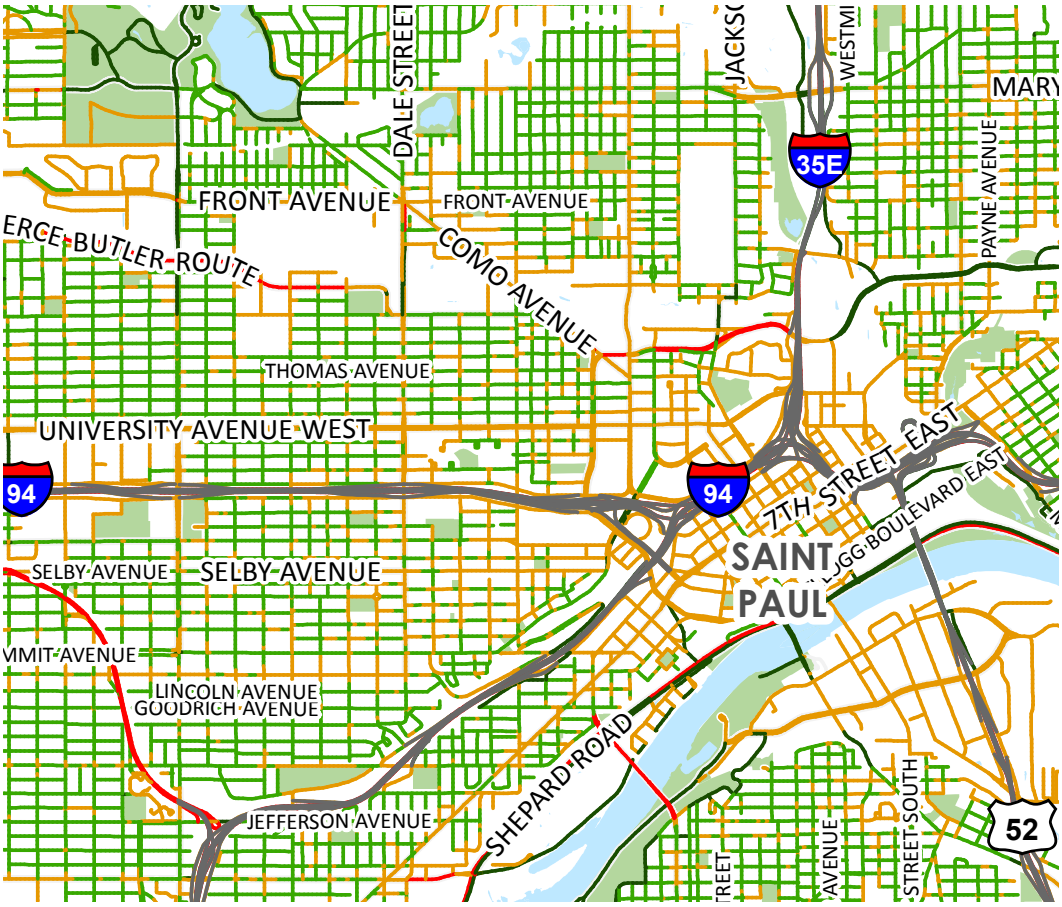
Residential street segments are occasionally classified as low stress when speed limits are below 30 mph. Collector streets such as Fairview Ave S through St. Catherine University are classified as low stress when a wide bicycle lane is present, traffic speeds are low and the roadway configuration includes only one lane in each direction.

Implications to the Future Vision

The results of the bicycle network deficiency analysis help identify gaps in the Connected Ramsey Communities network. If a county-wide network corridor is classified as extreme or high stress, it indicates a segment in need of improvement.

These network deficiency gaps may be present even if a street currently has a bicycle facility provided. Communities may need to upgrade existing facilities to something more comfortable if accessibility for users of all ages and abilities is desired.

In particular, county-wide network connections along local roadways may be considered candidates for speed management treatments and speed limit reductions. Achieving an average operating speed below 20 mph would reduce the difference in speed between bicyclists and motor vehicles and reduce exposure to passing cars. This modification would change the classification to low stress, which is considered suitable for bicyclists of all ages and abilities.



Levels of traffic stress vary from street to street throughout the County; many low volume and low speed streets are appropriate for most cyclists. For the full map, see page 2B-38.

Analysis Details and Data

The methods used for the Level of Traffic Stress Analysis were adapted from the 2012 Mineta Transportation Institute (MTI) Report 11-19: Low-Stress Bicycling and Network Connectivity.[4] The approach outlined in the MTI report uses roadway network data including — posted speed limit, the number of travel lanes, and the presence and character of bicycle lanes — as a proxy for bicyclist comfort level. Road segments are classified into one of four levels of traffic stress based on these factors.

The lowest level of traffic stress 1 (LTS 1), is assigned to roads that would be tolerable for most children to ride and to multi-use paths that are separated from motorized traffic. Level of traffic stress 2 (LTS 2) roads are those that could be comfortably ridden by the mainstream adult population.

The higher levels of traffic stress 3 & 4 (LTS 3 and LTS 4) correspond to types of cyclists characterized by the Four Types of Cyclists framework.[5] This categorization of cyclist types is accepted throughout the bicycling planning practice across the U.S. Level of traffic stress 3 (LTS 3) is the level assigned to roads that would be acceptable to current "enthused and confident" cyclists and level of traffic stress 4 is assigned to segments that are only acceptable to "strong and fearless" bicyclists, who will tolerate riding on roadways with higher motorized traffic volumes and speeds. The definitions for each level of traffic stress are shown below:

Table 2B-2: Bicycle Deficiency Analysis Scoring and Characteristics

Level of Traffic Stress (LTS)	Description	Suitability	Traffic Speed	Typical Locations
1	Little traffic stress and requires less attention	All cyclists (age 10 or higher)	Low	Residential local streets and separated bike paths/cycle tracks
2	Little traffic stress but requires more attention and skill	Adult cyclists with adequate bike handling skills	Low	Collector-level streets with bike lanes or a central business district
3	Moderate stress	Most observant adult cyclists	Moderate	Low-speed arterials with wide bike lanes or moderate speed roadways with one lane in each direction
4	High stress	Experienced and skilled cyclists	Moderate to high	High-speed or wide roadways with narrow or no bike lanes

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SAFETY

One of the top reasons people cite for not walking and biking more is concern about safety. The threat of collision is real, and 10 years of collision data shows that some places are safer than others. Intersections and streets that have a history of motor vehicle collisions act as barriers to walking and biking. The safety analysis identifies these locations to identify geographic patterns that might be overcome with targeted investments.

Pedestrian Safety Analysis Results

Ramsey County has the highest estimated pedestrian fatality rates in the State of Minnesota.[6] Clusters of pedestrian involved crashes reveal key corridors with pedestrian safety concerns. These streets tend to combine a large amount of fast moving traffic with a high level of pedestrian activity and often have disastrous results.

Pedestrian Safety Analysis Map Summary

The pedestrian safety analysis identifies streets with a high concentration of crashes involving pedestrians. Segments with multiple crashes are highlighted with increasing intensity and the result shows clear corridors where pedestrian-involved collisions are a frequent occurrence.

Street segments in gray had no reported collisions. The locations of pedestrian fatalities are identified on the map. These locations indicate a potential problem area, although specific analysis of the crash details is necessary to understand the circumstances surrounding the particular incident.

Findings and Notable Results

When displayed visually, clear corridors appear with concerning levels of crashes. These tend to be streets with high volumes of cars and higher levels of pedestrian activity, such as:

- Downtown Saint Paul
- University Avenue W
- Snelling Avenue
- Summit Avenue
- Minnehaha Avenue E
- White Bear Avenue
- US 61 through White Bear Lake

Fatal or Serious Injury Crashes[7]

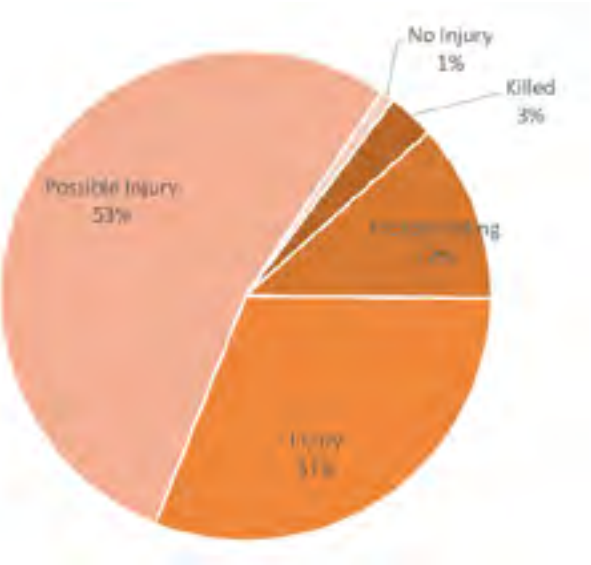
- Most pedestrian crashes resulting in an injury or fatality occurred in St Paul.
- Maplewood and White Bear Lake have the second highest number of pedestrian crashes resulting serious injury or fatality. In these communities, fatal and serious injury pedestrian crashes account for 29 and 26 percent of the community's pedestrian crashes, respectively.
- In Vadnais Heights, over two-thirds of all pedestrian crashes resulted in a fatal or serious injury.

Only ***reported*** crashes were used in this analysis. These crashes were severe enough to warrant reporting and data collection. Data concerning less severe crashes or near-miss events that may indicate a safety problem is not available and is not included on this map.

The likelihood of a pedestrian fatality is directly tied to the impact speed of a crash. This relationship is well documented nationally and is illustrated by the experiences within Ramsey County communities.

This can be seen based on an analysis of Ramsey County crash data.[8] On streets with speed limits of 50 mph or below, the rate of fatal or serious injuries in crashes involving pedestrians is under 20%. On streets with speed limits of 55 mph or higher, this number jumps to 40%. It is important to note that the posted speed limit does not indicate the actual travel speed of the motor vehicle involved in the crash.

Injury Level of Pedestrian Involved Crashes in Ramsey County (2004-2014)



Implications to the Future Vision

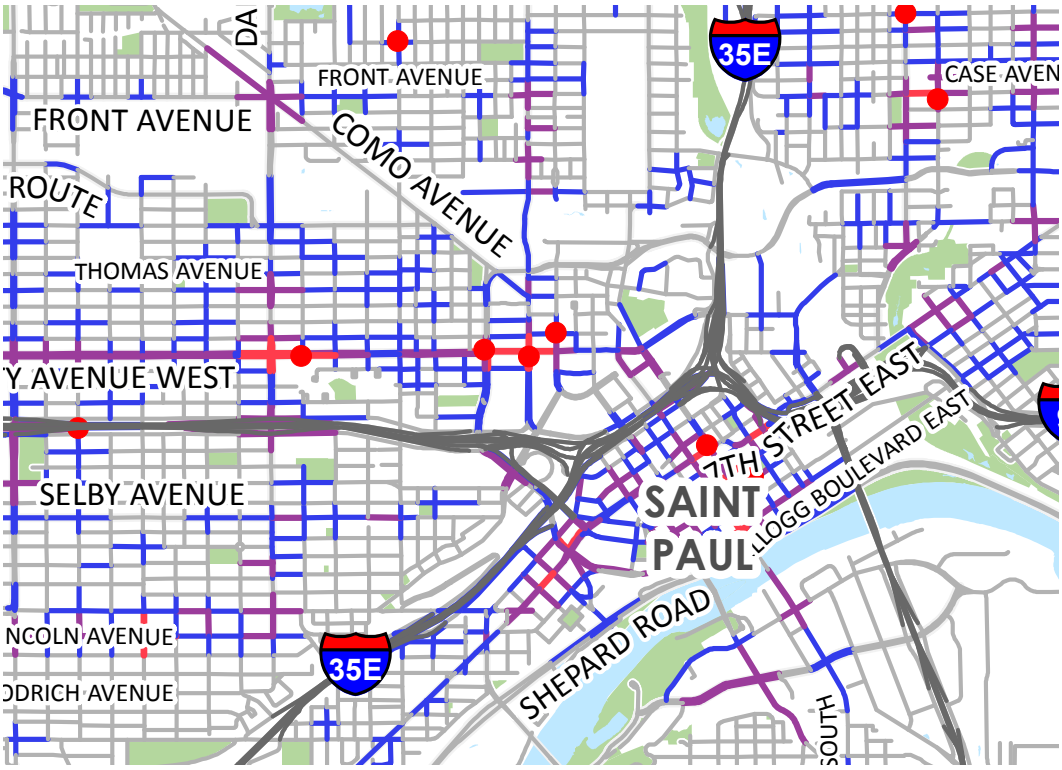
Concern over safety is one of the leading reasons people decide not to walk or bike. This analysis indicates that in some parts of Ramsey County the safety risk is real. Corridors with high levels of crash activity act as barriers to increased walking and local jurisdictions should explore investments to improve pedestrian conditions in these areas.

In some cases, such as University Avenue or Snelling Avenue, the high-crash corridor is a commercial corridor. These areas see high levels of pedestrian activity, and the traffic environment should be improved to reflect a pedestrian-priority. This may include lower design speeds, enhanced marked crossings and improved signal timing at intersections.

Analysis Details and Data

Crash data comes from MnDOT, including crashes from 2004-2014.

A detailed analysis of all pedestrian crashes in Ramsey County is available from MnDOT in the report ***Pedestrian Safety: An Exploratory Analysis Minnesota and Ramsey County Preliminary Findings (2009 - 2014).***[9]



Crashes involving pedestrians occur most frequently on streets with high volumes of cars and higher levels of pedestrian activity, such as in downtown St. Paul. For the full map, see page 2B-39.

Bicyclist Safety Analysis Results

It is estimated that Ramsey County has the second highest serious injury rate of bicyclists in the State of Minnesota.[10] Overcoming these unsafe conditions will do much to remove a barrier to increase bicycling. The bicyclist safety analysis identifies those areas and streets where most bicycle involved crashes occur.

Bicyclist Safety Analysis Map Summary

The bicyclist safety analysis identifies streets with a high concentration of crashes involving bicyclists. Segments with multiple crashes are highlighted with increasing intensity, and the result clearly shows corridors where bicyclist-involved collisions are a frequent occurrence.

Street segments in gray had no reported collisions.

The locations of bicyclist fatalities are specifically identified on the map. These locations indicate a potential problem area, although specific analysis of the crash details is necessary to understand the circumstances surrounding the particular incident.

Findings and Notable Results

When the crash history data is displayed visually, clear corridors appear with concerning levels of crashes. Fewer high-crash corridors stand out than did on the pedestrian analysis, but those that do correlate with those identified in the pedestrian analysis:

- University Avenue W
- Snelling Avenue
- Rice Street
- Summit Avenue

Only ***reported*** crashes were used in this analysis. These crashes were severe enough to warrant reporting and data collection. Data concerning less severe crashes or near-miss events that may indicate a safety problem is not available and is not included on this map.

There were five bicyclist fatalities in Ramsey County within the ten year period examined in this analysis. This dataset is too small to get an accurate understanding of the causes or type of crash that resulted in a bicyclist fatality. To get better understanding, a national study was referred to that analyzed hundreds of bicyclist fatalities. This study identified "rear end" collisions as the major crash type resulting in bicyclist fatality. This information can be used to support facilities such as protected bike lanes, which can reduce rear-end collisions when compared to conventional on-street bike lanes.

Table 2B-3: Crash Type in Bicyclist Fatality Crashes in the United States[11]

Crash Type	%
Rear End	40%
Cyclist Side/Car Front	11%
T-Hit	10%
Head On	8%
None	7%
Right Hook	6%
Driver Failure to Yield	6%
Other	5%
Sideswipe	4%
Cyclist Failure to Yield	2%

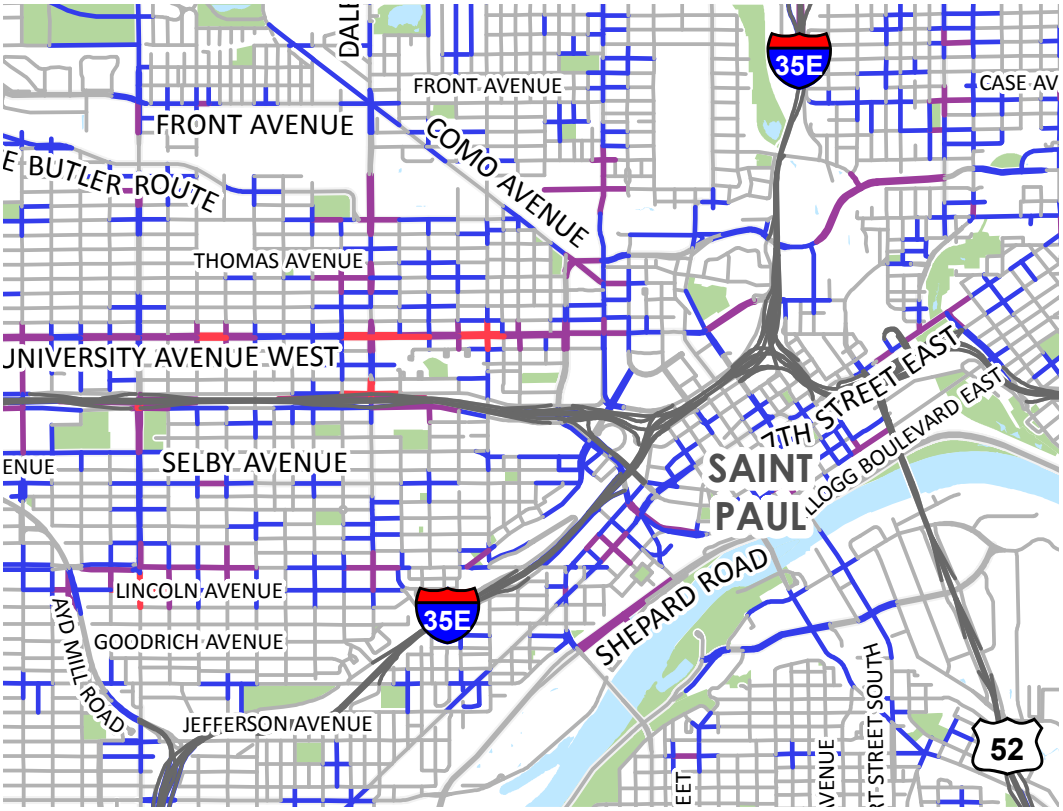
Implications to the Future Vision

The Connected Ramsey Communities network has an opportunity to overcome the barriers of high-crash corridors. The network alignments can act as a bridge across these high crash areas, or if they run along them, can transform the safety of an entire corridor.

Even if a high-crash corridor is not a part of the county-wide network, local communities will see benefits from removing risks and improving safety for the most vulnerable users of these roads.

Analysis Details and Data

Crash data comes from MnDOT, including crashes from 2004-2014.[12]



Crashes involving cyclists occur most frequently on streets with high volumes of cars and higher levels of bicycle activity, such as in downtown St. Paul. For the full map, see page 2B-40.

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EQUITY

Good transportation is vital for access to activities and essential services that are needed to fully participate in society.

In automobile dependent communities, people who do not have the ability to drive or do not have access to vehicles can be at a great economic and social disadvantage. Forty percent of Minnesotans are not able to drive due to youth, old age, income or disability.[13]

Communities without adequate quality and quantity of transportation, including facilities for bicycling and walking, place residents at a distinct disadvantage when trying to access jobs, school, medical services and other daily needs.

Equity in transportation planning looks to more fairly distribute resources, particularly to those who have the least access to critical resources, including jobs, education, affordable housing, health care resources and other destinations important to daily life. When using an equity lens, it is possible to identify where transportation investments can improve health and accessibility for populations in need, including low-income households, communities of color and people with disabilities.

Many factors in the built environment contribute to the inequitable distribution and availability of resources to populations including the inadequate distribution, accessibility and quality of biking and walking facilities, the concentration and limitation of affordable housing options and the construction of high speed, high volume roads through low-income neighborhoods. Communities of color and low income residents are disproportionately represented in pedestrian and bicycle crashes and are at the highest risk.

Inequitable distribution of resources impacts vulnerable populations, through increased travel costs, worse health outcomes and higher health care costs and decreased accessibility and mobility.[14]

Equity Analysis Results

Understanding where and how particularly vulnerable populations live is an important aspect to any transportation planning process.

Equity Analysis Map Summary

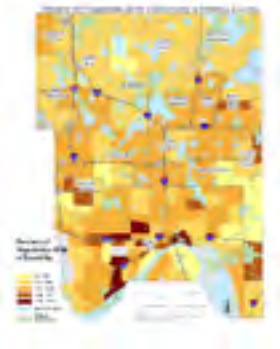
The equity analysis map presents the equity population concentration of a particular street segment, displayed in increasing intensity as the degree of concentration increases. General intensity is noticeable in the central core of Ramsey County, but clusters of equity population concentrations are spread across the county. These clusters tend to be in the commercial core areas of each community.

Based on a Ramsey County-specific subset of MnDOT recommendations for priority populations, the equity index creates a consolidated map of concentrations of these populations in Ramsey County. This score is generated as a combination of four primary equity populations:

- Disabled population
- Non-white population
- Youth population
- Population in poverty

These maps are displayed in detail in the **State of Walking and Biking Environment Report**, and reproduced as thumbnails below.

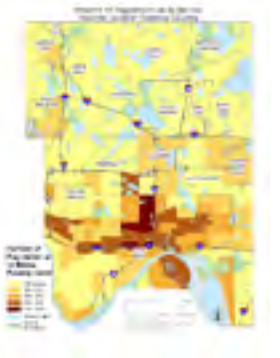
Population with a Disability



Non-White Population

Youth Aged Population

Population Living in Poverty



Findings and Notable Results

Outside of Saint Paul, some communities stand out with more significant concentrations of equity populations:

- Mounds View
- White Bear Township
- Roseville
- Falcon Heights
- Maplewood
- North Saint Paul

Implications to the Future Vision

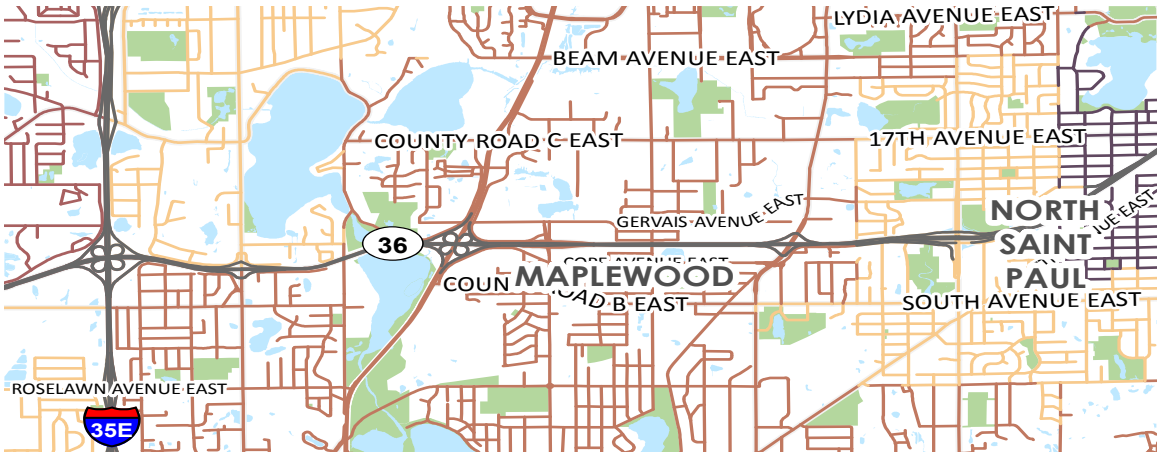
The Connected Ramsey Community network must connect the residents most in need of active transportation facilities. By distributing the network equitably across the county and connecting into the core of equity population concentration areas, the county-wide network can function as a lifeline for regional travel.

The information in this analysis can be used along with the other analysis areas to evaluate and prioritize alignments along the Connected Ramsey Communities network.

Analysis Details and Data

Data used for the equity analysis was Census Bureau ACS 2013 5-year estimate data.[15]

Data was retrieved at the tract level and mapped down to individual street segments for analysis purposes. It is important to note that while this accurately represents the demographics of the overall tract-level area, it does not necessarily indicate the level of population concentration on a particular block.



High concentrations of equity populations live in North St. Paul and Maplewood. For the full map, see page 2B-41.

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SYSTEM ANALYSIS CONCLUSIONS

Combining the four analysis areas results in a composite system analysis. The resulting hot spots identify network and service gaps where improvements may be needed the most.

To interpret the resulting maps, it may be necessary to refer back to the specific analysis areas. A particular hot-spot might arise due to a strong crash history in a particular location, or perhaps due to a high concentration of target equity populations. Understanding the reason for the hot spot can orient agencies and jurisdictions toward an appropriate response.

On these maps, all indices have been given 'equal' weighting. The particular balance should be adjusted to reflect the goals and objectives of the plan, and communities referencing this analysis should always review the individual index layers themselves to understand what factor may be influencing the final priority scoring.

Pedestrian and Bicycle System Analysis Results

Combining all levels of the system analysis reveals the areas that rank highest across each analysis area. The highest scoring locations combine high population densities and high concentrations of equity populations with a poor safety record and lower quality facilities. Improving these areas can do the most good for the most people.

Pedestrian and Bicycle System Analysis Map Summary

The system analysis maps presents the overall combined results of all previous analysis areas. Each street is ranked from low to high, representing the overall level of population demand and facility need. Moderate scores on this map, such as North Saint Paul or Roseville, indicate that an area may have scored highly on one analysis, but not on another. High scores, such as downtown Saint Paul, indicate an area that scores highly is many analysis areas.

Findings and Notable Results

Downtown Saint Paul stands out as the highest ranking area in the overall system analysis. The downtown core ranks highly across every analysis area, and improvements there would benefit many people and improve currently inadequate conditions.

Differences in Pedestrian and Bicycle Results

In general, the system analysis results for the bicycle system match those for the pedestrian system. This is because of the similar conditions and factors used for each mode. Some factors, such as a population density and equity concentration, are identical in the analysis for each mode. The safety analysis is unique for bicyclists or pedestrians, but the overall concentration of crashes involving these users tends to be clustered around the same areas and streets.

