

**Commissioners:**

Sharon Brown  
James Bull  
James Daire  
Chuck Gitzen  
Julie Kimble  
Robert Murphy  
Peter Sparby



**Planning Commission  
Agenda  
Comprehensive Plan  
Update Meeting**  
Thursday, February 15  
6:30pm

**Address:**  
2660 Civic Center Dr.  
Roseville, MN 55113

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1. Call To Order
2. Roll Call
3. Approval Of Agenda
4. Review Of Minutes
5. Communications And Recognitions
  - 5.A. From The Public:  
Public comment pertaining to general land use issues not on this agenda, including the 2040 Comprehensive Plan Update
  - 5.B. From The Commission Or Staff:  
Information about assorted business not already on this agenda, including a brief update on the 2040 Comprehensive Plan Update process
6. Project File 0037: 2040 Comprehensive Plan Update

Documents:

[6 - PC COVER MEMO.PDF](#)

- 6.A. Follow-Up On Items From Previous Meetings
- 6.B. Parks And Recreation Chapter  
Review draft of chapter

Documents:

[6B - PARKS RECREATION TRAILS OPEN SPACE.PDF](#)

- 6.C. Transportation Chapter  
Review draft of chapter

Documents:

[6C - TRANSPORTATION.PDF](#)

- 6.D. Resilience Chapter  
Review of draft chapter, based on Planning Commission feedback

Documents:

[6D - RESILIENCE.PDF](#)

7. Adjourn



## Community Development Department

### Memo

**To:** Roseville Planning Commission

**cc:**

**From:** Bryan Lloyd, Senior Planner

**Date:** February 9, 2018

**Re:** Comprehensive Plan Update – Parks and Recreation, Transportation, Resilience

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1 For the meeting on February 15th, three draft chapters will be on the agenda. Below is a brief  
2 summary of each:

3 1) Parks and Recreation The bulk of the Parks and Recreation *plan* will be contained in  
4 the existing Parks and Recreation System Master Plan, and the pertinent chapter in the  
5 comprehensive plan will mostly contain background information, what we've heard  
6 from the community, and the goals and policies that support the System Master Plan  
7 and continue to be relevant. The Planning Commission has reviewed the draft goals  
8 and policies at a previous meeting, but this review will be the Commission's first  
9 exposure to the draft chapter for the comprehensive plan update.

10 2) Transportation The Planning Commission has reviewed the draft goals and policies of  
11 the Transportation chapter at a previous meeting, along with some of the underlying  
12 data and background information that the transportation plan update is based on.  
13 Since that previous review, the transportation plan has been updated to account for the  
14 current draft of the land use plan, and this review will be the Commission's first  
15 collective exposure to the draft chapter for the comprehensive plan update. The content  
16 of this draft is the same as what the Commissioners received after the February 7<sup>th</sup>  
17 meeting, although the formatting has been standardized to match the other chapters of  
18 the comprehensive plan update.

19 3) Resilience Based on the Planning Commission's feedback during the last discussion of  
20 this chapter, Becky Alexander, one of our partner consultants from LHB, and City staff  
21 have updated the Resilience chapter. Significant changes you will notice include:

- 22 • Additional information about the City's response to invasive species that  
23 threaten native trees and plants
- 24 • Clearer references to data sources
- 25 • Greater detail about benchmarks for greenhouse gas emissions goals
- 26 • More information and context about Roseville's potential solar and wind  
27 resources

28 Please note that this draft is mostly similar to the previous draft that the Planning  
29 Commissioners received after their February 7<sup>th</sup> meeting. The current draft uses "track  
30 changes" to highlight changes made by staff since the previous draft was distributed, as

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well as to highlight some of the more substantial changes Ms. Alexander made for the draft that was distributed on February 7<sup>th</sup>. Finally, some elements from the last Commission discussion have not yet been incorporated in to the current draft, but we can discuss those on Thursday.



## CHAPTER 8: PARKS, RECREATION, TRAILS, AND OPEN SPACE

The City of Roseville has a long commitment to providing the best park and recreation experiences possible to its residents. For generations, the City's residents and leaders have recognized the value of parks and recreation in improving their quality of life and generating a true sense of community. They have consistently demonstrated their belief that investing in these assets is an investment in their future, leaving a legacy for the next generation.

In late 2010, Roseville adopted a Park and Recreation System Master Plan (Master Plan) following a comprehensive community engagement effort over several years. That Master Plan embodies this generation's vision of the legacy they want to leave, and it has been influential in the built park and recreation projects that have taken place since it was created.

Since 2010 2011, Roseville made a major investment in the parks and recreation system, called the Roseville Park and Recreation Renewal Program (PRRP). This \$19M program added improved and/or replaced amenities, including selective land acquisitions, new park buildings, playgrounds, natural resource restoration, trails and pathways, and other facilities. It touched every park in the system and post-project surveys clearly reflect how these improvements have been positively received by the public.

Beyond the PRRP, the Parks and Recreation System Master Plan continues to guide investments, such as current projects like the reconfiguration of Evergreen Park, the Cedarholm Community Building and a new playlot in Southwest Roseville. As part of this Comprehensive Planning public process, it is evident that residents and leaders still strongly support the plan and see value in continuing on the path it laid out. Therefore, this chapter of the Comprehensive Plan is primarily focused on updating any elements that have changed since 2010 and tying this vision strongly to the overall planning for Roseville as a whole.

## WHAT WE HEARD

### Public Engagement

Parks, Recreation, Trails, and Open Spaces have been incorporated in every engagement tool used, including public meetings, intercepts, online surveys, walkabouts, meetings-in-a-box, focus groups, and stakeholder interviews. The message from the public has been very positive and consistent:

- People love Roseville’s parks and recreation; they are one of the main reasons that they appreciate Roseville.
- We are committed to following the master plan vision for parks, set in 2010

### Parks and Recreation Commission

In addition to the public engagement process, the Parks and Recreation Commission has been reviewing and updating the goals and policies from the 2010 Master Plan through a series of meetings and exercises. They have verified their validity and are very supportive of continuing those elements with minor revisions. The “Goals and Policy” section below reflects those modestly revised statements.

## CITYWIDE GOALS

Several of the Citywide Goals established in Chapter 2 relate to the topic of parks, recreation, trails and open space, including:

1. Create an attractive, vibrant, and effective city with a high quality of life by implementing placemaking principles to the design and management of the public realm.
2. Foster and support community gathering places both large and small.
3. Create gathering places in a diverse range of sizes and types and spaces throughout the City to promote community and create spaces for arts and culture.
4. Preserve and enhance soil, water, and urban forest resources.
5. Expand and maintain year-round, creative programs and facilities for all ages, abilities, and interests.
6. Provide high quality and well-maintained facilities, parks, and trails.
7. Enable active and healthy lifestyles for all.

8. Plan for and support a multi-modal transportation system that moves people and goods safely and efficiently
9. Expand, maintain, and promote a system of continuous and connected pathways that encourage walking and biking.

## 2010 MASTER PLAN UPDATES

Since the adoption of the 2010 Parks and Recreation System Master plan, Roseville has undertaken a number of projects within the parks as part of the PRRP and other efforts. In addition, they have acquired several new park spaces. Map 8-1 shows additions to the parks and recreation system.

### Current Projects

Current projects include:

- Constructing “Cedarholm Community Building”
- Community process and design for 2132 Cleveland Avenue site
- Community process and design for 1716 Marion Street site
- Parks and Recreation Renewal Program, with numerous projects city-wide
- Parks and Recreation System Natural Resources Restoration

### Ongoing Priorities

Improving the distribution of park and recreation services in Southwest Roseville remains an area of focus. Various strategies have been identified for Southwest Roseville in the Master Plan, and undertaking those strategies is an ongoing priority that is continuing to be pursued as it makes sense (refer to map 8-2). Several approaches are described in the Parks and Recreation System Master Plan to create a network of parks and recreation opportunities, building towards a system that looks more like the amount of parks and recreation opportunities provided in other sectors of Roseville.

Beyond Southwest Roseville, it is a medium priority to acquire lots at Langton Lake, Acorn, or other instances where a lot could complete a logical park outline. For instances like completing a loop around Langton Lake, securing trail easements would also be a potential method for achieving the goal. If housing density increases (for instance, if residential housing is added around Rosedale), a similar approach would be taken to that seen in Southwest Roseville, but likely focusing on Park Dedication as the primary tool. Roseville

Parks and Recreation will always consider other opportunities on a case-by-case basis, but adding new parks in well-served areas is a low priority.

For all Potential Future Projects, Roseville Parks seeks willing buyer/willing seller situations at reasonable prices, and once a project is undertaken, Roseville Parks and Recreation is always committed to going through their full community process for planning and design. The Roseville Parks and Recreation ADA Transition Plan is to achieve ADA compliance with every new and renovated project as part of the Parks and Recreation ADA Transition plan.

### Coordination with Pathways Planning

The 2010 Master Plan provided a vision for connectivity between parks, housing, businesses and schools. This was based on the “constellation” concept which generated more value within the system by connecting parks in logical ways (refer to map 8-3). With good connectivity, not every park has to provide duplicative services and the park experiences extends into the surrounding neighborhoods. That approach remains the focus of Roseville Parks and Recreation, in coordination with the Pathways Plan.

### Coordination with Regional Facilities/Entities

Regional facilities are a valued asset to the park and recreation system and were recognized as part of the 2010 Master Plan. Regional Facilities include (refer to map 8-4):

- McCarrons Lake County Park
- Josephine County Park
- County trails
- The Oval Guidant John Rose Minnesota OVAL

Continued and expanded coordination has occurred since 2010, including the recent meeting between the Parks and Recreation Commissions of Ramsey County, aimed at creating more synergy between the facilities and programs provided by both entities.

### Goals and Policies

The following Goals and Policies originated from the 2010 Master Plan and were reviewed and confirmed by the Parks and Recreation Commission over the past several months. In most cases, the Goals and Policies are unchanged,

but minor revisions were made. Items affected by those revisions are identified by an asterisk, below.

## 1. Parks and Recreation Systems Management

Maintain ongoing parks and recreation planning, maintenance, and asset management process that involves citizen engagement, adheres to professional standards, and utilizes prudent professional practices. Ensure timely guidance for protecting the community's investment in parks, open space, and recreation programs and facilities to enhance their long-term and sustained viability.

Policies:

- 1.1. Re-evaluate, update, and adopt a Park and Recreation System Master Plan at least every five years to reflect new and current trends, changing demographics, new development criteria, unanticipated population densities, and any other factors that affect park and recreation goals, policies, and future direction of the system.
- 1.2. \*Monitor progress on the Parks and Recreation System Master Plan annually to ensure that it provides actionable steps for maintaining, improving, and expanding the system. Parks and Recreation Commission will review and track annually.
- 1.3. Maintain and operate parks, open space, and recreation facilities in a safe, clean, and sustainable manner that protects natural resources and systems, preserves high quality active and passive recreation opportunities and experiences, and is cost-effective.
- 1.4. Consider staffing and resource needs in the evaluation of proposals for additions to parks, programs, and facilities
- 1.5. Use the Sector and Constellation organization structure as the basis for park, recreation program, and facility locations, development, and service delivery.
- 1.6. Enhance neighborhood and community identity in the design of parks, programs, and facilities through public art, special events, and stewardship of natural features.
- 1.7. Establish a service standard of having a neighborhood park or active play space in every park service constellation.
- 1.8. Preserve parks and school open space areas as part of the citywide systems plan for structured recreation space and unstructured preserved natural areas.
- 1.9. Include Ramsey County park land and open space in planning and providing recreation services to Roseville residents

- 1.10. Seek partnership to provide the community with a greater diversity or number of parks and facilities, and to offer a more expansive catalog of programs and events.
- 1.11. Seek sponsorships and scholarships and other revenue streams to facilitate program fee reductions.
- 1.12. Continue to coordinate, cooperate, and collaborate with adjacent communities, school districts, and governmental jurisdictions to leverage resources regarding the use of parks on common municipal boundaries and on joint programming where appropriate for mutual benefit to optimize open space, fitness, and recreation programming and facility options.
- 1.13. Complete park concept plans for all parks.
- 1.14. Evaluate the maintenance implications of potential park land acquisitions and capital improvements.
- 1.15. Annually recommend the adoption of a ten-year Capital Improvement Plan (CIP) for Parks and Recreation.
- 1.16. Use the procurement methods that deliver the best value for the community.
- 1.17. Research, develop, and recommend to the City Council and citizens periodic bond referendums, park and trail dedication fees, urban forest management fees, special assessments, or other funding programs to reinvest in parks and recreation facilities needed within Roseville.
- 1.18. Explore the potential for implementing a park service district as a means of creating a sustainable, independent source of local funding for the parks and recreation system.
- 1.19. \* Whenever possible, supplement the development and maintenance of parks and recreation lands and facilities with the use of non-property tax funds.
- 1.20. \*Pursue additional funding such as local option sales tax or State bond funds to support Roseville facilities of regional or State-wide significance.
- 1.21. Discourage commercial uses in parks, programs, or facilities and/or parks and recreation facilities. However, commercial uses could be permitted in situations in which the proposed use complements the park or recreation function, is benign, or where it does not conflict with the purpose of the park, recreation facility, or the overall intent of the Parks and Recreation System Master Plan. In no case should a commercial use be permitted in designated conservation or natural use areas.
- 1.22. Involve the Parks and Recreation Commission in the parks and recreation planning process. Support the Commission in its role as liaison between citizens and Roseville's elected officials and appointed staff to interpret citizen needs and interests and to recommend programs, facilities, and services that serve them. Stimulate additional volunteer involvement in the delivery and support of the parks and recreation system.

- 1.23. Involve a diverse and representative group of participants in the parks and recreation planning process. Conduct active and continuous interaction within the community with neighborhoods, special interest groups, and individuals of all ages to achieve effective recreational programming and facility development.
- 1.24. Parks and recreation staff should play the key role in the delivery of parks, programs, and facility services. Community volunteers should be used whenever and wherever possible and appropriate to enrich the experience for the participant and volunteer.
- 1.25. Develop and implement an ongoing public information and marketing program to inform the public of their investments, opportunities, and benefits of a quality parks and recreation system.
- 1.26. Assign names, or change names, of City- owned parks or recreation facilities, in consultation with the Parks and Recreation Commission, based on natural habitat, geographic location, and appropriate non-descript terminology. Only under certain and exceptional circumstances will consideration be given to names of individuals and/ or organized groups, associations, or businesses.

## 2. Parks Development, Redevelopment and Rehabilitation

Provide a high-quality, financially sound system of parks, open spaces, trails, and waterways that meets the recreation needs of all city residents, offers a visual/physical diversion from the hard surfacing of urban development, enhances our quality of life, and forms an essential part of our community's identity and character.

Policies:

- 2.1. Evaluate and refurbish parks, as needed, to reflect changes in population, age, and diversity of residents, recreational activities preferred, amount of leisure time available, and best practice designs and technologies, and asset management strategies.
- 2.2. Orient parks and programs equitably to youth activities that focus on community building activities teaching them life-long skills, and exposing them to a variety of recreation experiences, and to adult activities which accommodate adults' needs for wellness and provide a range of social interaction opportunities.
- 2.3. Focus parks on passive and active recreational activities and activities that take advantage of the unique natural features. Pursue opportunities for incorporating art and cultural programs, which enrich citizens' mental and emotional well-being, as a complement to primary physical focus of parks and recreation programs.

- 2.4. Organize all parks and facilities so that a component is provided for informal, non-programmed activities—those open to anyone in the community, at any time.
- 2.5. Maintain parks and open space according to the standards outlined in the Park Maintenance Manual which recognizes that levels of service must be provided based on the intensity of use and purpose of the site.
- 2.6. Use innovative methods for park and facility improvements that offer lower lifecycle costs, even if the initial cost is higher. Develop park and recreation facilities that minimize the maintenance demands on the City by emphasizing the development of well-planned parks, high-quality materials and labor-saving maintenance devices and practices.
- 2.7. Promote and support volunteerism to encourage people to actively support Roseville's parks and open spaces.
- 2.8. Encourage the preservation of features in parks considered to be of historic or cultural value, especially those features that do not conflict with other park uses and activities. Consider the potential of historic landscapes in parks, including agricultural landscapes or features. Work to perpetuate those landscapes and other features of historic or cultural significance when they are identified through recognized investigations.

### 3. Parks and Open Space Acquisition

Add new parks and facilities to achieve equitable access in all neighborhoods, accommodate the needs of redeveloping areas, and meet residents' desires for a range of recreation opportunities serving all ages, abilities, and cultures.

Policies:

- 3.1. Ensure that no net loss of parkland or open space occurs during alterations or displacement of existing parkland and open space. If adverse impacts to parkland or open space take place, ensure that mitigation measures include the acquisition of replacement parkland of equal or greater size and value.
- 3.2. As areas of Roseville evolve, and properties undergo a change of use and/or density, land should be dedicated to the community for park purposes to ensure adequate park facilities for those new uses.
- 3.3. Determine potential locations and acquire additional park land in neighborhoods and constellations that are lacking adequate parks and recreation facilities.
- 3.4. \* Determine locations for new park and recreation facilities in redevelopment areas as part of the redevelopment process and use the park dedication process to acquire appropriate land, prioritizing the purchase of properties adjacent to current parkland.



- 3.5. Make continued effective use of the Park Dedication Ordinance. Park land dedication will be required when land is developed or redeveloped for residential, commercial, or industrial purposes. Review annually park dedication requirements in order to ensure that dedication regulations meet statutory requirements and the needs of Roseville.
- 3.6. Use park dedication funds to acquire and develop new land in addition to other funding sources.
- 3.7. Acquire properties necessary to implement adopted park concept plans and in Roseville's Comprehensive Land Use Plan, and consider other additions based on needs identified in the sector or constellation concept. Acquire land on a "willing seller" basis unless otherwise determined by the City Council.

#### 4. Trails, Pathways and Community Connections

Create a well-connected and easily accessible system of parks, open spaces, trails, pathways, community connections, and facilities that links neighborhoods and provides opportunities for residents and others to gather and interact.

Policies:

- 4.1. \*Develop, adopt, and implement a comprehensive and integrated trails, pathways, and community connections system plan for recreation and transportation uses, including separate facilities for pedestrians, and bicyclists (including off-road unpaved trails for bikers and hikers that offer new challenges while protecting resources). Distinguish the specific role of the Parks and Recreation Department in maintaining those facilities, separate from the Public Works Department's role in constructing and repairing them.
- 4.2. Develop, adopt, and implement a Trails Management Program (TMP).
- 4.3. Advocate the implementation of community parkways on the County Road C and Lexington Avenue corridors to accommodate pedestrian and bicyclist movement and inclusion of community character and identity features.
- 4.4. Maintain the trail and pathway system through all seasons.
- 4.5. Make the park system accessible to people of all abilities.
- 4.6. Align development and expansion of non-motorized trails, pathways, community parkways, and other routes with the need to provide connections to and within parks, to open spaces, recreation facilities, and key destinations, as well as between neighborhoods, constellations, and sectors.
- 4.7. Educate the public on the advantages and safe use of non-motorized trails, pathways, and community parkway connections.
- 4.8. Develop clear and communicative signage and kiosks for wayfinding.

## 5. Recreation Programs and Services

Provide Roseville residents with opportunities to participate in a variety of recreation, athletic, wellness, art, social, learning, and environmental education activities and programs through well- designed, cost effective, and relevant services.

Policies:

- 5.1. \* Provide recreation programs and services that address the recreational desires of people of all abilities and all segments of the community including children, teens, adults, older adults, and adverse ethnic groups.
- 5.2. Organize a variety of community special events that stimulate interest in recreation participation, promote community identity and pride, encourage volunteerism, and bring together all segments of the community.
- 5.3. \* Celebrate Roseville's heritage and cultural potential by acquiring and exhibiting quality works of art, historic artifacts, providing access to a variety of performance arts, and by offering a diverse mixture of community events.
- 5.4. \* Administer all programs and services equitably to ensure that all individuals and groups receive adequate representation, seeking out those with little or no voice.
- 5.5. Monitor new trends, patterns, and activities in recreation and leisure service programs and incorporate revisions to Roseville's programs to reflect these changes at a broader level.
- 5.6. Establish ongoing communication, information, and marketing programs that broaden recreational interests and encourage participation in Roseville's recreation programs.
- 5.7. Coordinate and cooperate with school districts, community, county, and state agencies, private businesses, and surrounding municipalities to provide diverse and extensive programs and services that are affordable to all participants.
- 5.8. Facilitate community recreation groups by providing technical support, equipment storage, promotional assistance, mailboxes, and meeting space.
- 5.9. Act as liaison to recognized community groups providing recreation programs and services.
- 5.10. Evaluate all programs and services quarterly and annually for quality, participant satisfaction, financial feasibility, and community desirability.
- 5.11. Develop and maintain a system of program fees and charges that assess direct costs to the participants, while remaining affordable to the community.

- 5.12. Provide residents with community activities and events using subsidies or fee waivers through scholarships, sponsorships, or other methods of fee assistance

## 6. Community Facilities

Locate, design, construct, and manage community facilities to meet the needs of current and future residents.

Policies:

- 6.1. Provide community facilities that include desired community amenities for recreation and social interaction at an appropriate level within sectors and constellations.
- 6.2. Assess community needs and desires for the use of existing community facilities and the need for additional space, renovated space, and improved space.
- 6.3. Facilitate a system of community and recreation spaces in conjunction with the school districts that provides for both structured and unstructured times as managed and scheduled by the City.
- 6.4. Define a strategy, identify a site, and confirm a program for implementing a community center.
- 6.5. Manage and maintain facilities using best practices and cost-effective methods to provide desired recreation services.
- 6.6. Leverage private involvement in the form of sponsorships, joint ventures, and contract for services to support facilities.

## 7. Natural Resources Management

Preserve significant natural resources, lakes, ponds, wetlands, open spaces, wooded areas, wildlife habitats, and trees as integral aspects of the parks system.

Policies:

- 7.1. Encourage dedication of parks, open spaces, and trails in new development and redevelopment areas, especially those that preserve significant natural resources and/or adjacent to the subject site.
- 7.2. Create, adopt, and use Natural Resources Management Plans to preserve, restore, and manage the significant natural resources in the park system.
- 7.3. Preserve wooded areas and implement an aggressive reforestation and forestry management program to ensure that Roseville has a substantial aesthetically pleasing and environmentally critical tree population in its parks, open spaces, boulevards, and other City property.

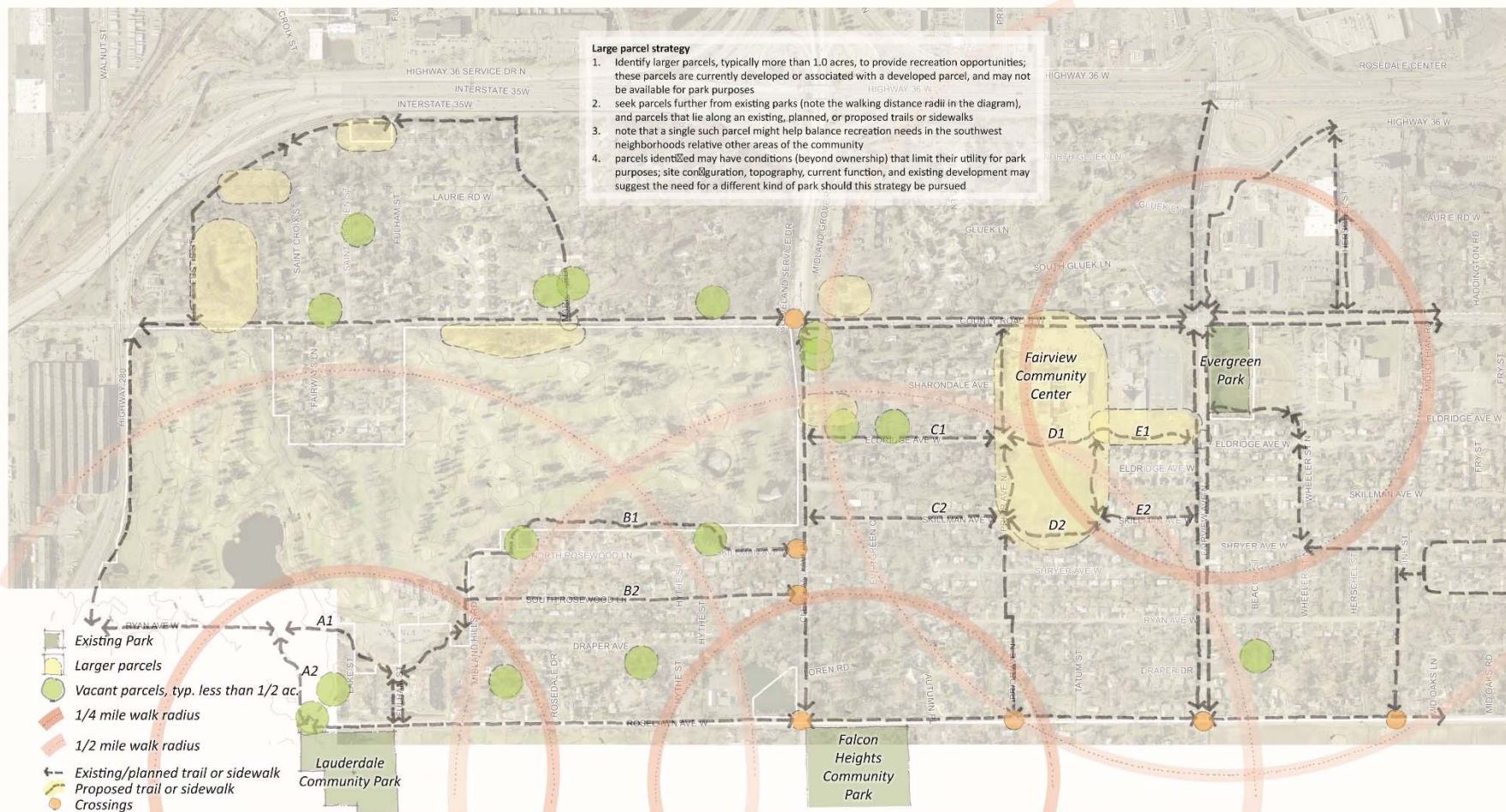
- 7.4. \* Provide community environmental education programs to increase the community's awareness, understanding, and appreciation of natural areas, including the need for trees, proper tree care, plantings procedures, and critical habitat for pollinators.
- 7.5. Cooperate with the three watershed districts with jurisdiction over parks in Roseville to effect water quality improvement projects within parks, and to create landscapes that are sensitive to stormwater management goals for park lands. Work with the watershed districts to add features to parks that help park users appreciate the water quality improvements, focusing on features such as overlooks or seating areas that take advantage of view to surface water features, with educational and interpretive signage aimed at creating a better understanding of the need for attending to water quality in our parks and in the community. Work with the watershed districts to create park-like environments surrounding water quality improvement projects and stormwater management basins in non-park areas that are accessible to Roseville residents and the community's working population.
- 7.6. Create landscape improvements and design parks to enhance opportunities for wildlife, where those improvements and facilities are not in conflict with other park uses or activities. Direct particular attention to the creation of wildlife habitat in parks, where wildlife would not be compromised by the presence of park activities.
- 7.7. Promote and support volunteerism to encourage people to actively support Roseville's parks and open space.