Areas ranked slightly higher on the bicycle system analysis are:

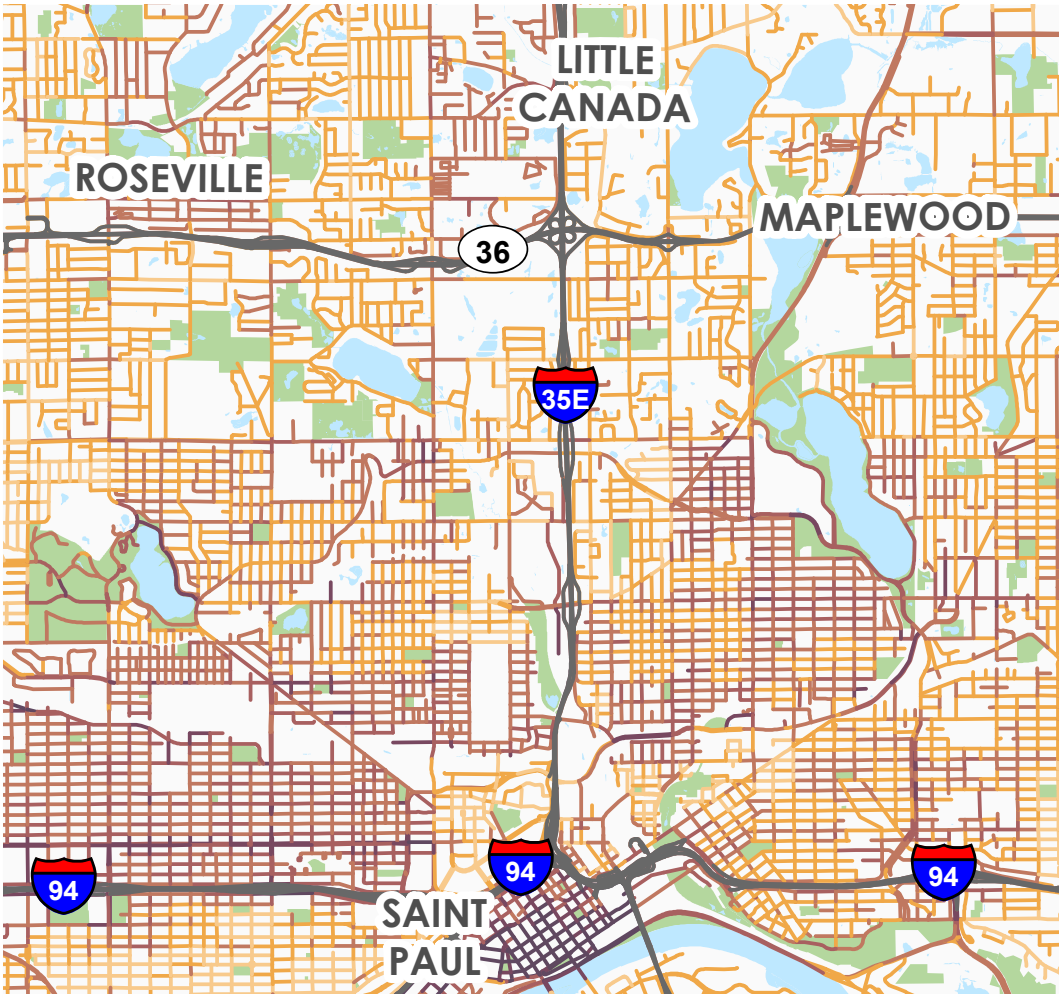
- Northern neighborhoods in Saint Paul
- The highland neighborhood in Saint Paul
- The Baker-Annapolis neighborhood in Saint Paul

Areas ranked slightly higher on the pedestrian system analysis are:

- Little Canada
- Roseville
- Neighborhoods south of the White Bear Lake

Implications to the Future Vision

This overall system analysis can be used to identify prioritization of Connected Ramsey Communities corridors or to focus local efforts for improvements to the walking environment.



Maps were created for both the pedestrian and bicycle system analysis, which illustrate the differences in the two systems. For the full maps, see pages 2B-39 and 2B-40.

Building the Connected Ramsey Communities Network

The results of the system analysis, combined with an understanding of Met Council regional networks and local community networks, helps identify the corridors of the Connected Ramsey Communities network of county-wide bikeways. Some corridors will stand out as the preferred route between communities, due to high population densities or access through and to equity populations. Others will emerge because of the potential to enhance the quality and safety of the network.

Connections with Met Council Regional Networks

The Met Council identifies two related regional networks, the Regional Bicycle Transportation Network and the Regional Trail Network. Both of these networks will be included in the Connected Ramsey Communities network as either Major County-wide Corridors or County-wide Connector Corridors in response to their Met Council classifications.

Connections with Local Networks

Communities within Ramsey County maintain their own local networks of biking routes. Based on local interests and needs, these routes will be represented as Local Corridors in the Connected Ramsey Communities Network. No new routes will be proposed as local network connections.

Identified Needs

Where local plans do not correspond with county-wide alignments, or where key local connections are missing from local plans, the Connected Ramsey Communities network will call out "identified needs." These should be incorporated into local plans.

Route Prioritization and New County-wide Connections

New Major County-wide Bikeways and County-wide Bikeways will be proposed to fill gaps and achieve an overall density of network coverage necessary to reach all communities in the county:

- New Major County-wide Bikeways will be established as needed to create

- a 1.5 mile grid of Major County-wide Bikeway alignments to provide high-quality regional access.
- New County-wide Bikeways will be established to connect neighborhoods to the Major County-wide Bikeway alignments.

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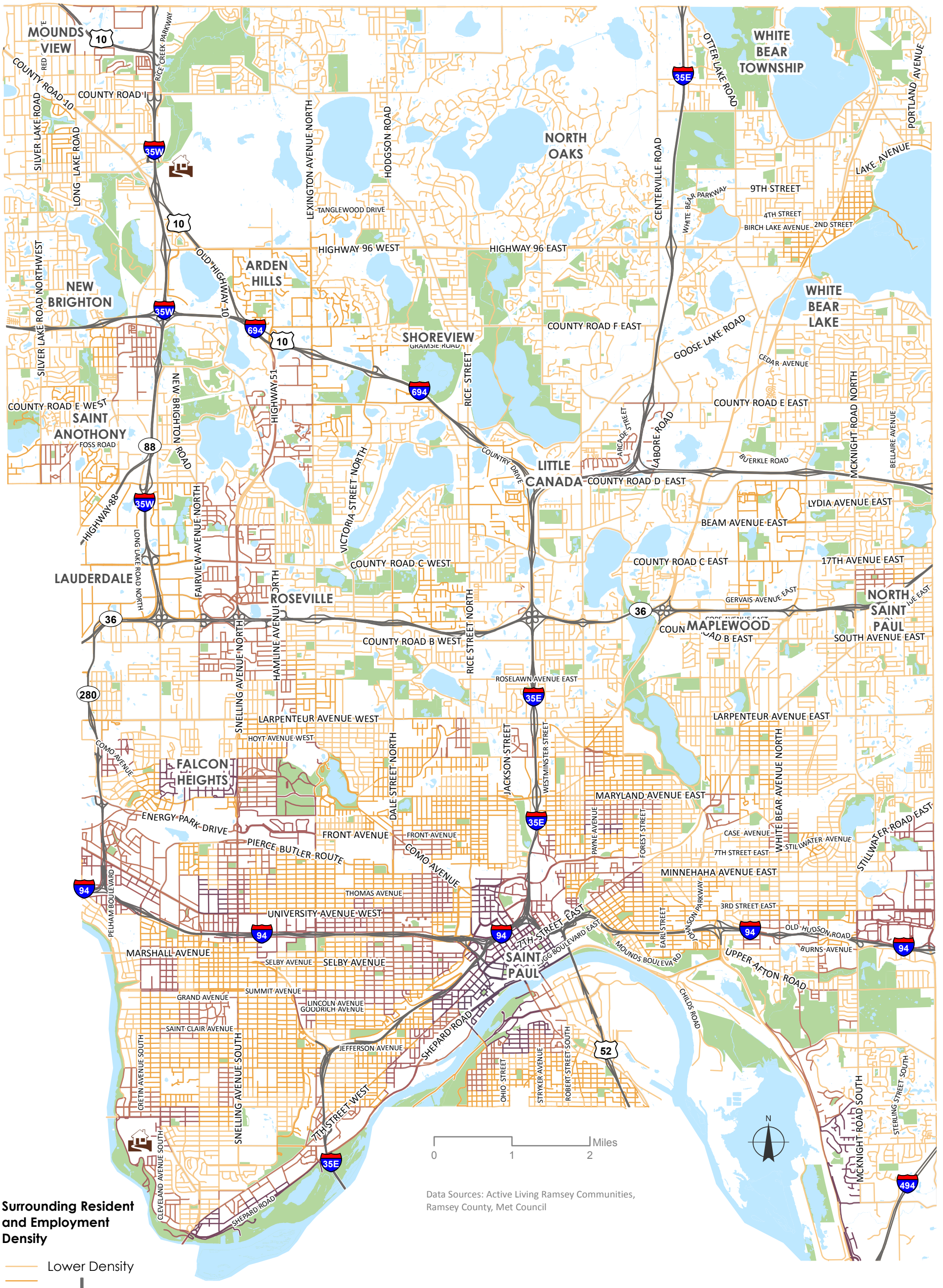
Map 2B-1: Activity Concentration Analysis Results

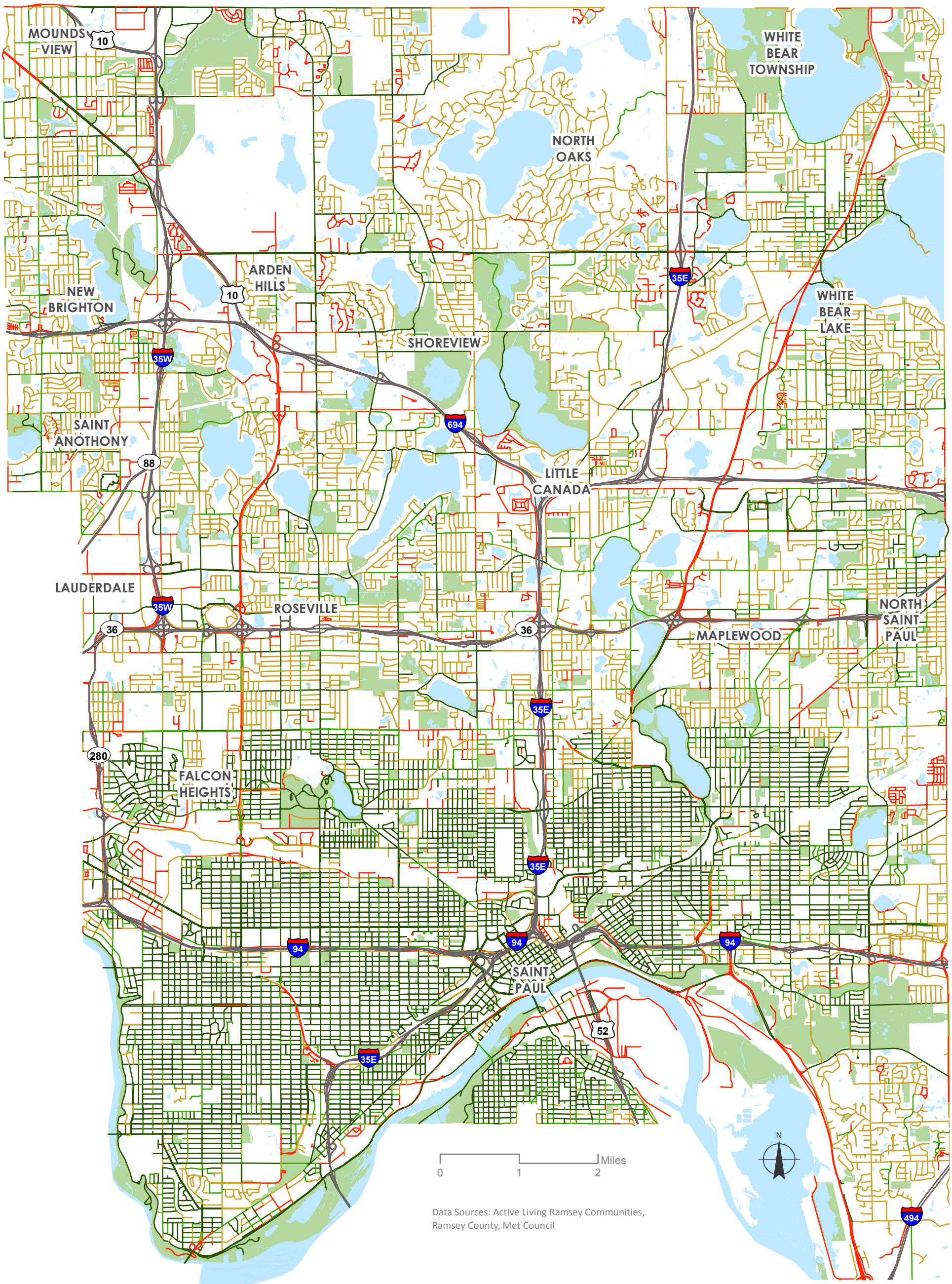


Data Sources: Active Living Ramsey Communities, Ramsey County, Met Council

Surrounding Resident and Employment Density

- Lower Density
- Higher Density
- Rivers & Lakes
- Parks & Greenspace
- Future Development Area

Map 2B-2: Pedestrian Network Deficiency Analysis Results



Pedestrian Level of Service Results

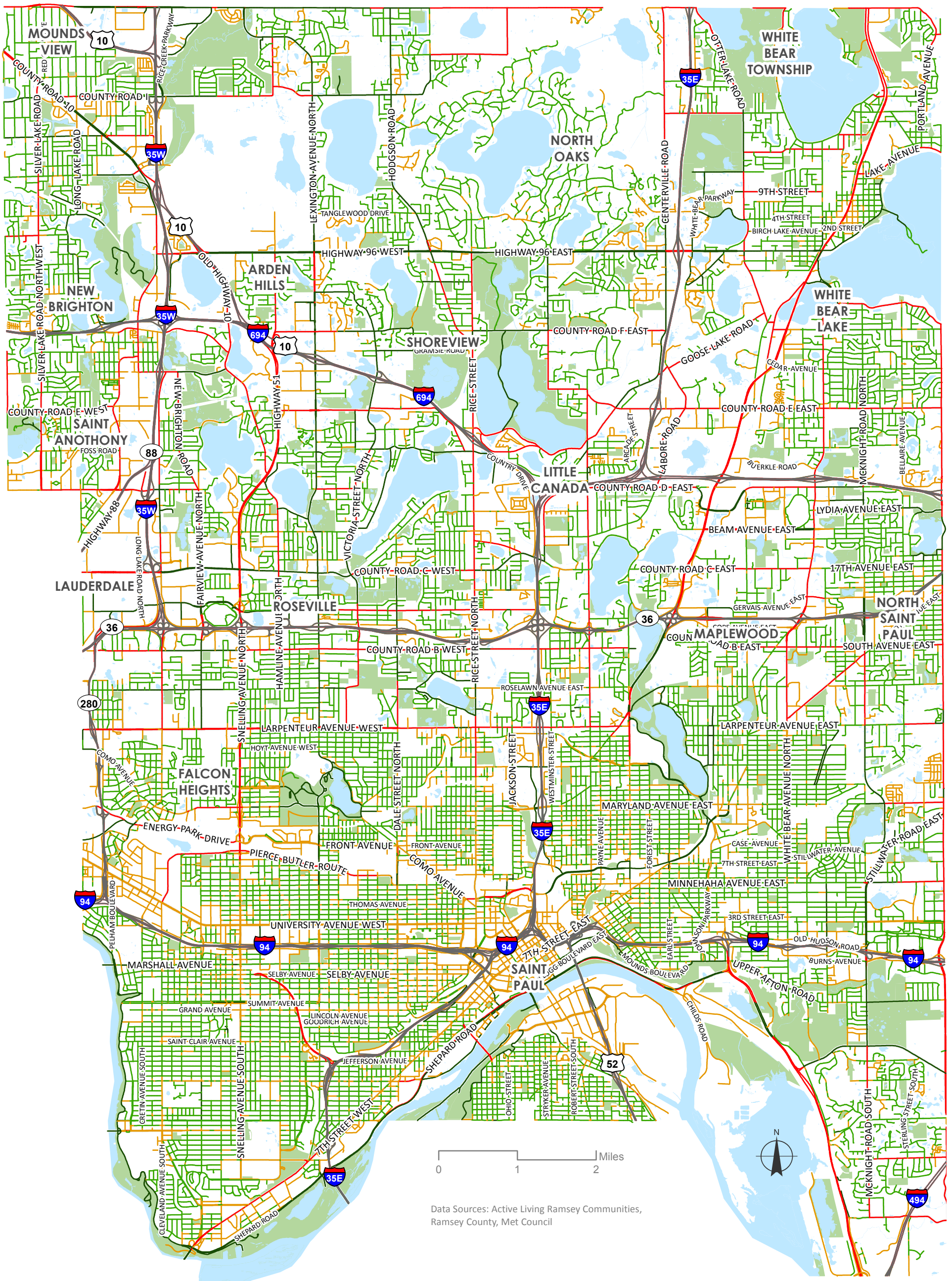
Lower Stress

Higher Stress

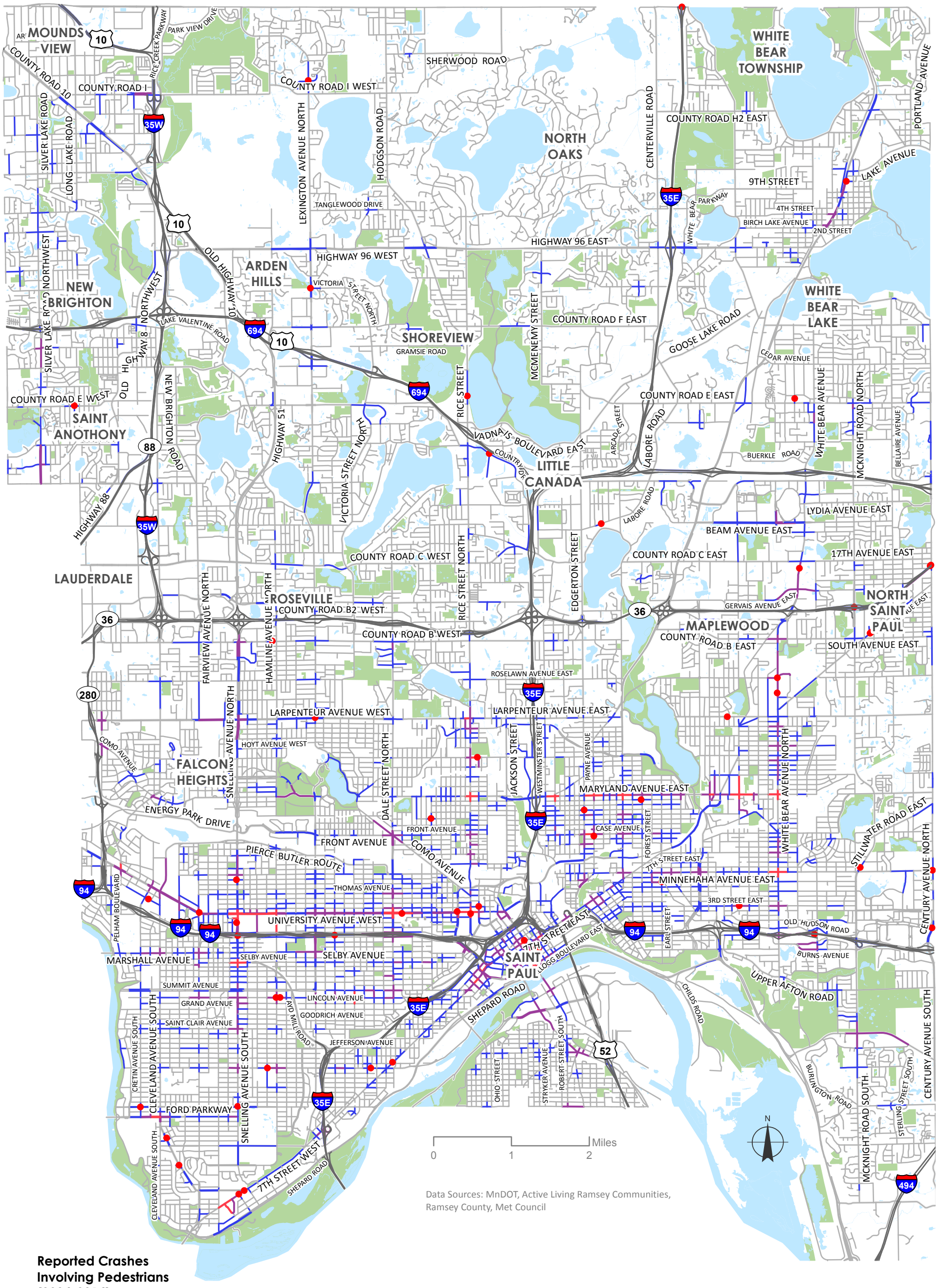
Rivers & Lakes

Parks & Greenspace

Map 2B-3: Bicycle Network Deficiency Analysis Results



Map 2B-4: Pedestrian Safety Analysis Results



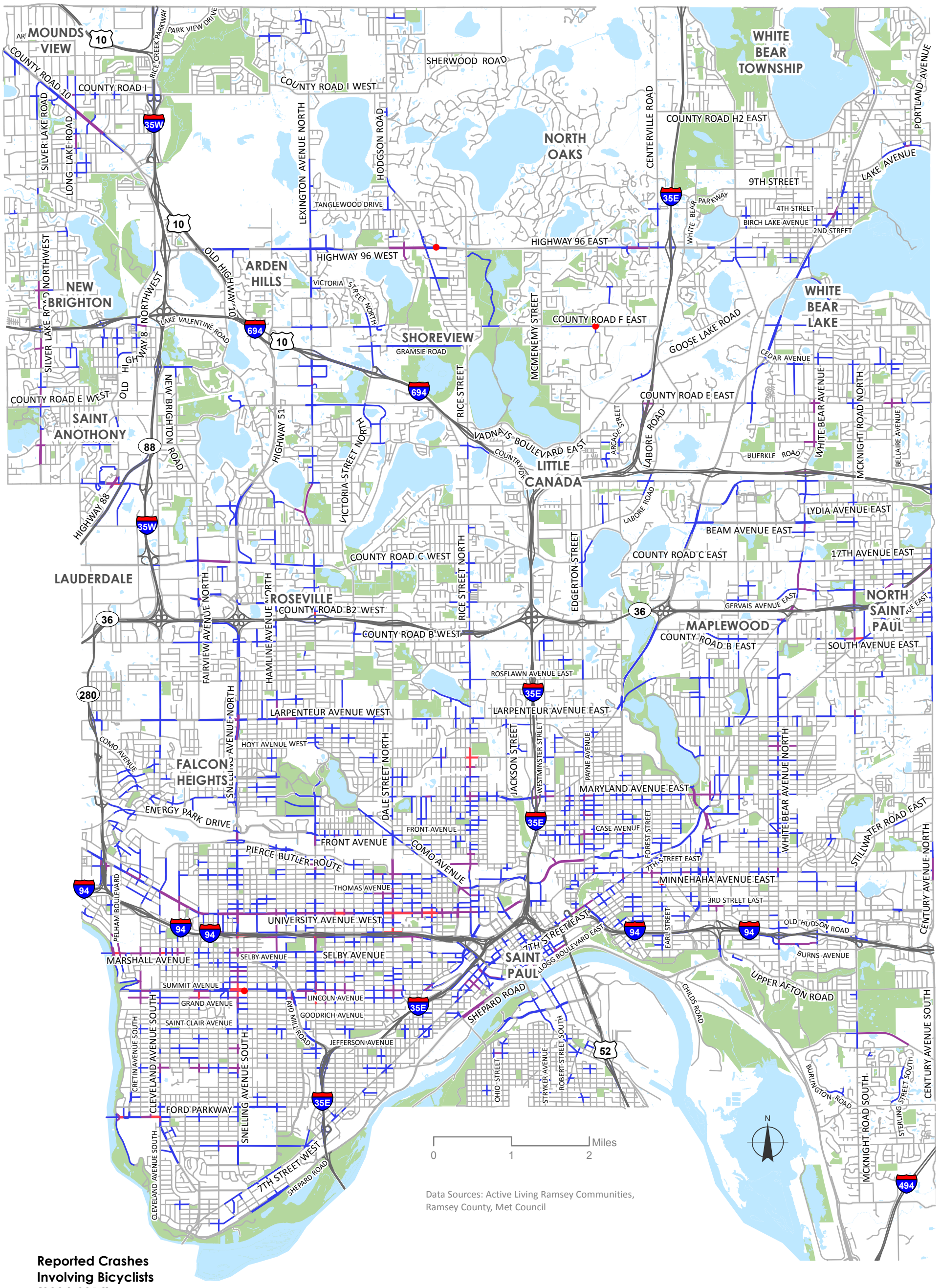
Data Sources: MnDOT, Active Living Ramsey Communities, Ramsey County, Met Council

Reported Crashes Involving Pedestrians (2004-2014)

- 0
- 1 - 2
- 3 - 8
- 9+
- Pedestrian Fatality

- Rivers & Lakes
- Parks & Greenspace

Map 2B-5: Bicycle Safety Analysis Results



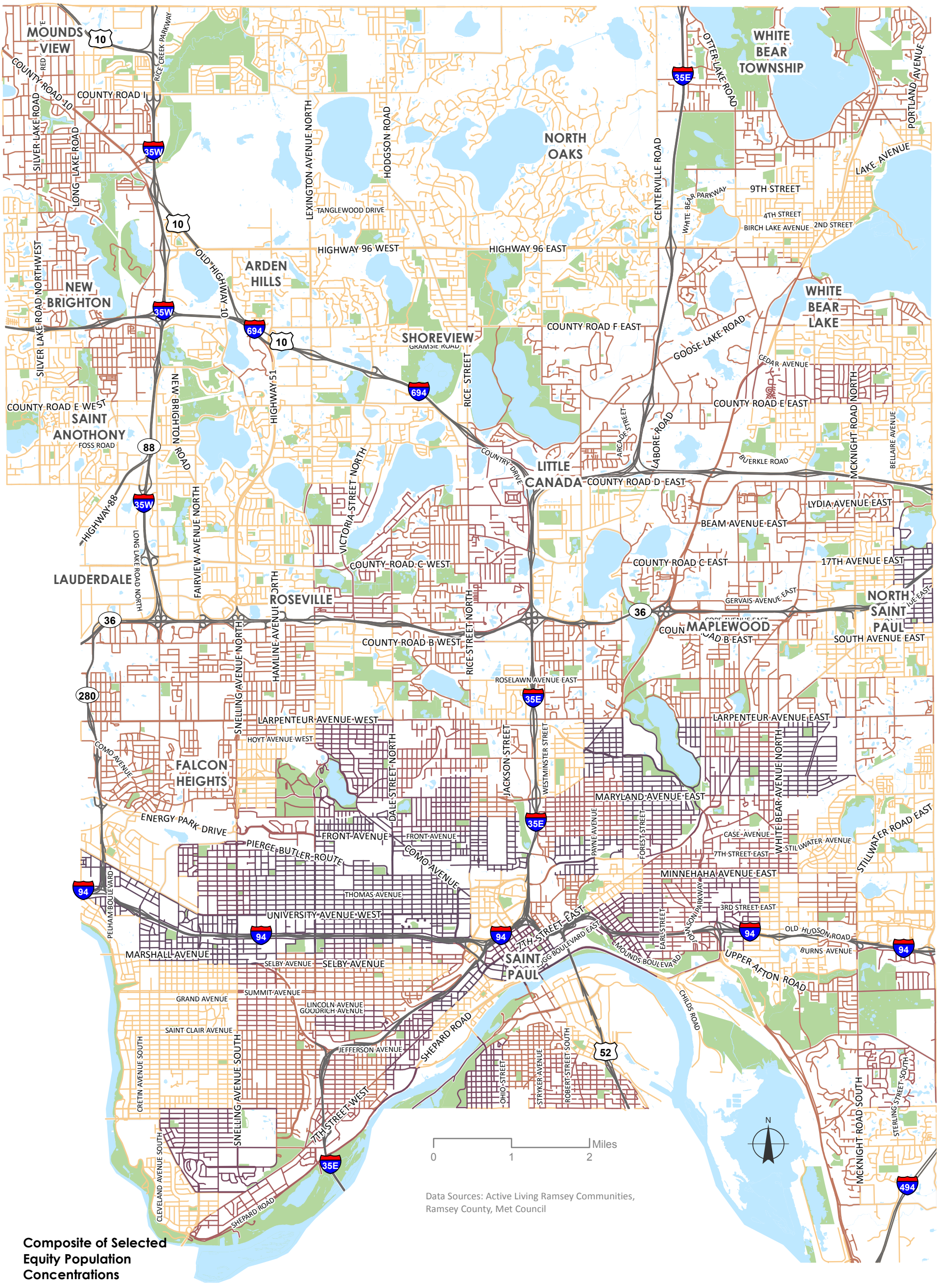
Data Sources: Active Living Ramsey Communities, Ramsey County, Met Council

Reported Crashes Involving Bicyclists (2004-2014)

- 0
- 1 - 2
- 3 - 6
- 7+
- Pedestrian Fatality

- Rivers & Lakes
- Parks & Greenspace

Map 2B-6: Equity Analysis Results



Data Sources: Active Living Ramsey Communities, Ramsey County, Met Council

Composite of Selected Equity Population Concentrations

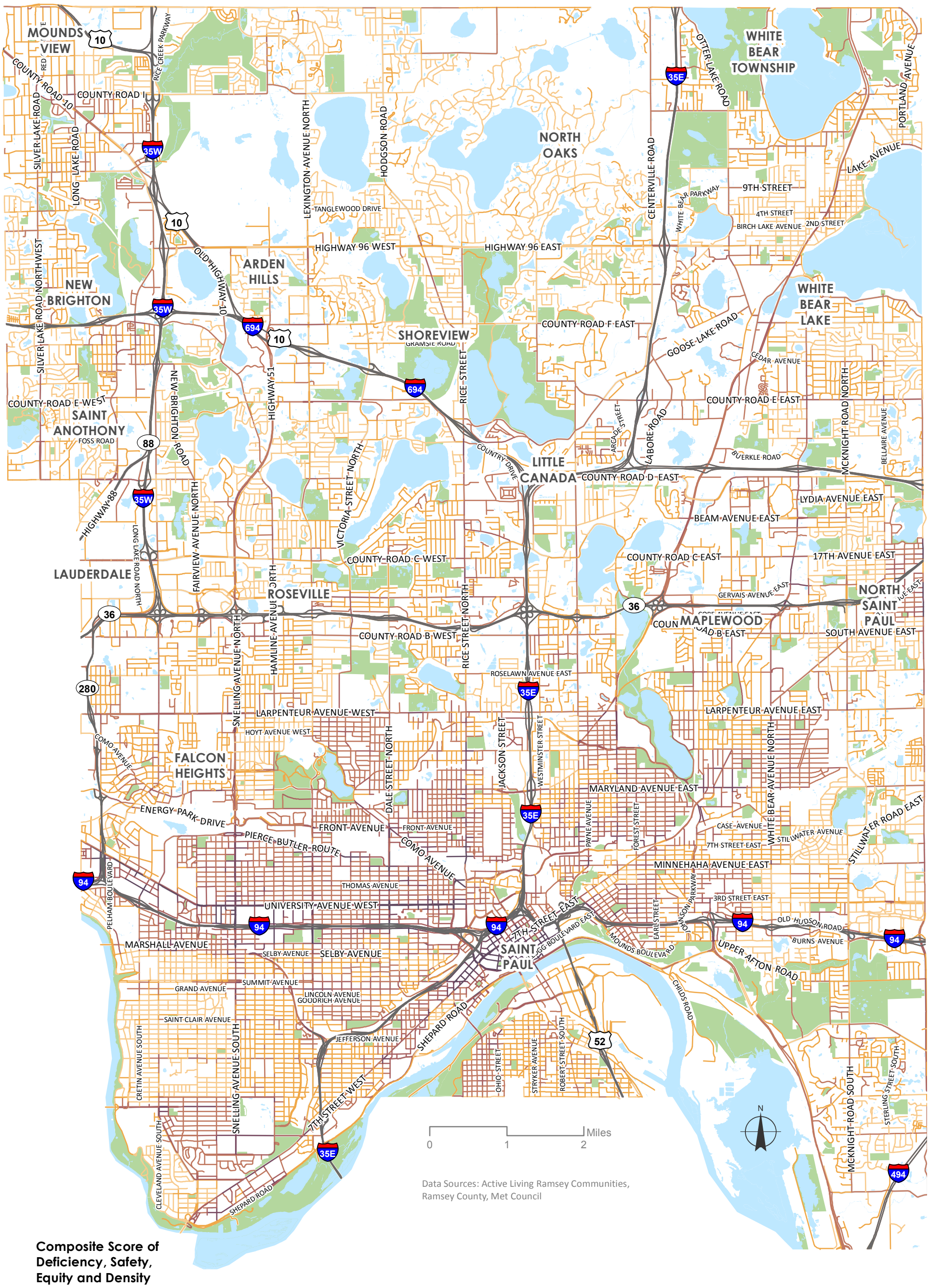
Lower Concentrations

Higher Concentrations

Rivers & Lakes

Parks & Greenspace

Map 2B-7: Bicycle System Analysis



Data Sources: Active Living Ramsey Communities, Ramsey County, Met Council

Composite Score of Deficiency, Safety, Equity and Density Analysis

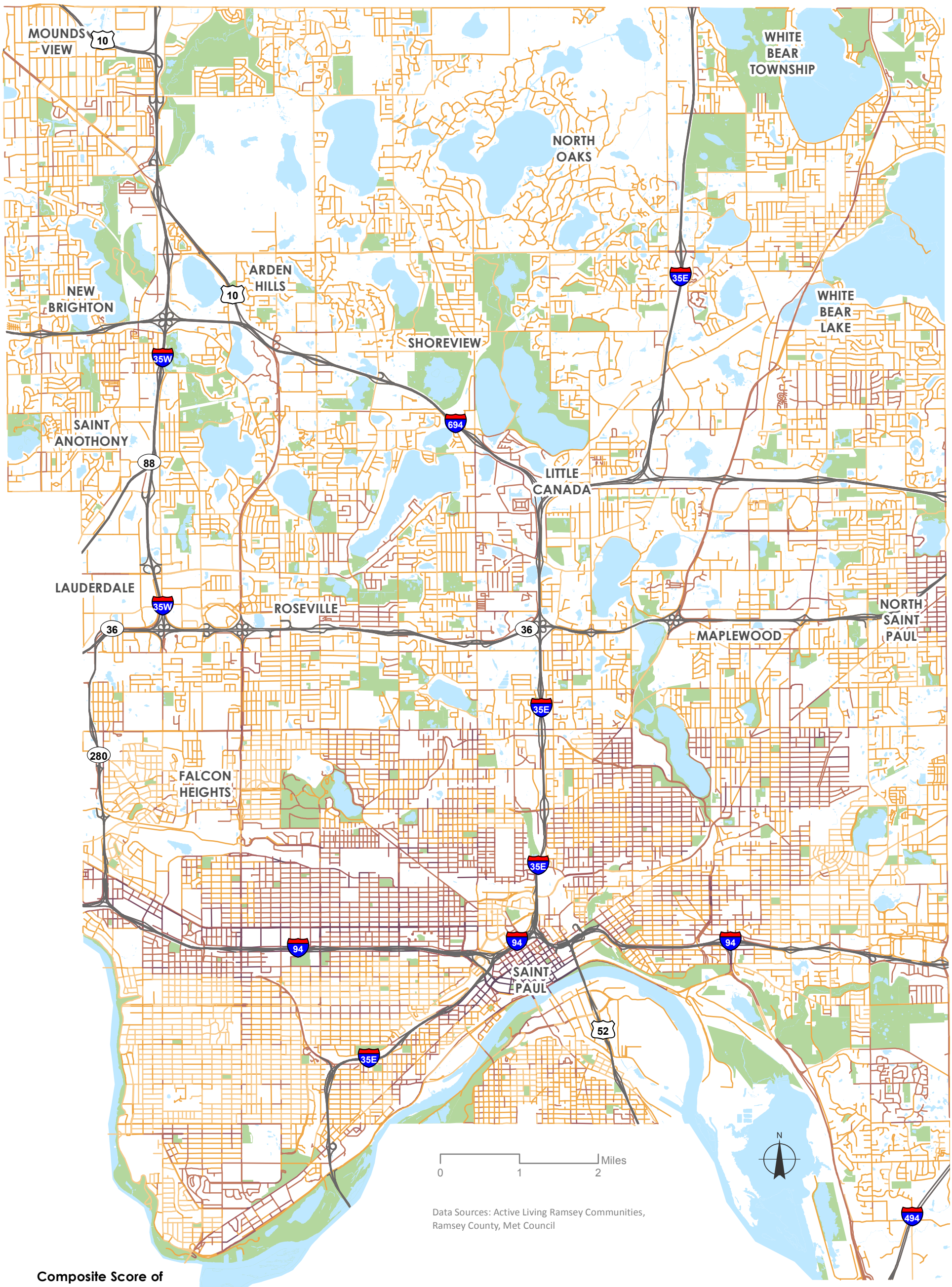
Lower Score

Higher Score

Rivers & Lakes

Parks & Greenspace

Map 2B-8: Pedestrian System Analysis



RAMSEY COUNTY-WIDE

Pedestrian & Bicycle Plan

Community Engagement Report

Community Engagement Report

Active Living Ramsey Communities worked to intentionally expand the number and diversity of voices providing guidance for the plan's development.

Working alongside community partners, the project brought engagement to the places where people congregated - setting up booths at neighborhood and community events to make participation easy and fun, and organizing and facilitating meaningful and fun small-group activities.

Robust online engagement, including a project website, online survey and an interactive map helped expand the project's reach.

Engagement with city and agency stakeholders helped to improve coordination and start the groundwork for buy-in and implementation.

Introduction

This document is a summary of what we have learned through in-person and online engagement opportunities throughout 2015. It includes an overall summary of information received, as well as summaries of individual events. Appendices include summaries of practitioner listening sessions, attendance lists, and a detailed summary of survey questions and results.

To learn about and respond to residents' needs and aspirations for the plan, the project team conducted extensive engagement with Ramsey County residents throughout 2015.

An important consideration for engagement efforts was connecting with underrepresented and health-disparity populations. The public comments and recommendations received during the community engagement were brought back into the plan development process and inform multiple aspects of the plan.

COMMUNITY ENGAGEMENT EFFORTS CONDUCTED IN 2015 INCLUDE:

- In-person engagement
- Pop-up workshops
- Listening sessions
- Community open house
- Internal advisory group meetings
- Online engagement
- Project website
- Public survey
- Interactive online map

Approach

The purpose of the engagement was to intentionally solicit input from a broad range of Ramsey county residents, in particular the populations that have historically been underrepresented in the planning process. To accomplish the goal of equitable engagement the team "took the meetings to the people" and created materials that are easily accessible.

INTENTIONAL EFFORTS TO EXPAND DIVERSITY AND GROW PARTICIPATION

Meaningful engagement requires community connections. Active Living Ramsey Communities worked to intentionally expand the number and diversity of voices providing guidance for the Plan's development.

Engagement efforts were conducted with a focus on equity to connect with a broader cross-section of the county's population, including people of different socioeconomic status. These efforts included focusing on reaching underrepresented and health-disparity populations, offering diverse opportunities for stakeholder involvement, and disseminating outreach marketing in a targeted and strategic manner.

Efforts included working closely with organizations and other partners working with specific populations and communities, participating at neighborhood and community events to make it easier for people to contribute their ideas and insights to the plan, and offering multiple opportunities in a variety of formats for residents and other stakeholders to share their experiences and ideas for the project.

WE WORKED WITH:

- Comunidades Latinas Unidas en Servicio (CLUES)
- Cycles for Change
- Metropolitan Area Agency on Aging
- Olmstead Implementation Office
- Ramsey-Washington Metro Watershed District
- Rondo Avenue Inc.
- Roseville Area Senior Program
- Saint Paul Public Housing Authority

TAKE THE MEETING TO THE PEOPLE

One of the keys for building public engagement is to make it easier and more convenient for more people to participate. The project team took engagement to places where people were already congregating, setting up tabling and pop-up workshops at community events and popular destinations. This made it easier for community members to provide their comments and guidance without having to attend a separate meeting.

USER-FRIENDLY MATERIALS

To effectively communicate with members of the public, we developed welcoming, user-friendly, jargon-free project materials. These materials are visually-attractive and written with easy-to-understand language. The materials were oriented to residents who may not be familiar with planning processes and projects. Bright stickers, post-it notes, pens, and markers were provided for people to share comments.

Key Themes From Engagement

Several key themes emerged through this engagement effort. They are summarized here, with additional explanation and supporting quotes from the public in the next sections.

- People walking and biking want more **separation from motor vehicle traffic**.
- People walk and bike for both **transportation and recreation**.
- Participants want a **connected network across barriers**.
- People who have not been involved in planning processes in the past - including people of color and people with disabilities - want **more opportunities for meaningful engagement**.
- **Maintenance**, especially in winter, is important to allow people to walk and bike safely.

Overview Of Process

Engagement activities for the plan included:

- Engagement with advisory and stakeholder groups
- Public engagement at in-person events
- Online engagement

A brief description of each is included in this section.

Advisory And Stakeholder Groups

Two advisory groups comprised of project partners, stakeholders, and governing agencies were established at the beginning of the project to provide recurring guidance at various stages in the planning process. These groups were comprised of the Project Advisory Team and the System Advisory Team.

PROJECT ADVISORY TEAM

The Project Advisory Team (PAT) was composed of community representatives and stakeholder partners from throughout Ramsey County, who were actively involved in guiding the work of the consultant team. The PAT met four times over the course of the project. A complete list of PAT members is provided in this report's appendix.

PRIMARY ROLES OF THE PAT INCLUDED:

- Advising on project process and methods.
- Playing an active role in shaping the plan and its recommendations.
- Providing a multidisciplinary, well-rounded perspective to ensure the plan reflects priorities and approaches that extend beyond simply addressing engineering considerations.
- Providing guidance on the plan implementation process.
- Assisting in disseminating information and serving as a liaison to community members.

SYSTEM ADVISORY TEAM

The System Advisory Team (SAT) was composed of representatives from municipalities and other units of government throughout Ramsey County. The SAT met with the consultant team and internal project management team three times during the planning process to guide project process and plan development. A complete list of SAT members is available in this report's appendix.

PRIMARY ROLES OF THE SAT INCLUDED:

- Providing input from and serving as a liaison to municipal partners and partner agencies/organizations.
- Validating current systems inventory and current governmental plans.
- Providing a peer review function.
- Facilitating communication with municipalities and other stakeholders to expand project reach and engagement throughout Ramsey County.
- Helping to develop effective implementation strategies as a partnership between Active Living Ramsey Communities and the cities and agencies in Ramsey County.

In-Person Public Engagement

A range of in-person engagement activities were coordinated as part of this planning process including small- and large-format, and formal and informal workshops.

POP-UP WORKSHOPS

Pop-up workshops are informal engagement opportunities strategically located in places where people are already congregating including community events, near parks and trails, or other popular destinations. Pop-up workshops are designed to fit within a single tent and include eye-catching visuals, children's activities, and user-friendly materials that make learning about the project and sharing ideas easy and inviting. Pop-up workshops enable people to share comments quickly, provide materials for participants to engage with online materials on their own time, and capture the perspectives of people who may not ordinarily attend more traditional workshops.

POP-UP WORKSHOPS FOR THIS PROJECT INCLUDED:

- WaterFest
- Rondo Days

LISTENING SESSIONS

Listening sessions, like pop-up workshops, take the meeting to the people. However listening sessions typically take place at a regular meeting of pre-existing group within the community. For example, a listening session may take place with young people during a school leadership meeting, with bicycle commuters at a brown bag lunch, or with minority populations at a meeting of a community organization. Listening sessions enable people to participate in the planning process at meetings they already attend regularly, and provide an opportunity for in-depth discussion with specific demographic or special interest groups within the

community.

LISTENING SESSIONS FOR THIS PROJECT INCLUDED:

- Olmstead Implementation Office with people with disabilities
- Cycles for Change with Saint Paul youth

OPEN HOUSE

Open House meetings provide an opportunity to share project results and discuss the process and steps taken to develop the plan, and allow participants to ask questions and share comments and guidance for next steps. One large-format open house was held as part of this planning process. The open house was broadly advertised and open to the public, and also included the participation of project partners, and stakeholder and agency representatives. The open house was held at the Roseville Library from 6:00 pm to 8:00 pm on Wednesday, October 7, 2015.

Materials Used and Questions Asked

A set of questions and materials were developed for use at pop-up and listening session workshops to easily gather information about routes, barriers, destinations, and opportunities for improvement from participants. The following questions are representative of those posed to participants at pop-up workshops and listening sessions:

MAPPING REGIONAL DESTINATIONS AND CONNECTIONS

Using a map of Ramsey County, users were invited to identify important destinations and connections to those destinations. Participants were then asked to prioritize destinations and connections to highlight links of high importance to users.

MAPPING LOCAL DESTINATIONS, ROUTES, AND CHALLENGES

Using a map of the community or city where a workshop was held, participants used stickers and markers to identify destinations, specific walking and biking routes, and barriers to walking and biking. Participants were able to provide more detailed information about how they typically travel to particular destinations,

PRIORITIZING IMPROVEMENTS AND OPPORTUNITIES

Two boards posed the following questions to participants: “What are the top 3 improvements or amenities that would help you or your family walk or bike more often?” and “What would make it easier for you to walk or bike more often?” Each board contained a list of potential answers, as well as an “other” category for participants to share their own ideas for priorities. Using stickers, participants selected their top three choices from the list. Participants who agreed with priorities provided by peers were able to use their dots to vote on participant-generated priorities.

DISCUSSING POTENTIAL FACILITIES

An “infrastructure toolbox” consisting of images and descriptions of walking and biking infrastructure facilities and treatments was provided at all the events. These boards and banners helped to generate discussions about treatments that are currently existing in the county, to get an understanding on people’s attitudes towards different treatments, and to reference as new concepts introduced to participants.

Online Engagement

The Plan's online engagement strategy included three principal components:

- Project website
- Public survey
- Interactive online map

PROJECT WEBSITE

A project website was developed and used to communicate general project information, announce events and engagement opportunities, and house online engagement tools including the project survey and interactive online map. The project website also provided an area for people to share open-ended comments related to the plan, and opt into the project mailing list to receive email updates.

SURVEY

An online survey was developed and was accessible directly or through the project website. The survey was available from April through mid-October 2015 and was completed by a total of 463 individuals. An additional 115 individuals partially completed the survey.

Survey questions were split into categories with questions specifically about walking and specifically about biking. Participants were given the option of completing questions only pertaining to walking or biking, or both. Participants were asked to share current walking and biking habits, and to help prioritize destinations, barriers, and opportunities related to walking and biking, and ADA accessibility. Participants were also invited to share general comments about walking and biking in Ramsey County, about the plan, or about the survey in general. The survey concluded with basic demographic questions to help the team understand how well they were doing at reaching a representative population of Ramsey County residents, employees, and visitors.

WIKIMAP

An interactive online map was developed using a Wikimap platform. The tool allowed users to identify routes, locations, or issues throughout the county, including their walking and biking routes, destinations, issues or problem locations for walking or biking, and ideas for improvement. Follow-up questions gathered additional information about entries that were made on the Wikimap.

The Wikimap was accessible directly and from the project website. It was available for public comment from April through mid-October 2015, during which 174 unique users entered a total of 439 original routes or locations.

KEY THEMES FROM ENGAGEMENT

Thousands of individual comments were received through this engagement effort. By grouping similar or related comments, a number of key themes became evident. These include:

- People walking and biking want more **separation from motor vehicle traffic**.
- People walk and bike for **both transportation and recreation**.
- Participants want a **connected network across barriers**.
- People who have not been involved in planning processes in the past - including people of color and people with disabilities - want more **opportunities for meaningful engagement**.
- **Maintenance**, especially in winter, is important to allow people to walk and bike safely.

Additional explanation for each theme and a brief sample of comments received from the public is provided below.

More Separation From Motor Vehicle Traffic

At most events, participants said they feel unsafe walking and bicycling next to cars, trucks, and buses. “More separation from motor vehicles” was a top priority for participants who answered the online survey. Walkers preferred sidewalks over shoulders. People who ride bikes preferred off-street trails and protected bike lanes (bike lanes that are separated from motor-vehicle traffic by a curb, planters, or plastic bollards) over conventional bike lanes and shared travel lanes.

WHAT WE HEARD:

- “More off-street trails!”
- “I don’t like bike lanes in the door zone”
- “…bike lanes are nice but not comfortable-want more separation and a barrier”
- “We don’t want to ride on the street — afraid of cars”
- “Sidewalks on one side only are very difficult. I have to cross street with my kids more than needed…provide sidewalks both sides!”
- “Don’t want to be next to cars-need separate trails”

Walking And Biking For Recreation And Transportation

Among survey participants, one-half walk to go shopping at least once a week, and one-half bike to school or work at least once a week. Park and recreational opportunities were also popular destinations for walking and biking trips. Ramsey County has many regional parks, and arriving at those parks and enjoying them as a pedestrian or on a bike is important.

WHAT WE HEARD:

- "[Want a] Trail around White Bear Lake! :)"
- "Run and walk to get places"
- "I like the freedom that [my bike] gives me. Otherwise I would have to rely on my mom to drive me around, but now I get to go places on my own."

A Connected Network Across Barriers

Highways, railroad tracks, and bodies of water can act as barriers and prevent people from walking or biking where they want. Participants expressed a desire for a connected network with seamless facilities across barriers and providing access to destinations countywide.

WHAT WE HEARD:

- "None of the North South streets in this area have sidewalks. It is literally where the sidewalk ends"
- "Need a safe way for bikes to go back into downtown"
- "Right now, there is not sufficient connectivity between the Como Neighborhood and Midway Neighborhood for bicycle commuters. Snelling is unsafe, even on the sidewalks. Lexington is great, but remote from the west end of Midway. I know this proposal might be a pipe dream but it would be amazing if a bike lane across the industrial complex were possible."
- "Need easier way to cross 94 & Snelling"

MORE OPPORTUNITIES FOR MEANINGFUL PUBLIC ENGAGEMENT

Many participants at plan engagement events - especially people with disabilities and young people of color - expressed strong interest in becoming meaningfully involved in planning and implementation decisions. Youth apprentices from Cycles for Change expressed interest in opportunities for engagement, and career opportunities in urban planning. During the listening session coordinated with the Olmstead Implementation Office for people with disabilities, participants expressed frustration that decision-makers design streets without learning from the experiences of people who use a wheelchair.

WHAT WE HEARD:

- “People with disabilities should be in leadership roles”
- “Want to know how to get involved and saying what we want”

Consistent and Reliable High-Quality Maintenance

Maintenance, especially in winter, is important to allow people to walk and bike safely. Snowbanks and icy surfaces, as well as uneven sidewalks any time of year, can make everyday activities inconvenient and dangerous for seniors and for people with mobility and sight limitations. Survey respondents prioritized removing snow and ice from sidewalks and trails for people walking, and creating level and smooth road and trail surfaces for bicyclists.

WHAT WE HEARD:

- “Sidewalk is very uneven for this entire stretch, even for those not in walkers or wheelchairs!”
- “Park paths should be cleared for people using wheelchairs. If trails are open to some, they should be open to all.”
- “Sweep away glass in street”

Summaries From Engagement Activities

Brief summaries for each of the engagement events conducted, including key ideas received, are provided in this chapter. Additional information can be found in this report's Appendix.