Map 8-1: Additions since 2010 Parks and Recreation Master Plan: New Parcels added at Langton Lake, Cleveland, Autumn Grove, Marion, and Villa Parks





Map 8-2: Southwest Roseville approach



**Large parcel strategy**

1. identify larger parcels, typically more than 1.0 acres, to provide recreation opportunities; these parcels are currently developed or associated with a developed parcel, and may not be available for park purposes
2. seek parcels further from existing parks (note the walking distance radii in the diagram), and parcels that lie along an existing, planned, or proposed trails or sidewalks
3. note that a single such parcel might help balance recreation needs in the southwest neighborhoods relative other areas of the community
4. parcels identified may have conditions (beyond ownership) that limit their utility for park purposes; site configuration, topography, current function, and existing development may suggest the need for a different kind of park should this strategy be pursued

- Existing Park
- Larger parcels
- Vacant parcels, typ. less than 1/2 ac.
- 1/4 mile walk radius
- 1/2 mile walk radius
- Existing/planned trail or sidewalk
- Proposed trail or sidewalk
- Crossings

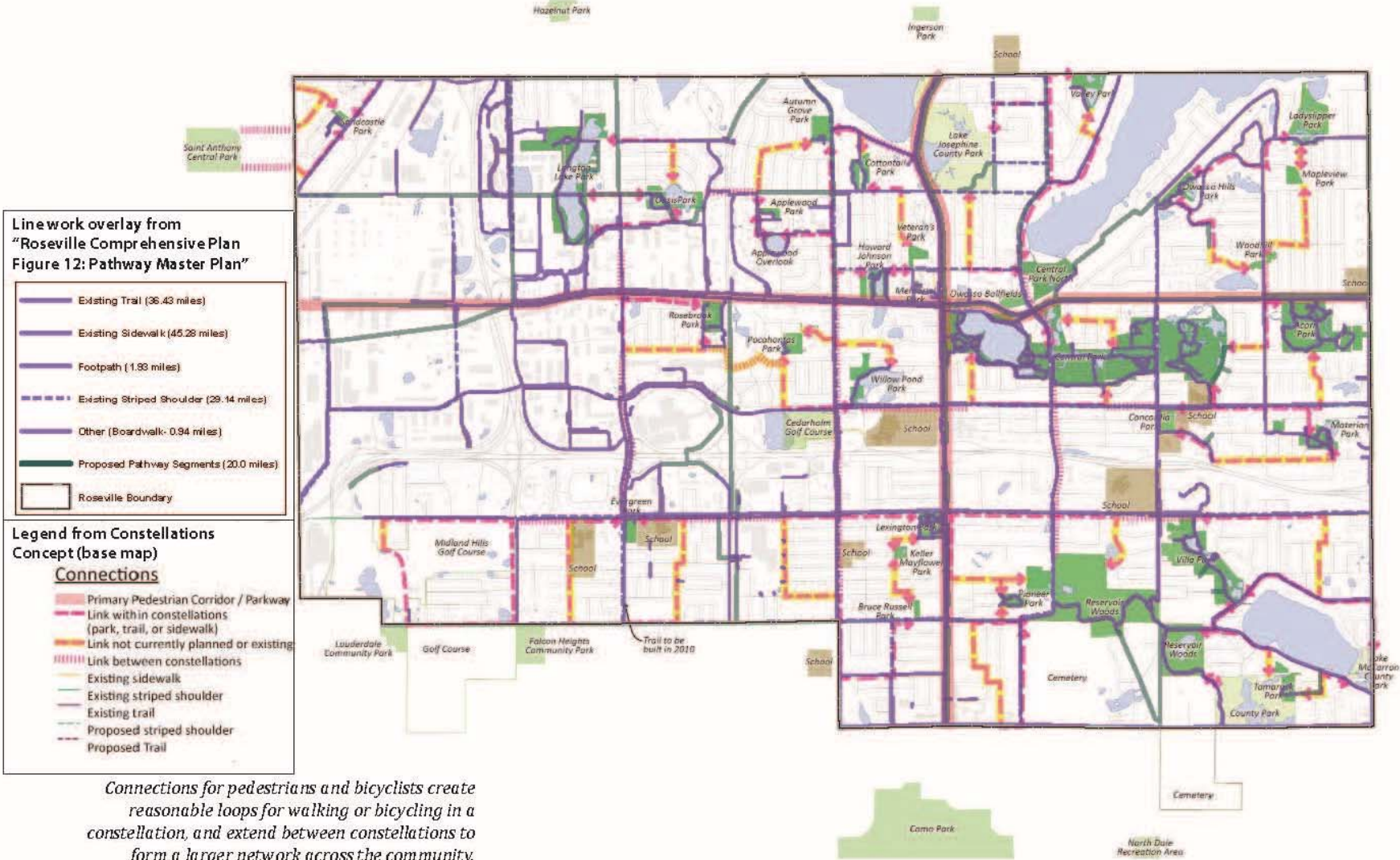
- Connectivity strategy**
1. use existing parks in Roseville and parks and open spaces in neighboring communities by extending trails or sidewalks to link residents to recreation opportunities
  2. enhance crossings of major streets to facilitate pedestrian movement
  3. explore routing options to define beneficial (not expeditious) connections
  4. create a connection at the west end of Midland Hills Country Club in the narrow conditions along the noise barrier
  5. cooperate with neighboring communities to expand program opportunities and recreation facilities to better serve residents of all affected communities

- Small parcel strategy**
1. identify small "vacant" parcels, typically less than 0.5 acres, to provide recreation opportunities; "vacant" parcels are currently in private ownership (typically owned by an adjacent property owner); as such, some or all of these parcels may not be available
  2. seek parcels further from existing parks (note the walking distance radii in the diagram), and parcels that lie along an existing, planned, or proposed trails or sidewalks
  3. note that many such parcels will be required to fulfill southwest Roseville's anticipated recreation needs

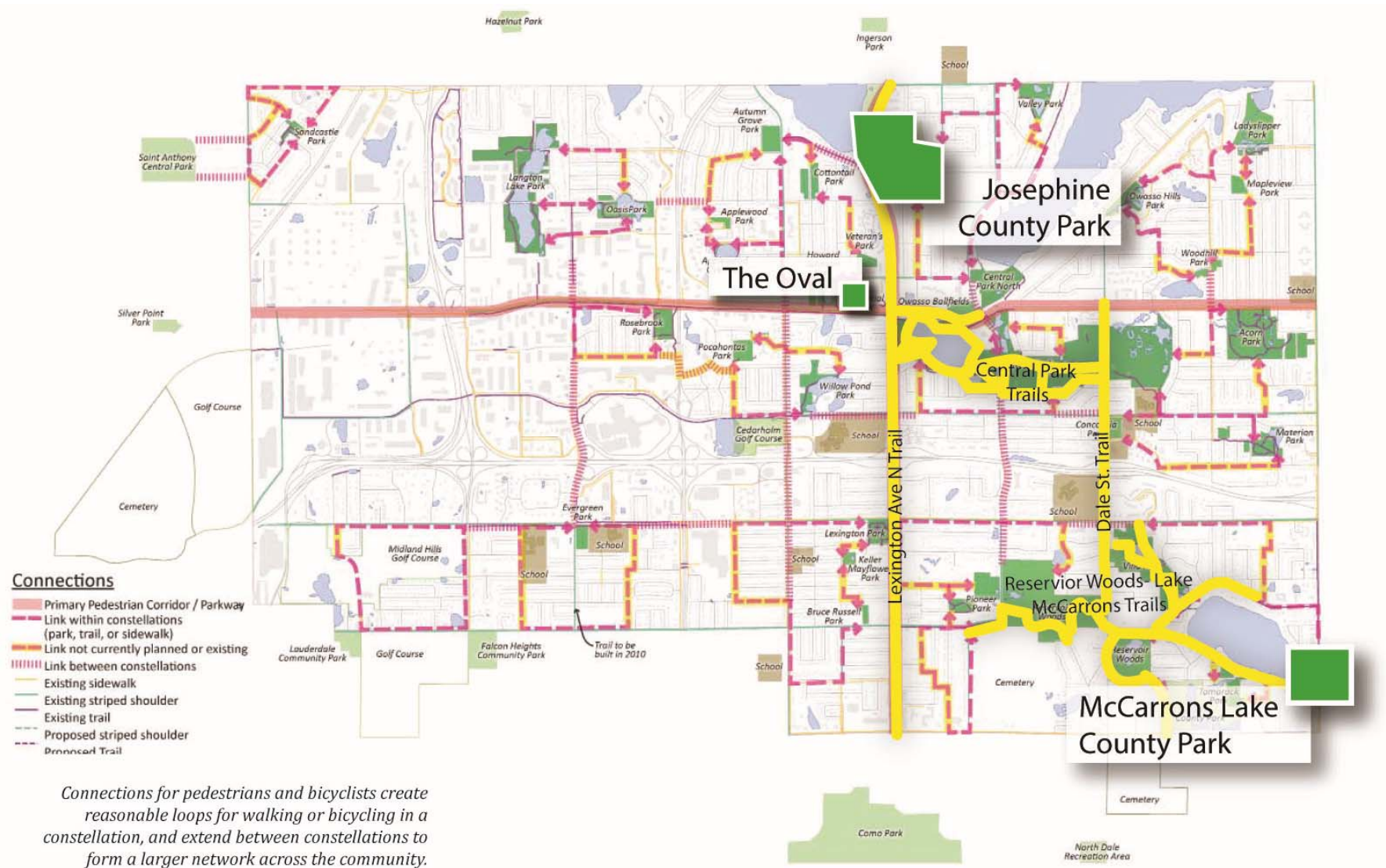




Map 8-3: Pathways Constellation Concept



Map 8-4: Regional Facilities







## CHAPTER 7: TRANSPORTATION

### INTRODUCTION

The City of Roseville boasts a robust, complex, multimodal transportation system that includes facilities for vehicles, freight, walking, bicycling and transit. These facilities are operated by a number of agencies including the City of Roseville, Ramsey County, the Minnesota Department of Transportation (MnDOT) and the Minnesota Commercial Railway (MNNR). Metro Transit also provides local and regional transit service in and around the City of Roseville.

This transportation chapter has been prepared in compliance with State of Minnesota Statutes and applicable Metropolitan Council guidelines. As part of this Plan, the City has reviewed existing and future conditions for each mode and identified safety, operations, and network improvements that will be important to address over the 2040 planning horizon. The City has also developed goals and strategies to preserve and improve the transportation system.

#### **This transportation plan includes the following information:**

1. Summary of Regional Strategies
2. Existing Roadway System
3. 2040 Traffic Forecasts and Roadway Network Planning
4. Existing and Planned Non-Motorized Transportation Network
5. Freight Network
6. Transit
7. Aviation
8. Goals and Multimodal Strategies
9. Proposed Short and Long Range Roadway Projects
10. Public Comments
11. Conclusion and Next Steps

## TRANSPORTATION GLOSSARY

**CIP:** Capital Improvement Plan – five-year plan for capital investments in the transportation system and in other capital assets owned by the City (equipment, buildings, etc.).

**CR:** County Road – county-owned roadway that does not receive State funding.

**Critical Crash Rate:** Statistical indicator of a safety problem at a location. If crash rates at a location are above the critical crash rate, it indicates that the location has a crash rate that is statistically significant compared to similar roadways.

**CSAH:** County State Aid Highway – county-owned roadway that receives State Aid funding.

**MnDOT:** Minnesota Department of Transportation.

**RBTN:** Regional Bicycle Transportation Network – existing and planned regional bicycle network established by the Metropolitan Council.

**TH:** Trunk Highway – State highway owned and operated by MnDOT.

**TPP:** Transportation Policy Plan – Regional transportation plan for the Twin Cities metropolitan region, developed by the Metropolitan Council.

## 1. SUMMARY OF REGIONAL STRATEGIES

This Plan has been prepared to be consistent with the regional transportation strategies outlined in the Metropolitan Council 2040 Transportation Policy Plan (TPP). Similar to this Plan, the TPP evaluates the existing transportation system, identifies transportation challenges to the region, and sets regional goals, objectives, and priorities to meet the transportation needs of current residents while accommodating the region's anticipated growth. The TPP also guides local agencies in coordinating land use and transportation and establishes regional performance measures and targets.

### The TPP is guided by the following goals:

- **Transportation system stewardship:** Sustainable investments in the transportation system are protected by strategically preserving, maintaining, and operating system assets.
- **Safety and Security:** The regional transportation system is safe and secure for all users.
- **Access to Destinations:** People and businesses prosper by using a reliable, affordable, and efficient multimodal transportation system that connects them to destinations throughout the region and beyond.
- **Competitive Economy:** The regional transportation system supports the economic competitiveness, vitality, and prosperity of the region and State.
- **Healthy Environment:** The regional transportation system advances equity and contributes to communities' livability and sustainability while protecting the natural, cultural, and developed environments.
- **Leveraging Transportation Investment to Guide Land Use:** The region leverages transportation investments to guide land use and development

Funding is a key constraint that is acknowledged in the TPP. Current transportation revenue will not meet the region's transportation needs through 2040. As a result, the TPP includes two long-term investment scenarios: a fiscally-constrained scenario that identifies projects anticipated to be funded based on current revenue projections, and an increased revenue scenario that identifies project priorities should additional transportation funding become available.

Under the current revenue scenario, the TPP is focused on operations and maintenance of the existing transportation system. Investments in highway mobility and access are limited to those projects that address multiple TPP goals and objectives. The increased revenue scenario would allow additional investments in operations and maintenance, as well as regional mobility, access, safety, and bicycle/pedestrian improvements. However, congestion cannot be greatly reduced under even the increased revenue scenario. Under both scenarios, proposed investments are focused on areas of the metro with the greatest existing and future challenges and anticipated growth.

The Metropolitan Council classifies Roseville under the Urban Community Designation. Based on *Thrive MSP 2040*, Urban areas are expected to plan for forecasted population and household growth at average densities of at least ten units per acre for new development and redevelopment. These communities are also expected to target opportunities for more intensive development near regional transit investments.

## 2. EXISTING ROADWAY SYSTEM

The sections below provide information about the existing roadway system Roseville, including existing number of lanes, existing roadway jurisdiction, existing functional classification, existing traffic, existing safety, and access management. This chapter also includes summary recommendations from recent plans and corridor studies.

### 2.1. Functional Classification

The functional classification system groups roadways into classes based on roadway function and purpose. Functional classification is based on both transportation and land use characteristics, including roadway speeds, access to adjacent land, connection to important land uses, and the length of trips taken on the roadway.

The **functional classification system** organizes a roadway and street network that distributes traffic from local neighborhood streets to collector roadways, then to minor arterials and ultimately the principal arterial system. Roads are placed into categories based on the degree to which they provide access to adjacent land and mobility for through traffic. Functional classification gives an indication of the relative hierarchy of roadways in the transportation network.

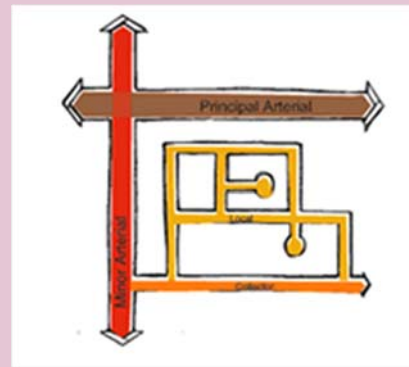


Image: MnDOT

Four classes of roadways are included in the seven-county metropolitan area functional classification system: principal arterials, minor arterials, collector streets, and local streets. **Figure 1** shows the existing functional classification of each road in the City of Roseville and **Figure 2** shows the existing roadway jurisdiction. The following sections describe each functional class in greater detail and indicate which roadways fall into each classification.

#### **A note on transportation plan strategies:**

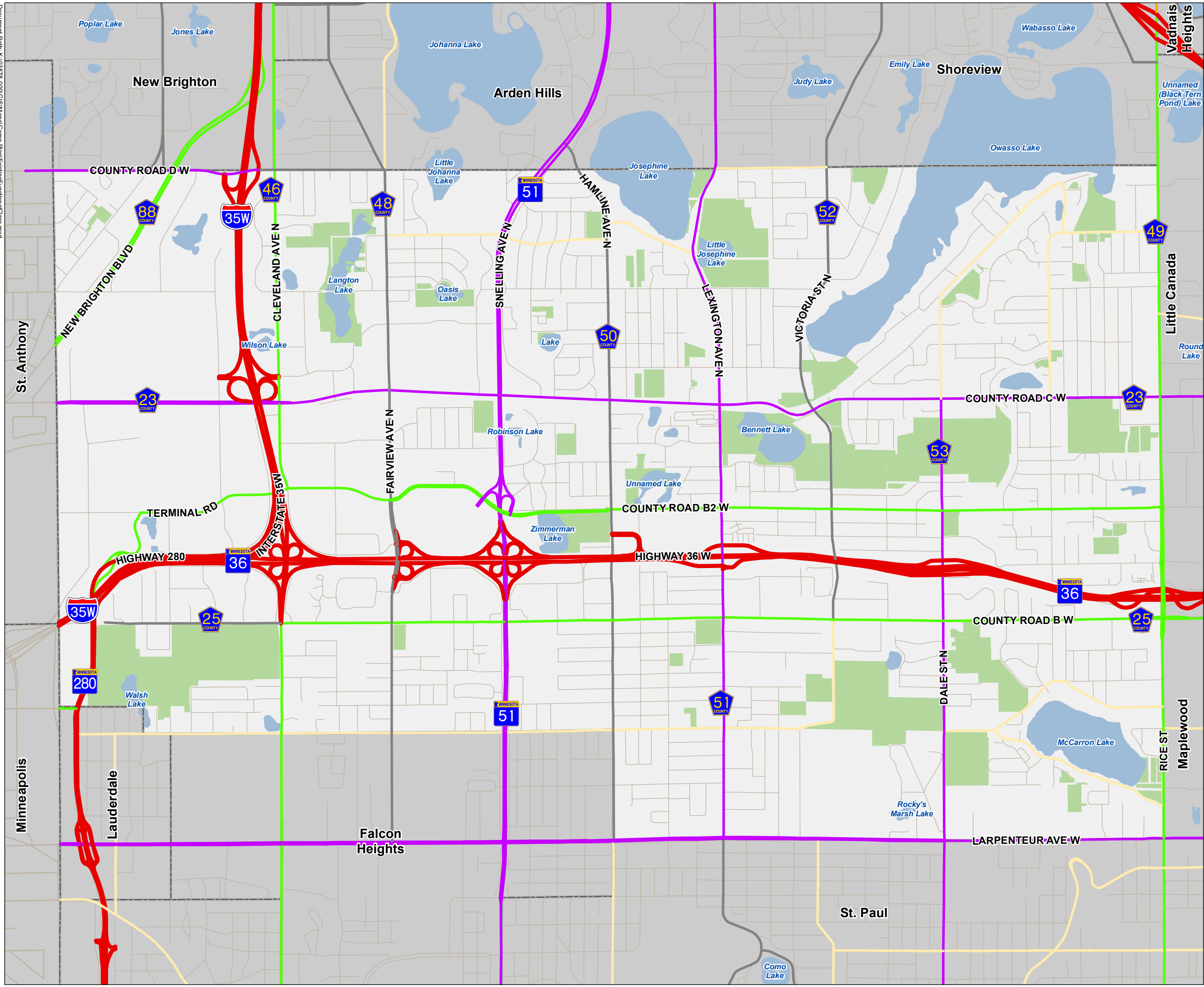
To assist in implementing this Plan, mode-specific strategies have been prepared and are described in detail in Section 8. Key strategies are also mapped on **Figures 17** and **18**.

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# ROSEVILLE 2040

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## Roseville Comprehensive Plan Figure 1: Existing Functional Classification Roseville, MN



**Existing Functional Class Roads**

- Principal Arterial
- A Minor Augmentor
- A Minor Reliever
- A Minor Expander
- A Minor Connector
- Other Arterial
- Major Collector
- Roseville Boundary



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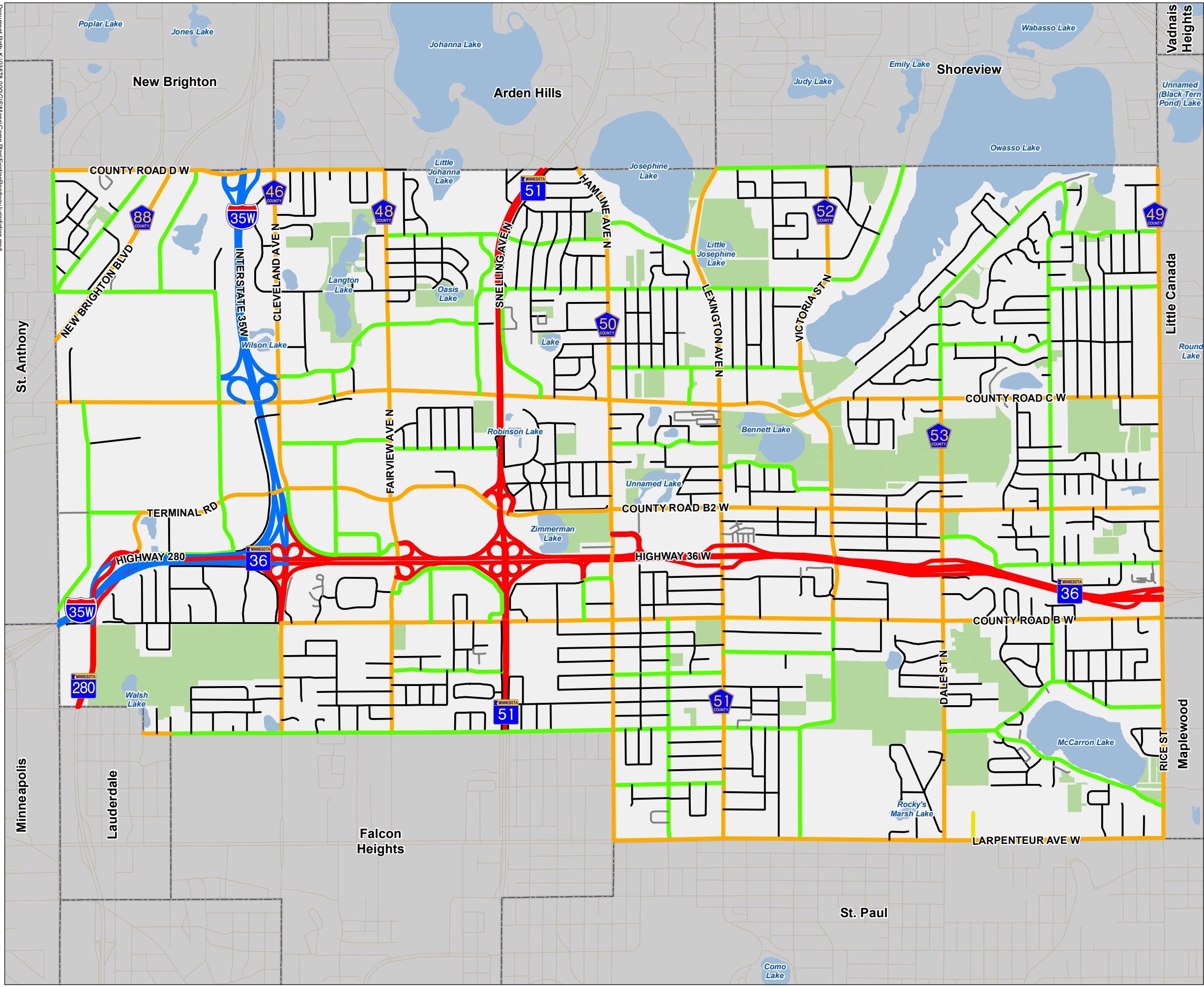
# ROSEVILLE 2040

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## Roseville Comprehensive Plan

### Figure 2: Existing Roadway Jurisdiction

#### Roseville, MN



**Roadway Jurisdiction**

- Interstate
- State Highway
- County State Aid Highway (CSAH)
- County Road
- City Street (MSA)
- City Street
- Private Street
- Roseville Boundary



0 2,250 Feet





### **2.1.1. Principal Arterials**

Principal arterials are roadways that provide the greatest level of mobility and access control. Within the metropolitan area, the great majority of principal arterials are under MnDOT jurisdiction. Principal arterials are typically Interstate highways or other state or US freeways or expressways. These facilities are intended to serve trips greater than eight miles and express transit trips. Spacing of principal arterials varies within developing areas of the metropolitan area. Typically these facilities are spaced between two and six miles apart. These facilities connect regional business and commercial concentrations, transportation terminals, and large institutions within the metropolitan area. Principal arterials also connect to other cities, regions, and states outside of the metropolitan area.

Principal arterials are intended to maintain average speeds of 40 mph during peak traffic periods. To maintain mobility and speeds on principal arterials, land access and transportation system connections are limited. There is little to no direct land access from principal arterials. Intersections are limited to interstate freeways, other principal arterials, and "A" Minor arterials. Access points are typically grade-separated or controlled with a signal and are spaced one to two miles apart.

Three existing principal arterials are located within the City of Roseville. MnDOT Interstate (I-) 35W crosses through the western portion of the city. I-35W connects Minneapolis with Roseville, New Brighton, Arden Hills, and Blaine. Trunk Highway (TH) 36 runs east-west through the city connecting from (and joining with) I-35W in the west to the cities of Little Canada, Maplewood, North St. Paul, and Stillwater to the east. TH 280 connects I-35W in the southwestern portion of the city to I-94 to the south. The 2040 Transportation Policy Plan does not propose any additional principal arterials within the city.

### **2.1.2. Minor Arterials**

Minor arterials maintain a focus on mobility, but provide more land access than principal arterials. Within Roseville, all minor arterials are under the jurisdiction of MnDOT or Ramsey County with the exception of a short segment of Broadway Street along the southwestern border, which is under the City's jurisdiction. Minor arterials are intended to serve trips of four to eight miles in length. Within developing areas of the metro, these facilities are spaced between one and two miles apart. Minor arterials connect cities and towns within the region and link to regional business and commercial concentrations.