Summary: Internal Advisory Groups

PROJECT ADVISORY TEAM & SYSTEM ADVISORY TEAM MEETINGS

Beginning in March 2015 and ending in September 2015, the Project Advisory Team (PAT) met four times and the System Advisory Team (SAT) met three times. The PAT and SAT are composed of community leaders and staff of municipal, regional, and state public works and planning departments from across Ramsey County.

The early meetings involved visioning exercises, while the midpoint meetings guided strategy and development of project materials, while in later meetings the PAT and SAT reviewed materials prepared by the project team.

KEY POINTS:

- The plan's vision statement was developed and reviewed in collaboration with both the PAT and SAT.
- Both PAT and SAT supported a transparent and accessible approach and meaningful community engagement for the Plan.
- The SAT met together to discuss a list of performance measures that would help different municipalities coordinate the development of a low-stress walking and biking network.
- Staff from each municipality reviewed the proposed walking and bicycling routes and their network classification.

By including a variety of partners from the beginning of the plan and incorporating their knowledge as the plan was developed, the project team helped to more efficiently coordinate recommendations across jurisdictions and helped lay the groundwork for plan support and implementation. Involving key partners throughout the planning process has laid the groundwork for future collaboration between Active Living Ramsey Communities, Ramsey County departments, municipal departments, and other agencies and organizations toward implementation.

Summary: Waterfest Pop-Up Workshop

Members of the project team held a pop-up workshop on May 30, 2015 from 11:00 AM to 4:00 PM at Lake Phalen in Saint Paul. WaterFest is an outdoor festival hosted by the Ramsey-Washington Metro Watershed District for residents. Hundreds of people attended the family-friendly event, with many parents attending with their children.

WaterFest celebrates Minnesota's clean lakes and offers outdoor fun and opportunities for hands-on learning about the water quality, wildlife, and special ecological features of our beautiful watershed. Many organizations had tables with information, giveaways, entertainment, and food options for the attendees. People for Bikes (a national advocacy with the mission of "putting more people on bikes more often") was also present at WaterFest. Project team members spoke to approximately 60 residents about the Ramsey County-wide Pedestrian and Bicycle Plan.

KEY POINTS:

- Many people do not like biking in the roadway, and wanted bicycle facilities that separates cyclists from vehicles.
- Many would like to reduce points of conflicts between pedestrians and cyclists by having separate infrastructure.
- Many desire more amenities on trails to improve the experience:
    - Clear wayfinding indicating mileage to popular destinations
    - Bicycle parking
    - Lighting, especially for pedestrians

Summary: Rondo Days Pop-Up Workshop

Members of the project team held a pop-up workshop at the Rondo Days Festival on Saturday, July 18 from 9:00 AM to 5:30 PM. Rondo Days took place outside the Benjamin E. Mays International Magnet School, near Dale St. N and Concordia Avenue in Saint Paul.

Rondo Days is a yearly celebration of a historically Black neighborhood that was divided and displaced by the construction of Interstate 94. The event includes music, food, community information and family activities. Project team members spoke to more than 50 event participants.

KEY POINTS:

- Most people had not heard of the Ramsey County Pedestrian and Bicycle Plan - participating at the event helped to increase community awareness about the plan.
- People are concerned about gaps in the bicycling network.
    - People wish there were more north-south bike routes in Saint Paul, including Snelling and Lexington Avenues.
    - People would like connections between neighborhoods to parks and natural amenities, like Lake Phelan and Gervais Lake.
    - People would like connections between downtown and surrounding neighborhoods.
    - Increased separation from cars for people who are walking or biking.
- Amenities for pedestrians and cyclists would make walking and biking more convenient:
    - More places to park bikes
    - More restrooms
- Create a more complete sidewalks and bicycle facilities network.

Summary: Olmstead Implementation Office Listening Session

Members of the project team held a listening session at the Rondo Community Outreach Library on June 3, 2015 with people with disabilities who were invited to participate by the Olmstead Implementation Office, which works to implement a broad series of federally-mandated key activities Minnesota must accomplish to ensure people with disabilities are living, learning, working, and enjoying life in the most integrated setting.

The goal of the listening session was to hear about participants' experiences using existing infrastructure and their ideas for improvement, with the goal of making the Plan more responsive to the needs of all of Ramsey County's residents, including people with disabilities. Twelve participants shared their experiences with the project team.

KEY POINTS:

- Many trails and paths are inaccessible to people with disabilities:
    - Park paths are sometimes not cleared to be accessible for people using wheelchairs.
    - Trees or bushes that grow over sidewalks can be inconvenient and dangerous for people with limited mobility and sight.
- Current winter roadway maintenance techniques like plowing can reduce accessibility for pedestrians.
    - Snow banks can make daily tasks, like boarding a bus or crossing the street, impossible for a person with limited mobility.
    - Icy surfaces and sidewalks reduce convenience, comfort, and safety.
- There is a need for a streamlined complaint system to report accessibility violations.
- Improving data collection practices so incidents like an individual's fall on an inadequately-maintained sidewalk or trail are recorded.
- People with disabilities need to be included and involved in decision making to ensure that their experiences are taken into account. Participants suggested conducting walkability and bikeability audits with a person with limited mobility as part of the audit group.

Summary: Cycles For Change Listening Session

Members of the project team held a listening session on September 10, 2015 at Cycles for Change on University Avenue and Garland in Saint Paul. The listening session's goal was to hear about the experiences of Cycles for Changes youth apprentices in biking and walking in their neighborhoods and other areas in Ramsey County.

Many of Cycles for Changes youth apprentices were from the Frogtown and Rondo neighborhoods. They spoke about their experiences as youth bicycling, the perceptions of biking in their communities, and their desires for creating better infrastructure in their communities.

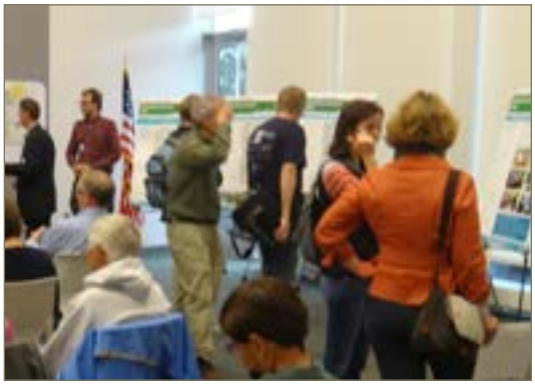
KEY POINTS:

- Biking offers young people a freedom of movement they would not otherwise have. They are able to explore the city without relying on a parent to drive them around.
- Biking within communities of color is not often thought of as a viable alternative form of transportation.
- Youth of color face numerous barriers to using active forms of transportation:
    - Overcoming perception of biking as a "white" form of transportation.
    - Lack of other youth cyclists means bicycling becomes less popular and less safe.
    - High cost of buying gear, especially winter gear.
- Their involvement in Cycles for Change and their use of biking as a form of transportation is positively changing the perception of biking in their families and the wider community.
- Improving bicycle infrastructure and facilities, especially if they help to connect other facilities and expand the existing network, is needed.
- Participants expressed a strong desire be participants in and engage in the planning process.

Summary: Open House

The plan's Open House was held at the Roseville Library from 6 to 8pm on October 7th. The open house was an opportunity to share the countywide Vision 2030 map and the processes and steps that were taken in the development of the plan.

The evening began with Ramsey County representatives welcoming members of the public and giving a brief presentation on the 2030 vision plan and next steps to move from the planning stage to implementation. After the presentation, participants went to three stations that were designed to help guide them through the planning process.



STATION 1

Station one introduced members of the public to the concept of active transportation and the engagement strategies used to gather information from the community.

BOARD 1: CONTEXT & VISION

- Illustrate the positive impact active transportation has on the community and individuals.

BOARD 2: BUILDING A COMMON LANGUAGE FOR WALKING AND CYCLING

- Share and define important words with short descriptions of critical parts of the plan.

BOARD 3 & 4: COMMUNITY ENGAGEMENT

- Describe the process of engagement and the influence on recommendations in the plan.

STATION 2

The second station's purpose was to share the planning team's technical analysis with the public.

BOARD 5: CONNECTED RAMSEY COUNTY NETWORK

- The map illustrates the framework for the county and local jurisdictions to refer to when planning, prioritizing, and designing an active transportation network.

BOARD 6: BICYCLE NETWORK DEFICIENCY ANALYSIS

- Describe the accessibility of various streets for cyclists of all ages and abilities, as determined by the Level of Traffic Stress analysis.

BOARD 7: PEDESTRIAN NETWORK DEFICIENCY ANALYSIS

- Describe the accessibility of various streets for pedestrians of all ages and abilities, as determined by the Level of Traffic Stress analysis.

STATION 3

- Station three detailed suggested steps and key recommendations for successful implementation of the plan.

BOARD 8: IMPLEMENTATION PROCESS

- Illustrate the process and action steps required to implement the 2030 plan.

BOARD 9: PERFORMANCE MEASUREMENT

- Diagram the performance measures to improve the implementation process.

BOARD 10: KEY RECOMMENDATIONS

- Show the key recommendations for successful implementation.

GENERAL COMMENTS AND DISCUSSION

Members of the public were given the opportunity to ask questions after the presentation. Some of the questions raised at the open house included:

- How Ramsey County is coordinating its efforts with other important stakeholders:
- Transit providers, in particular providing better integration of transit with bicycle and pedestrian users.
- Bicycle and pedestrian planning with other county plans, this is particularly important for communities that are located in several different counties.
- What effort has been made to work with the Minnesota Department of Public Safety to ensure that drivers are made aware of the law as it pertains to pedestrians and people who bike.
- What is the timeline for implementation of the plan?

Members of the public also had the opportunity to provide their comments and opinions by using comment cards and the online survey and WikiMap.

Summary: Key Stakeholder And Staff Listening Sessions

Five separate listening sessions with key stakeholders were held in March and April of 2015 at the Ramsey County Public Library in Roseville. A detailed summary of these listening sessions is available in this report's appendix.

THE FIVE SESSIONS WERE:

- March 9: Ramsey County Active Living Coalition
- March 31: Ramsey County Bike/Walk Team
- April 7: Social and Educational Services
- April 8: Health and Safety Services
- April 10: Community and Economic Development Services

At each session the project's goals, objectives, process and schedule were

explained, and two types of exercises were conducted: a visioning exercise and a listening exercise. At the end of each listening session, participants summarized and shared their findings, and concluded the exercise by developing a set of suggested performance measures for the plan. The primary purpose of the listening sessions was to develop a collective vision and the set of performance measures that would guide the implementation of that vision. In total, more than 75 people participated in the sessions.

KEY POINTS:

Several themes and key points emerged over the course of engagement. Responses highlighted participants' desire for safety, connectivity, equity, and sociability as part of an active transportation system that is responsive to user preference, is enjoyable to use, fosters economic and community development, and enhances quality of life for the county's residents.

Participants expressed preference for:

- Separate facilities for pedestrians and bicyclists
    - For pedestrians, sidewalks and trails that are separate both from bicyclists and motorized traffic
    - For bicyclists, off-road trails are preferred although buffered bike lanes or wide shoulders on roadways are acceptable for (and sometimes preferred by) more experienced bicyclists
- A regional and local network that connects cities to each other and to local destinations, i.e., schools, work, parks, retail stores, and restaurants
- Equitable opportunity to access enjoy the pedestrian and bicycle network for people of all ages and abilities
    - All communities (ethnic, cultural, economic status) have access to the networks' pedestrian and bicycle assets
    - Especially important for residents of neighborhoods with low levels of car ownership
- An active transportation network that is responsive to the preferences of bicyclists and pedestrians and equally accommodates both recreational and commuter use
    - For commuters, changes to laws allowing bicyclists to continue through red traffic lights or stop signs when prudent
- The enhanced experience of moving along sidewalks, trails, and roadways that would foster sociability, community identity, and social understanding by facilitating opportunities to engage in conversations with friends, neighbors, and even strangers through strategically placed benches, tables, shelters, sidewalk cafes, and outdoor amphitheaters
- An increase in the quantity, frequency, and variety of destinations along pedestrian and bicycle routes, i.e., restaurants, retail, entertainment
    - A strong belief exists that active transportation can be a major catalyst for economic development, especially for smaller, locally-grown enterprises
- An enhanced quality of life that can result from the reduction in crashes that involve pedestrians and bicyclists, and a reduction in rates of obesity, heart disease, and other chronic ailments associated with physical inactivity

A full report of these Key Stakeholder and Staff Listening Sessions is provided in the appendix. This report includes all materials, worksheets and responses from participants, as well as performance measures developed through the sessions.

Summary: Engagement With Residents Of Saint Paul Public Housing Agency

Saint Paul Public Housing engaged several communities of public housing residents around the Ramsey Communities Pedestrian and Bicycle Plan over the summer. The project team provided materials and guidance to the Housing Agency, who led engagement coordination and facilitation.

THE AGENCY PARTNERED WITH SEVERAL OTHER ORGANIZATIONS AND PROGRAMS IN THIS ENGAGEMENT:

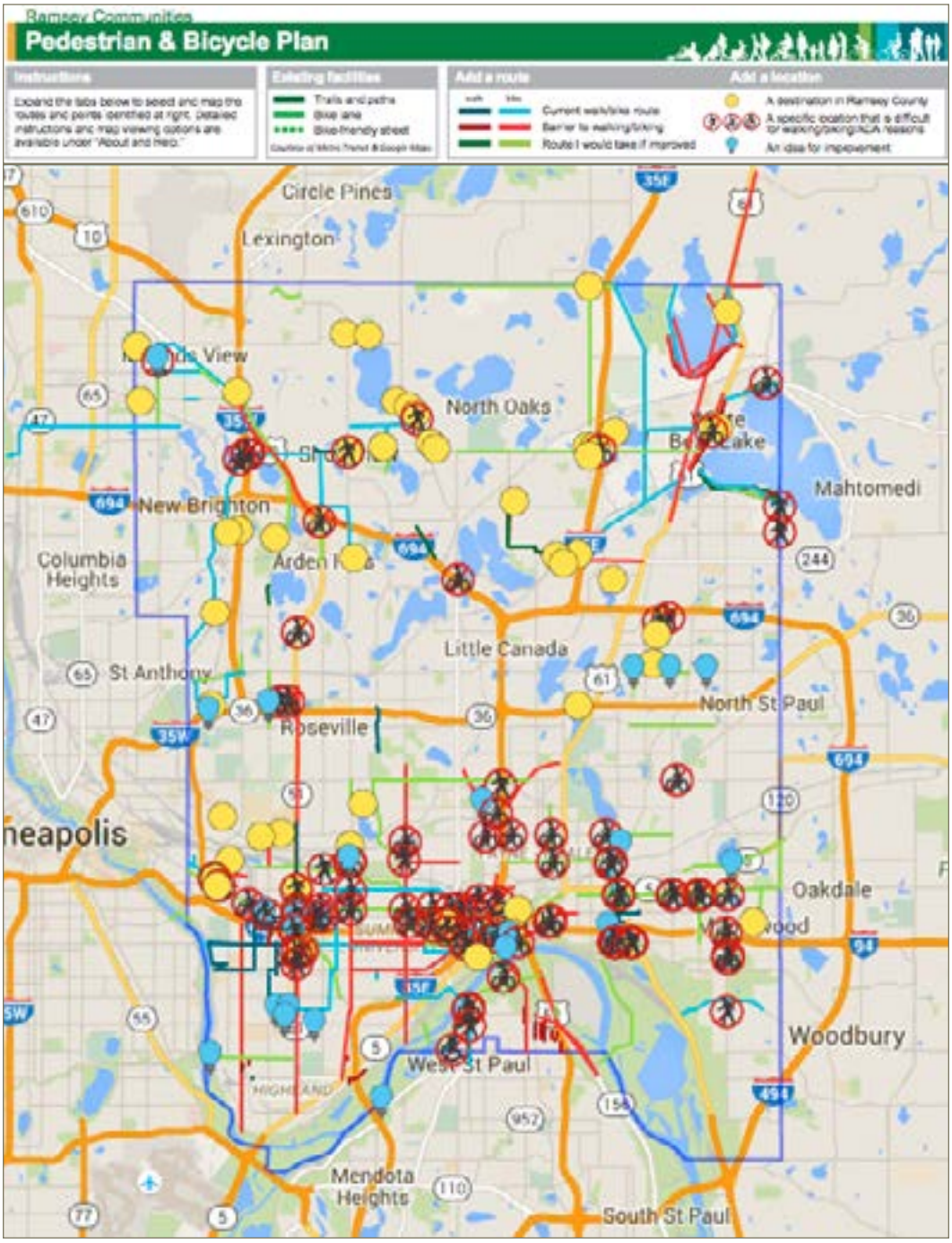
- Nice Ride Minnesota Community Partners Program
    - Participants went on a group ride with Nice Ride Minnesota staff and won a free one-year membership
    - A brief survey was provided to participants after the ride
- Minnesota Statewide Health Improvement Program (SHIP)
    - SHIP staff collaborated with walking groups to conduct walking audits with residents at the following sites:
        - Cleveland
        - Montreal
        - Ravoux
        - Valley
        - Mt. Airy
        - Wilson
- Resident Councils
    - The Citywide Council Meeting occurred on August 25
    - The Council received an update on the Plan and received links to the survey and WikiMap to distribute through their networks

KEY POINTS:

- Public housing residents would like to bike for recreation and transportation
    - Transportation destinations include local stores, the University and Snelling commercial node, and community events like the Minnesota State Fair
    - Recreational destinations include neighborhood and regional parks, Summit Avenue, and the Mississippi River

Summary: Interactive Wikimap

The Wikimap online tool collected a rich set of data about people's experiences walking and biking in Ramsey County. A total of 466 comments were received from online users on the map. Of these 141 were related to pedestrian use, and 231 focused on bicycle use, the remaining 81 comments identified destinations, identified areas without ADA accessibility, and general suggestions for improvement. The Wikimap allowed participants to identify specific destinations they frequent, current walking and biking routes, barriers that inhibit use as well as routes that they would use if the routes were improved.



SCOPE OF INPUT

The Wikimap facilitated collection of data on locations and routes from 19 of Ramsey County's 20 zipcodes. The distribution of comments were not evenly distributed, zip codes 55104 and 55106 received the highest number of comments, while zip codes 55105, 55155 and 55102 received the fewest and zip code 55116 did not receive any comments. The majority of the comments were based in the southern urban section of Ramsey County, with approximately half of the comments in this section addressing locations in Saint Paul.

In total thirteen different municipalities had at least one comment on the wikimap. The majority of the comments received addressed locations within Saint Paul. A more detailed analysis on the type of comments and the corresponding municipality can be found in the appendix.

KEY POINTS

- There are numerous barriers that inhibit walking and biking in for Ramsey County residents
    - The lack of separation between fast moving vehicles and bicyclists (and sometimes pedestrians) is generally seen as a barrier
    - The lack of connectivity within the network reduced individual's ability to walk and bike in Ramsey County
    - The ability to cross roadways in a safe and timely manner is problem for pedestrians and people who bike
- Primary destinations identified by participants are commercial and recreational
- Residents that currently walk or bike do so despite inadequate infrastructure. To increase the numbers and types of people using active transportation, more has to be done to provide facilities that feel comfortable to use

Summary: Survey

A total of 578 surveys were received from participants and were processed for analysis; this includes 463 fully completed surveys and 115 partially completed surveys. The survey asked participants to share information regarding walking and biking habits, to prioritize destinations and barriers, and to identify opportunities to improve conditions for walking and biking in Ramsey County. The survey additionally asked basic demographic questions including age, gender, income, and ethnicity to gather information about the reach of the survey.

A sample of results for the survey are provided over the next pages. Links to online version of charts is provided for legibility. Full results are provided in this report's appendix.

QUESTION: "I WOULD LIKE TO ANSWER QUESTIONS ABOUT"

- Respondents were able to answer questions about only walking, only biking, or both walking and biking.
- 445 respondents answered questions about both walking and biking.

Sample: Responses About Walking in Ramsey County

QUESTION: "FROM MAY TO OCTOBER, HOW OFTEN DO YOU WALK TO GO TO THE FOLLOWING DESTINATIONS?"

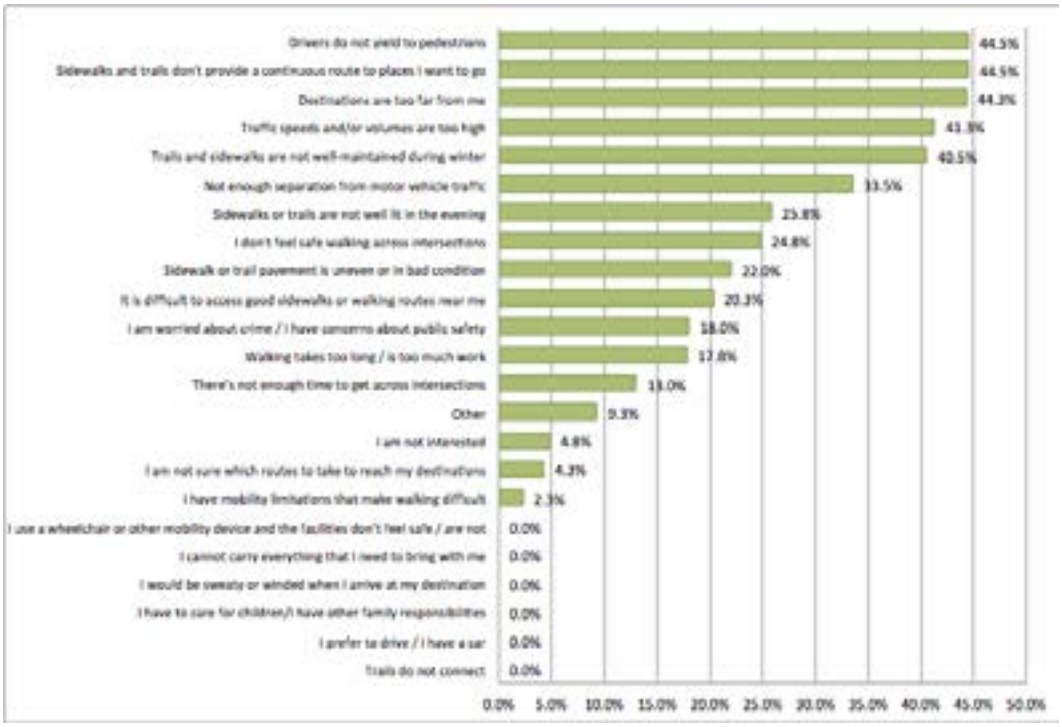
- Almost half of respondents (48%) indicated that they walked for recreation, health, or exercise 4 or more days a week
- Opportunities for growing biking in Ramsey County: About 64% of respondents (about 2 out of 3) indicated that they never walk to school or work, and nearly half (49%) indicated that they never walk to the bus stop or train station

QUESTION: "WHAT TYPES OF DESTINATIONS SHOULD BE PRIORITIZED IN RAMSEY COUNTY WHEN DECIDING WHERE TO IMPROVE WALKING CONDITIONS?

Destinations	Overall Rank
Schools	1
Transit stops / stations	2
Parks and other recreational destinations	3
Community centers, libraries, and other community destinations	4
Shopping, dining, entertainment	5
Employment centers	6

- Respondents were asked to rank the types of destinations from most to least important
- A total of 396 respondents answered this question
- Overall, schools were ranked as the number one priority when deciding where to improve walking conditions in Ramsey County, followed by transit stops and stations

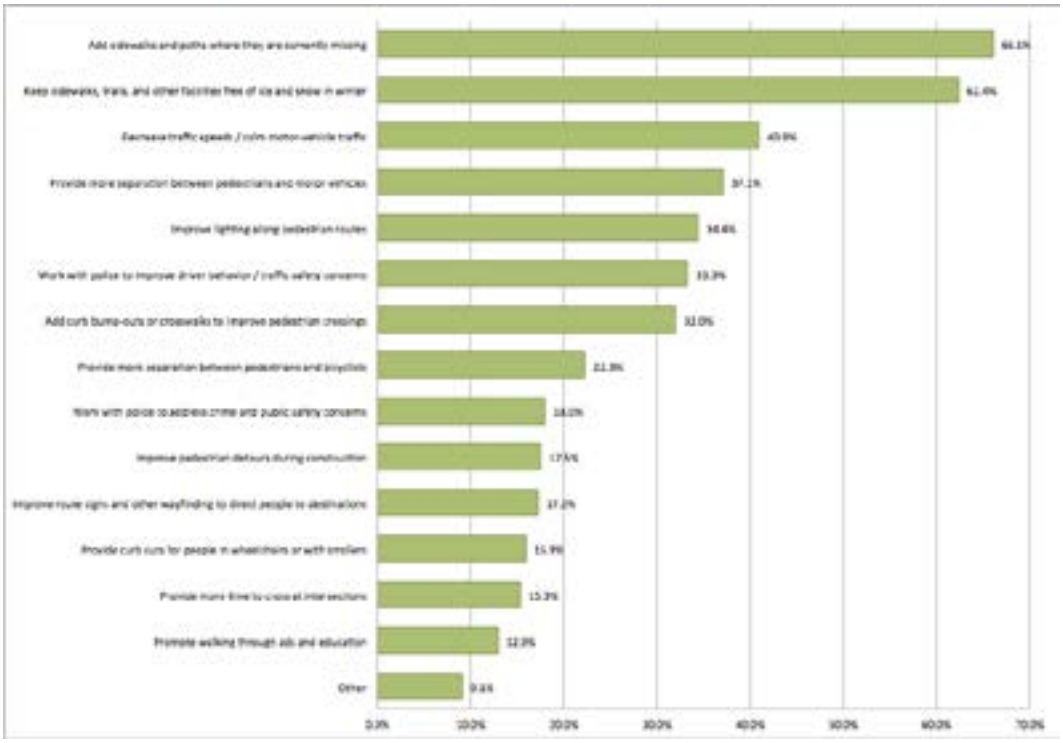
QUESTION: "WHAT KEEPS YOU FROM WALKING IN RAMSEY COUNTY MORE OFTEN?"



Click here to see the the chart online

- Respondents were asked to select their top five choices from the list, in no particular ranked order
- A total of 400 respondents answered this question
- Overall, the top five barriers to walking in Ramsey County are:
    - Sidewalks and trail don't provide a continuous route to places I want to go
    - Drivers do not yield to pedestrians
    - Destinations are too far from me
    - Traffic speeds and/or volumes are too high
    - Trails and sidewalks are not well-maintained during winter

QUESTION: "WHICH OF THESE IDEAS WOULD MAKE IT EASIER AND MORE CONVENIENT FOR MORE PEOPLE TO CHOOSE TO WALK MORE OFTEN IN RAMSEY COUNTY?"



Click here to see the the chart online

- Respondents were asked to select their top five choices from the list, in no particular ranked order
- A total of 372 respondents answered this question
- Overall, the top five opportunities to make walking easier and more convenient in Ramsey County are:
    - Add sidewalks and paths where they are currently missing
    - Keep sidewalks, trails, and other facilities free of ice and snow in winter
    - Decrease traffic speeds/calm motor-vehicle traffic
    - Provide more separation between pedestrians and motor vehicles
    - Improve lighting along pedestrian routes

Sample: Responses About Biking in Ramsey County

QUESTION: "FROM MAY TO OCTOBER, HOW OFTEN DO YOU RIDE A BIKE TO GO TO THE FOLLOWING DESTINATIONS?"

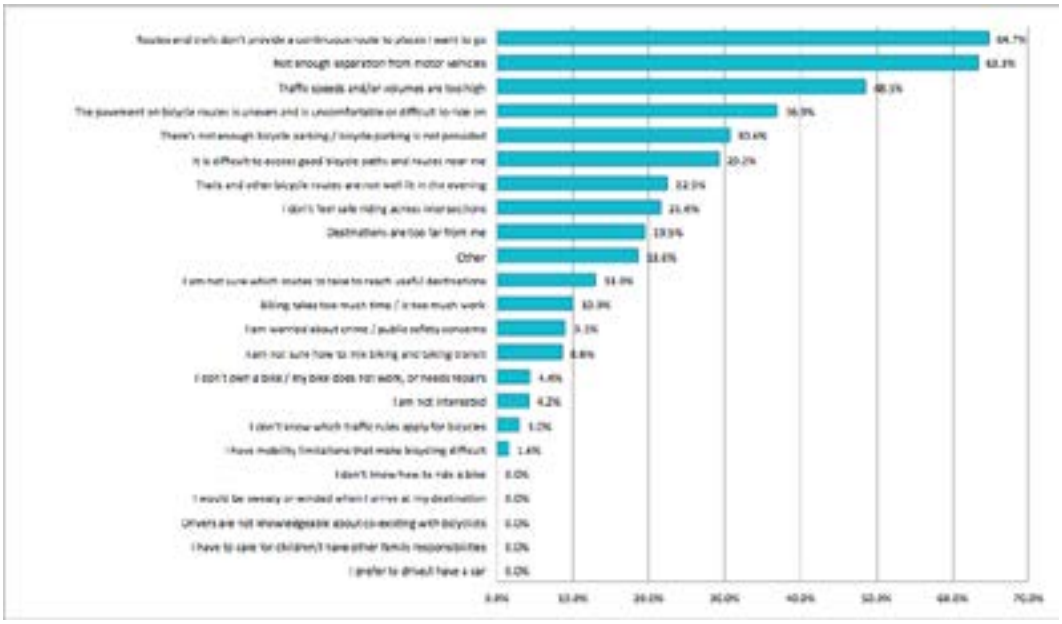
- Almost a quarter of respondents (24%) indicated that they biked for recreation, health, or exercise 4 or more days a week, and 23% indicated that they biked to school or work 4 or more days a week
- Opportunities for growing biking in Ramsey County: About 45% of respondents (about 1 out of 2) indicated that they never bike to school or work, and another 69% (about 2 out of 3) indicated that they never bike to the bus stop or train station

QUESTION: "WHAT TYPES OF DESTINATIONS SHOULD BE PRIORITIZED IN RAMSEY COUNTY WHEN DECIDING TO IMPROVE BIKING CONDITIONS?"

Destinations	Overall Rank
Parks and other recreational destinations	1
Schools	2
Community centers, libraries, and other community destinations	3
Shopping, dining, entertainment	4
Transit stops / stations	5
Employment centers	6

- Respondents were asked to rank the types of destinations from most to least important
- A total of 423 respondents answered this question
- Overall, parks and other recreational destinations were ranked as the number one priority when deciding where to improve biking conditions in Ramsey County, followed by schools
- Transit stops/stations, which was ranked number two for walking, is ranked fifth for biking

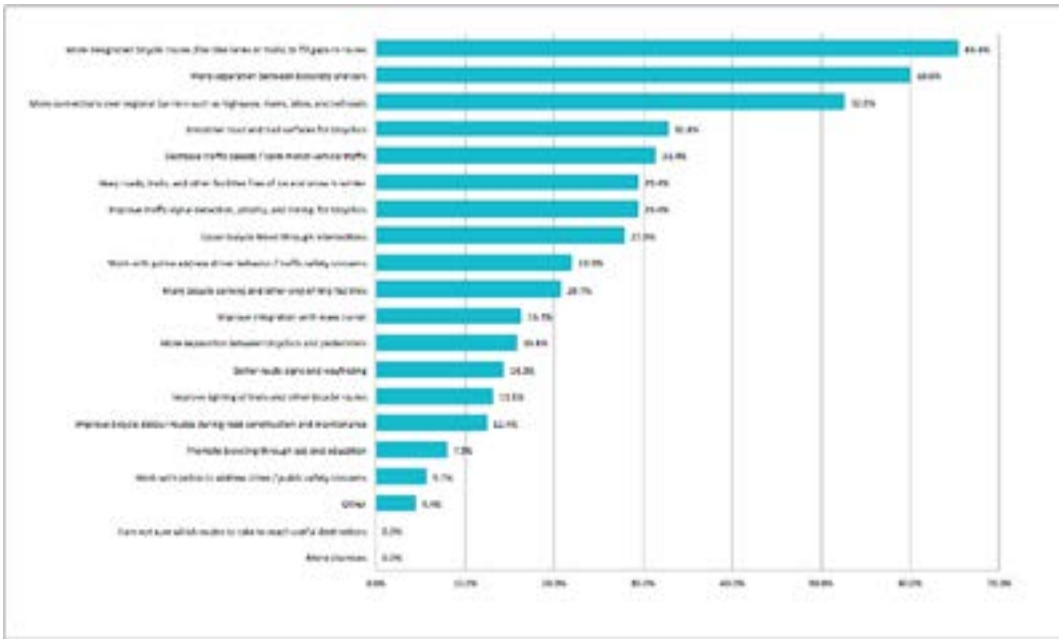
QUESTION: "WHAT KEEPS YOU FROM RIDING YOUR BIKE MORE?"



Click here to see the the chart online

- Respondents were asked to select their top five choices from the list, in no particular ranked order
- A total of 431 respondents answered this question
- Overall, the top five barriers to biking in Ramsey County are:
    - Routes and trails don't provide a continuous route to places I want to go
    - Not enough separation from motor vehicles
    - Traffic speeds and/or volumes are too high
    - The pavement on bicycle routes is uneven and is uncomfortable or difficult to ride on
    - There's not enough bicycle parking / bicycle parking is not provided

QUESTION: "WHICH OF THESE IDEAS WOULD MAKE IT EASIER AND MORE CONVENIENT FOR MORE PEOPLE TO CHOOSE TO RIDE A BICYCLE FOR AT LEAST SOME OF THEIR TRIPS IN RAMSEY COUNTY?"



Click here to see the the chart online

- Respondents were asked to select their top five choices from the list, in no particular ranked order
- A total of 405 respondents answered this question
- Overall, the top five opportunities to make biking in Ramsey County easier and more comfortable are:
    - More designated bicycle routes (like bike lanes or trails) to fill gaps in routes
    - More separation between bicyclists and cars
    - More connections over regional barriers such as highways, rivers, lakes, and railroads
    - Smoother road and trail surfaces for bicyclists
    - Decrease traffic speeds/calm motor-vehicle traffic

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RAMSEY COUNTY-WIDE

Pedestrian & Bicycle Plan

The Connected Ramsey Communities Network

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Introduction

Active Living Ramsey Communities seeks to empower local communities with the tools and framework to enhance their local network with county-wide benefits.

Built from local networks and inspired by regional planning efforts, the Connected Ramsey Communities network links all of the communities in Ramsey County through high quality long-distance and connector routes. These are the countywide connections that will bring people from place to place throughout Ramsey County, and will act as a county-wide backbone between communities.

The County-wide Planning Framework

The Connected Ramsey Communities network is a planning framework for the County and local jurisdictions to refer to when planning, prioritizing and designing an active transportation network.

Three types of bikeways work together in the Connected Ramsey Communities network:

Major County-wide Corridors

Major routes are optimized for long-distance travel between communities. They act as bicycle freeway corridors, and are envisioned as high quality facilities that can accommodate large volumes of users of all ages and abilities.

These routes require wider-than-standard bikeway widths, separate pedestrian treads where pedestrian use is expected and enhanced crossings of streets where bicyclists receive protected traffic signals or upgraded crosswalks designed for motor vehicles to yield to bicyclists.

County-wide Connector Corridors

Connector routes provide frequent links between major routes to provide a dense level of connectivity and minimize out of direction travel.

These routes are also designed for all ages and abilities use, but may not require the high-capacity design elements desired on major routes. Intersection crossing safety and comfort are very important on the connector routes in order to maintain a high-quality experience.

Local Corridors

Local bikeways are the adopted networks endorsed by the communities within Ramsey County. These may be included in local bikeway plans such as the Saint Paul Bicycle Plan, community-wide active transportation plans such as the City of White Bear Lake's Lake Links Trail Plan or routes identified in the transportation element of local comprehensive plan documents.

“Identified Need” Planning Gaps

Most of the Connected Ramsey Communities network aligns with existing and planned bikeway routes. In some cases, small portions of the recommended alignments are not included in local plans. These non-planned locations are called “Identified Needs” and will need further local coordination to adopt these missing links into local transportation system plans.

The Connected Ramsey Communities Network

The Connected Ramsey Communities network is 328 miles of bikeways connecting every corner of Ramsey county. Map 4-1 at the end of this section displays the full Connected Ramsey Communities network, and brief statistics are below:

Built from:

216 miles *of Major County-wide Corridors*

+

111 miles *of County-wide Connector Corridors*

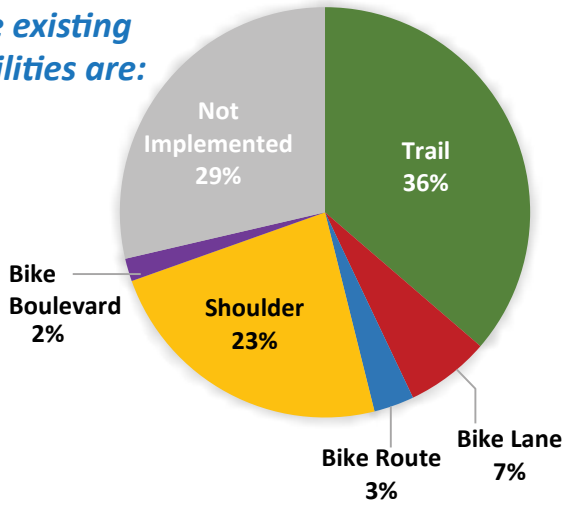
Made up of:

71%

existing facilities

based on planned facility types.

The existing facilities are:



Although upgrades are needed

Some "complete" facilities are still too stressful for users of all ages and abilities. Today, the network is made up of:

37% ***Low Stress*** *segments, appropriate for users of all ages and abilities.*

19% ***Moderate Stress*** *segments, appropriate for most adult bicyclists.*

14% ***High Stress*** *segments, appropriate for confident, trained, adult bicyclists.*

25% ***Extreme Stress*** *segments, not appropriate for most people.*

Map 4-2 at the end of this section displays the level of traffic stress on all county-wide links of theConnected Ramsey Communities network.

Relationship with the Metropolitan Council Networks

The Connected Ramsey Communities network is complementary to other regional-scale planning networks.

The Metropolitan Council networks define a connected regional-scale system of on-street and off-street bikeways and were informed by local partners and community outreach. The Metropolitan Council has identified two primary regional bicycle transportation systems across the twin-cities region:

- Regional Bicycle Transportation Network (RBTN)
- Regional Trail System (RTN)

To support these plans, most RBTN and RTN corridors in Ramsey County are included within the Connected Ramsey Communities network:

Tier 1 Alignments and Corridors

Most Tier 1 RBTN alignments and corridors are included as Major County-wide Corridors. If an RTN Connection fills a clear gap in the Tier 1 network, it is also included here. This classification also includes alignment recommendations as determined by the advisory teams for the planning effort with the goal of establishing a roughly 1.5 mile grid across the county.

Tier 2 Alignments and Corridors

Most Tier 2 RBTN alignments and corridors as well as all remaining, non-redundant, RTN alignments are included in the County-wide Connector Corridors.

In some cases, county-wide classifications differ from RBTN tiers. These classification and alignment recommendations were informed by suggested by the advisory teams and public outreach effort for the plan.

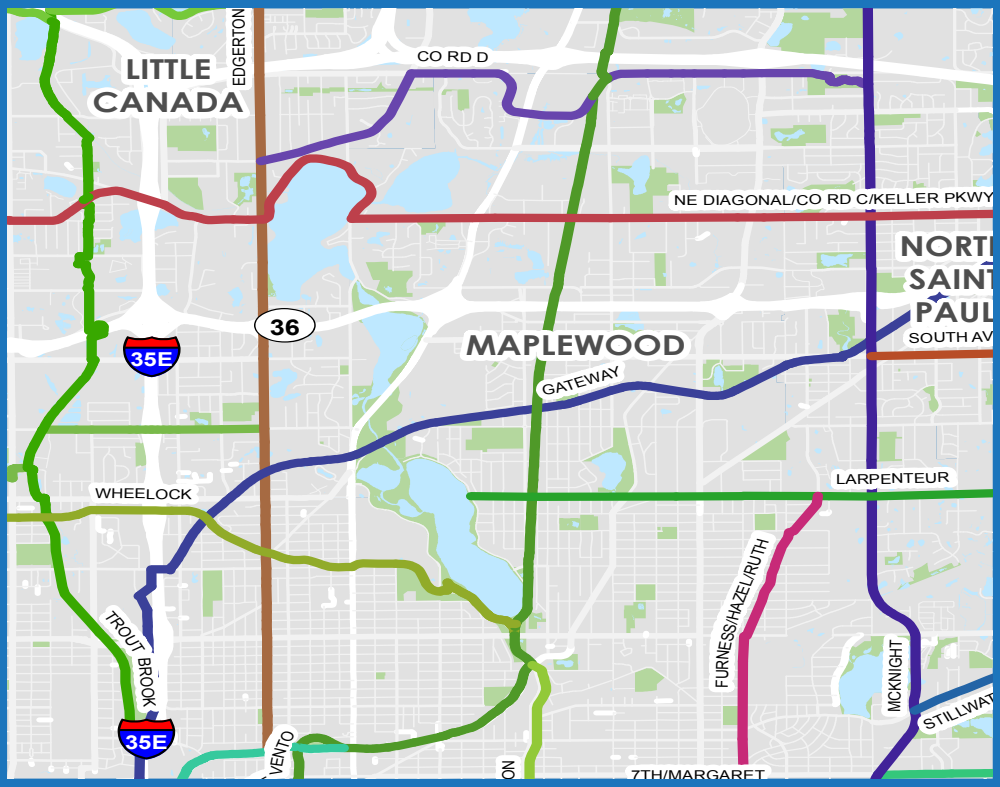
Route Alignment

Alignments of specific corridors shown on the Connected Ramsey Communities map have been identified in conformance with local and regional bikeway networks. Upon implementation, these routes should be subject to further study and analysis of opportunities and constraints.

Ramsey Community Corridors

The Connected Ramsey Communities network is consolidated across 62 distinct community corridors. These corridors offer a convenient way to organize and understand the Connected Ramsey Communities network and may provide a rational way to group an alignment for implementation.

Each corridor has been briefly summarized in Table 4-1, with information on the extents, level of completion and level of traffic stress of the current alignment. Full summary tables for each corridor are included in the project library, available online.



Community corridors are long-distance routes crossing the county. Some corridors, such as Gateway, follow along a single bicycle facility across the county (in this case, the Gateway Trail). Others, such as Hamline/Co Rd 10, use a combination of on- and off-street alignments along multiple different street segments to connect communities.

See the full map of corridors on Map 4-3 at the end of this section.

Table 4-1: Community Corridors of the Connected Ramsey Communities Network

Corridor Name	Total Miles	Percent Existing*	Percent Planned**	Percent Low Stress
5th	2.70	83%	17%	23%
7th/Margaret	10.98	11%	89%	6%
Annapolis	2.82	0%	100%	0%
Ash/Sherwood/Co Rd I	7.13	100%	0%	27%
Bald Eagle/H2	2.85	86%	14%	0%
Bruce Vento	13.61	81%	19%	55%
Carver	1.28	0%	100%	0%
Centerville	4.91	100%	0%	43%
Century Ave	11.51	71%	29%	15%
Cherokee	1.87	90%	10%	90%
Co Rd 96/Lake Links South	10.68	94%	6%	78%
Co Rd D	5.43	78%	22%	37%
Co Rd E	4.10	56%	44%	0%
Co Rd J	5.39	100%	0%	97%
Como	5.91	99%	1%	18%
CP Rail Trail	4.41	0%	100%	0%
Edgerton/McMenemy	8.39	83%	17%	20%
Elmer Andersen/Co Rd E/Goose Lake	10.80	67%	33%	21%
Fairview	8.88	52%	48%	10%
Ford/Montreal	3.15	35%	65%	7%
Furness/Hazel/Ruth	3.64	74%	26%	60%
Gateway	8.70	91%	9%	79%
Grotto/Dale	5.59	36%	64%	28%
Hamline/Co Rd 10	16.23	49%	51%	18%
Hodgson	5.19	82%	18%	65%
Indian Mounds/Upper Afton	5.08	60%	40%	41%
Jefferson	4.05	91%	9%	0%
Johnson	1.92	100%	0%	0%
Lafayette	1.81	73%	27%	73%
Lake Links North	1.25	100%	0%	0%
Larpenteur	3.30	88%	12%	0%
Lexington	11.24	91%	9%	89%
Lilydale	2.17	100%	0%	100%
Lower Afton	1.95	100%	0%	100%
Marshall	4.51	57%	43%	0%
McKnight	11.78	79%	21%	45%

Table 4-1 (Continued)

Corridor Name	Total Miles	Percent Existing*	Percent Planned**	Percent Low Stress
Mississippi River	5.42	100%	0%	100%
NE Diagonal/Co Rd C/ Keller Pkwy	14.57	74%	26%	40%
Oakdale	0.72	0%	100%	0%
Ohio	0.88	0%	100%	0%
Old Hwy 8/Long Lake	6.98	58%	42%	27%
Otter Lake	1.53	100%	0%	0%
Park/John Ireland	1.73	88%	12%	15%
Pelham/Raymond	2.19	100%	0%	15%
Pierce Butler/Phalen	6.67	63%	37%	17%
Plato/Airport	3.13	0%	100%	0%
Point Douglas	4.81	100%	0%	41%
Rice Creek	5.93	80%	20%	76%
Rice Creek Commons	2.82	42%	58%	42%
Roselawn/Reservoir Woods	6.65	96%	4%	50%
Sam Morgan	8.60	100%	0%	100%
Silver Lake Rd	5.18	0%	100%	0%
South Ave	0.99	100%	0%	0%
Stillwater Blvd	0.86	100%	0%	100%
Stinson	1.77	27%	73%	0%
Summit/High Bridge	5.24	86%	14%	10%
Trout Brook	8.95	63%	37%	63%
U of M Transitway	1.32	45%	55%	45%
University Ave/Charles	5.46	62%	38%	0%
Wabasha/Cesar Chavez/Concord	2.78	78%	22%	21%
Western	1.53	0%	100%	0%
Wheelock	5.62	100%	0%	21%

* “Percent Existing” includes segments identified as complete according to local plans. This may include facilities that are completed as once facility type, such as a shoulder, but are also planned to receive future upgrades, such as conversion to a shared used path.

** “Percent Planned” includes segments identified for future implementation in local plans and segments classified as “identified needs” in this plan.

Local Integration of the Connected Ramsey Communities Network

At the county level, this plan is a vision. At the local level it becomes reality.

To move forward, local communities can commit to prioritizing the Major and Connector routes as an important part of their bikeway network and aim to construct the routes to a high quality that serves all ages and abilities. Building for all ages and abilites may require exceeding current local design standards for trails and bikeways.

Local Next Steps

Local jurisdictions should support the development of the Connected Ramsey Communities network through an adopted resolution. The implementation section of this plan includes two sample resolutions. The first, supporting coordination in development of the network and the second, adoption of Major County-wide Corridors and County-wide Connector Corridors as Major Bikeways [in the transportation element of a comprehensive plan].

Other specific options for support through resolution include:

- Incorporate "identified needs" into local and major route alignments. These segments complete missing links or direct gaps between facilities and will strengthen a local bikeway network regardless of full adoption of the Connected Ramsey Communities network.
- Establish a Major Bikeway classification in the transportation element of the comprehensive plan, in addition to local bikeway classifications. This classification type does not specify the precise type of bikeway, but should include policy support for creating a low-stress, high-quality facility appropriate for the prevailing traffic conditions.
- Integrate the Major Bikeway classification into project prioritization and public works street design processes. These routes are important and should be given a high degree of attention and interest.
- Create local design guides for the community based on the Ramsey Communities Infrastructure primer. There is no one-size fits all solution, but these designs should create facilities that serve users of all ages and abilities.

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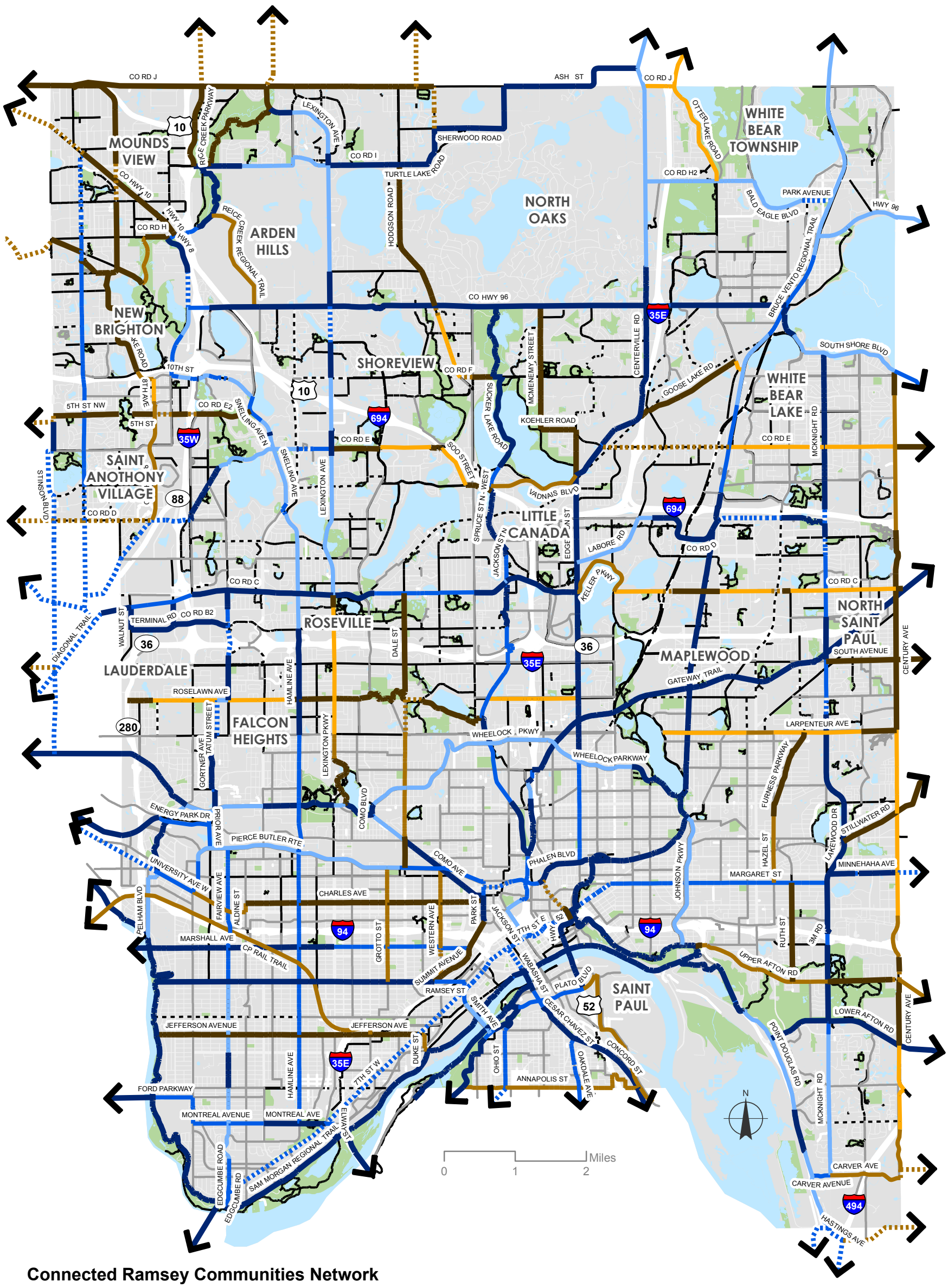
The Maps