Access points along minor arterials are generally at-grade and typically controlled with signals or stop signs.

During peak traffic, minor arterials in developing areas are intended to maintain 30 mph average speeds. As a result, transportation system connections are limited to interstate freeways, other principal arterials, other minor arterials, collectors, and some local streets. Land access is limited to concentrations of commercial and industrial land uses. The Metropolitan Council has established a system of "A" Minor and "B" Minor arterials. "A" Minor arterials are eligible for federal funding administered by the Metropolitan Council.

The Metropolitan Council has further split "A" Minor arterials into four types, described below:

- Relievers: Arterials located parallel to congested principal arterials. The purpose of "A" Minor Relievers is to provide additional capacity in congested corridors.
- Augmenters: Arterials that supplement the principal arterials system within urban centers and urban communities.
- Expanders: Arterials that supplement principal arterials in less-densely developed areas of the metro area.
- Connectors: Arterials that provide connections between rural towns and connect rural areas with the principal arterial system.

There are six "A" Minor Augmenters and eight "A" Minor Relievers within Roseville:

"A" Minor Augmenters:

- TH 51 (Snelling Avenue)
- Ramsey County State Aid Highway (CSAH) 19 (County Road D)
- CSAH 23 (County Road C)
- CSAH 30 (Larpenteur Avenue)
- CSAH 51 (Lexington Avenue)
- CSAH 53 (Dale Street)

"A" Minor Reliever:

- CSAH 88 (New Brighton Boulevard)
- CSAH 46 (Cleveland Avenue)
- CSAH 49 (Rice Street)

- CSAH 24 (St. Croix Street/Terminal Road)
- CSAH 78 (County Road B2)
- County Road (CR) 111 (County Road B2)
- CSAH 25 (County Road B) east of CSAH 46
- Broadway Street

“B” Minor arterials have a similar focus on mobility above land access. These roadways connect major traffic generators in the region. “B” Minor arterials are not eligible for federal funding. “B” Minor arterials within the city include the following:

- County Road B west of CSAH 46
- County Road D between I-35W and CSAH 48
- CSAH 48 (Fairview Avenue)
- CSAH 50 (Hamline Avenue)
- CSAH 52 (Victoria Street)

No additional minor arterials are proposed within Roseville at this time.

### **2.1.3. Collectors**

Collector roadways provide linkages to larger developments and community amenities. They generally do not link communities to one another. Collector roadways generally favor access to the system over mobility, but try to balance the two competing needs. Collector roadways are generally lower speed than the principal or minor arterial routes. Collector roadways are often owned and operated by cities, although counties operate some of these facilities. Within Roseville, most collector roadways are owned and maintained by the City. Collectors are intended to serve trips of one to four miles in length. Collectors link minor arterials, other collectors, and local streets.

Collectors were previously divided into “major” and “minor” collectors within the city; however, the City of Roseville proposes defining all major and minor collectors as “collectors.” Collectors within Roseville include the following:

- Lydia Avenue
- Josephine Road
- County Road D (between CSAH 51 and CSAH 52)
- Dale Street and South Owasso Boulevard (north of CSAH 23)
- Western Avenue (north of CSAH 23)
- Roselawn Avenue
- Victoria Street between Roselawn Avenue and CSAH 25

- McCarrons Boulevard North
- McCarrons Boulevard South

The City proposes identifying all streets on the Municipal State Aid System as collector roadways.

#### **2.1.4. Local Roadways**

The primary function of local roadways is land access. Local roadways connect individual land parcels with other local roadways and collectors. Trips on local roadways are typically under two miles. Speeds on local roadways are typically low. Longer trips are facilitated by local roadway connections to the collector and arterial systems. Local roadways are under the jurisdiction of the City of Roseville. Local roadways are all roadways that are not arterials or collectors.

#### **2.1.5. Planned Functional Classification**

Several functional classification changes are recommended in response to changes in traffic patterns, development patterns, and increased population and employment in the city. Planned functional classification changes are listed below.

Change from a B-Minor Arterial to an A-Minor Reliever:

- Fairview Avenue (CSAH 48) north of County Road B

Change from a B-Minor Arterial to a collector:

- County Road B west of CSAH 46

Change from a local street to a collector:

- Old Highway 8
- Long Lake Road
- County Road C2 from St. Anthony border to Long Lake Road, Lincoln Drive to Victoria Street, and Western Avenue to Rice Street
- Walnut Street
- Terminal Road west of St. Croix Street
- Rosegate west of Long Lake Road
- Cleveland Avenue between Terminal Road and Fairview Avenue
- Prior Avenue north of TH 36
- Perimeter Drive
- Oakcrest Avenue from Cleveland Avenue to Fairview Avenue and from Hamline Avenue to Lexington Avenue
- Twin Lakes Parkway
- Terrace Drive

- Lincoln Drive
- East Snelling Service Drive
- Woodhill Drive
- Civic Center Drive
- Iona Lane between Dale Street and Western Avenue
- South TH 36 Frontage Road/West Snelling Drive
- Herschel Avenue
- Skillman Avenue from Fairview Avenue to Snelling Avenue and from Hamline Avenue to Lexington Avenue
- Albert Street between County Road B and Commerce Street
- Commerce Street east of Albert Street
- Fernwood Street south of County Road B
- Garden Avenue
- Brooks Avenue east of Lexington Avenue
- Transit Avenue east of Brooks Avenue
- Parker Avenue west of Victoria Street
- Victoria Street south of Roselawn Avenue
- Western Avenue from North McCarrons Boulevard to County Road B and from Minnesota Avenue to County Road C
- Lovell Avenue from Dale Street to Minnesota Avenue
- Minnesota Avenue east of Lovell Street

Additionally, it is recommended to categorize all major and minor collectors as "collector." See Section 8.2.6 for functional classification transportation strategies.

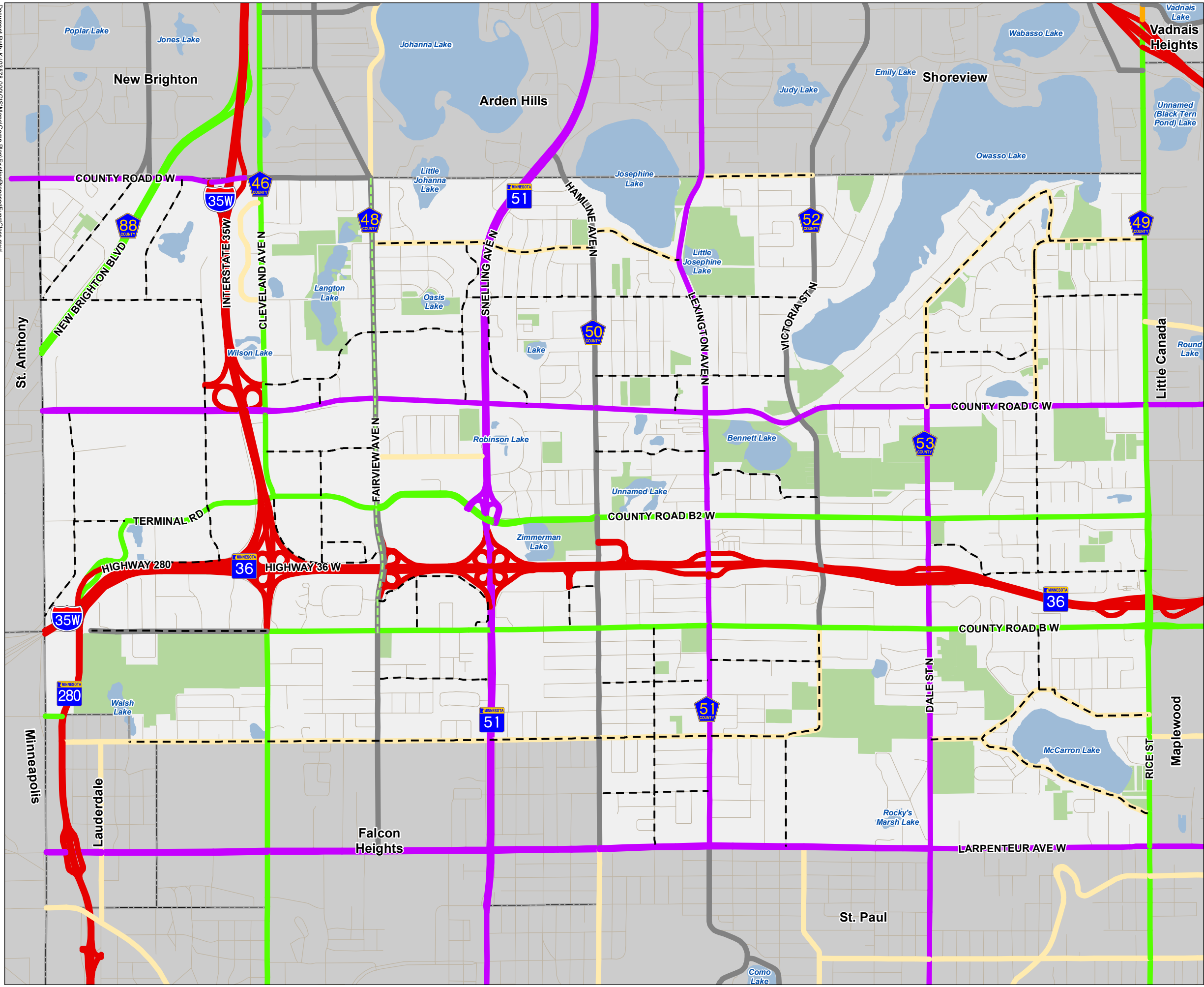
**Figure 3** on the following page provides a map illustrating the existing and planned functional classification system for Roseville.

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# ROSEVILLE 2040

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### Roseville Comprehensive Plan Figure 3: Existing & Proposed Functional Classification Roseville, MN



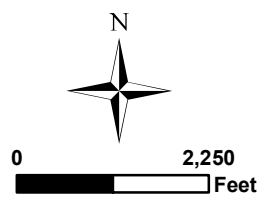
**Existing Functional Class Roads**

- Principal Arterial
- A Minor Augmentor
- A Minor Reliever
- A Minor Expander
- A Minor Connector
- Other Arterial
- Major Collector\*

**Proposed Functional Class Roads**

- - - Proposed A Minor Reliever
- - - Proposed Collector
- Roseville Boundary

\* It is recommended to define all major & minor collectors as "Collector".



## 2.2. Existing Roadway Capacity and Safety

Roadway capacity and roadway safety are two key indicators of how well the roadway system is meeting the City’s transportation needs. The sections below provide information to better understand capacity and safety issues within Roseville.

### 2.2.1. Existing Roadway Capacity

A roadway’s capacity indicates how many vehicles may use a roadway before it experiences congestion. Capacity is largely dependent upon the number of lanes and whether or not a roadway is divided. **Table 1** below lists planning-level thresholds that indicate a roadway’s capacity. Additional variation (more or less capacity) on an individual segment is influenced by a number of factors including: amount of access, type of access, peak hour percent of traffic, directional split of traffic, truck percent, opportunities to pass, amount of turning traffic, availability of dedicated turn lanes, parking availability, intersection spacing, signal timing and a variety of other factors.

TABLE 1: PLANNING-LEVEL URBAN ROADWAY CAPACITIES

Facility Type		Daily Two-way Volume	
		Lower Threshold	Higher Threshold
<b>Arterials</b>	Two-lane Undivided	10,000	12,000
	Two-lane Divided or Three-lane Undivided	15,000	17,000
	Four-lane Undivided	18,000	22,000
	Four-lane Divided or Five-lane Undivided	28,000	32,000
<b>Freeways</b>	Four-lane Freeway	60,000	80,000
	Six-lane Freeway	90,000	120,000
	Eight-lane Freeway or Higher	Calculated on a segment-by-segment basis	

### 2.2.2. Existing Capacity Problems on Arterial Roads

At the planning level, capacity problems are identified by comparing the existing number of lanes with current traffic volumes. **Table 2** and **Figure 4** illustrate the existing number of lanes on arterial roadways within the city. **Figure 5** illustrates existing traffic volumes on Principal Arterial, A-Minor Arterials and other significant roadways within Roseville. **Figure 6** illustrates existing levels of service on these roadways, based on volume-to-capacity ratios.

As shown in the table, I-35W/TH 36 are the only arterial roadways located within Roseville that have segments with more than four lanes. All other arterial roadways have four or fewer lanes. Several arterial roadways transition between the number of lanes. In some locations, these roadways have two lanes, four lanes, or three lanes (one travel lane in each direction with a center two-way left-turn lane). Several arterial roadways in Roseville are approaching or exceed the thresholds provided in **Table 1**, indicating existing periods of congestion on roadways including I-35W, TH 36, TH 51 (Snelling Avenue), CSAH 51 (Lexington Avenue), and CSAH 49 (Rice Street).

Transportation strategies related to congested roadway corridors are provided in Section 8.2.2.



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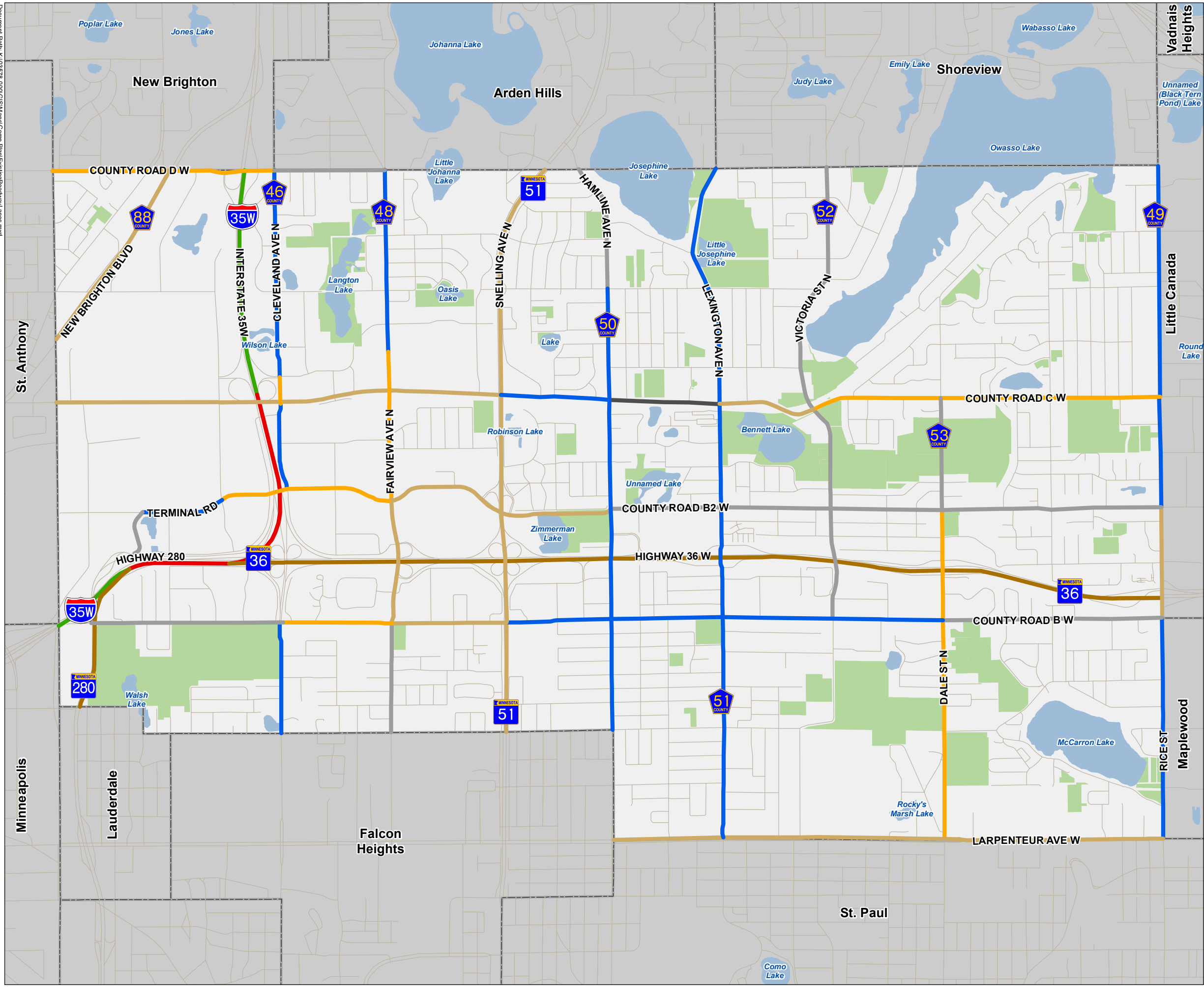
# ROSEVILLE 2040

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## Roseville Comprehensive Plan

### Figure 4: Existing Roadway Lanes

#### Roseville, MN



**Existing Roadway Lanes**

- 2 lane divided
- 2 lane undivided
- 3 lane undivided
- 4 lane divided
- 4 lane undivided
- 4 lane freeway
- 6 lane freeway
- 8 or more lane freeway
- Roseville Boundary

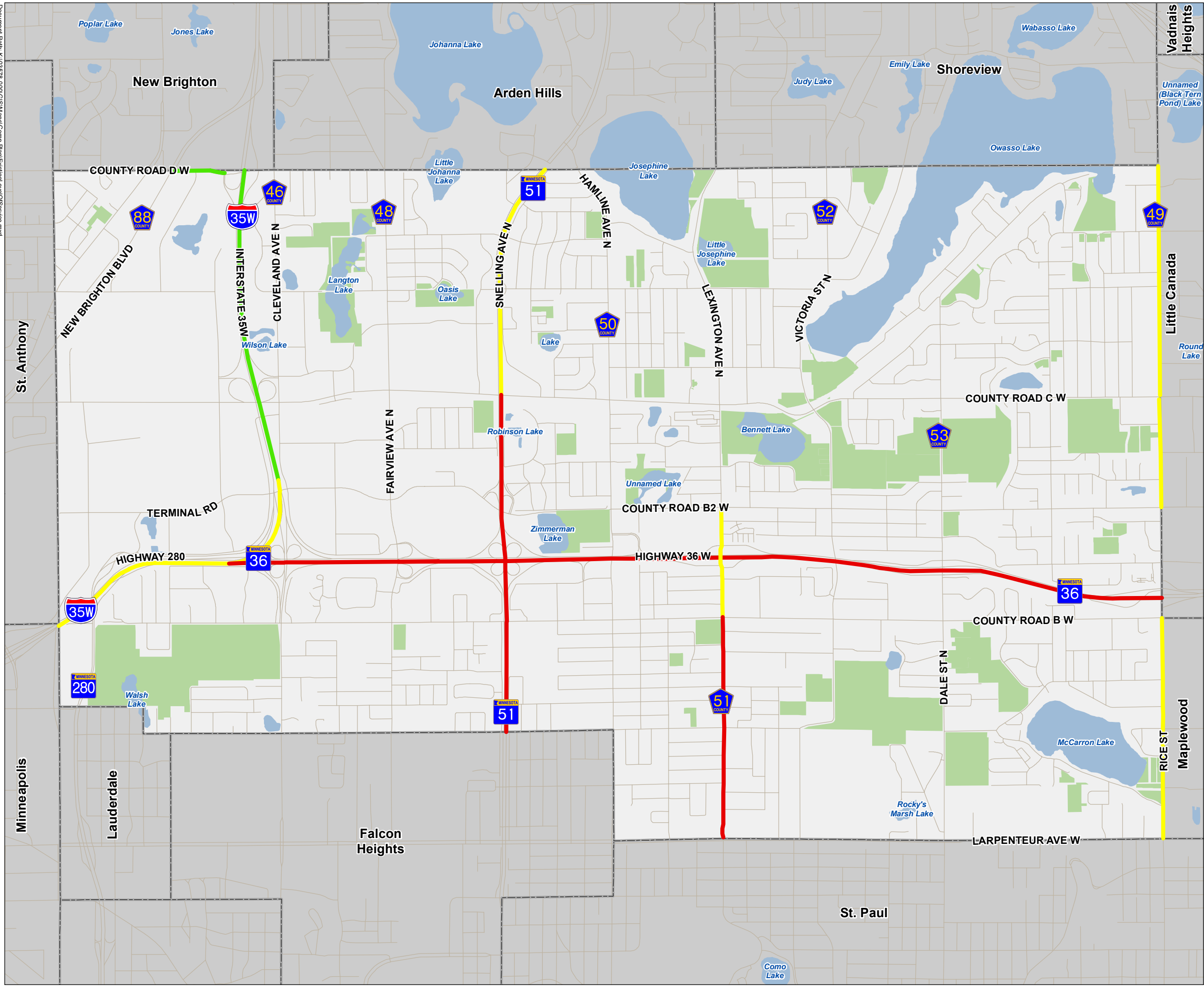


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**Roseville Comprehensive Plan**  
**Figure 6: Existing Level of Service**  
**Based on Volume to Capacity (v/c)**  
**Roseville, MN**

### Existing Level of Service

**Existing Level of Service**

- D Higher density traffic restricts maneuverability (.76 to .90 v/c)
- E Low speeds, considerable delays (.91 to .99 v/c)
- F Very low speeds and long delays with stop-and-go traffic ( $\geq 1.0$  v/c)

Roseville Boundary

**Planning Level Urban Roadway Capacities**

	Facility Type	Daily Two-way Volume	
		Lower Threshold	Higher Threshold*
Arterials	Two lane undivided	10,000	12,000
	Two lane divided or Three lane undivided	15,000	17,000
	Four lane undivided	18,000	22,000
	Four lane divided or five lane undivided	28,000	32,000
Freeways	Four lane freeway	60,000	80,000
	Six lane freeway	90,000	120,000
	Eight lane freeway or higher	Calculated on a segment by segment basis	

\*Higher Threshold is used in this analysis for calculating LOS





TABLE 2: EXISTING NUMBER OF LANES ON ARTERIAL ROADS

Functional Classification	Roadway Name	Location	Number of Lanes
Principal Arterial	I-35W	Roseville-St. Anthony Village border to Roseville-New Brighton border	6-8
	TH 36	I-35W to Roseville-Little Canada border	4-8
	TH 280	Roseville-Lauderdale border to I-35W	4
"A" Minor Augmenter	TH 51 (Snelling Avenue)	Roseville-Falcon Heights border to Roseville-Arden Hills border	4
	CSAH 19 (County Road D)	Roseville-St. Anthony Village border to I-35W	4
	CSAH 23 (County Road C)	Roseville-St. Anthony Village border to Roseville-Little Canada border	2-4
	CSAH 30 (Larpenteur Avenue)	Roseville-Falcon Heights border to Roseville-Maplewood border	4
	CSAH 51 (Lexington Avenue)	Roseville-St. Paul border to Roseville-Arden Hills border	3
	CSAH 53 (Dale Street)	Roseville-St. Paul border to CSAH 23 (County Road C)	2-4
"A" Minor Reliever	CSAH 88 (New Brighton Boulevard)	Roseville-St. Anthony Village border to Roseville-New Brighton border	4
	CSAH 46 (Cleveland Avenue)	Roseville-Falcon Heights border to CSAH 25; CSAH 78 to Roseville-Arden Hills border	3-4
	CSAH 49 (Rice Street)	Roseville-St. Paul border to Roseville-Shoreview border	3-4
	CSAH 24 (St. Croix Street/Terminal Road)	TH 280 to CSAH 46 (Cleveland Avenue)	2-4
	CSAH 78 (County Road B2)	CSAH 46 (Cleveland Avenue) to CSAH 53 (Dale Street)	2-4
	CR 111 (County Road B2)	CSAH 53 (Dale Street) to CSAH 49 (Rice Street)	2
	CSAH 25 (County Road B)	CSAH 46 (Cleveland Avenue) to Roseville-Maplewood border	2-4
	Broadway Street	Roseville-Minneapolis border to TH 280	3
"B" Minor Arterial	County Road B	North Eustis Street to CSAH 46 (Cleveland Avenue)	2
	County Road D	I-35W to CSAH 48 (Fairview Avenue)	2-4
	CSAH 48 (Fairview Avenue)	Roseville-Falcon Heights border to Roseville-Arden Hills border	2-4
	CSAH 50 (Hamline Avenue)	Roseville-Falcon Heights border to Roseville-Arden Hills border	2-3

### 2.2.3. Existing Safety and Operational Issues

There are a number of locations within Roseville where safety and operational issues have been identified for motorists and pedestrians. These locations fall into one of two categories: corridors where congestion has been identified as an issue based on existing and future volumes and intersections and roadway segments that experience higher crash rates.

Corridors within Roseville that experience some level of congestion based on existing and forecasted volumes include the following:

- I-35W
- Snelling Avenue
- Lexington Avenue
- Rice Street
- TH 36

Based on a review of crash rates along key minor arterial roadway segments and intersections within Roseville, a number of locations have been identified as exhibiting higher levels of crashes based on 2011-2015 data. As shown in **Figure 7**, these locations include:

- Cleveland Avenue and County Road C
- Snelling Avenue and County Road B
- Snelling Avenue and County Road C
- Dale Street and County Road B2
- Cleveland Avenue from County Road C to County Road B2
- Fairview Avenue from County Road B2 to County Road B
- County Road B from Fairview Avenue to east of Snelling Avenue
- Roselawn Avenue West from Snelling Avenue to Hamline Avenue
- County Road B2 from Fairview Avenue to Snelling Avenue
- County Road B2 from Hamline Avenue to Lexington Avenue

Transportation strategies related to high crash locations are provided in Section 8.2.3.

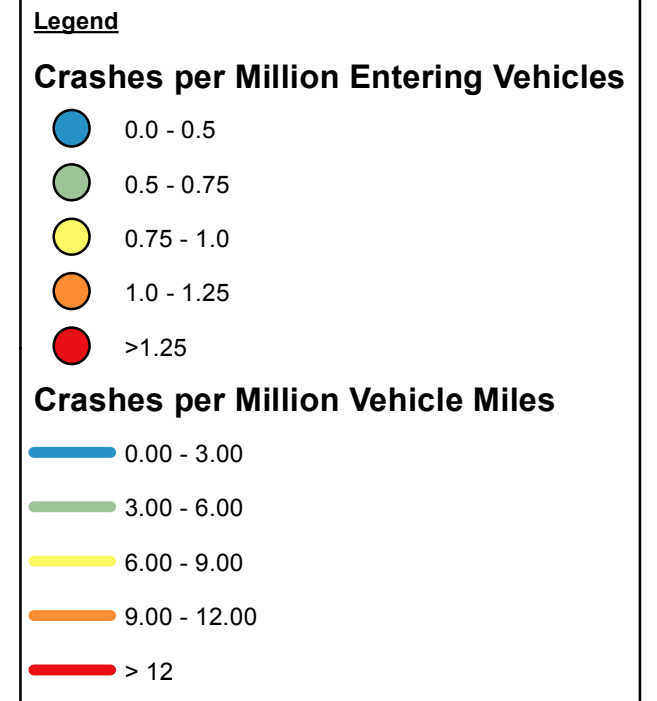
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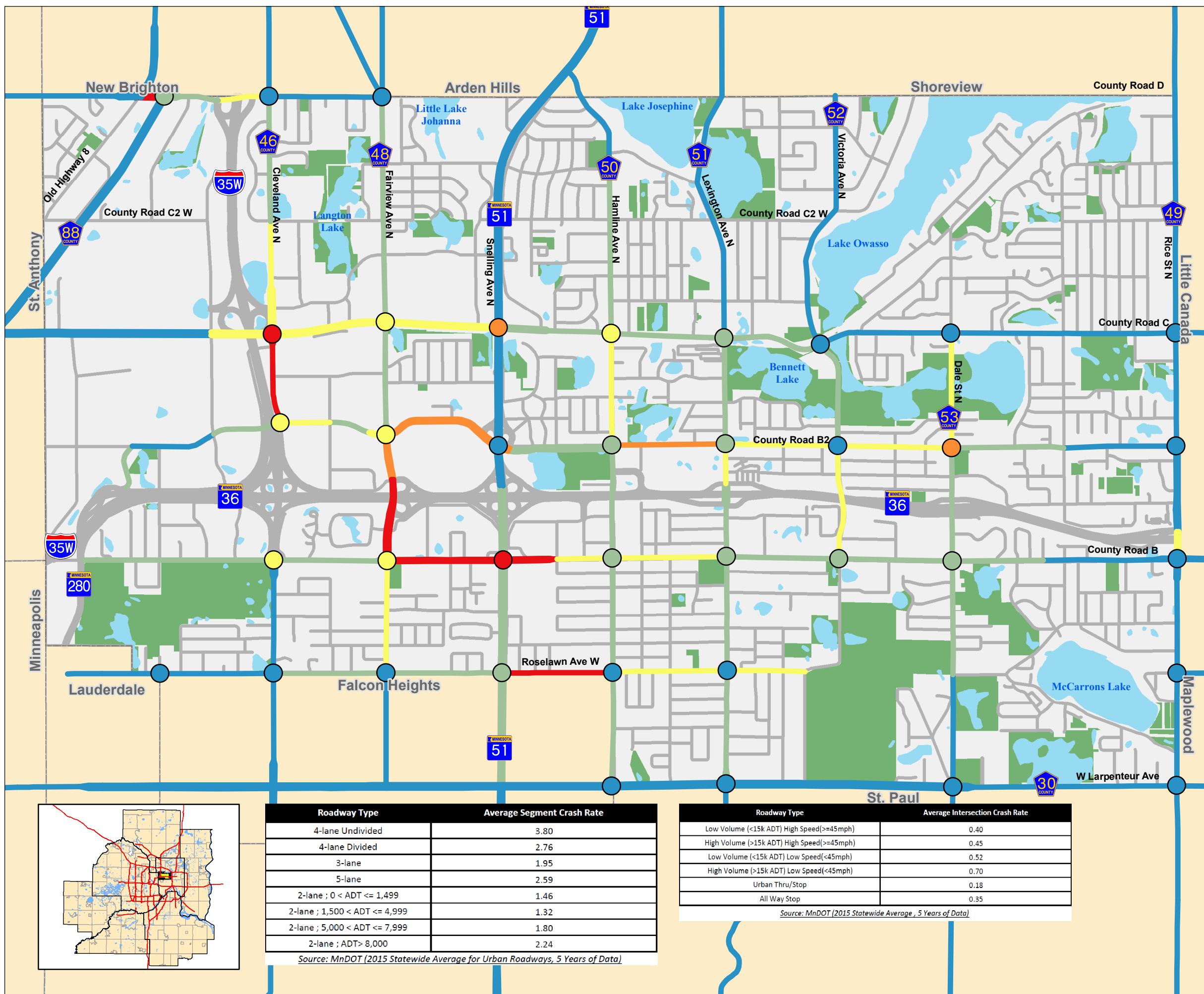
## Transportation Plan Roseville, MN

### Crash Rates 2011-2015

NOTE: This Figure displays crash rates for intersections involving key minor arterials.



Data Source : MnDOT Crash Data

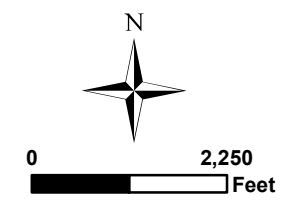


Roadway Type	Average Segment Crash Rate
4-lane Undivided	3.80
4-lane Divided	2.76
3-lane	1.95
5-lane	2.59
2-lane ; 0 < ADT <= 1,499	1.46
2-lane ; 1,500 < ADT <= 4,999	1.32
2-lane ; 5,000 < ADT <= 7,999	1.80
2-lane ; ADT > 8,000	2.24

Source: MnDOT (2015 Statewide Average for Urban Roadways, 5 Years of Data)

Roadway Type	Average Intersection Crash Rate
Low Volume (<15k ADT) High Speed(>=45mph)	0.40
High Volume (>15k ADT) High Speed(>=45mph)	0.45
Low Volume (<15k ADT) Low Speed(<45mph)	0.52
High Volume (>15k ADT) Low Speed(<45mph)	0.70
Urban Thru/Stop	0.18
All Way Stop	0.35

Source: MnDOT (2015 Statewide Average, 5 Years of Data)





### 2.3. Access Management

The purpose of access management is to provide adequate access to adjacent land development while maintaining acceptable and safe traffic flow on higher level roadways. Access management consists of carefully controlling the spacing and design of public street intersections and private access points to the public roadway system. Because they are designed for higher speed, longer distance trips, arterials generally have restricted access, while local streets can accommodate much greater access. Collector roadways fall in between arterials and local roadways regarding the amount of access that is permitted.

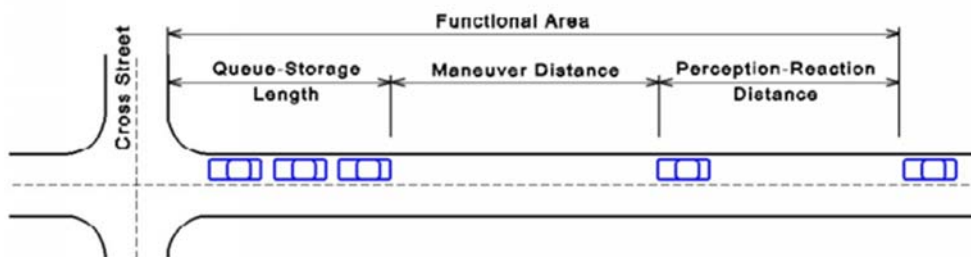
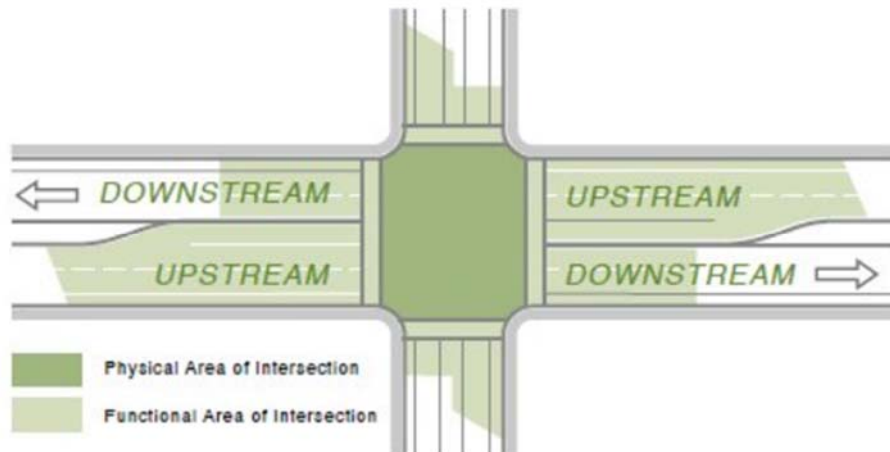
The agency with jurisdiction over a roadway sets access management guidelines. Access to I-35W, TH 36, TH 51, and TH 280 must meet MnDOT access management guidelines. See **Tables 3** and **4** for MnDOT Access Management Guidelines.

Ramsey County has developed a draft set of access management policies. Rather than a set of specific standards, Ramsey County's draft policies "are intended to apply accepted access management principles in a context-sensitive manner to maximize the possible benefits as development occurs or as existing properties are modified." The draft policies are as follows.

- A parcel has the legal right to one access from a public street. If access can be obtained from an adjacent street, access from a County Road or County State Aid Highway should be directed to the minor street.
- Opportunities to combine or eliminate accesses shall be considered when new accesses are proposed.
- Where feasible, the access spacing standards of the MnDOT Access Management Manual shall be met.
- Where possible, new driveways shall be aligned with existing driveways or streets.
- Any proposed new access or modification of an existing access to a Ramsey County Road or County State Aid Highway requires a County access permit, with approval subject to review by the County Engineer.
- Any change in land use of a property with access to any County Road or County State Aid Highway, requires review of the access, in accordance with Minnesota Rules 8810.5200. Existing access is not automatically perpetuated.
- Unless no other option for access to a property exists, access will not be allowed within the functional area of a street intersection, or within the functional area of another existing access. As defined by MnDOT, the functional areas of intersections are defined as follows:

- On roadways with posted speed limits less than 45 MPH, 435 feet.
- On roadways with posted speed limits of 45 MPH or greater, 650 feet.

The interpretation of the functional area of an intersection shall be made by the County Engineer and adjustments to these distances shall be made, as appropriate to the particular situation. Diagrams of intersection functional areas are shown below:



- If no access to a parcel can be obtained, except from a County Road or County State Aid Highway, Ramsey County acknowledges that a parcel has the right to one access, subject to approval by the County Engineer. More than one access may be approved, but should not be assumed.
- The need for turn lanes, bypass lanes, medians or median improvements, signage, or any other accommodations necessary for safe operation of an access shall be determined by the County Engineer and incorporated into access permit provisions. All construction costs shall be paid for by the permit applicant. Ramsey County will not contribute to the costs of necessary improvements.

- The need for a Traffic Impact Study for any proposed access shall be determined by the County Engineer. The County Engineer may require installation of any mitigation measures recommended by a Traffic Impact Study.
- The County Engineer may require dedication of access control over the remainder of a parcel as a condition of granting access in a particular location.

It should be noted that there are existing access points within the city that are inconsistent with Ramsey County's draft access management policies. In many cases these access points were established prior to agency access spacing guidelines/policies. In other cases the agency has granted an exception to the existing guidelines. As roadways are reconstructed and as development or redevelopment occurs, each of these agencies generally works to modify and/or relocate access points that do not meet current access spacing guidelines, recognizing that this may not be feasible in all instances.

**MnDOT Access Management Manual**

**Table 3 – Summary of Recommended Street Spacing for IRCs**

Category	Area or Facility Type	Typical Functional Class	Public Street Spacing		Signal Spacing
			Primary Full-Movement Intersection	Secondary Intersection	
<b>1 High Priority Interregional Corridors &amp; Interstate System (IRCs)</b>					
<b>1F</b>	Interstate Freeway	Principal Arterials	Interchange Access Only		⊘
<b>1AF</b>	Non-Interstate Freeway		Interchange Access Only (see Section 3.2.7 for interim spacing)		See Section 3.2.5 for Signalization on Interregional Corridors
<b>1A</b>	Rural		1 mile	1/2 mile	
<b>1B</b>	Urban/Urbanizing		1/2 mile	1/4 mile	
<b>1C</b>	Urban Core		300-660 feet dependent upon block length		
<b>2 Medium Priority Interregional Corridors</b>					
<b>2AF</b>	Non-Interstate Freeway	Principal Arterials	Interchange Access Only (See Section 3.2.7 for interim spacing)		See Section 3.2.5 for Signalization on Interregional Corridors
<b>2A</b>	Rural		1 mile	1/2 mile	
<b>2B</b>	Urban/Urbanizing		1/2 mile	1/4 mile	
<b>2C</b>	Urban Core		300-660 feet, dependent upon block length		¼ mile
<b>3 Regional Corridors</b>					
<b>3AF</b>	Non-Interstate Freeway	Principal and Minor Arterials	Interchange Access Only (see Section 3.2.7 for interim spacing)		Interim
<b>3A</b>	Rural		1 mile	1/2 mile	See Section 3.2.5
<b>3B</b>	Urban/Urbanizing		1/2 mile	1/4 mile	1/2 mile
<b>3C</b>	Urban Core		300-660 feet, dependent upon block length		1/4 mile

**MnDOT Access Management Manual**

**Table 4 – Summary of Recommended Street Spacing for Non-IRCs**

Category	Area or Facility Type	Typical Functional Class	Public Street Spacing		Signal Spacing
			Primary Full-Movement Intersection	Secondary Intersection	
<b>4 Principal Arterials in the Twin Cities Metropolitan Area and Primary Regional Trade Centers (Non-IRCs)</b>					
<b>4AF</b>	Non-Interstate Freeway	Principal Arterials	Interchange Access Only (see Section 3.2.7 for interim spacing)		Interim
<b>4A</b>	Rural		1 mile	1/2 mile	See Section 3.2.5
<b>4B</b>	Urban/Urbanizing		1/2 mile	1/4 mile	1/2 mile
<b>4C</b>	Urban Core		300-660 feet dependent upon block length		1/4 mile
<b>5 Minor Arterials</b>					
<b>5A</b>	Rural	Minor Arterials	1/2 mile	1/4 mile	See Section 3.2.5
<b>5B</b>	Urban/Urbanizing		1/4 mile	1/8 mile	1/4 mile
<b>5C</b>	Urban Core		300-660 feet, dependent upon block length		1/4 mile
<b>6 Collectors</b>					
<b>6A</b>	Rural	Collectors	1/2 mile	1/4 mile	See Section 3.2.5
<b>6B</b>	Urban/Urbanizing		1/8 mile	Not Applicable	1/4 mile
<b>6C</b>	Urban Core		300-660 feet, dependent upon block length		1/8 mile
<b>7 Specific Area Access Management Plans</b>					
<b>7</b>	All	All	By adopted plan		

## 2.4. Recommendations from Recent Plans and Studies

Several recent planning efforts have been completed that identify potential improvements to Roseville’s transportation system. This section describes these studies and summarizes their recommendations.

### 2.4.1. MnPASS System Study Phases 2 and 3

In 2010, MnDOT completed Phase 2 of its MnPASS system study and is currently updating its list of MnPASS expansion corridors as part of Phase 3. MnPASS managed lane improvements are intended to help manage congestion by providing new capacity parallel to general purpose traffic lanes, in which all vehicles (except transit) are required to pay a toll. The MnPASS lanes would be priced so that free-flow operation is always maintained by increasing the price as volume in the managed lane increases. During Phase 2, TH 36 and I-35W in Roseville were identified as “Tier 2” corridors to be carried forward for further study and built as financing and approvals are obtained and engineering challenges resolved. The TPP identifies the I-35W MnPASS lane as a funded project and the TH 36 MnPASS lane as an unfunded project in the current revenue scenario.

### 2.4.2. Roseville Pathway Master Plan

Concurrent to this comprehensive plan update, the City of Roseville is updating its Pathway Master Plan, which was first prepared in 2008. The pathway master plan identifies, evaluates, and prioritizes locations for bicycle and pedestrian facilities. Recommendations from the pathway plan update have been incorporated into this plan where applicable.

### 2.4.3. A Line Extension Evaluation

In 2016 Metro Transit studied the feasibility of extending the A Line north from its current terminus at the Rosedale Center Mall in Roseville to the City of Arden Hills, connecting with the planned Rice Creek Commons project on the site of the former Twin Cities Army Ammunition Plant (TCAAP). This extension could provide new high-frequency transit service to areas of Roseville not currently served. The study identified a preferred alignment in Roseville





along Snelling Avenue with preliminary station locations at County Road C and Lydia Avenue. The study recommended a phased implementation of this extension and identified roles for local communities in the near-term, mid-term, and long-term. Near-term strategies for communities include implementing pedestrian-friendly development and accounting for BRT when completing local roadway projects. Mid-term strategies include focusing growth and development along the extension corridor and scoping road projects to include civil infrastructure for the A Line extension. Long-term strategies include maximizing development potential along the corridor and partnering in construction of the A Line extension.

### 3. FUTURE ROADWAY SYSTEM

This section addresses future roadway improvement needs and roadway design guidelines.

#### 3.1. Roadway Capacity – Traffic Forecasting

To determine future roadway capacity needs, year 2040 traffic forecasts were prepared using the Metropolitan Council travel demand model. The 2040 projections were compared against the assumed 2040 roadway network to see where roadway segment capacity deficiencies may result. The 2040 roadway network assumed for this analysis is the same as the current roadway network; however, the Current Revenue Scenario includes the installation of MnPASS lanes on I-35W north of TH 36. The City and County Capital Improvement Plans (CIPs) do not include any projects that add significant capacity to the roadway network.

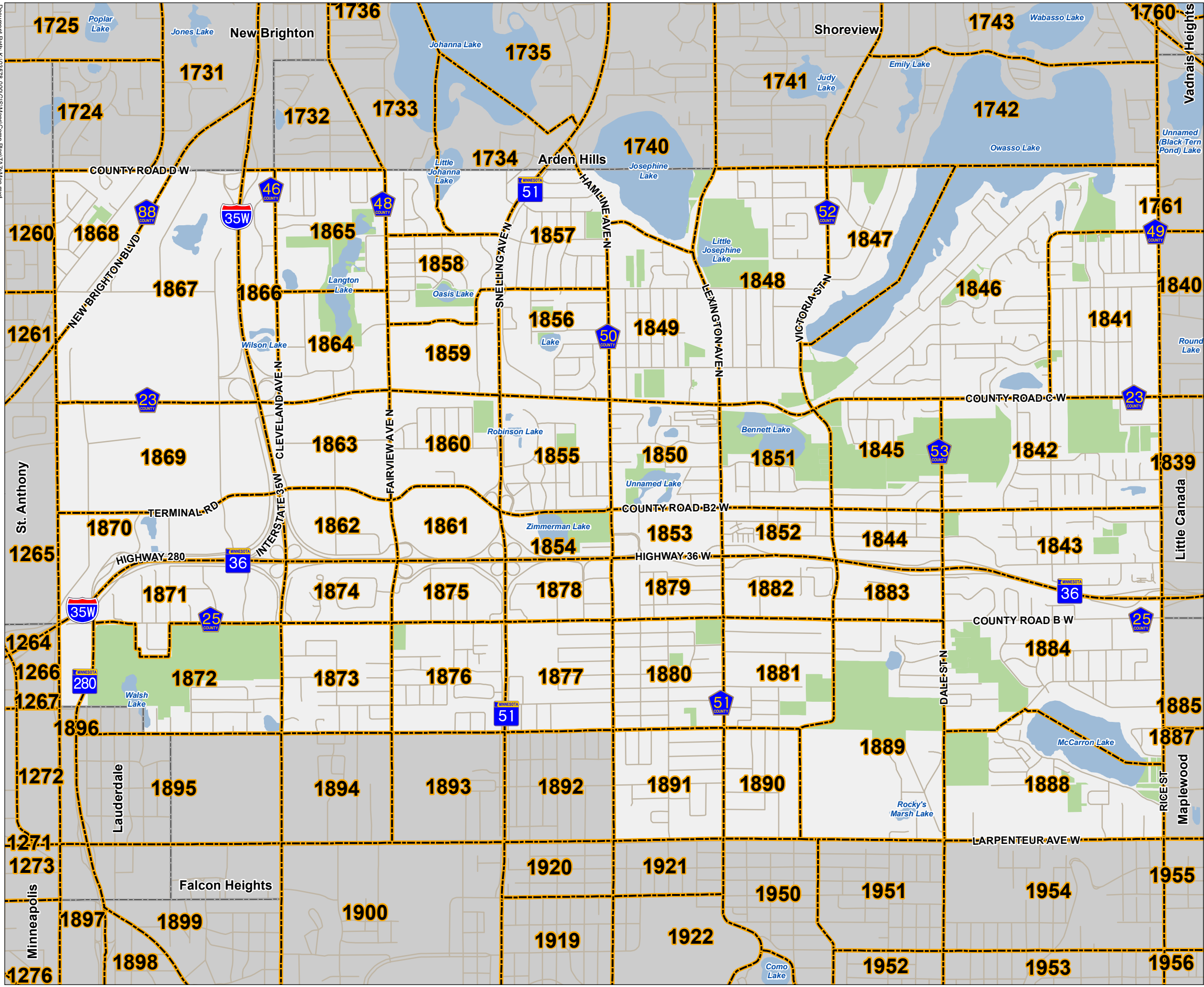
A central concept of travel demand forecasting is the use of Transportation Analysis Zones (TAZs). Each forecast study area, the City of Roseville in this case, is divided into a series of TAZs. Each TAZ has socio-economic population, employment, and household data that is used by the model to assign trips to the various network roadways. **Figure 8** displays Metropolitan Council TAZs within Roseville. The results of the Metropolitan Council travel demand model process are summarized in **Figures 9** and **10**, which displays Metropolitan Council 2040 projected average daily traffic volumes compared to the existing traffic volumes.

**Table 5** provides population, household, and employment allocations by TAZ based on an analysis of the Roseville 2040 Land Use Plan. The values provided in **Table 5** can be used by the Metropolitan Council to assist in allocating socio-

economic data in Roseville for future updates to the regional travel demand model.

While the travel demand model is a valuable tool for identifying future traffic based on the proposed land use impacts, it is not meant for use in detailed traffic operations studies. For a more accurate representation of the transportation impacts from specific developments, detailed traffic studies should be conducted to determine the operational impacts on adjacent roadways and intersections.



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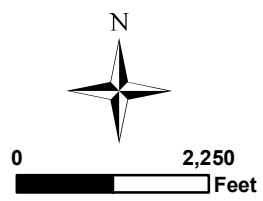


# ROSEVILLE 2040

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Roseville Comprehensive Plan  
Figure 8: Traffic Analysis Zones  
Roseville, MN

	Traffic Analysis Zone (TAZ)
	Roseville Boundary



0 2,250 Feet

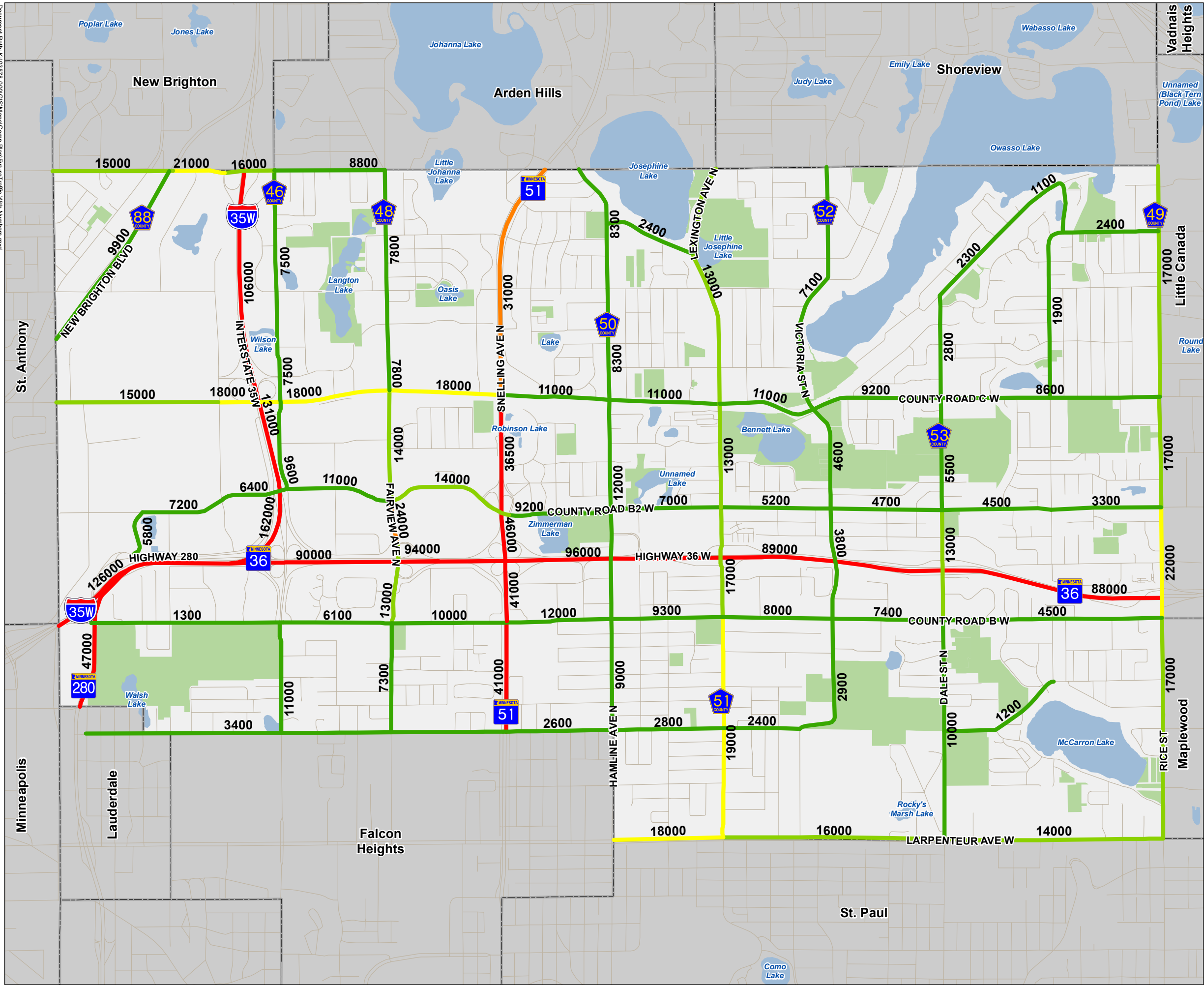


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# ROSEVILLE 2040

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## Roseville Comprehensive Plan Figure 9: Forecasted 2040 Average Daily Traffic Roseville, MN



**Average Daily Traffic (ADT)**

- 1,000 - 12,000
- 12,001 - 17,000
- 17,001 - 22,000
- 22,001 - 32,000
- > 32,000

Roseville Boundary



0 2,250 Feet





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# ROSEVILLE 2040

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**Roseville Comprehensive Plan**  
**Figure 10: Forecasted 2040**  
**Level of Service**  
**Based on Volume to Capacity (v/c)**  
**Roseville, MN**