Map 4-1: The Connected Ramsey Communities Network

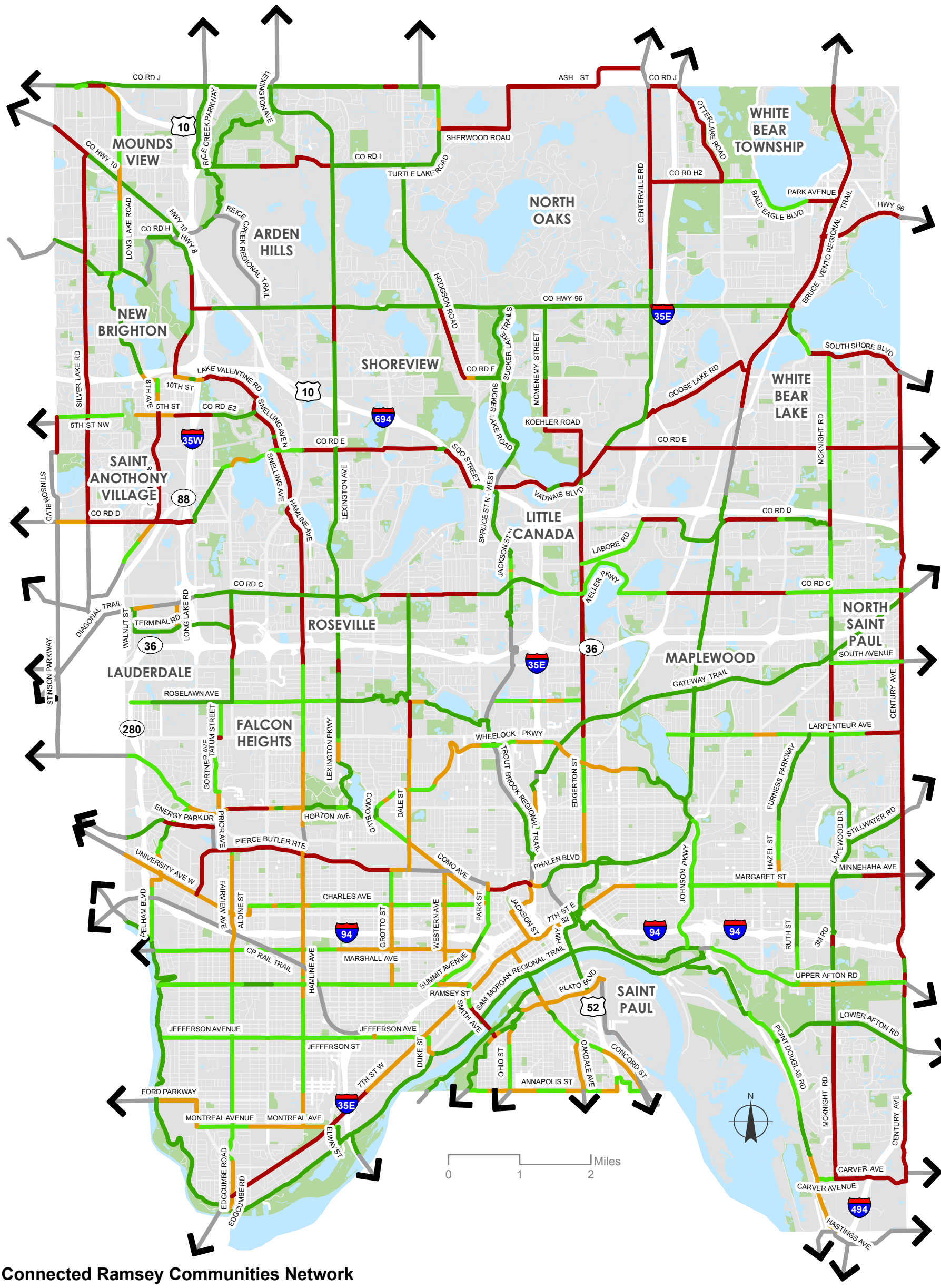


Connected Ramsey Communities Network

	Major County-wide Corridor	County-wide Connector Corridor	Local Corridor
Existing			
Planned Upgrade			
Planned			
Identified Need			
Inter-county Connection			

DRAFT Version: 2015.10.18A

Map 4-2: Level of Traffic Stress of the Connected Ramsey Communities Network



Connected Ramsey Communities Network

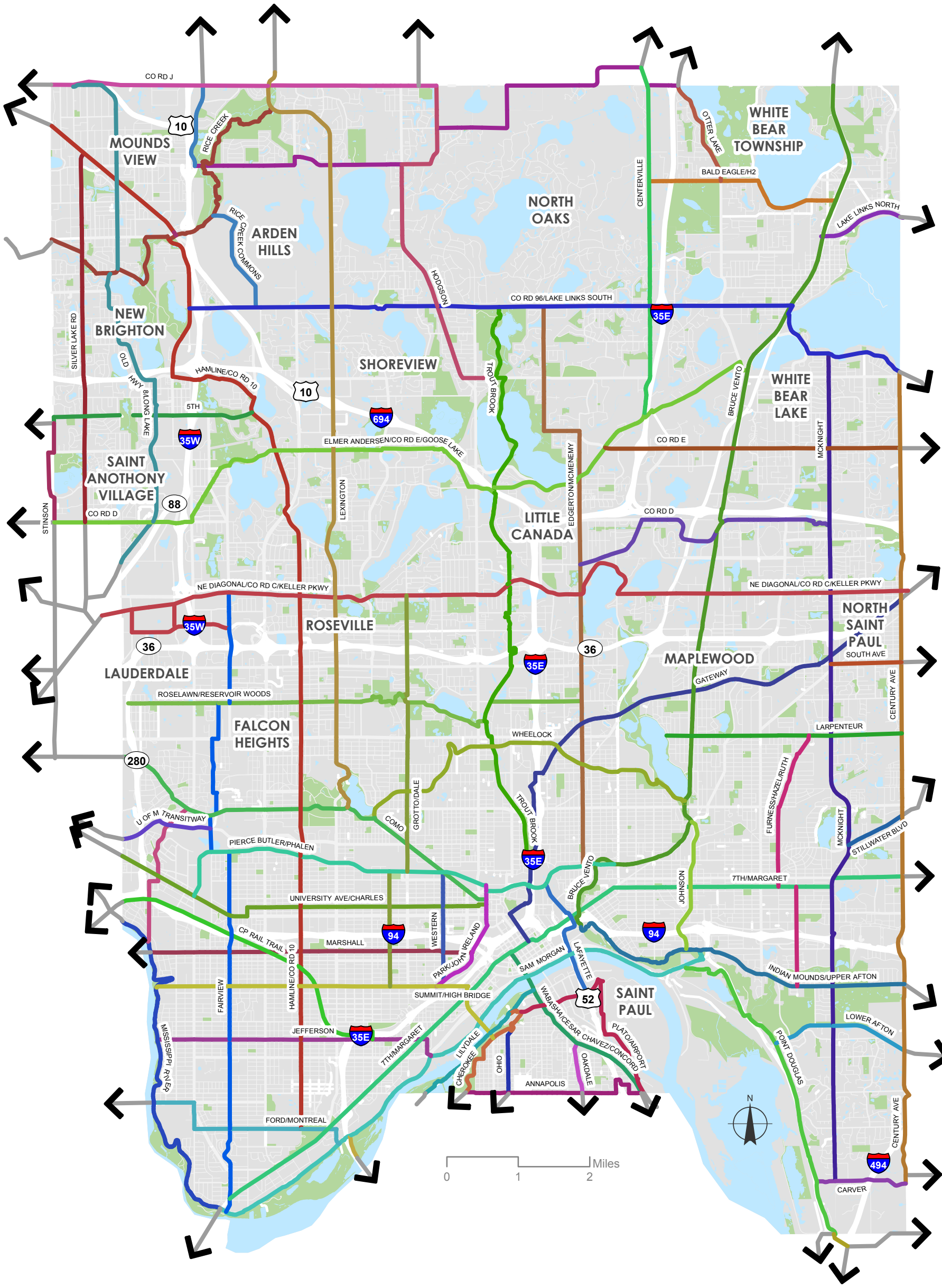
Level of Traffic Stress

- **Low Stress**
- **Moderate Stress**
- **High Stress**
- **Extreme Stress**
- **Non Applicable**

Note: Level of Traffic Stress (LTS) analysis displayed here applies to street segments only and does not included a detailed analysis of intersections or street crossings. The quality of crossings is critical and should be evaluated for further improvement.

Version: 2015.10.25A

Map 4-3: Corridors of the Connected Ramsey Communities Network



***Note that varied colors are used on the map to show the alignment of named coordidors used to generate summary statistics shown in Table 4-1.**

RAMSEY COUNTY-WIDE

Pedestrian & Bicycle Plan

Implementation Plan

Introduction

Active Living Ramsey Communities and its partners have identified a network of pedestrian and bicycle connections that, when fully developed, will create an integrated system of walkable and bikeable corridors that will connect the people of Ramsey County with desirable destinations in and outside of the county. Active Living Ramsey Communities has also identified deficiencies in the existing system that currently inhibit that connectivity. Implementing the Ramsey County-Wide Pedestrian and Bicycle Plan will be process of improving pedestrian and bicycle facilities throughout the county and monitoring progress toward an integrated network.

Although Active Living Ramsey Communities does not have jurisdiction over individual roadways or trails, it is able to act as a facilitator supporting communication and collaboration for creating a safe and comfortable network for pedestrians and bicyclists to use throughout the county.

Key Recommendations

Six key recommendations related to implementation came out of the Ramsey County-Wide Pedestrian and Bicycle Plan, including:

- *Connected Ramsey Communities Network*— Through collaboration with Ramsey County stakeholders and implementing agencies, establish and build a connected network of pedestrian and bicycle facilities. The emphasis is on building high quality transportation and recreation facilities that serve a wide range of people.
- *All Ages and Abilities County-wide Design*—Active Living Ramsey Communities will identify specific opportunities to support local communities in developing design guidance that support all members of the community. This will include developing walkable and bikeable communities that offer easier access and connections to transit.
- *Performance Monitoring Report*—Active Living Ramsey Communities will publish an annual report to help raise the profile of successes and challenges for walking and bicycling in Ramsey County. The report will focus on safety, connectivity, health equity, social and economic development and the quality of life improved by the county-wide active transportation system. Some of the measures may be quantified while others can be assessed through discussions with communities.
- *Annual Performance Evaluation Summit*—Facilitated by Active Living Ramsey Communities, the annual gathering is an opportunity for communities to to evaluate their efforts, share best practices and collaborate on priorities for the coming year. This annual meeting will serve as an opportunity to identify successes and discuss challenges.
- *GIS Clearinghouse*—Geographic Information Systems (GIS) is a mapping tool that can represent all kinds of spatial and geographic data. It is used to map, visualize, analyze and interpret data to better understand relationships, patterns and

- trends. Active Living Ramsey Communities is in a unique position to gather data from all communities and keep an updated clearinghouse of current bicycle and pedestrian related data for the whole county.
- Coordinated Count Program—A count program documents the numbers of people using bicycle and pedestrian infrastructure, such as sidewalks, trails or particular intersections. Understanding how people are using existing facilities can help to prioritize future projects and help evaluate the success of investments. Active Living Ramsey Communities can coordinate with efforts at the state, regional and local level to establish a count program that supports the Connected Ramsey Communities Network.

Actions For Active Living Ramsey Communities

The following steps for Active Living Ramsey Communities will be crucial in institutionalizing active transportation within Ramsey County, including:

1. Create a permanent position within the County to focus on Active Transportation.
2. Support the adoption of a resolution in support of the Ramsey County-wide Pedestrian and Bicycle Plan by the County and local jurisdictions within the county.
3. Distribute the plan to adjoining jurisdictions outside of the county, including both departments of parks and recreation and public works.
4. Establish a GIS Clearinghouse for active transportation data.
5. Facilitate the development of a coordinated counting program.
6. Develop and coordinate a performance measure reporting cycle with the County and other partners.
7. Organize and facilitate a Performance Evaluation Summit.

Implementation Process

The implementation process consists of three phases: inventory, analysis and planning. The first phase of the process is for individual jurisdictions (usually municipalities but also county, regional, state, and federal agencies owning or operating pedestrian or bicycle facilities within Ramsey County) to conduct an annual inventory of their existing system. Municipalities and other units of government will be asked to identify the type and number of miles of on-road and off-road pedestrian and bicycle facilities they have under their jurisdiction. The inventory will also identify the level of use and issues with safety and connectivity. A Performance Evaluation Worksheet has been developed to assist jurisdictions in conducting and recording their inventory.

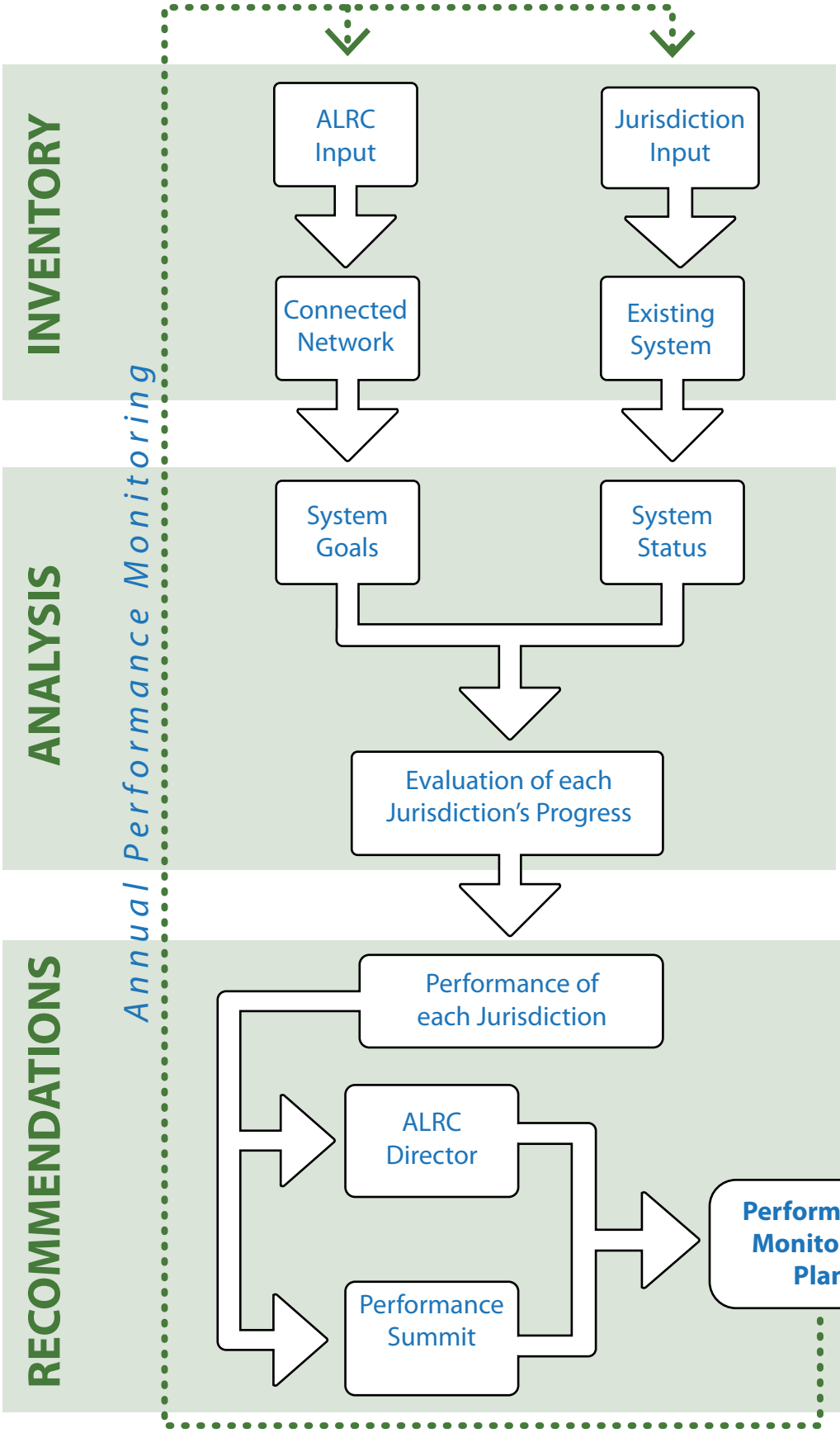
During the analysis phase of the implementation process, Active Living Ramsey Community will evaluate the extent to which the current pedestrian and bicycle network meets the communities' goals outlined in this plan. During the final phase, jurisdictions in partnership with each other and facilitated by Active Living Ramsey Communities will develop strategies for further improvements to the county-wide network of pedestrian and bicycle facilities. These strategies will be documented in an annual Performance Monitoring Report prepared by Active Living Ramsey Communities in coordination with the affected jurisdictions.

The Performance Monitoring Report is intended to be a summary of the findings of the inventory and analysis and an action plan, detailing a set of proposed actions that local jurisdictions plan to take in the next two years.

This report will be used to communicate and coordinate throughout Ramsey County. The report will be developed by the Active Living Ramsey Communities Director who will review all local information and help identify opportunities for communities to leverage their funding, resources, and outcomes by coordinating their actions. The Active Living Ramsey Communities Director will organize the Performance Evaluation Summit, where each jurisdiction can share findings in the report and outline their proposed set of scheduled improvements to the walking and bicycling network.

At the Summit, attendees will discuss ways to collaborate and build out the Connected Ramsey Communities Network. It is anticipated that the annual inventory and analysis will be conducted in late fall following the construction season, and that the annual planning and coordination activities will be developed during the winter, prior to a new construction season

IMPLEMENTATION PROCESS



Measurements

- Program Funding
- Facility Mileage
- Modal Counts
- Health Statistics

Trends

- Increases
- Decreases
- No Change

Attainment Levels

- Funding
- Policy
- Programs
- Projects

Performance Evaluation

To achieve the benefits identified in the Ramsey County-wide Pedestrian and Bicycle Plan, it is essential that the performance of the system be measured annually as part of the Implementation process. The performance evaluation measures five key system attributes, including:

- Safety
- Connectivity and Network Quality
- Equity
- Social and Economic Development
- Quality of Life—including health indicators

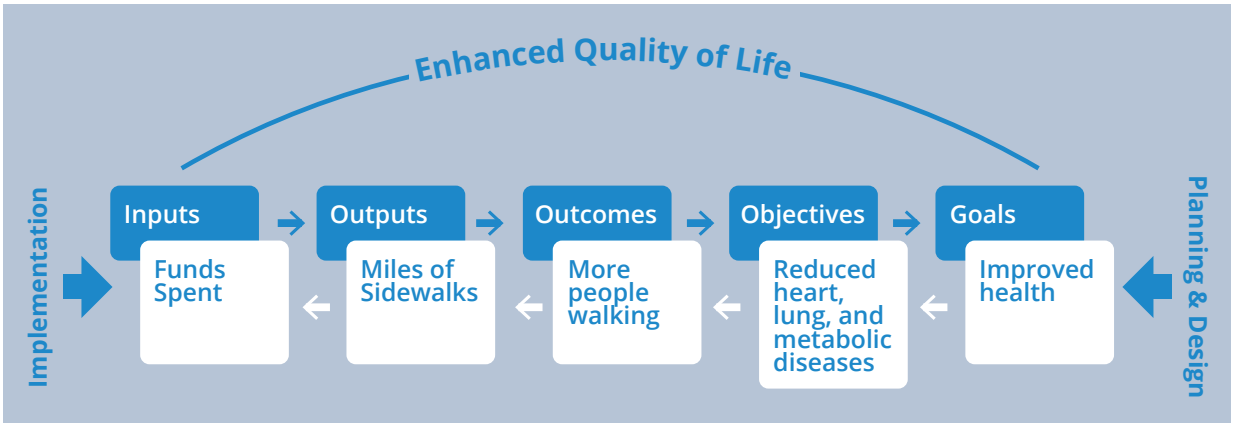
Each of these attributes is composed of several defining and measureable items. Safety, for example, is typically defined and measured by the type, frequency, and severity of the crashes that occur. It could also include the crimes that are committed on pedestrians or bicyclists, the modal conflicts that hinder active transportation or the operational conflicts which impede it. What is measured depends on the needs of the jurisdiction.

To assist jurisdictions in evaluating the performance of their pedestrian and bicycle system, two versions of a Performance Evaluation Worksheet have been created. Both worksheets are included as separate downloadable materials in the project library on the website.

A short form version evaluates the basic attributes of an active transportation system. Usually the short form provides sufficiently refined information to adequately evaluate the performance of a jurisdiction's active transportation network. A long form version of the worksheet is available for a more nuanced evaluation. The short form focuses on safety and connectivity. The long form is intended to be used as data on equity, social and economic development and quality of life attributes become more available. Usually, the short form will provide enough information to identify needed improvements. The long form is available for those jurisdictions that want to study a particular aspect—for example how active transportation affects health or the local economy. It is not necessary to use the long form in its entirety. It is suggested that jurisdictions use only those items they care to investigate to augment their use of the short form.

The five stages of performance measures—inputs, outputs, outcomes, objectives, and goals—are essential components of the Performance Evaluation Worksheet. Each stage represents a point at which data can be collected during the implementation process or the planning and design process. The planning and design process begins with goals and concludes with identifying the inputs needed to achieve the goals. The implementation process begins with inputs and concludes by evaluating whether the goals have been met. The overarching vision both processes strive for is an enhanced quality of life for the community and its people. The diagram Five Stages of Performance Measures illustrates the directional flow of the two processes.

Five Stages of Performance Measures



Source: Avenue Design Partners

The worksheet is essentially a table, composed of columns and rows. The worksheet consists of ten columns. Column headings are colored coded. The first four columns are pink and record information gathered as part of the Inventory. The middle four columns are gold; they record information generated as part of the Analysis. The last two colored columns record information developed during the planning phase. Suggestions on what type of information needs to be gathered, where the information can be found and how to analyze it are offered in the worksheet. Note that some of the some information requested is currently available while some will only become available in future years. Some information and analysis will require collaboration with other agencies outside of the Responsible Governmental Unit (RGU). Active Living Ramsey Communities will be actively involved supporting local governments in gathering available information.

Each column of the worksheet is expandable to record the following information:
INVENTORY

Item—the attribute being inventoried and analyzed

Data Source—source and type of data used to measure the item

Existing Status—data on the existing state of the item

Goal—the desired state of the item as established by the ALRC 2030 Network Plan

ANALYSIS

Discrepancy—the measureable difference between status and goal

Objective—a measurable incremental step toward the goal

Action—action planned or taken in an effort to achieve the objective

Outcomes—an evaluation of the success or failure of the action to achieve objective

PLANNING

Outputs—Next year's desired physical changes to active transportation network

Inputs—Next year's suggested funding or policy changes to maintain or improve outcomes

The rows of the worksheet are divided into five sections corresponding to the five key system attributes: safety, connectivity and network quality, equity, social and economic development and quality of life safety

The first division of the worksheet evaluates the safety of the system, including the prevalence of crashes, crime, modal conflicts and operational conflicts. The second division evaluates connectivity and network quality, including counts and gaps. The third division evaluates items related to the equity of the system, including the demographic information about the users. The fourth division of the worksheet evaluates items related to the social and economic development of the county, including land values and economic activity. The fifth division of the worksheet evaluates items related to quality of life attributes.