**Future Level of Service**

- D Higher density traffic restricts maneuverability (.76 to .90 v/c)
- E Low speeds, considerable delays (.91 to .99 v/c)
- F Very low speeds and long delays with stop-and-go traffic ( $\geq 1.0$  v/c)

Roseville Boundary

**Planning Level Urban Roadway Capacities**

	Facility Type	Daily Two-way Volume	
		Lower Threshold	Higher Threshold*
Arterials	Two lane undivided	10,000	12,000
	Two lane divided or Three lane undivided	15,000	17,000
	Four lane undivided	18,000	22,000
	Four lane divided or five lane undivided	28,000	32,000
Freeways	Four lane freeway	60,000	80,000
	Six lane freeway	90,000	120,000
	Eight lane freeway or higher	Calculated on a segment by segment basis	

\*Higher Threshold is used in this analysis for calculating LOS

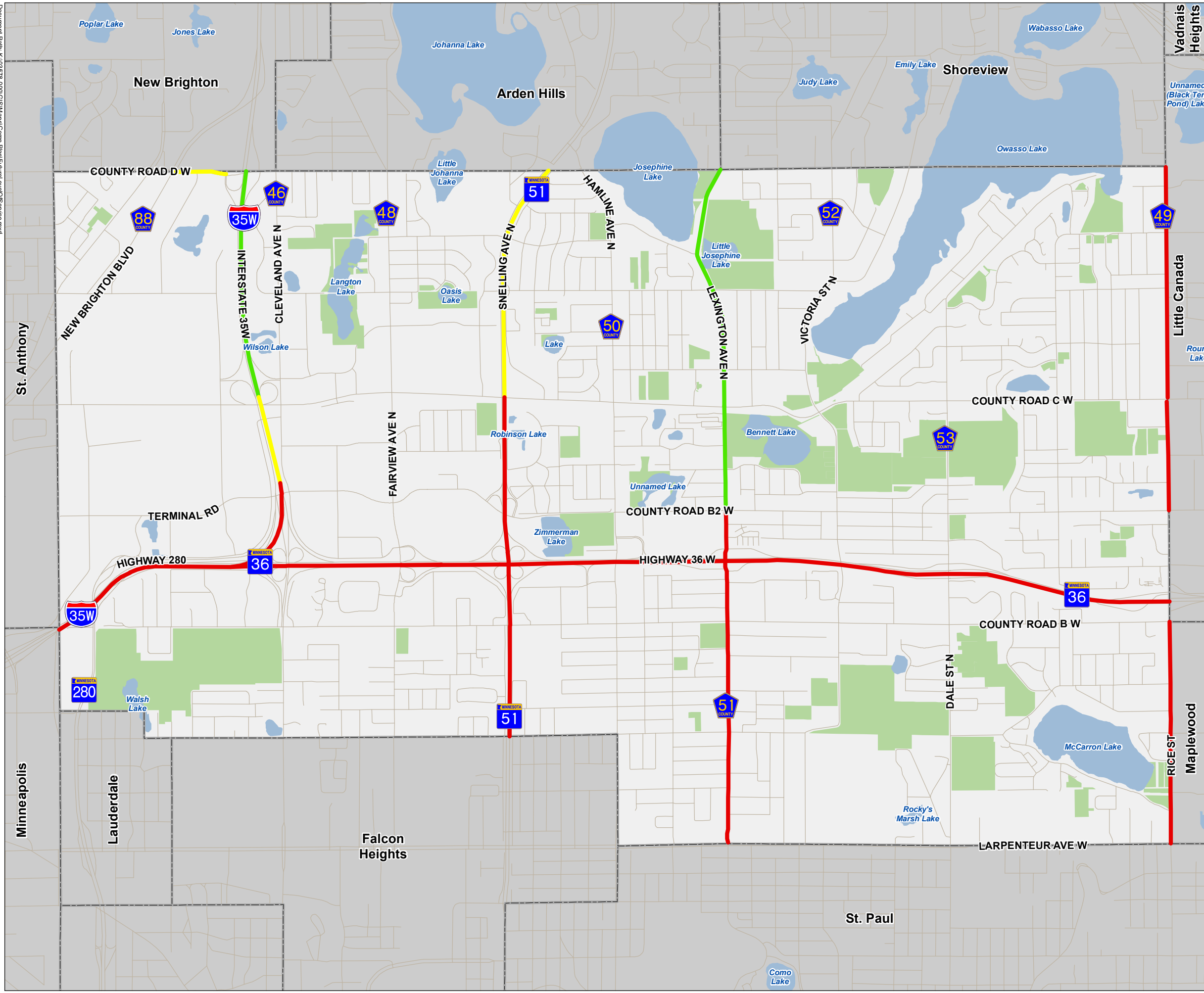


TABLE 5: CITY OF ROSEVILLE LAND USE PLAN ALLOCATION OF FORECASTS BY TAZ

TAZ	2010 Census			2020 Forecast			2030 Forecast			2040 Forecast		
	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
1733*	138	52	31	138	52	31	138	52	31	138	52	31
1734*	780	28	617	821	28	672	886	28	673	930	28	675
1740*	73	25	22	73	25	22	73	25	22	73	25	22
1841	1902	822	95	1881	842	95	1830	859	95	1859	875	95
1842	1034	397	1215	1068	416	1215	1089	424	1277	1152	451	1320
1843	1440	597	620	1428	597	620	1430	598	631	1418	599	642
1844	496	231	1	492	231	1	492	231	1	492	231	1
1845	528	229	15	528	229	15	528	229	15	528	229	15
1846	2548	1140	96	2543	1190	96	2543	1211	96	2543	1211	96
1847	329	121	4	329	121	4	329	121	4	300	121	4
1848	1558	658	384	1645	675	384	1730	693	393	1735	728	402
1849	1312	613	378	1309	613	378	1309	613	378	1278	613	378
1850	814	342	140	814	356	140	759	361	140	777	373	140
1851	374	153	5	369	153	5	369	153	5	343	153	5
1852	601	255	155	589	255	155	559	255	155	539	255	155
1853	4	2	204	4	2	204	4	2	204	4	2	185
1854	67	48	678	82	48	678	77	48	678	74	48	678
1855	724	373	386	750	407	386	719	423	386	719	452	386
1856	1468	735	2126	1486	737	2126	1482	742	2189	1496	749	2200
1857*	921	332	19	904	338	19	894	341	19	894	347	19
1858	799	411	336	830	426	336	785	432	456	782	439	551
1859	0	0	2038	0	0	2350	195	100	2700	390	147	3050
1860	518	243	1372	518	243	1253	530	248	1071	542	253	1083
1861	0	0	2651	0	0	2972	0	0	2976	0	0	2988
1862	5	5	1287	5	5	1400	41	22	1408	77	39	1460
1863	0	0	2874	0	0	2874	4	2	2997	8	4	3023



TAZ	2010 Census			2020 Forecast			2030 Forecast			2040 Forecast		
	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
1864	293	83	2031	315	143	2150	306	143	2324	357	148	2475
1865	299	111	35	480	246	575	497	255	575	453	255	580
1866	0	0	1199	0	0	1342	0	0	1350	0	0	1329
1867*	155	98	2988	155	98	3200	159	100	3205	163	102	3225
1868	948	460	161	978	598	161	988	635	161	1105	702	161
1869	0	0	1826	0	0	1880	0	0	1914	0	0	2002
1870	0	0	1425	0	0	1425	0	0	1425	0	0	1425
1871	454	172	100	441	172	100	405	172	100	364	172	79
1872	439	186	86	439	186	86	396	191	86	375	193	86
1873	697	267	48	693	272	205	643	275	210	597	277	225
1874	400	238	19	400	242	19	422	247	19	444	256	19
1875	454	256	2579	454	256	2600	464	261	2500	474	266	2494
1876	913	402	350	913	408	350	934	412	400	955	422	400
1877	762	297	798	810	368	998	880	389	1150	958	409	1250
1878	338	184	1188	338	195	1188	395	211	1207	452	238	1226
1879	397	166	48	397	166	48	397	170	48	397	174	48
1880	961	385	35	884	385	35	890	392	35	902	392	35
1881	601	235	57	498	239	57	496	243	57	499	243	57
1882	429	172	17	429	175	17	358	175	17	357	175	17
1883	230	112	91	230	112	91	240	116	91	250	120	91
1884	2431	1211	419	2475	1235	462	2512	1262	470	2476	1270	495
1888	1216	432	100	1092	458	100	1005	461	100	1015	466	100
1889	800	346	136	768	346	136	768	352	136	745	352	136
1890	802	452	381	802	459	406	819	466	444	826	472	460
1891	1208	546	832	1203	552	832	1231	559	870	1245	572	875
1896*	0	0	406	0	0	406	0	0	406	0	0	406
<b>2040 Land Use</b>	<b>33,660</b>	<b>14,623</b>	<b>35,104</b>	<b>33,800</b>	<b>15,300</b>	<b>37,300</b>	<b>34,000</b>	<b>15,700</b>	<b>38,300</b>	<b>34,500</b>	<b>16,100</b>	<b>39,300</b>

	2010 Census			2020 Forecast			2030 Forecast			2040 Forecast		
TAZ	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment	Population	Households	Employment
Plan Totals												
Metropolitan Council Forecasts	33,660	14,623	35,104	33,800	15,300	37,300	34,000	15,700	38,300	34,500	16,100	39,300

\*TAZ boundary lies partially outside of Roseville. Values only reflect allocations for portions of TAZ within Roseville.

### 3.2. 2040 Future Roadway Capacity Improvement Needs

To identify the need for potential future capacity improvements, Metropolitan Council 2040 forecasts were compared to planning-level roadway capacities as listed in **Table 1** for Principal and A-Minor Arterial Roadways. Based on this comparison, five roadways will meet or exceed capacity by 2040: Lexington Avenue, Snelling Avenue, Rice Street, TH 36 and I-35W. Each of these roadways currently exhibits a Level of Service (LOS) of E or F during at least one peak period, as shown in **Figure 6** and **Table 6**. This indicates that motorists experience some level of congestion. These conditions are anticipated to worsen under 2040 conditions.

TABLE 6: HEAVILY CONGESTED SEGMENTS BY AVERAGE DAILY TRAFFIC (ADT) & LEVEL OF SERVICE (LOS)

Roadway	Segment	Roadway Capacity ADT	Current ADT (LOS)	2040 ADT (LOS)
<b>Lexington Avenue</b>	County Road B2 to County Road B	17,000	16,100 (E)	17,000 (F)
	County Road B to Larpenteur Avenue	17,000	18,100 (F)	19,000 (F)
<b>Snelling Avenue</b>	North City limits to County Road C	32,000	29,500 (E)	31,000 (E)
	County Road C to County Road B2	32,000	36,000 (F)	48,000 (F)
	County Road B2 to Highway 36	32,000	45,100 (F)	46,000 (F)
	Highway 36 to Roselawn Avenue	32,000	38,500 (F)	41,000 (F)
<b>Rice Street</b>	North City Limits to County Road C	17,000	16,200 (E)	17,000 (F)
	County Road C to County Road B2	17,000	15,700 (E)	17,000 (F)
	County Road B to Larpenteur Avenue	17,000	16,500 (E)	17,000 (F)
<b>Highway 36</b>	Cleveland Avenue to Fairview Avenue	80,000	86,000 (F)	90,000 (F)
	Fairview Avenue to Snelling Avenue	80,000	86,000 (F)	94,000 (F)
	Snelling Avenue to Lexington Avenue	80,000	91,000 (F)	96,000 (F)
	Lexington Avenue to Dale Street	80,000	85,000 (F)	89,000 (F)
	Dale Street to Rice Street	80,000	82,000 (F)	88,000 (F)
<b>I-35W</b>	West City Boundary to Highway 280	120,000	111,000 (E)	126,000 (F)
	Highway 280 to County Road B2	157,500	155,000 (E)	162,000 (F)
	County Road B2 to County Road C	140,000	119,000 (D)	131,000 (E)

Transportation strategies related to congested roadway corridors are provided in Section 8.2.2.

## 4. EXISTING AND PLANNED NON-MOTORIZED TRANSPORTATION NETWORK

This section addresses network needs for walking and bicycling within Roseville. This section also addresses the needs of people using wheelchairs and assistive mobility devices such as mobility scooters, as they are considered pedestrians.

Enhancing the non-motorized elements of the Roseville transportation system is a key goal in terms of improving transportation sustainability in the city and in the region. This approach gives residents an

alternative to driving, supports transportation options for people who do not have consistent access to a personal vehicle, and encourages healthy activities and lifestyles.

This section includes information on the existing non-motorized transportation network within Roseville, connections to land use planning, the planned local non-motorized transportation network, and the planned regional non-motorized transportation network. This section also includes recommendations for intersection improvements and design best practices.

#### 4.1. Existing Non-Motorized Transportation Network

The non-motorized transportation network in Roseville is comprised of sidewalks, trails, striped roadway shoulders, and other facilities such as footpaths and boardwalks. As shown in **Figure 11**, the city contains nearly 44 miles of sidewalk and more than 36 miles of off-street trail. There are also more than 28 miles of striped roadway shoulder within the city, which provide additional space for bicyclists and pedestrians where a dedicated facility does not exist.

Roadways with substantial segments of continuous sidewalk and trail include Cleveland Avenue, Fairview Avenue, Hamline Avenue, Lexington Avenue, Victoria Street, Western Avenue, Rice Street, Larpenteur Avenue, County Road B, County Road B2, and County Road C.

#### 4.2. Connections to Land Use Planning

Roseville has development patterns largely consistent with its designation as an Urban community. Existing residential development is higher in density compared with more suburban areas, but reflects the transition toward development patterns influenced by the rise of the automobile, with longer block lengths and commercial land uses typically separated from largely single-family residential land uses. This means that people walking and bicycling must cover greater distances to reach commercial areas from their homes. While Roseville contains a largely regular arterial street grid, not all of these roadways provide dedicated, comfortable facilities for bicyclists and pedestrians, which limits the ability for non-motorized users to conveniently access parks, trails, and schools, even if they are located within a relatively short distance. There are also commercial destinations throughout Roseville that lie within walking or biking distance of many city residents, including HarMar Mall, Rosedale Center, and Roseville Center.

The City's land use planning and coordination with developers can help improve opportunities for walking and bicycling for transportation. The City can encourage mixed-use development that situates residents within a short walk of commercial destinations. The City can also work with developers to construct sidewalks and trails within developments. Additionally, the City can require pedestrian and bicycle connections in areas where the roadway network does not connect, such as cul-de-sac connector trails that provide shortcuts for people walking and bicycling.

### 4.3. Planned Local Non-Motorized Transportation Network

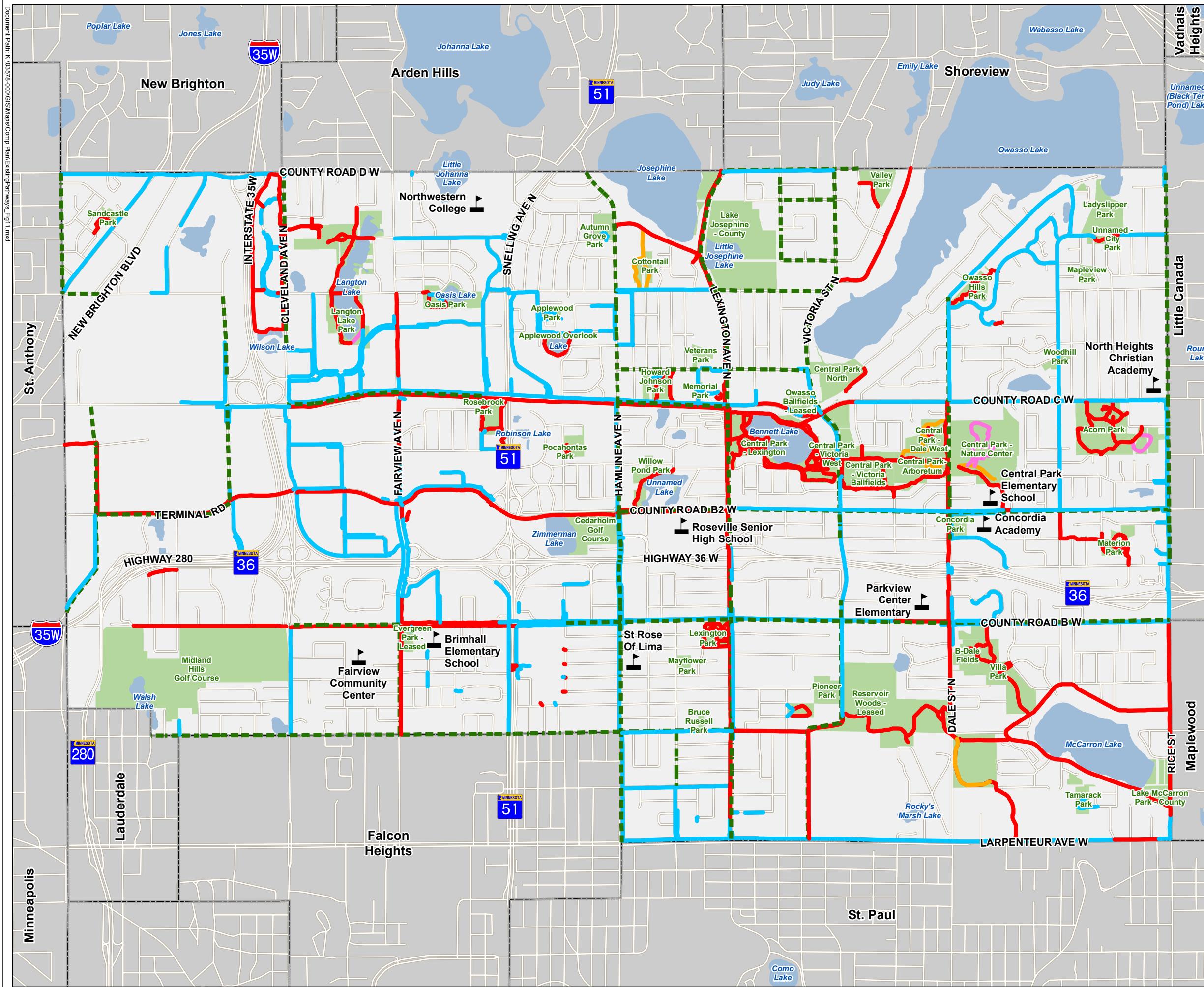
Because Roseville's existing non-motorized transportation network is well-established, the planned network focuses on filling gaps that exist and improving safety conditions and the comfort or convenience of non-motorized facilities through intersection design, streetscape improvements, and other design considerations. When the network is complete, it will provide safe, convenient linkages between residential areas and commercial, institutional, and recreational areas within the city. The network will improve options for people to walk and bicycle for transportation within the city, and facilitate regional connections (described in greater detail in the following section). The existing and proposed local bicycle and pedestrian network is based on the Pathway Master Plan and is shown in **Figure 12**. These figures also identify existing gaps in the non-motorized network. The existing and proposed regional bicycle transportation network is shown in **Figure 13**.

Transportation strategies related to the non-motorized transportation network are provided in Section 8.2.8.

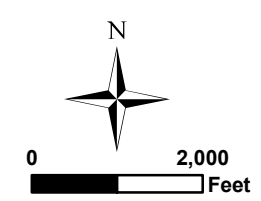
# ROSEVILLE 2040

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Roseville Comprehensive Plan  
Figure 11: Existing Pathways  
Roseville, MN



	Existing Trail (36.43 miles)
	Existing Sidewalk (45.28 miles)
	Footpath (1.93 miles)
	Existing Striped Shoulder (29.14 miles)
	Other (Boardwalk 0.94 miles)
<b>TOTAL 113.72 miles</b>	



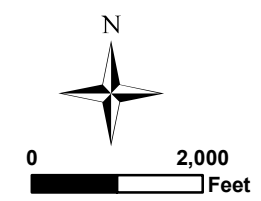
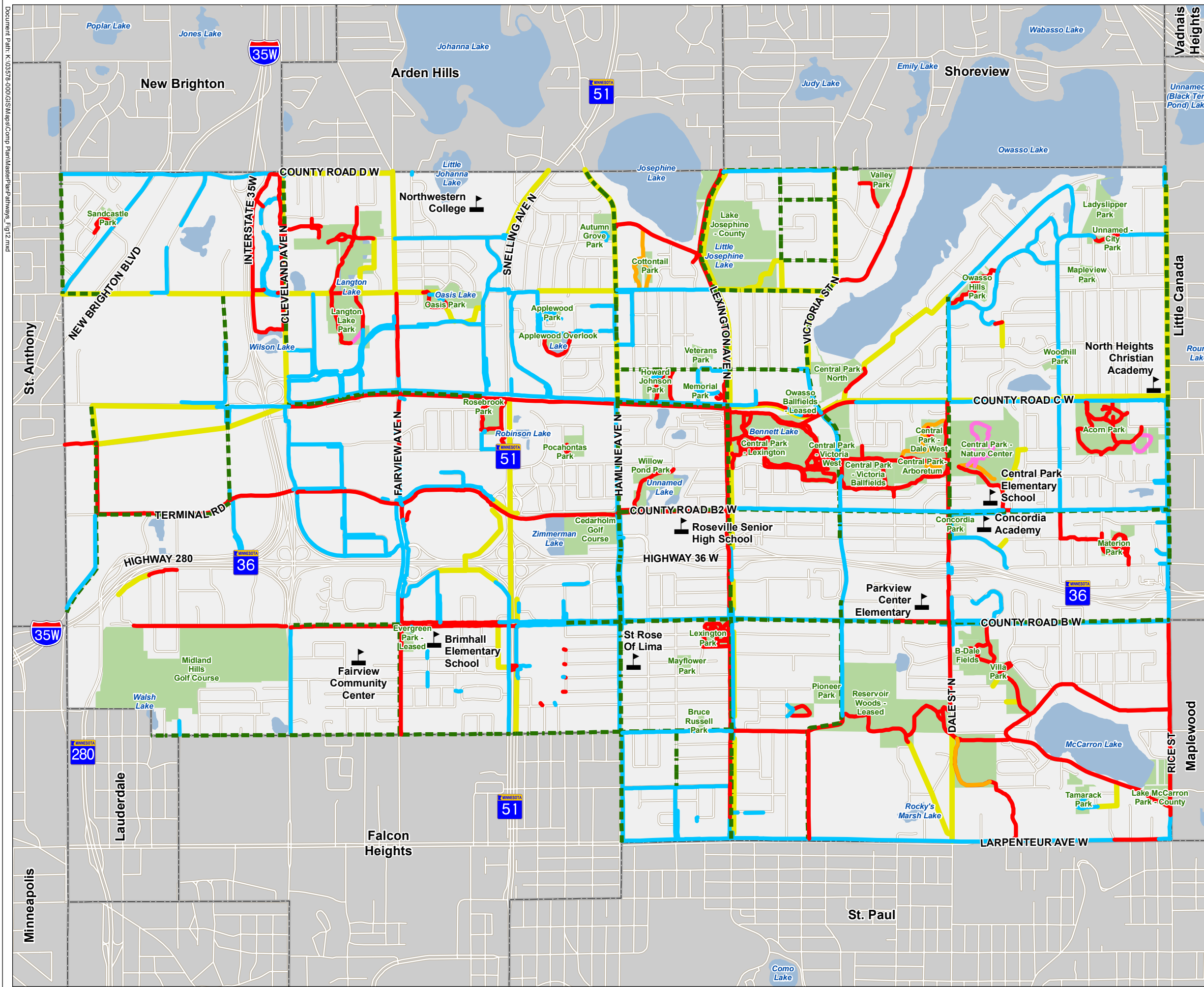
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# ROSEVILLE 2040

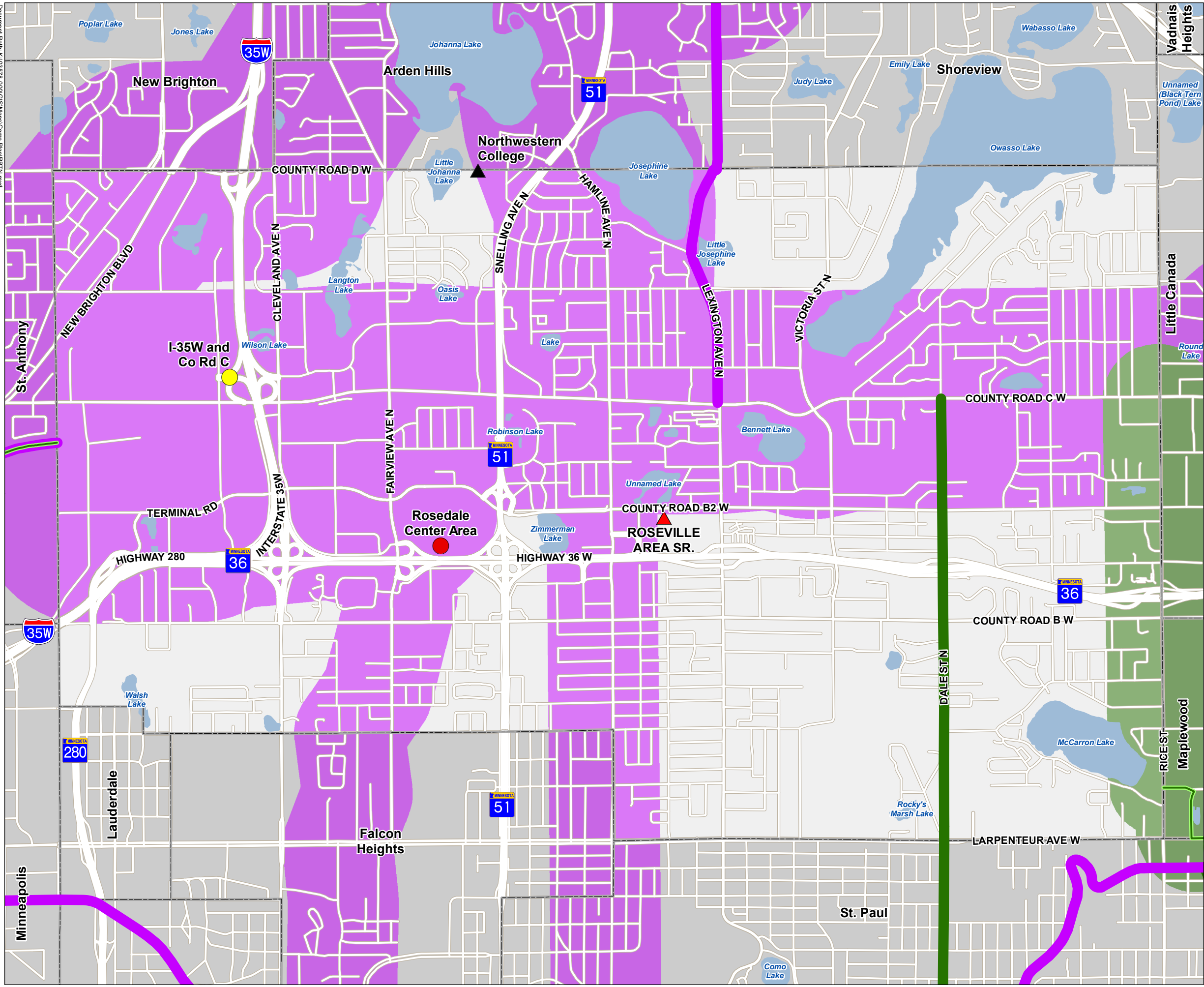
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Roseville Comprehensive Plan  
Figure 12: Pathway Master Plan  
Roseville, MN



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# ROSEVILLE 2040

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**Roseville Comprehensive Plan**  
**Figure 13: Regional Bicycle Transportation Network**  
**Roseville, MN**

**RBTN Alignments**

- Tier 1 Alignment
- Tier 2 Alignment

**Regional Trails**

- Existing
- Planned

**RBTN Destinations**

- Colleges & Universities
- Regional Job Centers
- Subregional Job Centers
- Large High Schools

**RBTN Corridors**

- Tier 1 Priority Corridor
- Tier 2 Corridor
- Roseville Boundary



0 2,000 Feet





#### 4.4. Planned Regional Non-Motorized Transportation Network

The Metropolitan Council 2040 TPP encourages the use of bicycles as a mode of transportation and establishes a Regional Bicycle Transportation Network (RBTN) to establish an integrated network of on-street bikeways and off-road trails that complement each other to improve conditions for bicycle transportation at the regional level. The RBTN identifies Tier 1 and Tier 2 alignments where existing regional or other trails exist or where a specific alignment has been identified. The RBTN also identifies Tier 1 and Tier 2 corridors where specific alignments have not yet been defined.

Within the City of Roseville, the RBTN identifies one Tier 1 RBTN alignment, four Tier 1 RBTN corridors, one Tier 2 RBTN alignment, and one Tier 2 RBTN corridor. The Tier 1 alignment is located along Lexington Avenue north of County Road C. There is an existing trail along the west side of the roadway in this location. Approximate locations for the Tier 1 RBTN corridors include County Road C east of I-35W; Fairview Avenue south of County Road C; Hamline Avenue; Old US 8 and County Road D; and Walnut Street, Terminal Road, Long Lake Road, and County Road B2. Several of these corridors currently include segments of trail and/or striped shoulder. The Tier 2 RBTN alignment within Roseville is located along Dale Street south of County Road C. The Tier 2 RBTN corridor is located along Rice Street south of County Road C. As with the Tier 1 locations, portions of this alignment and corridor include existing segments of trail. The RBTN map also identifies four regional destinations within the city: the I-35 W and County Road C Area (a regional job center), the Rosedale Center Area (a subregional job center), University of Northwestern-St. Paul, and Roseville Area Senior High School.

The Ramsey County-Wide Pedestrian & Bicycle Plan identifies a Connected Ramsey Communities Network, with a series of corridors that represent long-distance bikeways crossing the county. Within Roseville, major countywide corridors (with status) are identified along County Road C (existing and planned); Walnut Street, Terminal Road, Long Lake Road, and County Road B2 (existing); Old US 8 and County Road D (identified need); Fairview Avenue (existing, planned, and identified need); Hamline Avenue (existing and planned upgrade); and Lexington Avenue (planned upgrade).

The City proposes the following alignments for the RBTN corridors identified within Roseville:

- Along County Road C connecting to the Northeast Diagonal Trail in St. Anthony Village
- Along Fairview Avenue between the city boundary with Falcon Heights and County Road C
- Along Hamline Avenue through the length of the city
- Along Old Highway 8 through the length of the city
- Along Rice Street between the city boundary with St. Paul and County Road C

The City also recommends that the Metropolitan Council and Ramsey County explore adding Roselawn Avenue to the RBTN in future plan updates to provide an east-west bicycle route south of TH 36.

The existing and proposed regional network is shown in **Figure 13**.

#### 4.5. Non-Motorized Transportation Design Considerations

The City's Pathway Master Plan identifies different types of pedestrian and bicycle facilities and defines minimum standards for the design of these facilities. Facilities are divided into on-street and off-street pathway types. On-street pathways include bike routes, bike lanes, striped shoulders, and shared lanes. Off-road pathways include trails, sidewalks, and footpaths. Design standards and dimensions are based on the type of facility along with characteristics of the adjacent roadway such as speed limit and AADT.

As non-motorized facilities are planned and designed, the City should consult additional planning and design resources, including:

- County-Wide Pedestrian & Bicycle Plan, Ramsey County
- Minnesota's Best Practices for Pedestrian/Bicycle Safety, MnDOT
- Bikeway Facility Design Manual, MnDOT
- Minnesota Manual on Uniform Traffic Control Devices, MnDOT
- NACTO Urban Bikeway Design Guide, Second Edition, National Association of City Transportation Officials
- Guide for the Development of Bicycle Facilities, American Association of State Highway and Transportation Officials
- Guide for the Planning, Design, and Operation of Pedestrian Facilities, American Association of State Highway and Transportation Officials
- Complete Streets Implementation Resource Guide for Minnesota Local Agencies, MnDOT
- Public Rights of Way Accessibility Guidelines (PROWAG), US Access Board

Accessibility is a very important consideration for non-motorized design. All new pedestrian and bicycle facilities must meet the ADA accessibility guidelines established in PROWAG. The guidelines in PROWAG address the design needs of people with physical and/or visual impairments. Accessibility will become increasingly important over the next 20 years due to demographic changes. Baby boomers are aging and the population over age 65 is increasing. People over 65 are more likely to have physical and/or visual impairments that affect their ability to get around.

## 5. FREIGHT

Freight transportation in Roseville is primarily served by two rail lines and arterial roadways. **Figure 14** shows the freight system and potential freight generators. Two Minnesota Commercial (MNNR) rail lines pass through the city—one crossing north to south in the western portion of the city and one crossing from the northeast to the west. The latter rail line terminates in the western portion of the city and has been abandoned to the west; this rail line was purchased by the Hennepin County Railroad Authority and developed into the Northeast Diagonal Trail.

There are several large freight traffic generators within the city and the Triple Crown Bi-modal Terminal, a regional freight terminal, is located southwest of the city in adjacent to TH 280 and the MNNR railroad in Minneapolis. Freight traffic generators within Roseville are located along portions of the I-35W and along TH 36. Freight generators include concentrations of industrial land uses east and west of I-35W, including the Magellan and Nustar petroleum terminals, and industrial and largescale commercial land uses (such as Rosedale Center and HarMar Mall) north and south of TH 36.

**Figure 14** also shows Heavy Commercial Average Annual Daily Traffic (HCAADT) Roseville. There are several roadways with high heavy commercial volumes within the city, including I-35W, which has an HCAADT ranging from 3,800 to 8,500, and TH 36, which has an HCAADT ranging from 2,750 to 5,400 within the city. The 2017 Regional Truck Highway Corridor study identifies ten key roadways in Roseville as part of the regional freight network: I-35W, TH 36, TH 280, TH 51 south of TH 36, CSAH 88, County Road C west of TH 51, Terminal Road, and Broadway Street are all identified as Tier 1 corridors. County Road D and Fairview Avenue north of TH 36 are identified as Tier 2 corridors. TH 51 north of TH 36 is a Tier 3 corridor.

The Metropolitan Council 2040 TPP notes that freight rail traffic has increased substantially since 2010. Throughout the region, freight rail traffic is expected to increase, especially as the regional population continues to grow. There are 17 locations in the city where the rail lines cross public roadways at-grade: Terminal Road, County Road C, County Road C2, County Road D, Long Lake Road (two locations), Walnut Street, Cleveland Avenue, Prior Avenue, Fairview Avenue, Snelling Avenue, Hamline Avenue, Lexington Avenue, Victoria Street, Dale Street, and South Owasso Boulevard. Each of the public street crossings is controlled by a combination of crossbuck signs, flashing lights, and/or gates. There are also several locations where the railroad crosses private driveways or trails.

The Metropolitan Council 2040 TPP acknowledges several freight challenges that impact the city and the region. As mentioned above, freight traffic is expected to increase and place pressure on the region's highway and rail systems. Safety is also an increasing concern, particularly rail safety as related to Bakken crude oil being transported through the region on rail lines. The volume of rail traffic has therefore raised concerns about compatibility between freight traffic and adjacent land uses. While land use adjacent to the city's primary freight routes is generally compatible with these uses (industrial,

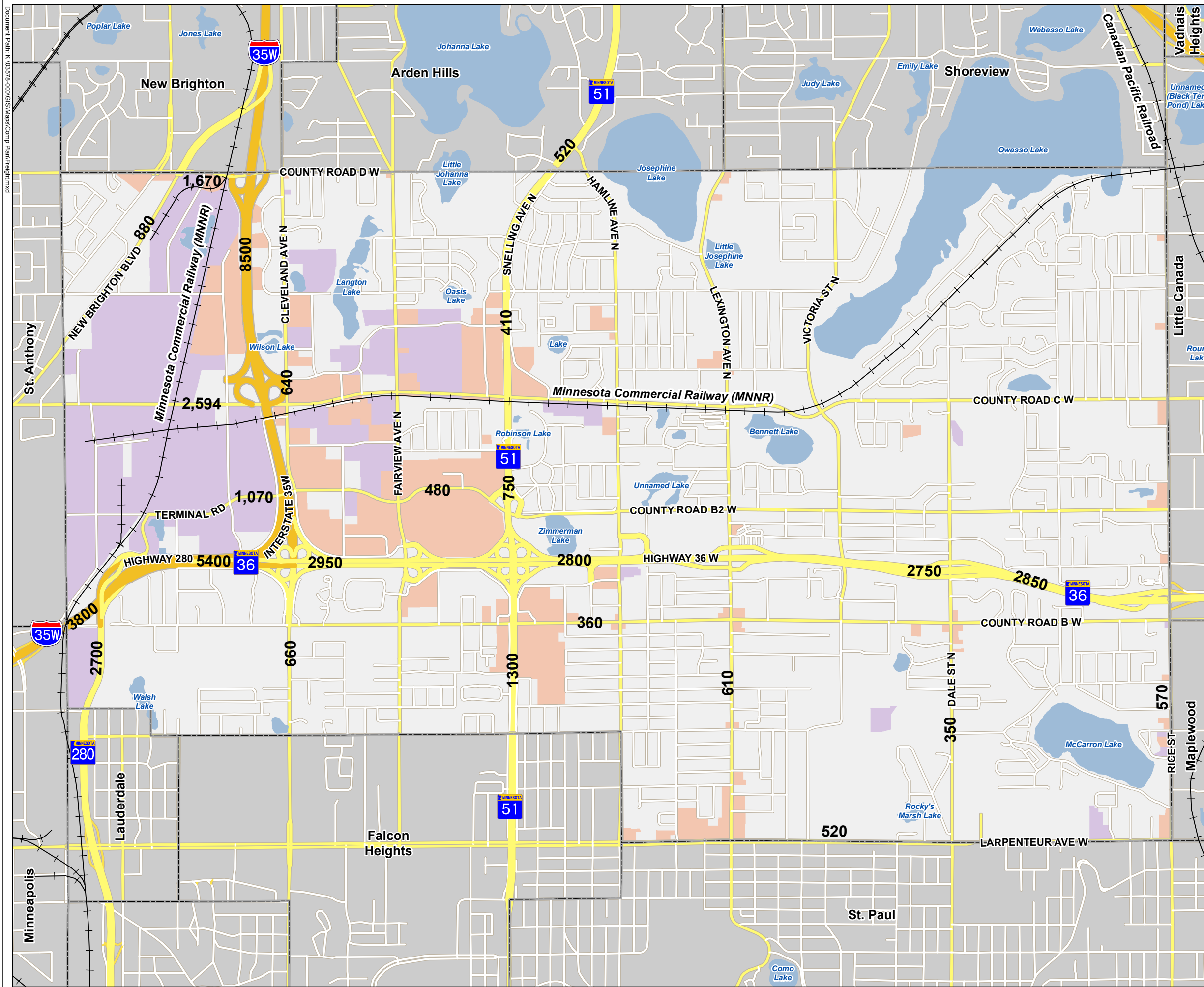
commercial, etc.), there are several areas of single-family and multi-family residential housing that lie adjacent to the rail lines. Freight transportation strategies are provided in Section 8.2.4.



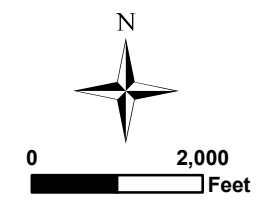
# ROSEVILLE 2040

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Roseville Comprehensive Plan  
Figure 14: Freight Facilities and HCADT  
Roseville, MN



Land Use	
	Industrial and Utility
	Retail and Other Commercial
	Railroads
	Roseville Boundary
<b>XXXX</b>	Heavy Commercial Average Daily Traffic (HCADT) Sources: MnDOT, estimates based on AADT



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## 6. TRANSIT

Roseville is located within the Transit Capital Levy District as shown in the Metropolitan Council 2040 TPP. The TPP further classifies the metropolitan area into transit markets based on demographic and urban design factors. Much of Roseville is located in Market Area III, but there are some pockets of the city located within Market Area II. Transit service in Market Area III is primarily commuter express bus service with some fixed-route local service providing basic coverage. General public dial-a-ride services are available where fixed-route service is not viable. Market Area II generally supports fixed-route transit, but at lower frequencies or shorter service spans than provided in Market Area I.

The A Line rapid bus line, which opened in 2016, provides a frequent transit connection between the Rosedale Transit Center in Roseville and the 46th Street Blue Line Light Rail station in Minneapolis, traveling along Snelling Avenue, Ford Parkway, and 46th Street. In addition to Rosedale Center, another station is located at the intersection of Snelling Avenue and County Road B. In addition to the A Line, there are 21 bus routes that operate within Roseville, including 8 that provide urban local service, 5 that provide suburban local service, and 8 that provide express service. The bus routes that serve Roseville have a mix of frequencies and types of service that they provide. Some routes operate every 30 minutes or every hour during the day and evening (i.e. urban local buses) while others provide limited-stop service and operate only during peak commuting times (i.e. express buses). Fixed route bus service in Roseville is summarized in **Table 7** and shown on **Figure 15**. Note that there are several bus routes that pass through Roseville on TH 36 or I-35W and do not include any stops within the city.

In addition to the fixed-route transit options, Roseville is also served by Anoka County Transit Link, a dial-a-ride service for the general public (Ramsey County is served by Anoka County Transit Link). Transit Link provides connections to destinations within Ramsey Counties. Transit Link also connects to regular route transit for trips within the metro area, including outside of Ramsey County. Roseville residents also have opportunities to participate in the Metro Vanpool program. This program provides financial assistance for vanpools to serve areas with limited regular-route transit service.

There are three park-and-ride lots located Roseville: Grace Church, I-35W and County Road C, and Skating Center. Of these facilities, only the Skating Center location has been above capacity in recent years. Metro Transit's 2016 Annual Regional Park-and-Ride System Report indicated that the Skating Center Park-and-Ride was at 102 percent of its capacity (50 parking stalls). Depending on future changes in park-and-ride demand, the City and Metro Transit may explore expansion or additional locations along the associated transit corridors.

Transit transportation strategies are provided in Section 8.2.7.

TABLE 7: ROSEVILLE BUS ROUTES

Route	Route Description	Service Type
32	Robbinsdale - Lowry Avenue - Rosedale	Urban Local
61	E Hennepin Avenue - Larpenteur Avenue - Arcade Street	Urban Local
62	Rice Street - Little Canada - Shoreview - Signal Hills	Urban Local
65	Dale Street - County Road B - Rosedale	Urban Local
71	Little Canada - Edgerton - Concord - Inver Hills	Urban Local
83	HarMar Target - Lexington Avenue	Urban Local
84	Rosedale - Snelling - 46th Street LRT - Sibley Plaza	Urban Local
87	Rosedale - U of MN St. Paul - Cleveland Avenue	Urban Local
223	Rosedale - Little Canada - Maplewood	Suburban Local
225	Deluxe - Roseville - Covenry - Rosedale	Suburban Local
227	Target Shoreview - Victoria - Rosedale	Suburban Local
262	Limited Stop - 95th Avenue Park and Ride - Rice Street - St. Paul	Suburban Local
801	Brooklyn Center - Columbia Heights - Rosedale	Suburban Local
250	Express - St. Josephs Park and Ride - 95th Avenue Park and Ride - Minneapolis	Express
252	95th Avenue Park and Ride - U of MN	Express
261	Express - Shoreview - Roseville - Minneapolis	Express
263	Express - Rice Street Park and Ride - Roseville	Express
264	Express - County Road C Park and Ride - Roseville	Express
270	Express - Mahtomedi - Maplewood - Minneapolis	Express
272	Express - Maplewood - Roseville - U of MN	Express
288	Express - Forest Lake - Minneapolis	Express

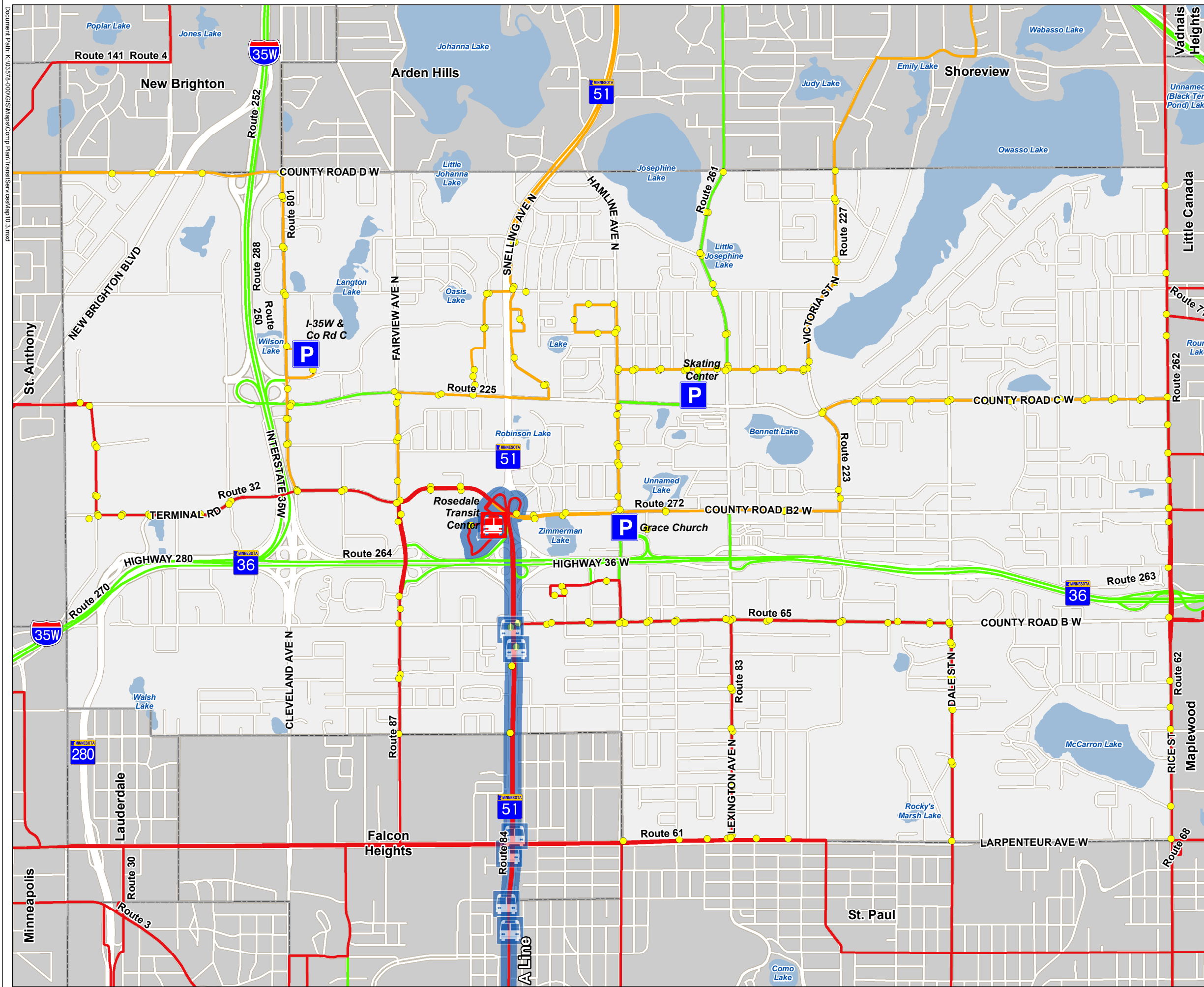
Source: Metro Transit



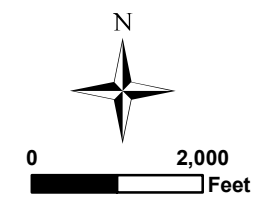
# ROSEVILLE 2040

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Roseville Comprehensive Plan  
Figure 15: Transit Facilities  
Roseville, MN



	Rosedale Transit Center
	Park and Ride
	A-Line BRT Transitway
	A-Line BRT Stations
	Bus Stop
<b>Bus Route Type</b>	
	Urban Local Route
	Suburban Local Route
	Express Route



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## 7. AVIATION

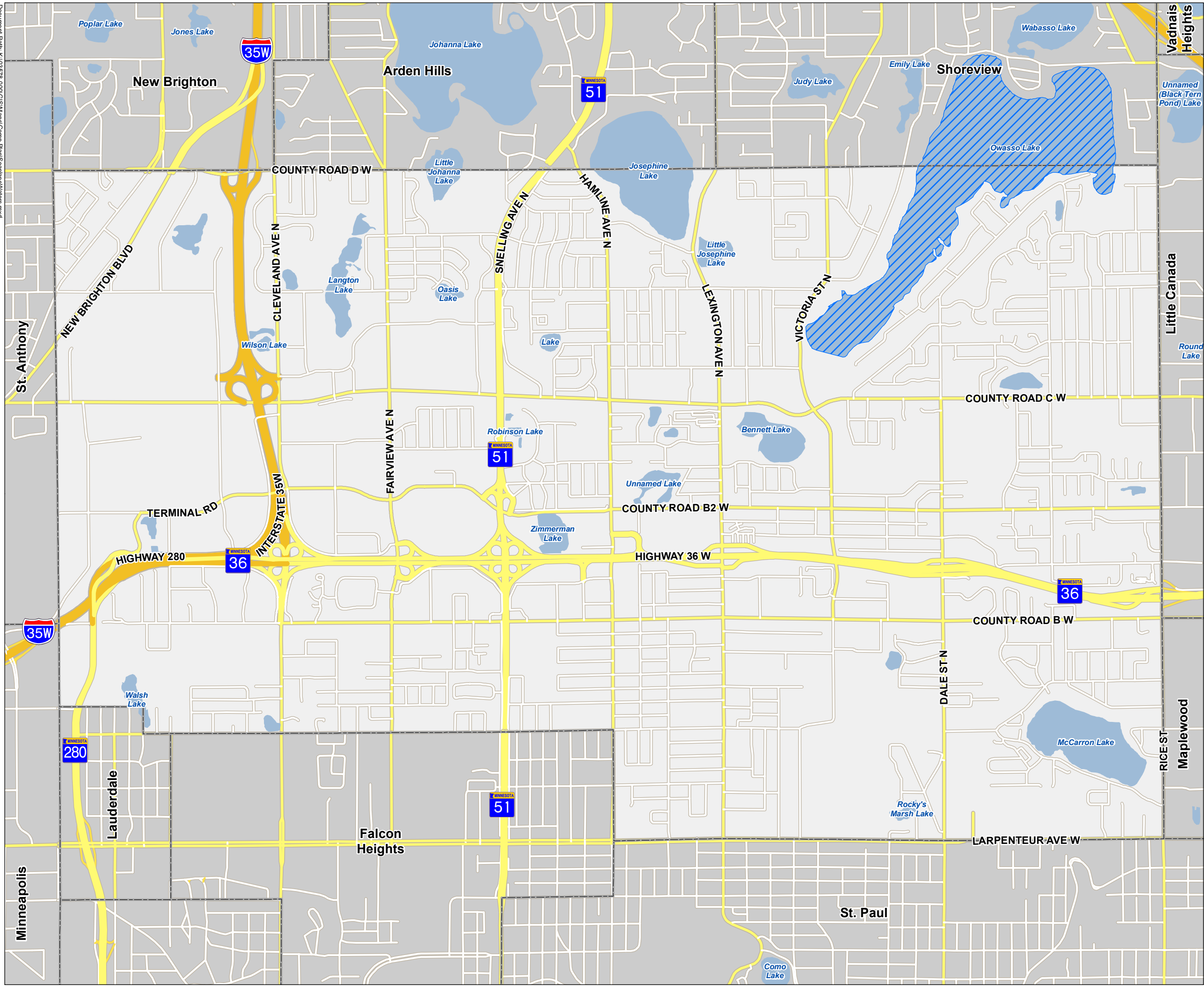
There are currently no existing or planned aviation facilities within the City of Roseville. However, the City is responsible for airspace protection in order to reduce hazards to air travel within the region. The closest public use airport to Roseville is the St. Paul Downtown Airport (Holman Field), approximately 4 miles southeast of Roseville.

Based on the distance to the nearest airports, there are no radio beacons or other air navigation aids located in off-airport locations in Roseville. The city is not within the area of influence of any airports, and is therefore not subject to associated land use restrictions. Seaplane use is designated and allowed by MnDOT on Lake Owasso, as shown on **Figure 16**.

Any person or organization who intends to sponsor the construction or alteration of a structure affecting navigable airspace as defined in Federal Regulation Title 14; Part 77 needs to inform the Federal Aviation Agency (FAA) of the project. This notification is accomplished through the completion and submittal to FAA of Form 7460-1, Notice of Proposed Construction or Alteration. In Roseville, this requirement applies to any construction or alteration exceeding 200 feet above ground level.

There are currently no heliports in Roseville or any known plans to construct one.



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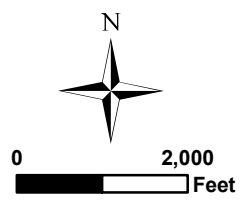


# ROSEVILLE 2040

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**Roseville Comprehensive Plan**  
**Figure 16: Surface Waters**  
**Allowed for Seaplane Use**  
**Roseville, MN**

	Seaplane Use Allowed
	Roseville Boundary





## 8. GOALS AND MULTIMODAL STRATEGIES

A multimodal transportation system incorporates several modes of transportation, including walking, bicycling, automobiles, public transportation, trucking/freight, and trains. This Plan, and the City's actions over the next 20 years, will be guided by the following multimodal transportation goals, policies, and strategies.