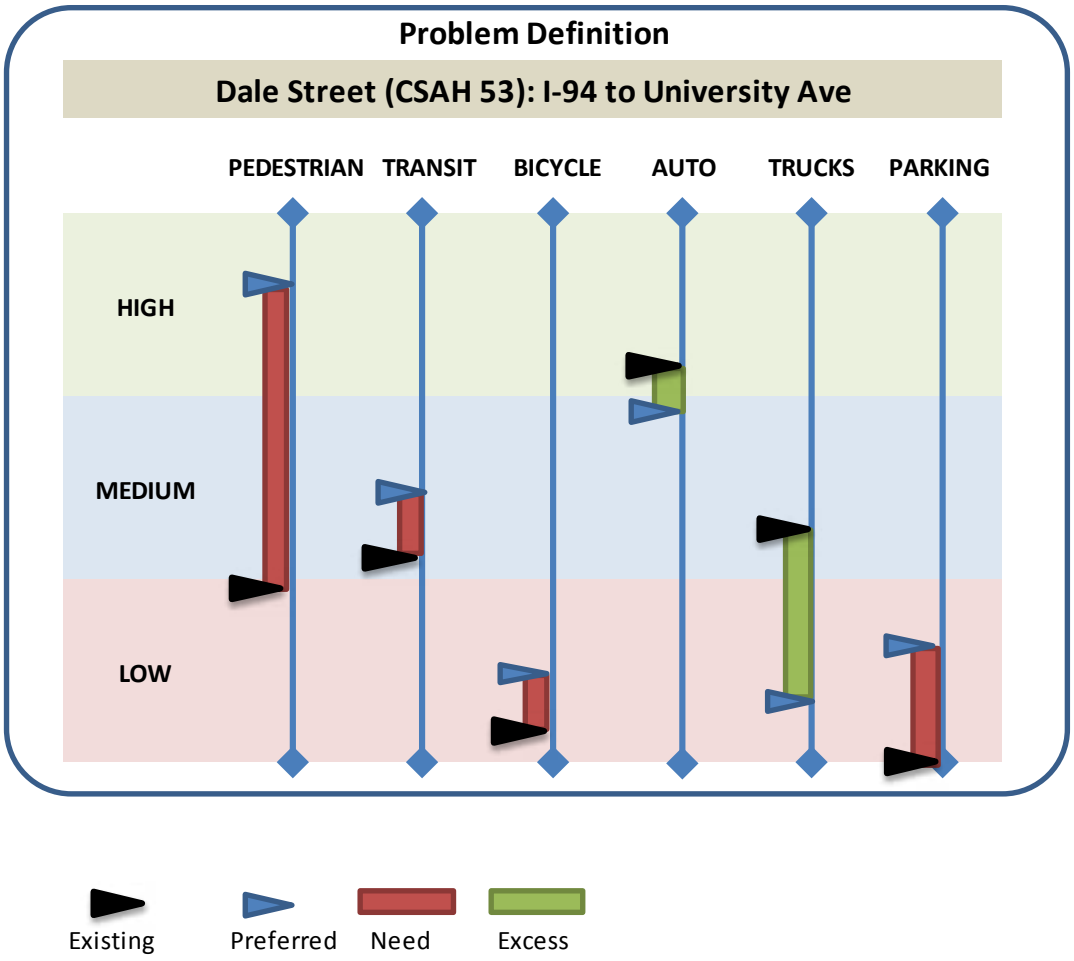
Adoption Materials and Process Resources

Slider Bar Tool

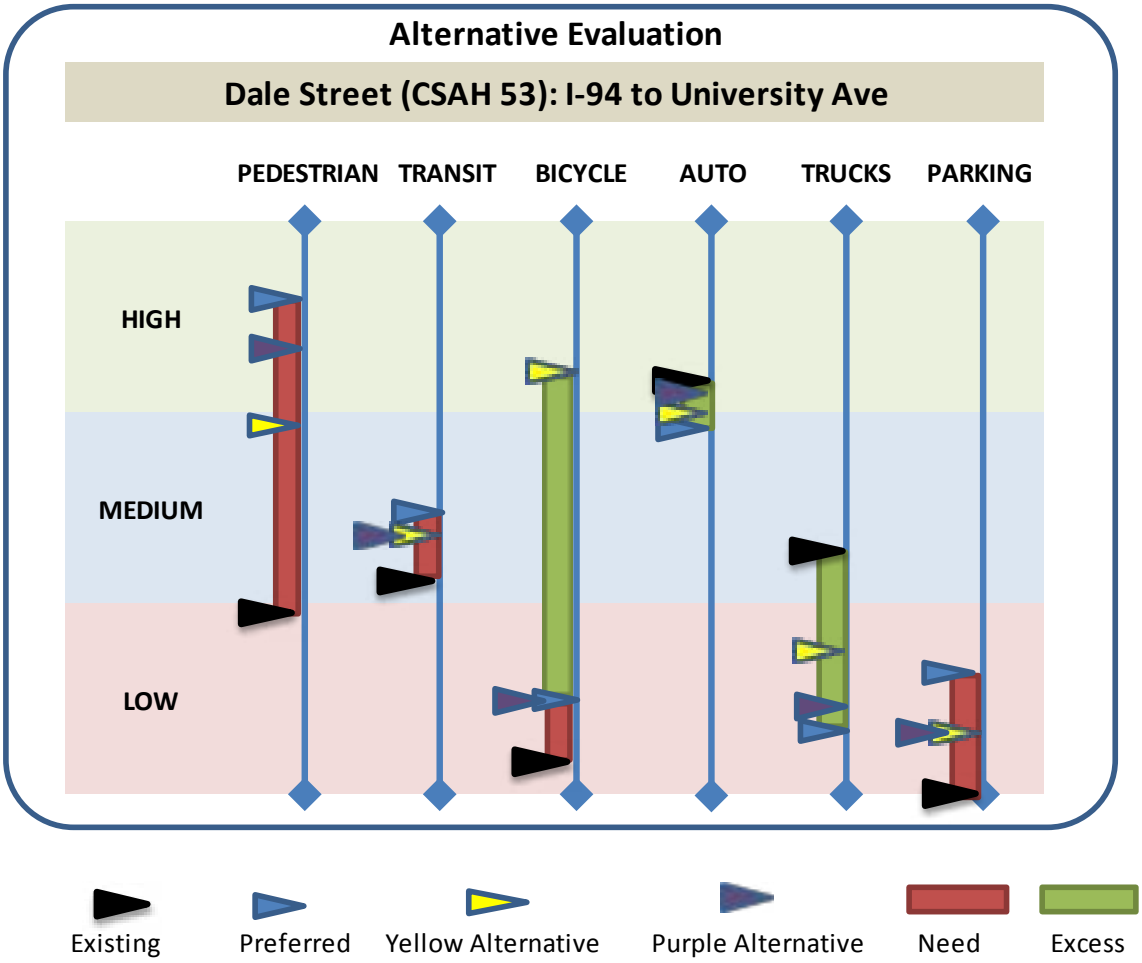
The Slider Bar tool uses a qualitative approach to evaluate multimodal tradeoffs. It is primarily used in combination with the Performance Evaluation Worksheet to measure the discrepancy or difference between the status and goal of a specific attribute. Each mode is individually evaluated with the following steps:

- Rating priority within the individual modal network (High, medium or low)
- Rating of the existing condition with performance measures
- Compare existing condition to priority. This can be a problem if existing is lower than priority and an opportunity if the existing is higher than the priority
- Rate various alternatives with performance measures
- After each mode is evaluated, compare the strengths and weakness of each alternatives

For example, a slider bar could be used to evaluate existing and preferred conditions on Dale Street in St. Paul between I-94 and University Avenue. As illustrated on the Problem Definition slider bar below, black pointers indicate the existing condition. Blue pointers indicate the preferred condition. A red bar between the pointers indicates a need to improve service—the service is in under-supply. A green bar between pointers indicates that there is an excess or over-supply of the service. Frequently, the space currently allocated to providing services that are over-supplied can be re-allocated to provide space for services that are under-supplied. This is especially useful where existing right-of-way is limited. Pointers can be placed either by transportation professionals or through a public involvement process. If pointers are placed by professionals, it is essential that the placement be verified by the public.



Similarly, the slider bar can be used to evaluate and compare the effectiveness of various alternative strategies for improving the corridor. As shown on the Alternative Evaluation slider bar, the yellow alternative improves the condition of pedestrians, transit, bicycling, and parking while decreasing the oversupply of services for automobiles and trucks. The purple alternative also improves pedestrian, transit, bicycling, and parking while decreasing the over-supplying of services for automobiles and trucks. Comparing the yellow and purple alternatives, it becomes apparent that the purple alternative provides a better solution by improving pedestrian services more than the yellow alternative; providing the same level of transit and parking services as the yellow alternative, and not creating an over-supply of services for bicycling while still reducing but not eliminating the oversupply of services for automobiles and trucks.



The slider bar gives the public and decision makers a quick, graphic and intuitive tool to improve active transportation on any level of project throughout Ramsey County.

Draft Resolutions

Each community should consider how best to approach to coordination with the Ramsey County-wide Pedestrian and Bicycle Plan. The Connected Ramsey Communities Network intersects with local planning and the bicycle and pedestrian network of local communities. The following draft resolutions provide language to formally support the connections to the network and coordination with the vision of a connected Ramsey county.

Resolution for support of the Ramsey County-wide Pedestrian and Bicycle Plan.

Resolution No. _____

A RESOLUTION OF THE RAMSEY COUNTY BOARD OF COMMISSIONERS IN SUPPORT OF COORDINATING DEVELOPMENT OF CONNECTED RAMSEY COMMUNITIES NETWORK

WHEREAS, an integrated and well-planned transportation system benefits citizens and business by providing a safe, convenient and economical system for vehicles, bicycles, pedestrians and freight; and

WHEREAS, a connected pedestrian and bicycle network enhances mobility and opportunity for residents and businesses; and

WHEREAS, increased opportunities for physical activity contribute to and strengthen individual and community health and well being; and

WHEREAS, Active Living Ramsey Communities and partners have identified a network of pedestrian and bicycle facilities that, when fully constructed, will create an integrated system of walkable and bikeable corridors connecting the people of Ramsey County with desirable destinations in and outside of the county; and

WHEREAS, transportation facilities that cross municipal boundaries require cross-jurisdictional coordination and planning;

NOW, THEREFORE, RAMSEY COUNTY BOARD OF COMMISSIONERS RESOLVES AS FOLLOWS:

1. The Board of Commissioners supports staff coordination on development of the Connected Ramsey Communities Network
2. The Board of Commissioners supports the Connected Ramsey Communities Network as a bikeway planning framework in future plans.

2. This resolution is effective upon adoption

Resolution in support of the Plan and Connected Ramsey Communities Network

Resolution No. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF _____ IN SUPPORT OF THE Ramsey County-wide Pedestrian and Bicycle Plan.

WHEREAS, a connected, comfortable and safe pedestrian and bicycle network will support health and prosperity; and

WHEREAS, the planning process for the Connected Ramsey Communities Network was inclusive of local planning for pedestrians and bicyclists; and

WHEREAS, an integrated and well-planned transportation system benefits residents and business by providing a safe, convenient and economical system for vehicles, bicycles, pedestrians and freight; and

WHEREAS, Active Living Ramsey Communities and partners have identified a network of pedestrian and bicycle facilities that, when fully constructed, will create an integrated system of walkable and bikeable corridors connecting the people of Ramsey County with desirable destinations in and outside of the county; and

WHEREAS, transportation facilities that cross municipal boundaries require cross-jurisdictional coordination and planning; and

WHEREAS, the region will be able to more effectively implement the plan and seek funding for projects with support of local partners;

NOW, THEREFORE, THE CITY OF _____ RESOLVES AS FOLLOWS:

1. The City Council supports staff coordination on development of the Connected Ramsey Communities Network
2. The City Council supports Major County-wide Bikeways as a bikeway planning designation in future plans.
3. This resolution is effective upon adoption

BRUCE VENTO REGIONAL TRAIL

LOCATION AND SIZE

The Bruce Vento Regional Trail is 13 miles in length and extends from the east side of downtown St. Paul northwestward to the north County line in White Bear Township. The trail is located on the former right of way of the Burlington Northern Santa Fe (BNSF) Railroad. The trail passes through the cities of St. Paul, Maplewood, Vadnais Heights, Gem Lake, White Bear Lake and White Bear Township. Although the designated trail extends the entire length of the BNSF Railroad right of way, only the southern 7 miles have been acquired for public use. The Ramsey County Regional Rail Authority has acquired the abandoned sections of the right of way for future light rail and transit use. A joint powers agreement between the Ramsey County Regional Rail Authority, Ramsey County and the City of St. Paul provides for continued use of a portion of the right of way for regional trail.

SITE CHARACTERISTICS

The BNSF Railroad right of way varies in width from 60 to 150 feet. It passes through a variety of areas, each with different character depending on the land use of adjacent property. It varies from a narrow industrial corridor on the east side of St. Paul to a wider, more natural corridor in suburban sections.

RECREATION DEVELOPMENT PLAN

Existing Development

The trail has been developed from East Seventh Street in the City of St. Paul to Buerkle Road in the City of White Bear Lake, a distance of 7 miles. The section south of Phalen Regional Park was constructed by the City of St. Paul. The sections north of Phalen Regional Park were constructed by Ramsey County. The completed section of the Bruce Vento Regional Trail intersects the Gateway Section of the Willard Munger State Trail and other local trails.

Proposed Development

Ultimately a continuous paved trail is proposed from the Mississippi River on the south to the north County line at Bald Eagle-Otter Lakes Regional Park. Future development north of Buerkle Road is dependent on abandonment of the railroad right of way or sale of a portion of the right of way for trail use. A southern connection to the Mississippi River and the Sam Morgan Regional Trail will require bridging of active railroad lines and Warner Road Bridge. The City of St. Paul will be responsible for constructing this connection.

NATURAL RESOURCE MANAGEMENT

Natural resource management is limited due to the relatively narrow corridor.

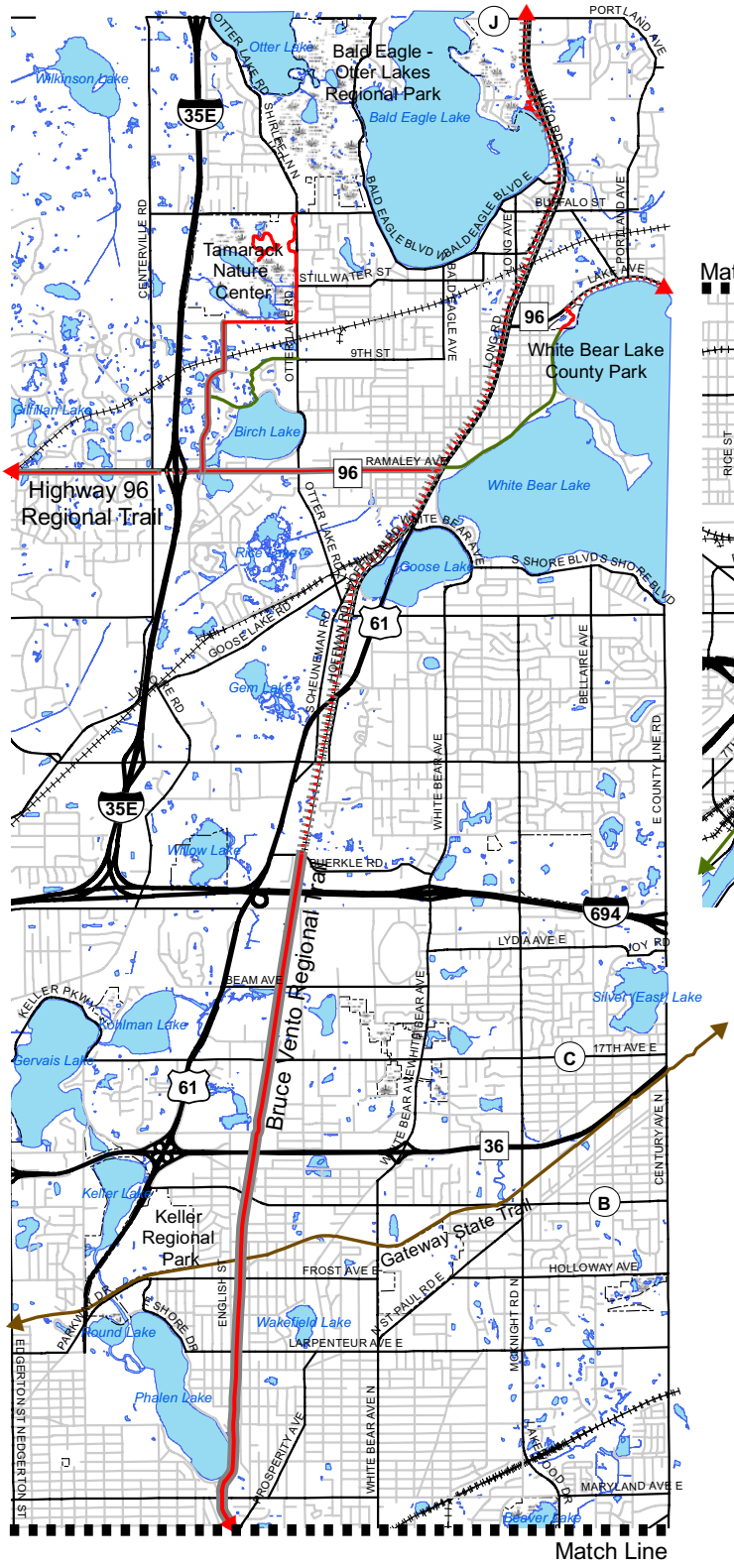
PLANNING CONSIDERATIONS

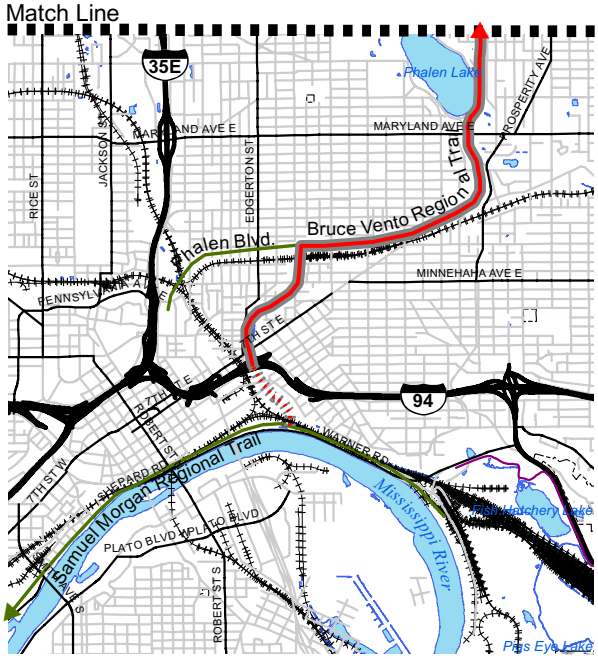
The BNSF Railroad right of way north of Buerkle Road is currently licensed to the Minnesota Commercial Railroad for operations and maintenance. The Minnesota Commercial Railroad provides delivery and transloading service to a limited number of customers. Consolidation of the delivery and transloading at the M and D junction located in the City of White Bear Lake would enable the BNSF Railroad to abandon the railroad right of way south of that point. Once abandoned, the Ramsey County Regional Rail Authority would be in a position to purchase the right of way and provide easement access for trail purposes. North of that point, the railroad right of way is immediately adjacent to the Highway 61 right of way. With the anticipated turnback of Highway 61 from the State of Minnesota to Ramsey County, it is possible that a future trail north of M and D junction could be located within the right of way of Highway 61. Accordingly, redevelopment of Highway 61 should incorporate the regional trail extension to the north County line.

The abandoned railroad right of way was acquired by the Ramsey County Regional Rail Authority for future light rail or transit use. The majority of the trail constructed to date was placed in the center of the right of way in the former track bed. The trail utilizes former railroad bridges crossings on major roadways, including Highway 36, Beam Avenue and Interstate 694. Future transit improvements will likely require that the trail be relocated within the corridor. The specific design of the future transit improvements should incorporate the trail including accommodation for grade separated crossing at major roadway intersections.

Segments of the BNSF Railroad right of way have been abandoned in Washington and Chisago counties. Washington County has constructed the Hardwood Creek Trail and Chisago County has constructed the Sunrise River Trail on this right of way. Collectively, these trails extend from the City of Hugo to the City of North Branch, a total distance of 25 miles. The connection between the Bruce Vento Regional Trail and these trail segments, within the City of Hugo, will be coordinated with Washington County.

There is also a proposed connection from the Vento Trail westward/southward and northward which would connect the Trillium Trail to the Trout Brook Regional Trail and Lake McCarrons County Park. As the County has participated in the Trillium Trail procurement, the Parks and Recreation Department will work in partnership with the city of St. Paul, community groups and the Minnesota Department of Transportation to complete this connection.

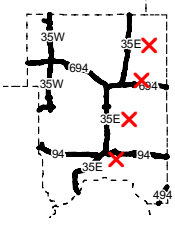




6,000'

LEGEND

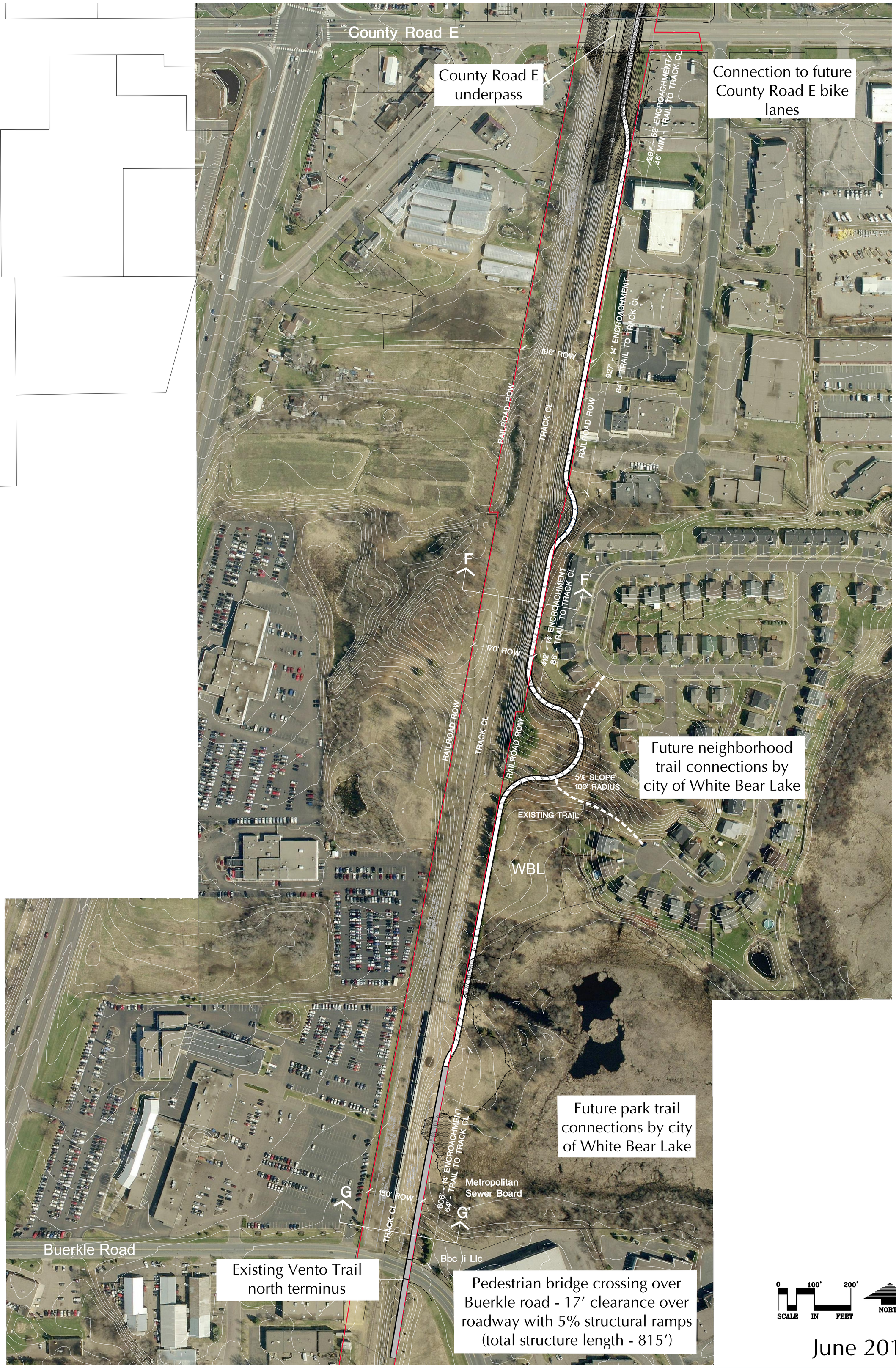
- Bruce Vento Regional Trail
- Proposed Bruce Vento Regional Trail
- Ramsey County Regional Trails
- Proposed County Regional Trails
- Existing Paved Trails
- Gateway State Trail
- City Trails
- Wetlands
- Park Boundary



Bruce Vento Regional Trail

RECREATION DEVELOPMENT MAP

Ramsey County, MN
March 2006



0 100' 200'
SCALE IN FEET

NORTH

June 2016

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VENTO TRAIL - NORTH EXTENSION

Buerkle Drive to County Road E

Sheet 1

Scheuneman Road

RAILROAD ROW

TRACK CL

Construction access

County Road F

Hoffman Road

RAILROAD ROW

TRACK CL

2586' - 3' ENCROACHMENT
49' - TRAIL TO TRACK CL

100' ROW

Highway 61

Cedar Avenue

Legend

- Permanent trail use agreement
- Construction access agreement
- Aquisition

0 100' 200'

SCALE IN FEET

NORTH

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VENTO TRAIL - NORTH EXTENSION

Easement and Aquisition Plan

Cedar Avenue to Scheuneman Road

Sheet 10

RAILROAD ROW

RAILROAD ROW

Hoffman Road

Highway 61

Construction access

RAILROAD ROW

TRACK GL

100' ROW

3203' - 3' ENGROACHMENT

47' - TRAIL TO TRACK GL

Scheuneman Road

Hoffman Road

Legend

Permanent trail use agreement

Construction access agreement

Aquisition

0 100' 200'

SCALE IN FEET

NORTH

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VENTO TRAIL - NORTH EXTENSION

Easement and Aquisition Plan

Scheuneman Road north

Sheet 11

Highway 96

Vento Trail
terminus / rest stop

Lincoln Avenue

85' ROW

TRACK CL

Construction access

Whitaker Street

RAILROAD ROW

RAILROAD ROW

Construction access
agreement from
White Bear Lake

Permitted railway
crossing - addendum
required toallow trail use

TRACK CL

RAILROAD ROW

25' ROW

208'
15' ENCROACHMENT
35' MIN - TRAIL TO TRACK CL
(TRAIL OPTION B ROUTE ONLY)