### 8.1. Vision Statement, Goals and Policies

Vision Statement: The City of Roseville will have a comprehensive, safe, efficient and reliable transportation system. The table below shows the City of Roseville's transportation goals and policies.

Goals	Policies
<p><b>1. Coordinate transportation decisions with other government entities and coordinate planning efforts to ensure connectivity of regional routes.</b></p>	<p>1.1 Continue to cooperate with County and State transportation departments, Metropolitan Council and neighboring communities to achieve orderly and timely development of existing and proposed roadway, pathway and transit routes serving the city.</p> <p>1.2 Coordinate all street planning with County, State and federal road plans. Work cooperatively with MnDOT and Ramsey County to improve landscaping, screening, lighting and maintenance of through-City roadway systems, especially TH 36.</p> <p>1.3 Communicate with the Metropolitan Council and the Minnesota Department of Transportation to encourage them to increase traffic capacity on major highways in order to reduce traffic on local roadways.</p> <p>1.4 Cooperate with State and federal agencies and railroad companies to enhance safety at all highway, railroad and pedestrian crossings.</p> <p>1.5 Provide notification to the Federal Aviation Agency (FAA) using FAA Form 7460, as may be amended, and the Minnesota Department of Transportation (MnDOT) Aeronautics Division when any construction or alteration of an object would affect general airspace, as defined in Minnesota Statutes 360.</p>
<p><b>2. Create sustainable transportation</b></p>	<p>2.1 Proactively communicate and explore opportunities to expand transit, pathways, intermodal connectivity and Travel Demand Management (TDM) strategies as reasonable alternatives to driving, where appropriate.</p>

<p><b>network</b> by encouraging more efficient use of existing roadways and limiting the need for future roadway expansion.</p>	<p>2.2 Ensure that the transportation network is prepared for changing or emerging transportation technologies, modes and demographics.</p>
<p><b>3. Create a safe and efficient roadway network, able to accommodate the existing and projected demand for automobile capacity and to reduce roadway congestion.</b></p>	<p>3.1 System-wide transportation capacity should be achieved by using a high level of network connectivity, appropriately spaced and properly sized thoroughfares and multiple travel modes, as an alternate to increasing the capacity of individual thoroughfares, where appropriate.</p> <p>3.2 Channel major traffic volumes onto community collector streets, arterials and highways and discourage motorized traffic from passing through residential areas on local streets.</p> <p>3.3 Identify, evaluate and correct problems of congestion in high-traffic areas and recurrent accident sites.</p> <p>3.4 Encourage the use of Intelligent Transportation Systems (ITS) to mitigate capacity issues and increase efficiency and safety of the existing roadway network.</p> <p>3.5 Create and/or upgrade major thoroughfare systems to multiple traffic lanes when warranted by traffic conditions.</p> <p>3.6 Develop streets according to their designated functional classification, pavement width and load capacity. Continuity of the street must recognize the function for which the street is intended.</p> <p>3.7 Maintain high-quality neighborhoods through the ongoing City Pavement Management Program to rehabilitate or reconstruct City streets and pathways.</p> <p>3.8 Advocate for appropriate roadway authorities to construct roadway capacity, safety and other improvements that meet existing and forecasted travel and demographic demands.</p> <p>3.9 Plan for and support a multimodal transportation system that moves people and goods safely and efficiently.</p>
<p><b>4. Promote the use of transit as a reasonable alternative to driving automobiles</b></p>	<p>4.1 Cooperate with and assist the Regional Transit Board (RTB) to provide effective transit service to all areas of the city.</p> <p>4.2 Advocate planning and development of the Northeast Diagonal Transit Corridor.</p>

<p>during both congested and non-congested time periods through land-use and transportation decisions.</p>	<p>4.3 Support and allow access to a robust public transit system that is integral to the metropolitan system and meets long-term needs by supporting transit hubs, Bus Rapid Transit (BRT), fixed route and dial-a-ride service options.</p> <p>4.4 Encourage the development of park-and-rides to reduce congestion on arterials throughout Roseville.</p> <p>4.5 Clearly mark bus stops and provide adequate space for buses to pull out of the moving traffic lane for loading and unloading.</p> <p>4.6 Provide adequate and attractive pedestrian access to bus stops by expanding the existing network of sidewalks as recommended in the Pathways Master Plan.</p> <p>4.7 Encourage transit-supportive development along existing and future transit corridors.</p> <p>4.8 Provide input into the rail corridor planning and abandonment process. If rails are removed, the corridors should be preserved for public uses, such as transit or pathways. In the event of rail line abandonment, an appropriate public agency should acquire the land for public purposes.</p> <p>4.9 Play an active role in planning for potential transitways and preserving potential rights-of-way and station locations.</p>
<p><b>5. Encourage the use of non-motorized transportation</b> by providing and supporting development of a high-quality network of both off-road and on-road pathways, and ensure that bicycle and pedestrian routes are safe, efficient and attractive.</p>	<p>5.1 Recognize the needs and preferences of pedestrians and cyclists with various skill, experience levels and purpose by providing a wide range of facilities to accommodate commuter, functional and recreational trips.</p> <p>5.2 Create and/or upgrade on-road bicycle facilities, where feasible, to ensure the safety of cyclists and improve the efficiency of the bicycle network.</p> <p>5.3 Update the Pathways Master Plan as needed.</p> <p>5.4 Expand, maintain and promote a system of continuous and connected pathways that encourage walking and biking.</p>

## 8.2. Multimodal Strategies

The multimodal strategies listed in this section are specific, actionable steps that the City can take in support of the goals of this Plan. These strategies are based upon existing and future transportation needs as described in detail in the previous sections of this Plan.

The multimodal strategies are broken into several categories:

1. Programmed Improvements & Studies
2. Congested Roadway Corridors
3. High Crash Locations
4. Freight
5. Interchanges
6. Functional Classification
7. Transit
8. Bicycle and Pedestrian
9. Citizen-Based Concerns

Each strategy is tied to one or multiple goals; however, not all goals are associated with a specific strategy. In these cases, the City’s goals apply across individual projects, and the City will identify opportunities to achieve them throughout its existing project and policy development processes. The following pages describe each strategy, notes which goal(s) is/are related to each strategy, and identifies the lead agency for the strategy. **Figures 17** and **18** following the strategies highlight selected strategies geographically.

### 8.2.1. Strategies: Programmed Improvements & Studies

<p><b>Roadway:</b> Interstate 35W—South of TH 36  <b>Lead Agency:</b> MnDOT  <b>Type of Improvement:</b> Pavement Preservation  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network.  <b>Strategy:</b> FY 2018 programmed pavement preservation project south of TH 36 through Roseville.</p>
<p><b>Roadway:</b> Interstate 35W—County Road C to Lino Lakes  <b>Lead Agency:</b> MnDOT  <b>Type of Improvement:</b> Pavement Preservation and Managed Lane Expansion  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation System; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> FY 2019 programmed pavement preservation and addition of MnPASS lanes north of TH 36 through Roseville.</p>

<p><b>Roadway:</b> TH 36  <b>Lead Agency:</b> MnDOT  <b>Type of Improvement:</b> Pavement Preservation  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network.  <b>Strategy:</b> FY 2022 programmed pavement preservation project through Roseville.</p>
<p><b>Roadway:</b> TH 36  <b>Lead Agency:</b> MnDOT  <b>Type of Improvement:</b> MnPASS Study  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation System; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> MnDOT is currently studying the addition of an eastbound and westbound MnPASS lane along TH 36 from just east of 35W extending east through the City of Roseville. City of Roseville officials should work closely with MnDOT, Metropolitan Council and others to ensure that any recommended MnPASS improvements resulting from this study are integrated into MnDOT's FY 2022 programmed pavement preservation project along this corridor.</p>
<p><b>Roadway:</b> County Road C Railroad Bridge West of Victoria Street  <b>Lead Agency:</b> Ramsey County  <b>Type of Improvement:</b> Bridge Replacement  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation System.  <b>Strategy:</b> Submit bridge replacement for State Bridge Bond funding during the 2018 Legislative Session with a potential construction year of 2020 or 2021, if successful. Due to the deficient bridge at this location, County Road C is currently load restricted west of Victoria Street.</p>
<p><b>Roadway:</b> County Road C: CSAH 88 in Hennepin County to east of Long Lake Road in the City of Roseville  <b>Lead Agency:</b> Ramsey County  <b>Type of Improvement:</b> Full Reconstruction  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation System.  <b>Strategy:</b> FY 2020 programmed full reconstruction project. Also, potential addition of a separated bicycle trail and sidewalk improvements.</p>
<p><b>Roadway:</b> Cleveland Avenue/County Road 46 at County Road B  <b>Lead Agency:</b> Ramsey County  <b>Type of Improvement:</b> Signal Replacement or Roundabout  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation System.  <b>Strategy:</b> FY 2018 programmed project to replace existing signal or construct a new roundabout in conjunction with programmed pavement project on Interstate 35W.</p>



<p><b>Roadway:</b> Rice Street/County Road 49 from County Road B2 to County Road C2  <b>Lead Agency:</b> Ramsey County  <b>Type of Improvement:</b> Full Reconstruction or Pavement Preservation  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation System.  <b>Strategy:</b> FY 2021 programmed project (tentative), pending research into right-of-way costs. If full reconstruction is too costly, the project scope may be scaled back to a pavement preservation project.</p>
<p><b>Roadway:</b> County Road B: Snelling Avenue/TH 51 to State Farm Road  <b>Lead Agency:</b> Ramsey County  <b>Type of Improvement:</b> Pavement Replacement  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation System.  <b>Strategy:</b> FY 2019 programmed pavement replacement project.</p>
<p><b>Roadway:</b> Snelling Avenue/TH 51: County Road B2 to 1,180 feet north of Lydia Avenue  <b>Lead Agency:</b> City of Roseville/MnDOT  <b>Type of Improvement:</b> Northbound 3rd Lane Expansion  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> FY 2021 programmed third lane northbound expansion pending results of travel demand modeling and traffic operations analysis.</p>
<p><b>Roadway:</b> County Road C East of Victoria Street  <b>Lead Agency:</b> Ramsey County  <b>Type of Improvement:</b> Study 4-Lane Undivided to 3-Lane Reconfiguration  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation System; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> Explore the feasibility and benefits of reconfiguring County Road C east of Victoria Street from the existing 4-lane undivided design to a 3-lane design.</p>

**8.2.2. Strategies: Congested Roadway Corridors**

<p><b>Roadway:</b> Interstate 35W  <b>Lead Agency:</b> MnDOT  <b>Type of Improvement:</b> Monitor &amp; Pursue Strategic Improvements  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> Existing Level of Service (LOS) is D/E and 2045 forecasted LOS is D/E/F in this corridor. Officials should continue to monitor existing and forecasted congestion along Interstate 35W through the City of Roseville. The City should endeavor to maintain an open and proactive dialogue with MnDOT, Metropolitan Council, Ramsey County, adjacent communities and users of Interstate 35W with the goal of identifying opportunities to collaborate on short and long-range strategies for improving overall Level of Service (LOS) in this corridor. The programmed FY 2019 addition of MnPASS lanes north of TH 36 will assist with this congestion.</p>
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**Roadway:** TH 51/Snelling Avenue  
**Lead Agency:** MnDOT/City of Roseville  
**Type of Improvement:** Monitor & Pursue Strategic Improvements  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** Existing Level of Service (LOS) is E/F and 2045 forecasted LOS is E/F in this corridor. Officials should implement the programmed FY 2021 3-lane expansion northbound, or a suitable alternative to this programmed improvement. Additionally, monitoring should continue of existing and forecasted congestion levels. The City should endeavor to maintain an open and proactive dialogue with MnDOT, Metropolitan Council, Ramsey County, adjacent communities and users of Snelling Avenue/TH 51 with the goal of identifying opportunities to collaborate on short and long-range strategies for improving overall Level of Service (LOS) in this corridor.

**Roadway:** County Road 51/Lexington Avenue  
**Lead Agency:** Ramsey County  
**Type of Improvement:** Monitor & Pursue Strategic Improvements/Corridor Study  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** Existing Level of Service (LOS) south of TH 36 is F and 2045 forecasted LOS is also F in this corridor. Officials should continue to monitor existing and forecasted congestion levels along County Road 51/Lexington Avenue south of TH 36. The City should endeavor to maintain an open and proactive dialogue Metropolitan Council, Ramsey County and users of this roadway with the goal of identifying opportunities to collaborate on short and long-range strategies for improving overall Level of Service (LOS) in this corridor. A corridor study should also be considered to evaluate existing and forecasted traffic operations and design solutions in greater detail.

**Roadway:** County Road 49/Rice Street  
**Lead Agency:** Ramsey County  
**Type of Improvement:** Monitor & Pursue Strategic Improvements/Corridor Study  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** Existing Level of Service (LOS) is E and 2045 forecasted LOS is F in this corridor, except at the intersection of TH 36 where a 4-lane divided roadway currently exists. Officials should monitor existing and forecasted congestion levels along County Road 49/Rice Street. The City should endeavor to maintain an open and proactive dialogue with Metropolitan Council, Ramsey County, and users of Rice Street/County Road 49 with the goal of identifying opportunities to collaborate on short and long-range strategies for improving overall Level of Service (LOS) in this corridor. A corridor study should also be considered to evaluate existing and forecasted traffic operations and potential design solutions in greater detail.

**Roadway:** TH 36

**Lead Agency:** MnDOT

**Type of Improvement:** Monitor & Pursue Strategic Improvements/MnPASS Study

**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.

**Strategy:** Existing Level of Service (LOS) is F and 2045 forecasted LOS is also F in this corridor. City officials should work closely with MnDOT and Ramsey County as the scheduled MnPASS study along TH 36 takes place to ensure that all pertinent local input is considered. The City should also endeavor to maintain an open and proactive dialogue with MnDOT, Metropolitan Council, Ramsey County, and users of TH 36 with the goal of identifying opportunities to collaborate on short and long-range strategies for improving overall Level of Service (LOS) in this corridor.

### 8.2.3. Strategies: High Crash Locations

**Roadway:** County Road 46/Cleveland Avenue and County Road C

**Lead Agency:** Ramsey County

**Type of Improvement:** Traffic Operations Study

**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.

**Strategy:** The 2011–2015 crash rate was greater than 1.25 per million entering vehicles at County Road 46/Cleveland Avenue and County Road C, which exceeds the statewide average. City officials should coordinate with Ramsey County to conduct a detailed traffic operations study at this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.

**Roadway:** TH 51/Snelling Avenue and County Road B

**Lead Agency:** MnDOT/Ramsey County

**Type of Improvement:** Traffic Operations Study

**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.

**Strategy:** The 2011–2015 crash rate was greater than 1.25 per million entering vehicles at TH 51/Snelling Avenue and County Road B, which exceeds the statewide average. City officials should coordinate with MnDOT and Ramsey County to conduct a detailed traffic operations study at this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.

**Roadway:** TH 51/Snelling Avenue and County Road C  
**Lead Agency:** MnDOT/Ramsey County  
**Type of Improvement:** Traffic Operations Study  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  
**Strategy:** The 2011–2015 crash rate was 1.0 to 1.25 per million entering vehicles at TH 51/Snelling Avenue and County Road C, which exceeds the statewide average. City officials should coordinate with MnDOT and Ramsey County to conduct a detailed traffic operations study at this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.

**Roadway:** County Road 53/Dale Street and County Road B2  
**Lead Agency:** Ramsey County  
**Type of Improvement:** Traffic Operations Study  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  
**Strategy:** The 2011–2015 crash rate was 1.0 to 1.25 per million entering vehicles at County Road 53/Dale Street and County Road B2, which exceeds the statewide average. City officials should coordinate with Ramsey County to conduct a detailed traffic operations study at this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.

**Roadway:** County Road 46/Cleveland Avenue: County Road C to County Road B2  
**Lead Agency:** Ramsey County  
**Type of Improvement:** Traffic Operations Study  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  
**Strategy:** The 2011–2015 crash rate for this segment was greater than 12 per million vehicle miles, which exceeds the statewide average. City officials should coordinate with Ramsey County to conduct a detailed traffic operations study of this segment this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.

**Roadway:** County Road 48/Fairview Avenue: County Road B2 to County Road B  
**Lead Agency:** Ramsey County  
**Type of Improvement:** Traffic Operations Study  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  
**Strategy:** The 2011–2015 crash rate for this segment ranged from 9 to greater than 12 per million vehicle miles, which exceeds the statewide average. City officials should coordinate with Ramsey County to conduct a detailed traffic operations study of this segment this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.

**Roadway:** County Road B: County Road 48/Fairview Avenue to East of TH 51/Snelling Avenue

**Lead Agency:** Ramsey County

**Type of Improvement:** Traffic Operations Study

**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.

**Strategy:** The 2011–2015 crash rate for this segment was greater than 12 per million vehicle miles, which exceeds the statewide average. City officials should coordinate with Ramsey County to conduct a detailed traffic operations study of this segment this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.

**Roadway:** Roselawn Avenue West: County Road 50/Hamline Avenue to TH 51/Snelling Avenue

**Lead Agency:** City of Roseville

**Type of Improvement:** Traffic Operations Study

**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.

**Strategy:** The 2011–2015 crash rate for this segment was greater than 12 per million vehicle miles, which exceeds the statewide average. City officials should coordinate with Ramsey County to conduct a detailed traffic operations study of this segment this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.

**Roadway:** County Road B2: County Road 48/Fairview Avenue to TH 51/Snelling Avenue

**Lead Agency:** Ramsey County

**Type of Improvement:** Traffic Operations Study

**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.

**Strategy:** The 2011–2015 crash rate for this segment was between 9 and 12 per million vehicle miles, which exceeds the statewide average. City officials should coordinate with Ramsey County to conduct a detailed traffic operations study of this segment this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.



**Roadway:** County Road B2: County Road 50/Hamline Avenue to County Road 51/Lexington Avenue

**Lead Agency:** Ramsey County

**Type of Improvement:** Traffic Operations Study

**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.

**Strategy:** The 2011–2015 crash rate for this segment was between 9 and 12 per million vehicle miles, which exceeds the statewide average. City officials should coordinate with Ramsey County to conduct a detailed traffic operations study of this segment this intersection to evaluate potential strategies to lower this crash rate. Opportunities to make improvements at this location in conjunction with scheduled Capital Improvement Program work should be explored.

#### 8.2.4. Strategies: Freight

**Location:** County Road C (CSAH 23)

**Lead Agency:** Ramsey County

**Type of Improvement:** Truck Mobility

**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.

**Strategy:** County Road C (CSAH 23) has been identified by Metropolitan Council in their May 17, 2017 Regional Truck Highway Study as the #13 truck delay hotspot in the Twin Cities Region, with a total of 17 hours of truck delay per day. Efforts should be made by Ramsey County and the City of Roseville to work with the trucking community to better understand problems related to truck mobility through the City of Roseville and the County Road C (CSAH 23) Corridor. Federal FAST Act freight funding or other freight related funding sources available through MnDOT or Metropolitan Council should be pursued for truck mobility improvements along this corridor, as opportunities present themselves.

**Location:** County Road B2 (CSAH 78)

**Lead Agency:** Ramsey County

**Type of Improvement:** Truck Safety

**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.

**Strategy:** County Road B2 (CSAH 78) has been identified by Metropolitan Council in their May 17, 2017 Regional Truck Highway Study as the #3 truck crash hotspot in the Twin Cities Region, with 14.3 truck crashes per million trucks. Efforts should be made by Ramsey County and the City of Roseville to work with the trucking community to better understand problems related to truck crashes along this corridor. Federal FAST Act freight funding or other freight related funding sources available through MnDOT or Metropolitan Council should be pursued for safety improvements along this corridor, as opportunities present themselves.

**Location:** County Road C (CSAH 78)  
**Lead Agency:** Ramsey County  
**Type of Improvement:** Truck Safety  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** County Road C (CSAH 78) has been identified by Metropolitan Council in their May 17, 2017 Regional Truck Highway Study as the #18 truck crash hotspot in the Twin Cities Region, with 4.7 truck crashes per million trucks. Efforts should be made by Ramsey County and the City of Roseville to work with the trucking community to better understand problems related to truck crashes along this corridor. Federal FAST Act freight funding or other freight related funding sources available through MnDOT or Metropolitan Council should be pursued for safety improvements along this corridor, as opportunities present themselves.

**Location:** New Brighton Boulevard (County Road 88)  
**Lead Agency:** Ramsey County  
**Type of Improvement:** Truck Safety  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** New Brighton Boulevard (County Road 88) has been identified by Metropolitan Council in their May 17, 2017 Regional Truck Highway Study as the #19 truck crash hotspot in the Twin Cities Region, with 4.6 truck crashes per million trucks. Efforts should be made by Ramsey County and the City of Roseville to work with the trucking community to better understand problems related to truck crashes along this corridor. Federal FAST Act freight funding or other freight related funding sources available through MnDOT or Metropolitan Council should be pursued for safety improvements along this corridor, as opportunities present themselves.

**Location:** Burlington Northern Santa Fe (BNSF) Railroad  
**Lead Agency:** City of Roseville/Ramsey County/MnDOT  
**Type of Improvement:** At-Grade Railroad Crossing Safety/Operations  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** City of Roseville, Ramsey County and MnDOT officials should coordinate closely with BNSF Railroad to monitor the ongoing safety and operations of at-grade railroad crossings at the following locations in the City of Roseville: Walnut Street, Long Lake Road, Cleveland Avenue North, Fairview Avenue North, Snelling Avenue North, Hamline Avenue North, Lexington Avenue North, Victoria Street North, Dale Street North, South Owasso Boulevard and numerous private driveways. Railroad safety and operations improvements at these locations should be pursued as State and federal funds are available and circumstances warrant.

**Location:** Minnesota Commercial (MNNR) Railroad  
**Lead Agency:** City of Roseville/Ramsey County  
**Type of Improvement:** At-Grade Railroad Crossing Safety/Operations  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** City of Roseville and Ramsey County officials should coordinate closely with MNNR Railroad to monitor the ongoing safety and operations of at-grade railroad crossings at the following locations in the City of Roseville: Terminal Road, County Road C2, County Road C, County Road D and Long Lake Road. Railroad safety and operations improvements at these locations should be pursued as State and federal funds are available and circumstances warrant.

**8.2.5. Strategies: Interchanges**

**Roadway:** TH 280: Intersection at Broadway Street Hennepin CR 116  
**Lead Agency:** MnDOT  
**Type of Improvement:** Interchange  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** This intersection has been identified by Metropolitan Council in their January 2017 Principal Arterial Intersection Conversion Study as an existing at-grade intersection with a high priority for future grade separation. This intersection is located partially in the City of Roseville and partially in the City of Lauderdale, with the City of Minneapolis immediately to the west. The TH 280 corridor served an important regional function as a detour route when the Interstate 35W bridge collapsed in 2007. Roseville officials should coordinate with MnDOT, Metropolitan Council and the aforementioned local governments to discuss the overall priority of this identified interchange project with respect to other needed regional improvements and pursue necessary design, project development and funding as appropriate.

**8.2.6. Strategies: Functional Classification**

**Roadway:** City of Roseville Municipal State Aid (MSA) System  
**Lead Agency:** City of Roseville  
**Type of Improvement:** All MSA Roads Classified as “Collector”  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** Classify all City of Roseville Municipal State Aid (MSA) Streets as “collector” roadways. This includes changing some MSA functionally unclassified roadways to “collector” and changing some MSA roadways currently classified as “major collector” to “collector.” Specific proposed changes are illustrated on the Existing and Proposed Functional Classification map depicted in **Figure 3**.

**8.2.7. Strategies: Transit**

<p><b>Location:</b> System-Wide  <b>Lead Agency:</b> City of Roseville/Metro Transit  <b>Type of Improvement:</b> Last Mile Access  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Promote the Use of Transit.  <b>Strategy:</b> Connections to bus stops and transit stations can be challenging by foot or bike due to lack of continuous sidewalk facilities and crossings. Opportunities to improve access and connections should be explored in a collaborative manner with all public and private stakeholders. Discussions with Metro Transit could be used to help prioritize key investments based on ridership and access demands. Improvements should be integrated and scheduled as part of Capital Improvement Programs as funding is available.</p>
<p><b>Location:</b> System-Wide  <b>Lead Agency:</b> City of Roseville/Metro Transit  <b>Type of Improvement:</b> More Bus Shelters  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Promote the Use of Transit.  <b>Strategy:</b> Work with Metro Transit to explore opportunities to enhance bus shelter facilities at key locations to support existing ridership and attract additional riders to the transit service.</p>
<p><b>Location:</b> System-Wide  <b>Lead Agency:</b> City of Roseville/Metro Transit  <b>Type of Improvement:</b> Enhanced East-West Fixed Route Service  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Promote the Use of Transit.  <b>Strategy:</b> There are limited transit routes that connect the eastern and western parts of the city without requiring a trip outside of the city. The City should work with Metro Transit to explore the feasibility of providing an east-west local fixed route service within the city.</p>
<p><b>Location:</b> System-Wide  <b>Lead Agency:</b> City of Roseville/Metro Transit  <b>Type of Improvement:</b> Seven Day and Evening Service  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Promote the Use of Transit.  <b>Strategy:</b> The City should work with Metro Transit to explore the feasibility of expanding bus route evening and weekend service for fixed route service within the city.</p>
<p><b>Location:</b> Larpenteur Avenue East of Victoria Street  <b>Lead Agency:</b> City of Roseville/Metro Transit  <b>Type of Improvement:</b> Add Service  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Promote the Use of Transit.  <b>Strategy:</b> There is currently no bus service along Larpenteur Avenue east of Victoria Street and limited connections in this area. The City should work with Metro Transit to enhance bus service and access for residents along Larpenteur Avenue.</p>

**Location:** System-Wide  
**Lead Agency:** City of Roseville/Metro Transit  
**Type of Improvement:** Express Bus to St. Paul  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Promote the Use of Transit.  
**Strategy:** Express service to downtown St. Paul is limited in comparison to express routes serving downtown Minneapolis and the University of Minnesota. The City should work with Metro Transit to explore the feasibility of additional express bus service to downtown St. Paul.

**Location:** System-Wide  
**Lead Agency:** City of Roseville/Metro Transit  
**Type of Improvement:** Elderly Transit Service  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Promote the Use of Transit.  
**Strategy:** Metro Mobility currently provides transit service for disabled citizens that cannot use the normal fixed route transit system. Transit services for the elderly currently include the Roseville Area Senior Program and American Red Cross. City officials should coordinate with Metro Transit, the Roseville Area Senior Program and American Red Cross to evaluate current and future transit system needs for a growing elderly population in Roseville to ensure that adequate and affordable service is available.