White Bear Avenue

RAILROAD ROW

TRACK CL

Hoffman Road

Highway 61

Legend

- Permanent trail use agreement
- Construction access agreement
- Aquisition

0 100' 200'
SCALE IN FEET

NORTH

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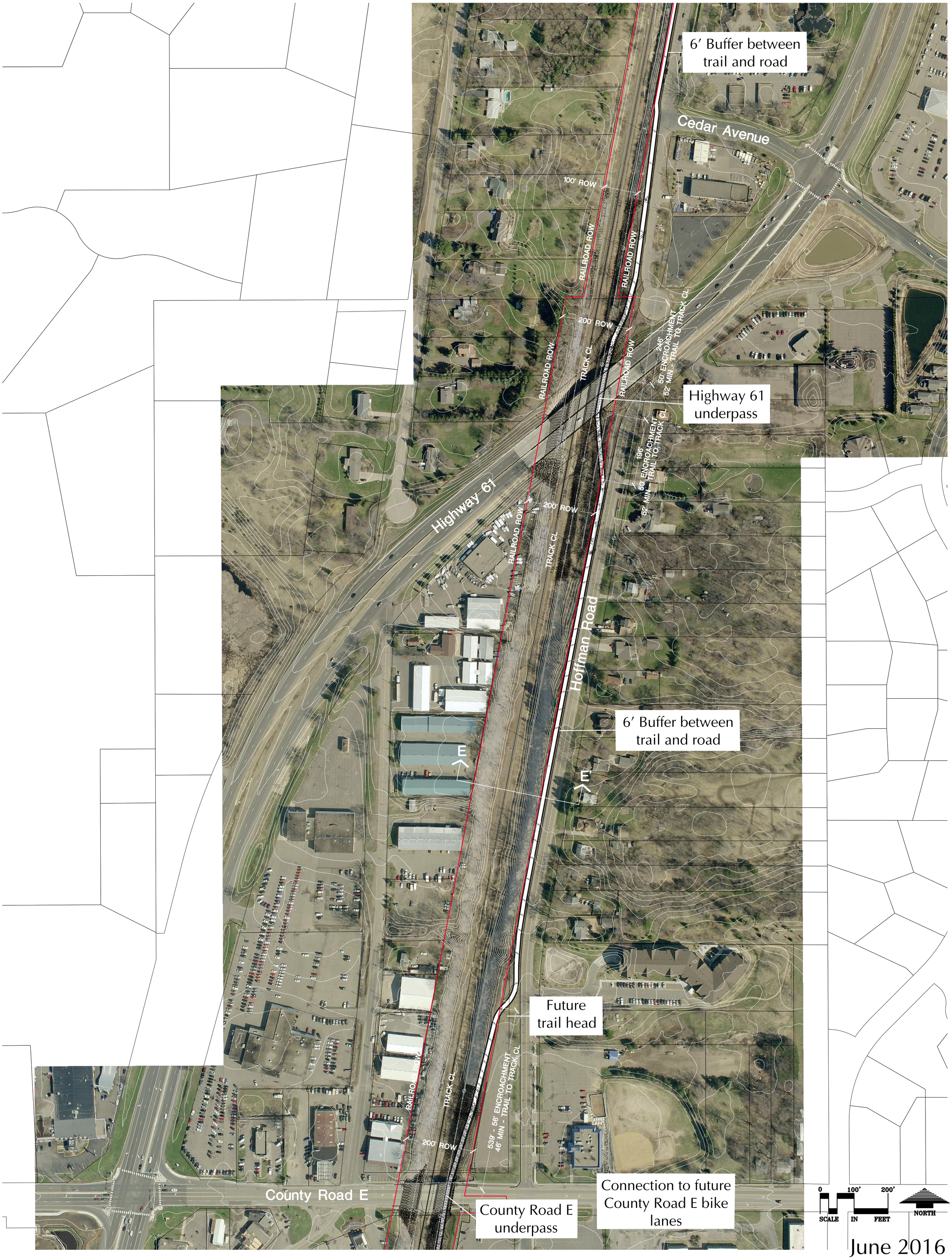
VENTO TRAIL - NORTH EXTENSION

Easement and Aquisition Plan

Scheuneman Road north to Highway 96

Sheet 12



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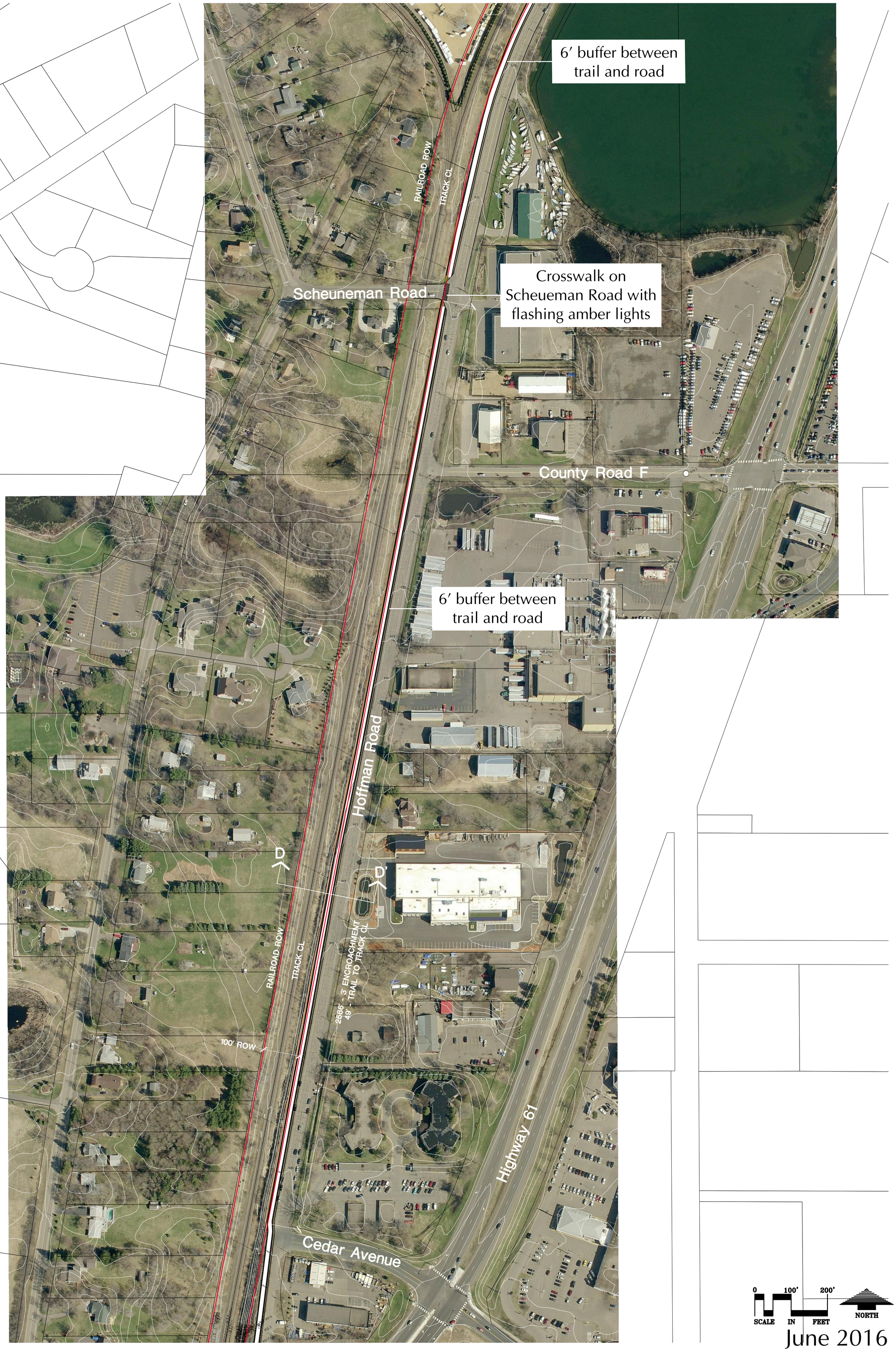
VENTO TRAIL - NORTH EXTENSION

County Road E to Cedar Avenue

Sheet 2



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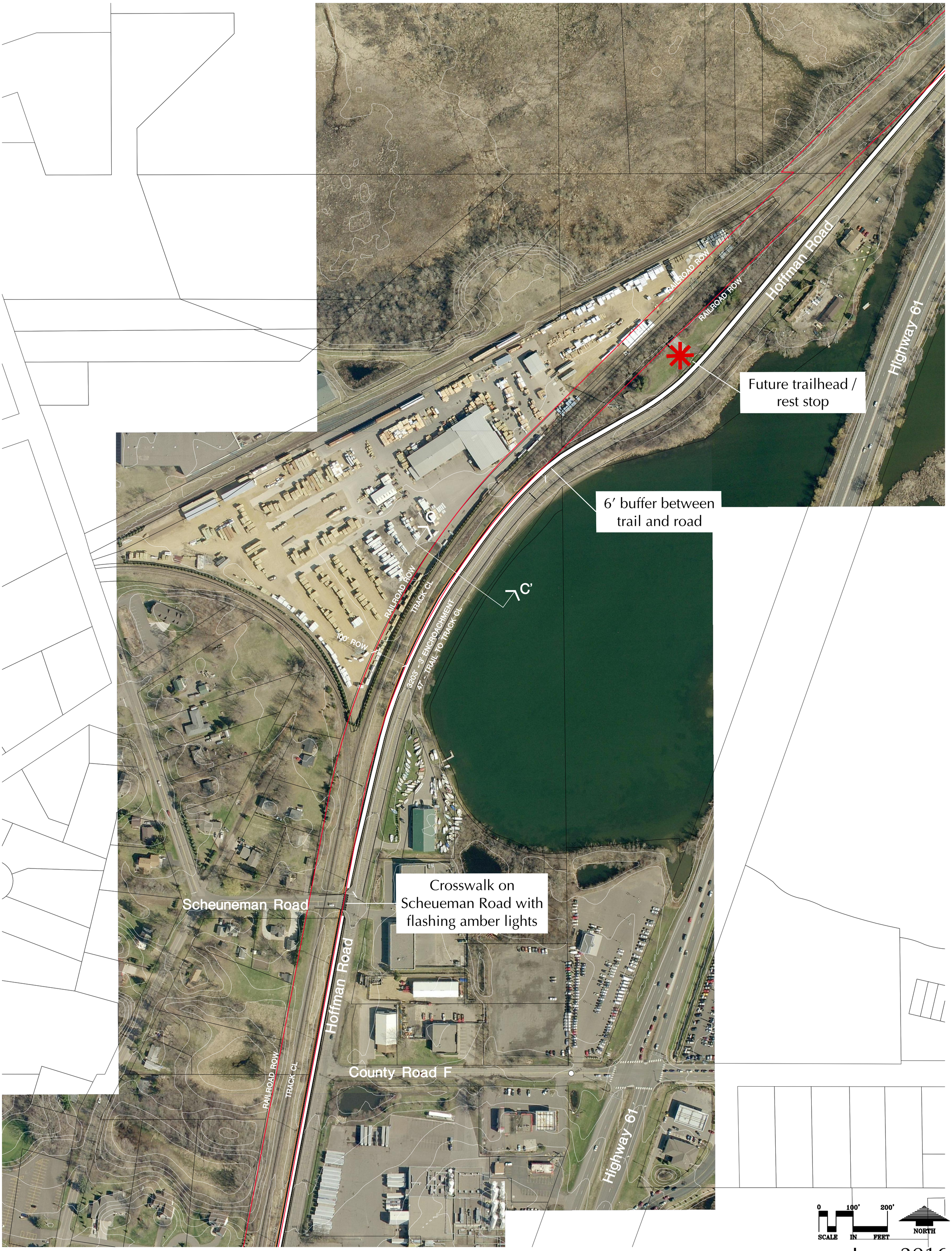
VENTO TRAIL - NORTH EXTENSION

Cedar Avenue to Scheuneman Road



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VENTO TRAIL - NORTH EXTENSION

Scheuneman Road north

Sheet 4

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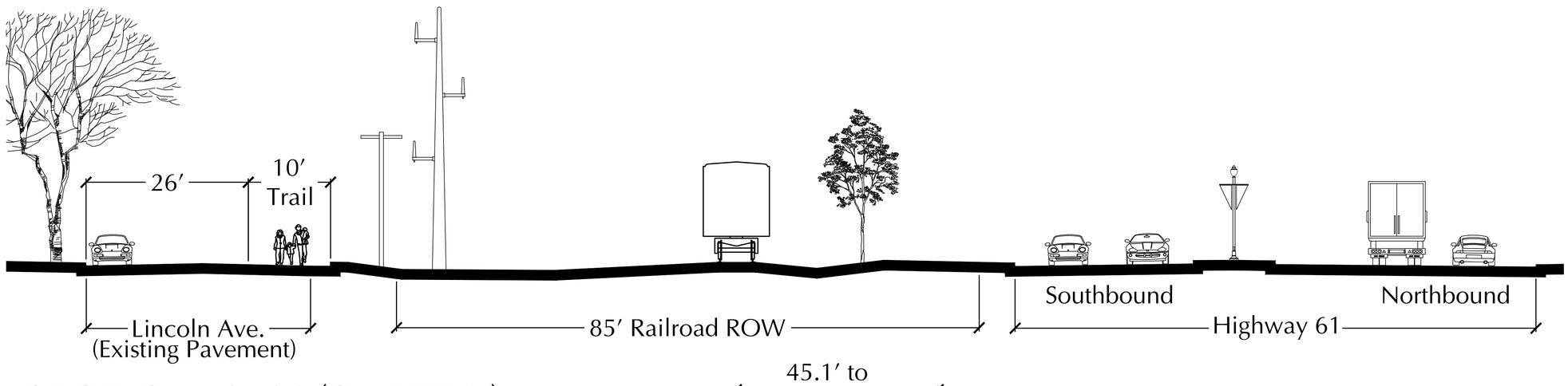
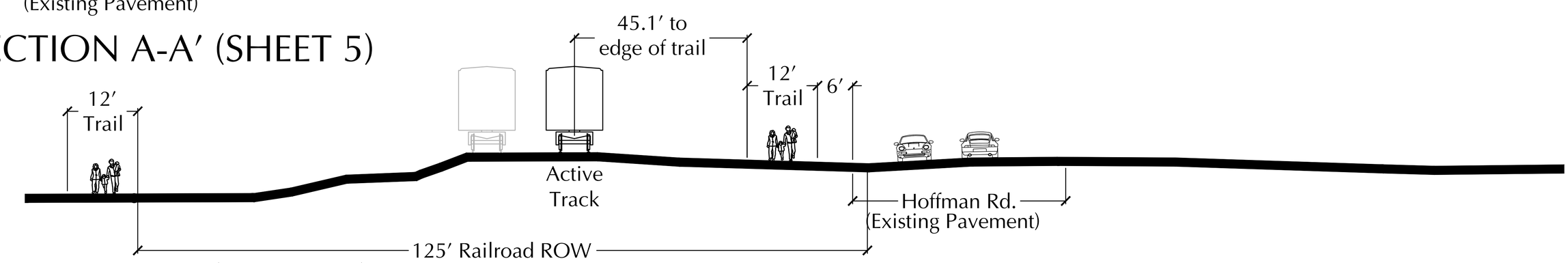
VENTO TRAIL - NORTH EXTENSION

Scheuneman Road north to Highway 96



SECTION A-A′ (SHEET 5)



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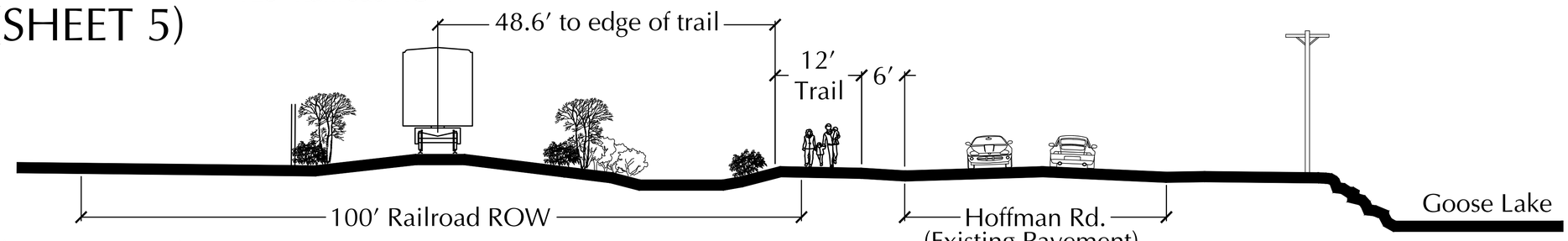

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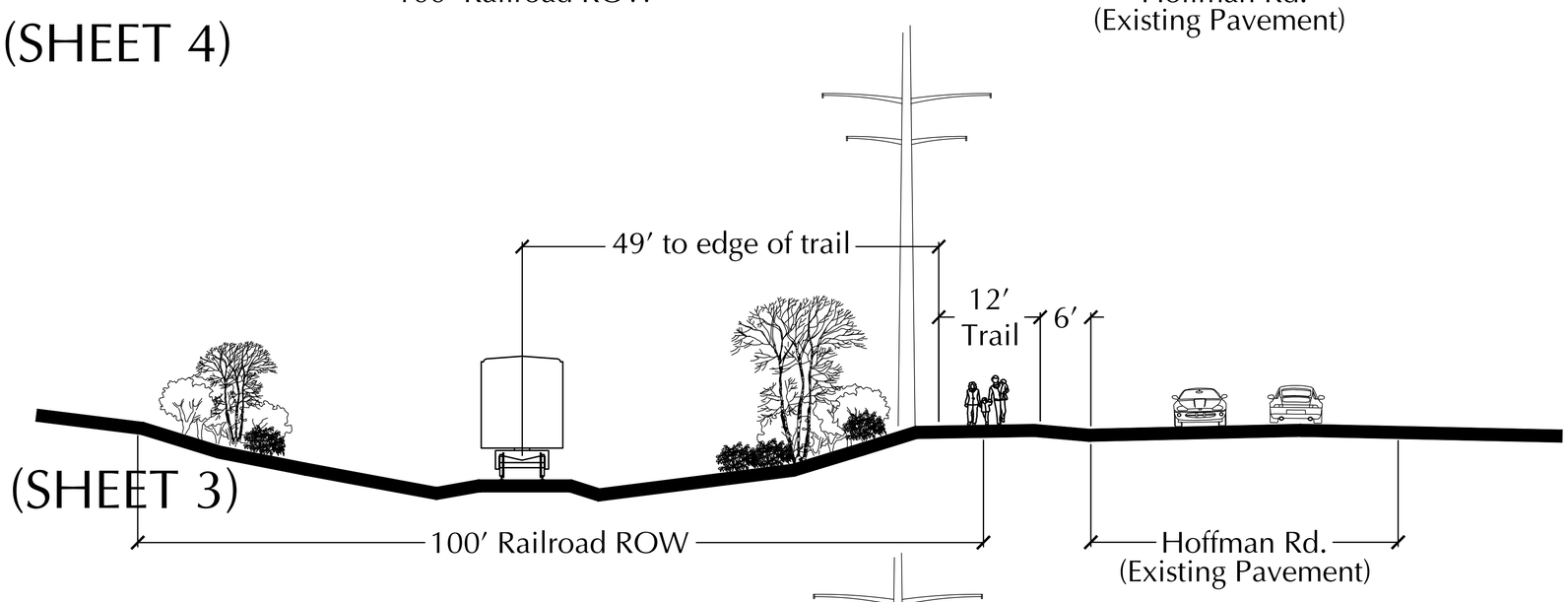

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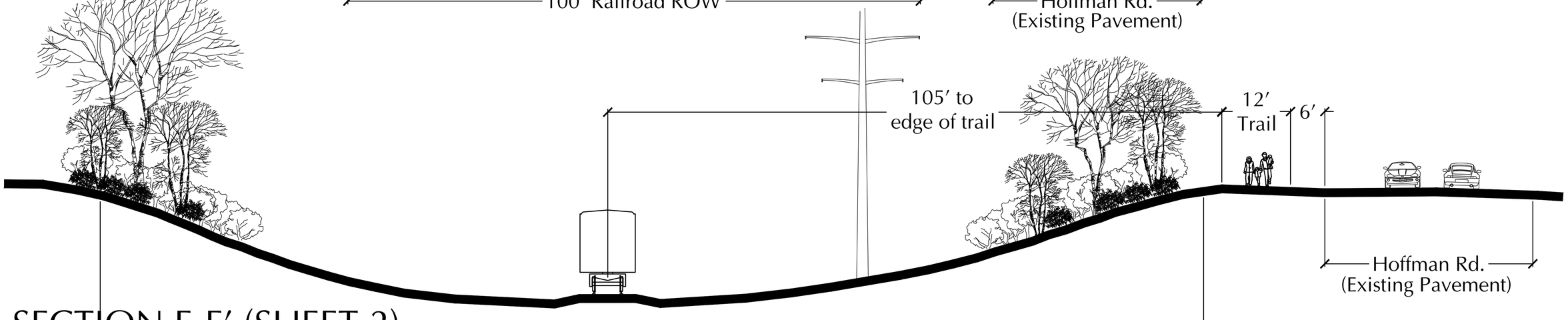

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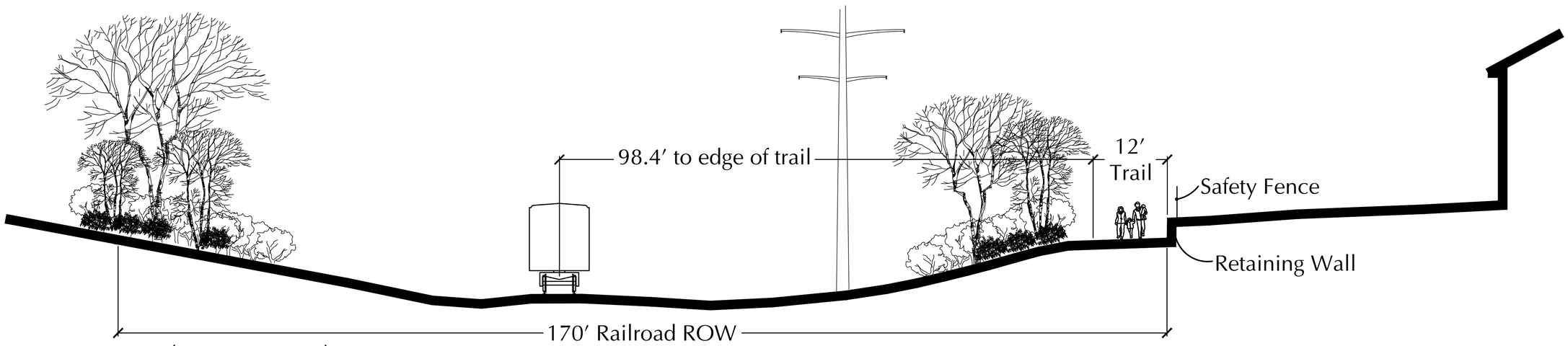

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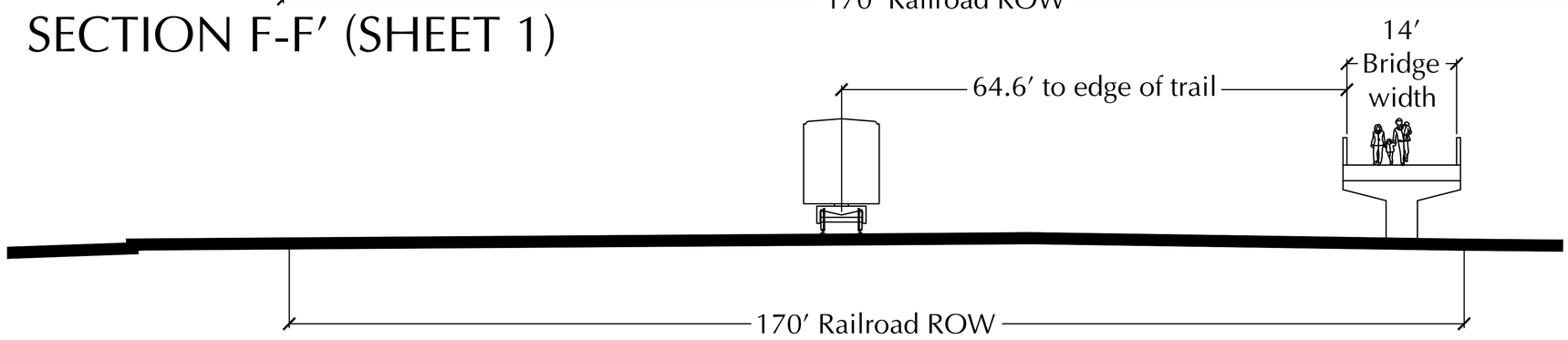

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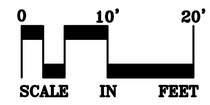

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VENTO TRAIL - NORTH EXTENSION

Corridor Sections

County Road E

6′ buffer between trail and road

Highway 61

RAILROAD ROW

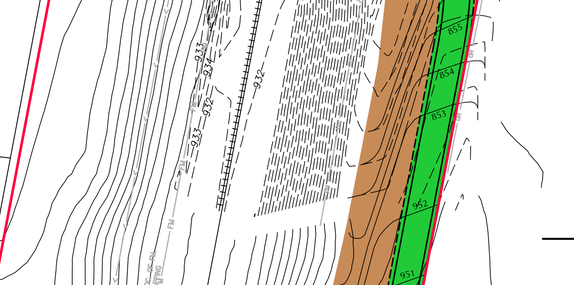
6′ Buffer between trail and road

Legend

- Permanent trail use agreement
- Construction access agreement
- Aquisition

SCALE IN FEET 0 40′ 80′

NORTH



SCALE IN FEET 0 10′ 20′

SCALE IN FEET 0 10′ 20′

COUNTY ROAD E UNDERPASS

HIGHWAY 61 UNDERPASS

June 2016

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VENTO TRAIL - NORTH EXTENSION

Bridge Underpasses

County Road E

Hoffman Road

Highway 61

Buerkle Road

196' ROW

RAILROAD ROW

TRACK CL

297' - 52' ENCROACHMENT
46' MIN - TRAIL TO TRACK CL

927' - 14' ENCROACHMENT
84' - TRAIL TO TRACK CL

Potential construction access point - coordinate with land owner

Aquisition from private property owner

170' ROW

412' - 14' ENCROACHMENT
86' - TRAIL TO TRACK CL

Construction access agreement with White Bear Lake

WBL

Wetland impact

Construction access agreement with White Bear Lake

Wetland impact

150' ROW

606'
64'

14' ENCROACHMENT
TRAIL TO TRACK CL

Construction access agreement with Metropolitan Sewer Board

Construction access

Bbc Ii Llc

Legend

- Permanent trail use agreement
- Construction access agreement
- Aquisition

0 100' 200'
SCALE IN FEET

NORTH

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VENTO TRAIL - NORTH EXTENSION

Easement and Aquisition Plan

Buerkle Drive to County Road E

Cedar Avenue

100' ROW

RAILROAD ROW

RAILROAD ROW

Construction access

200' ROW

RAILROAD ROW

TRACK CL

RAILROAD ROW

246'
50' ENCROACHMENT
52' MIN - TRAIL TO TRACK CL

Highway 61
underpass

196'
50' ENCROACHMENT
52' MIN - TRAIL TO TRACK CL

Highway 61

200' ROW

RAILROAD ROW

TRACK CL

Hoffman Road

Legend

Permanent trail use agreement

Construction access agreement

Aquisition

RAILROAD ROW

TRACK CL

539' - 56' ENCROACHMENT
46' MIN - TRAIL TO TRACK CL

200' ROW

Aquisition from
private property
owner

County Road E

County Road E
underpass

0 100' 200'

SCALE IN FEET

NORTH

June 2016

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Easement and Aquisition Plan

County Road E to Cedar Avenue