**Location:** System-Wide  
**Lead Agency:** City of Roseville/Metro Transit  
**Type of Improvement:** A-Line Commuter Bus Connections  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Promote the Use of Transit.  
**Strategy:** City officials should coordinate with Metro Transit to evaluate current transit and bicycle/pedestrian connections and parking availability to the existing A-Line Commuter Bus service. Opportunities to improve multimodal connections and parking should be explored in a collaborative manner with all public and private stakeholders. Improvements should be integrated and scheduled as part of Capital Improvement Programs as funding is available.

**8.2.8. Strategies: Bicycle and Pedestrian**

**Location:** System-Wide  
**Lead Agency:** City of Roseville  
**Type of Improvement:** Wayfinding and Signage  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Encourage the Use of Non-Motorized Transportation.  
**Strategy:** Improve signage and wayfinding from bicycle and pedestrian facilities to transit stations and other key community destinations.

<p><b>Location:</b> Lexington Avenue</p> <p><b>Lead Agency:</b> Ramsey County</p> <p><b>Type of Improvement:</b> Regional Bike Trail Study</p> <p><b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Encourage the Use of Non-Motorized Transportation.</p> <p><b>Strategy:</b> Ramsey County will study the feasibility of developing a regional bicycle trail along Lexington Avenue through the City of Roseville. The City should be engaged throughout this process to enhance connectivity along Lexington Avenue.</p>
<p><b>Location:</b> Fairview Avenue RBTN</p> <p><b>Lead Agency:</b> City of Roseville/Ramsey County/Metropolitan Council</p> <p><b>Type of Improvement:</b> RBTN Alignment Shift</p> <p><b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Encourage the Use of Non-Motorized Transportation.</p> <p><b>Strategy:</b> The City of Roseville, Ramsey County and Metropolitan Council should discuss potentially realigning the Fairview Avenue RBTN to Cleveland Avenue to better align with connections south and the ability to cross a major railway barrier.</p>
<p><b>Location:</b> Snelling Avenue and TH 36</p> <p><b>Lead Agency:</b> City of Roseville</p> <p><b>Type of Improvement:</b> Bicycle/Pedestrian Bridge</p> <p><b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Encourage the Use of Non-Motorized Transportation.</p> <p><b>Strategy:</b> City of Roseville officials should coordinate with MnDOT to explore feasible locations for a grade separated bicycle/pedestrian crossing of TH 36 between HarMar Mall and Rosedale Center (in the vicinity of TH 51/Snelling Avenue).</p>
<p><b>Location:</b> Victoria Street North of County Road C</p> <p><b>Lead Agency:</b> City of Roseville</p> <p><b>Type of Improvement:</b> Bicycle/Pedestrian</p> <p><b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Encourage the Use of Non-Motorized Transportation.</p> <p><b>Strategy:</b> City of Roseville officials should explore and pursue, as feasible, bicycle and pedestrian improvements along Victoria Street north of County Road C.</p>
<p><b>Location:</b> HarMar and Rosedale Shopping Malls</p> <p><b>Lead Agency:</b> City of Roseville</p> <p><b>Type of Improvement:</b> Bicycle/Pedestrian</p> <p><b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Encourage the Use of Non-Motorized Transportation.</p> <p><b>Strategy:</b> City of Roseville officials should explore and pursue, as feasible, bicycle and pedestrian improvements to improve overall multimodal access to the HarMar and Rosedale Shopping Malls.</p>



**Location:** St. Paul Regional Connections  
**Lead Agency:** City of Roseville/City of St. Paul  
**Type of Improvement:** Bicycle/Pedestrian  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Encourage the Use of Non-Motorized Transportation.  
**Strategy:** City of Roseville officials should work closely with City of St. Paul officials to ensure all planning, design, project development, grant pursuits and implementation for regional bicycle and pedestrian corridors connecting the two communities are fully coordinated and leveraged.

**Location:** System-Wide  
**Lead Agency:** City of Roseville  
**Type of Improvement:** Bicycle/Pedestrian Maintenance  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Encourage the Use of Non-Motorized Transportation.  
**Strategy:** City of Roseville officials should review current practices with respect to ongoing bicycle and pedestrian system maintenance and identify any opportunities to enhance these activities, especially during cold winter months.

**Location:** System-Wide  
**Lead Agency:** City of Roseville  
**Type of Improvement:** Complete Streets Policy  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Promote the Use of Transit; Encourage the Use of Non-Motorized Transportation.  
**Strategy:** A Complete Streets approach to planning and implementing non-motorized facilities, as described in the MnDOT Complete Streets Implementation Resource Guide, can provide a helpful framework for creating a community-supported, safe, comfortable, and convenient transportation network that serves all modes. City of Roseville officials should evaluate implementing a Complete Streets policy or process intended to provide design guidance and implementation clarity, allowing the community and project designers to advance individual projects in a collaborative and cost-efficient manner.

**8.2.9. Strategies: Citizen Based Concerns**

**Roadway:** Terminal Road  
**Lead Agency:** City of Roseville  
**Type of Improvement:** Corridor Study  
**Goals Addressed:** Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  
**Strategy:** Conduct a corridor study to evaluate existing and forecasted traffic operations and safety related concerns and potential strategies for future improvements.

<p><b>Roadway:</b> Old Highway 8  <b>Lead Agency:</b> City of Roseville  <b>Type of Improvement:</b> Corridor Study  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> Conduct a corridor study to evaluate existing and forecasted traffic operations and safety related concerns and potential strategies for future improvements.</p>
<p><b>Roadway:</b> Pascal Street and Burke Avenue  <b>Lead Agency:</b> City of Roseville  <b>Type of Improvement:</b> Neighborhood Study South of County Road B  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> Conduct a neighborhood study south of County Road B to evaluate safety concerns and potential solutions to address cut thru traffic along Pascal Street and Burke Avenue.</p>
<p><b>Roadway:</b> Victoria Avenue and Orchard Lane  <b>Lead Agency:</b> City of Roseville  <b>Type of Improvement:</b> Traffic Study  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> Conduct a detailed traffic study to evaluate safety and traffic concerns at this location.</p>
<p><b>Roadway:</b> Various  <b>Lead Agency:</b> City of Roseville  <b>Type of Improvement:</b> Speed Study  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> Concerns have been raised through the public involvement process for the City of Roseville 2040 Transportation Plan regarding multiple speed limit postings along certain roadway corridors through the city. The specific concern is that multiple speed limit postings along certain roadway corridors is confusing to some motorists, especially when speed changes are posted in areas that do not have a significant change in roadway design characteristics or adjacent land use. To address this concern, City officials should review current speed limit postings along major roadway corridors and request that MnDOT conduct updated speed studies along corridors that are of concern.</p>
<p><b>Roadway:</b> County Road B2 at Lexington Avenue North (CSAH 51)  <b>Lead Agency:</b> Ramsey County  <b>Type of Improvement:</b> Left Turn Signal Phasing  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> The lack of left turn phasing at this intersection currently creates backups on eastbound County Road B2, and sometimes westbound as well. A review of the current signal system and geometric layout at this intersection should occur and necessary signal and intersection design upgrades should be considered.</p>

<p><b>Roadway:</b> County Road B2 at Hamline Avenue North (CSAH 50)  <b>Lead Agency:</b> Ramsey County  <b>Type of Improvement:</b> Left Turn Signal Phasing  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> The lack of left turn phasing at this intersection currently crates backups eastbound and westbound along County Road B2. A review of the current signal system and geometric layout at this intersection should occur and necessary signal and intersection design upgrades should be made considered.</p>
<p><b>Roadway:</b> County Road D at Fairview Avenue North  <b>Lead Agency:</b> Ramsey County/City of Roseville  <b>Type of Improvement:</b> Intersection Control/Operations  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> The intersection is controlled by an all-way stop and significant backups currently occur, particularly northbound. Current intersection geometrics and intersection control should be evaluated at this location to assess if any design and/or intersection control upgrades should be made.</p>
<p><b>Roadway:</b> Fairview Avenue: TH 36 south ramp through County Road B2  <b>Lead Agency:</b> City of Roseville/MnDOT  <b>Type of Improvement:</b> Signal Timing  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> Poor signal timing along Fairview Avenue currently creates multiple stops and backups through this signalized corridor. Review of signal timing should occur along Fairview Avenue from the TH 36 south ramp through County Road B 2 to better time and coordinate these signals.</p>
<p><b>Roadway:</b> Lydia Avenue and County Road C2 at Snelling Avenue (TH 51)  <b>Lead Agency:</b> MnDOT/City of Roseville  <b>Type of Improvement:</b> Signal Timing  <b>Goals Addressed:</b> Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.  <b>Strategy:</b> Extremely long green cycle lengths along Snelling Avenue and short cross street green times along Lydia Avenue and County Road C2 lead to long backups and frequent cycle failures at each intersection. A review of signal timing at these two intersections should take place to determine if any adjustments can be made to improve traffic flow through this area.</p>

**Roadway:** County Road C: Victoria Street through Western Avenue

**Lead Agency:** Ramsey County/City of Roseville

**Type of Improvement:** Intersection Control

**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.

**Strategy:** All-way stops at Victoria Street, Dale Street and Western Avenue create large queues at times along County Road C. Review of these intersections should occur to determine if all-way stops should remain in-place or if roundabouts or signals would work better. This should be incorporated into other analysis, studies or proposed improvements to County Road C where feasible.

**Roadway:** Cleveland Avenue at County Road D

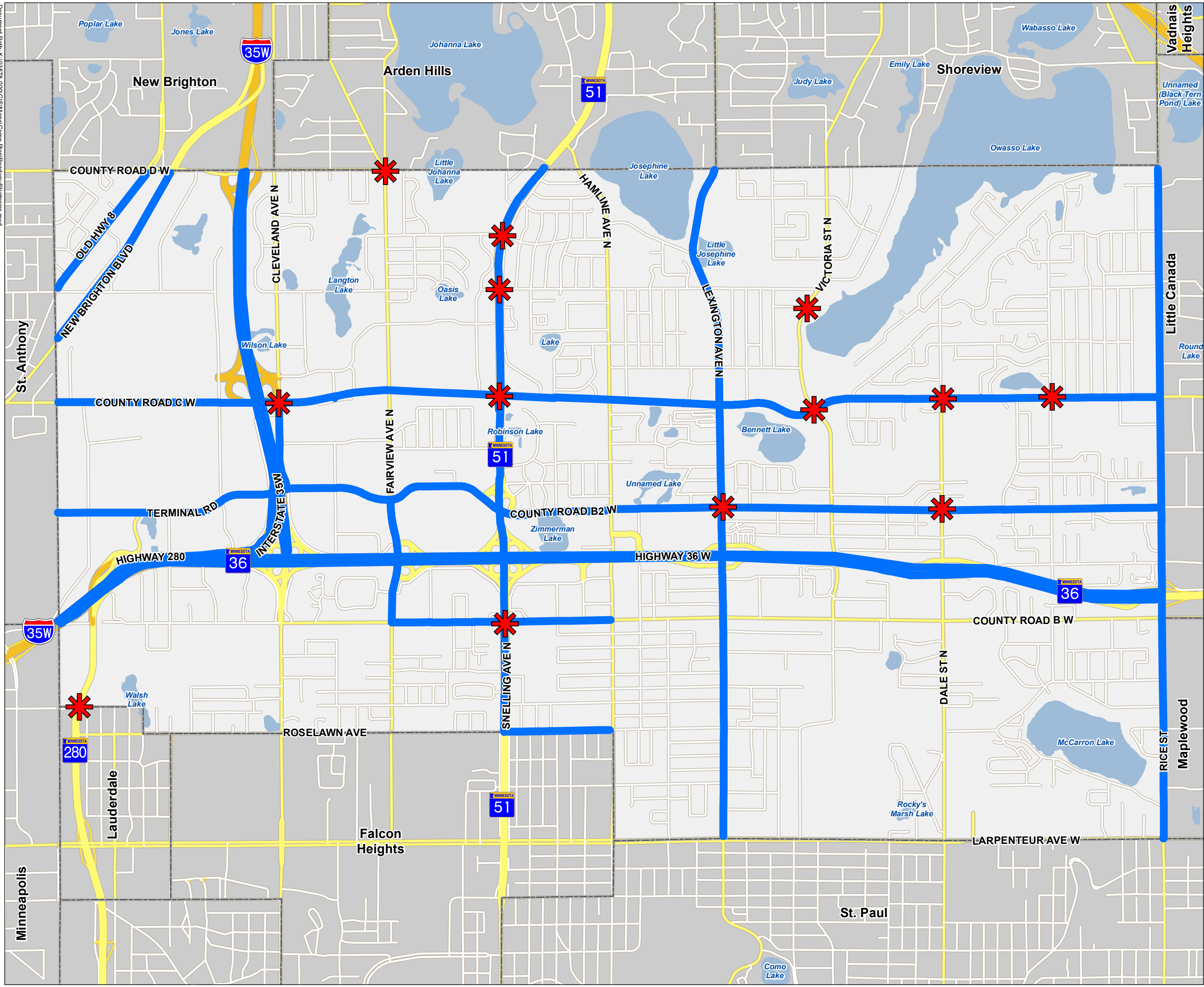
**Lead Agency:** Ramsey County

**Type of Improvement:** Signal Upgrade

**Goals Addressed:** Coordinate Transportation Decisions; Create a Sustainable Transportation Network; Create a Safe and Efficient Roadway Network.

**Strategy:** The lack of left turn phasing and possibly poor signal timing currently lead to large queues in the northbound direction when Interstate 35W is congested, and some delay issues in the eastbound direction during the a.m. peak hour. A review of existing signal timing and consideration of adding left turn phasing at this intersection should occur to improve traffic flow.




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# ROSEVILLE 2040

*our future together*

**Roseville Comprehensive Plan**  
**Figure 17: Roadway Strategies**  
**Roseville, MN**

	Potential Intersection Improvements
	Potential Capacity and Safety Improvements
	Roseville Boundary



0 2,000 Feet

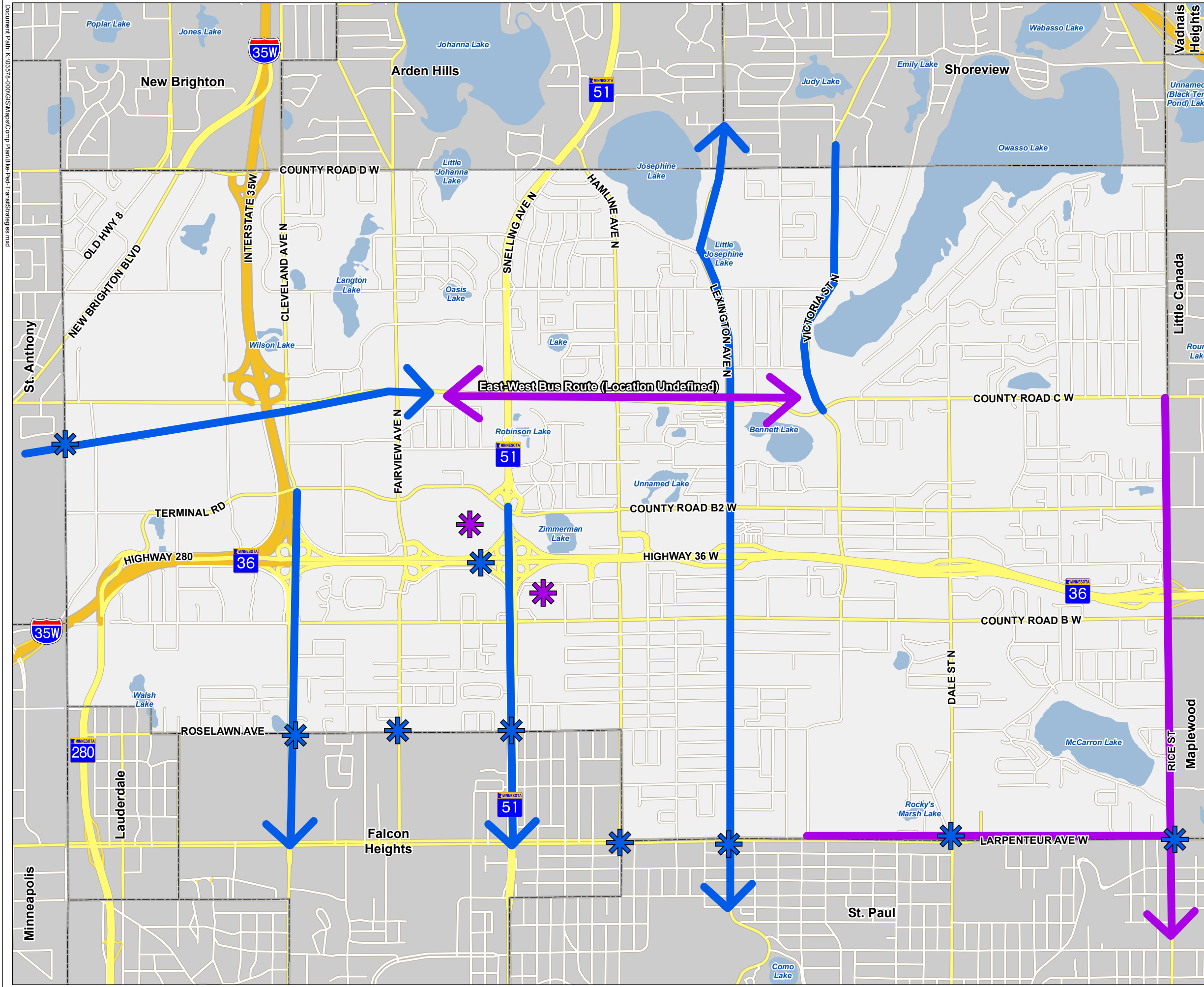




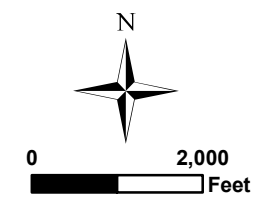
# ROSEVILLE 2040

*our future together*

Roseville Comprehensive Plan  
Figure 18: Transit, Bicycle and Pedestrian Strategies  
Roseville, MN



	Key Bicycle/Pedestrian Connections
	Key Transit Destination
	Bicycle/Pedestrian Strategy Corridor
	Transit Strategy Corridor
	Roseville Boundary



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## 9. PROPOSED SHORT AND LONG RANGE ROADWAY PROJECTS

The sections below identify proposed short and long range roadway projects identified in the City and Ramsey County CIPs, the Metropolitan Council 2040 TPP/2018 Draft Transportation Improvement Plan (TIP), and based on the proposed land use and redevelopment activities described in previous sections of this Plan.

### 9.1. Proposed Projects from Capital Improvement Plans

The City's CIP identifies a number of roadway and pathway projects. These projects are primarily mill and overlay or pathway maintenance projects intended to improve and maintain the roadway or pathway surface. There are also several new pathway construction projects identified, including segments along Larpenteur Avenue, County Road B, and Victoria Street.

The TPP identifies a number of highway projects in the City of Roseville, including a pavement rehabilitation project and bridge project along I-35W, construction of an I-35W MnPASS lane north of TH 36, and two additional bridge projects on TH 36. The City also received federal funding to construct an additional northbound lane along Snelling Avenue (TH 51) between County Road B2 to north of Lydia Avenue, along with associated intersection and ADA improvements.

## 10. PUBLIC COMMENTS

The City has gathered public input through public open house meetings, focus groups, and a walkabout in addition to web-based communications. Through these interactions, members of the public identified issues and opportunities related to transportation, with a strong focus on improving non-motorized transportation options within Roseville. Many comments were received relating to making Roseville more walkable and bikeable by filling gaps in the sidewalk and trail network, adding infrastructure such as bike lanes, and making associated safety and streetscaping improvements along roadways and at intersections. Other comments received related to improving transit connections and facilities, reducing traffic congestion, and improving overall connectivity. Feedback from public engagement has been incorporated into the transportation strategies included in this Plan.

## 11. CONCLUSION AND NEXT STEPS

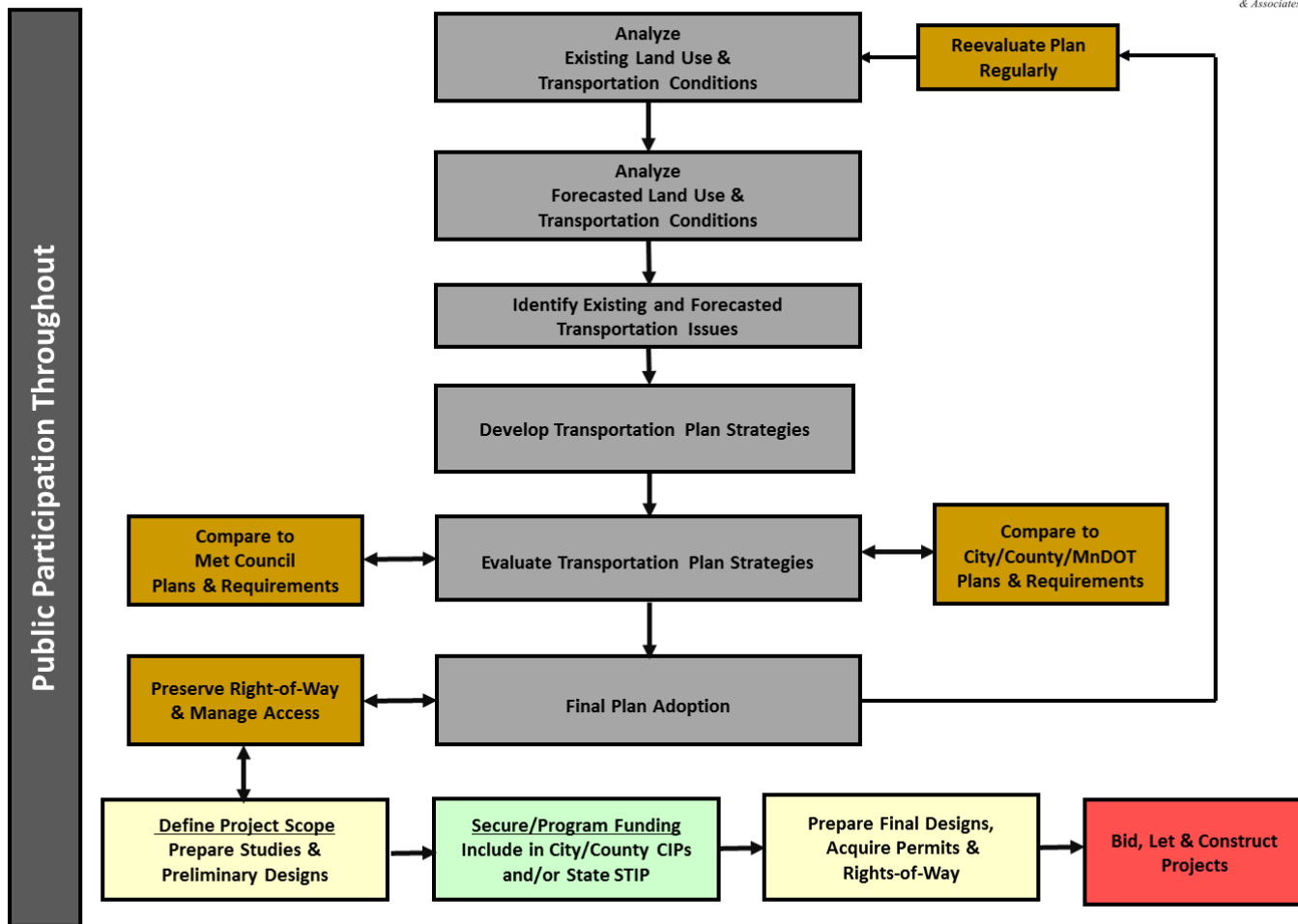
The purpose of this Transportation Plan is to set a multimodal transportation vision for the City of Roseville through the year 2040. Goals and specific strategies have been identified collaboratively by the City, Ramsey County, MnDOT, and members of the public within the framework of Metropolitan Council requirements. The vision and associated strategies outlined in this Plan were established by considering existing and forecasted conditions, Roseville priorities, regional travel patterns and a variety of other factors.

As the owners of the transportation network in Roseville (i.e. City of Roseville, Ramsey County, MnDOT, and the MNRR) advance their respective Capital Improvement Programs (CIPs), this Plan is intended to serve as an important resource and reference in establishing priorities and advancing transportation projects for implementation. Advancing these projects from a planning to implementation phase will require collaborative discussions among facility owners, adjacent communities, the Metropolitan Council, residents and others to conduct traffic studies, finalize designs, preserve rights-of-way, obtain environmental clearances and leverage necessary financial resources. **Figure 19** on the following page outlines the entire planning and project development process required for transportation projects from concept plans to construction implementation.

FIGURE 19 TRANSPORTATION PLANNING PROCESS



# Transportation Planning Process



## CHAPTER 9: RESILIENCE AND ENVIRONMENTAL PROTECTION

With a Vision of being a dynamic and sustainable community that proactively addresses evolving community needs, the City of Roseville is committed to enhancing its existing natural resources and strengthening its ability to respond, adapt, and thrive under changing environmental conditions.

Roseville has a history of environmental stewardship, with wetlands, ponds, trees, and vegetative cover playing a key role in the physical, social, and economic development of the city. Building upon past efforts and current initiatives – ranging from benchmarking energy used within the city to leveraging university partnerships to evaluate potential areas of improvement – this chapter identifies strategic areas of focus to protect natural resources and strengthen citywide resilience.

While other chapters describe pathways to social and economic resilience, this chapter focuses on environmental resilience. Improving citywide resilience can help protect against anticipated climate-related risks while also strengthening the local economy, improving public health, and enhancing livability for all Roseville residents.

### CITYWIDE GOALS

Resilience relies on a combination of social, environmental, and economic vitality. As such, nearly all the Citywide Goals established in Chapter 2 support a resilient City, with topics ranging from safety and city services, to diversity and community-building. While most of these goals are addressed in other sections of the Comprehensive Plan, the two Goals related directly to environmental protection are emphasized in this chapter:

1. Preserve and enhance soil, water, and urban forest resources.
2. Conserve energy and reduce pollution.

## WHAT WE HEARD

### Public Engagement

Community members provided input on Resilience and Environmental Protection during public meetings and community engagement events. Promotion of water quality and conservation, local solar energy installations, and public transit were common themes. A group of community members also submitted a written list of recommendations, with proposed goals related to greenhouse gas emissions reductions and a rapid city-wide transition to renewable energy. Policy recommendations relevant to this chapter addressed: water stewardship, tree coverage and diversity, electric fleet vehicles, energy-efficient buildings, multi-modal transportation, and waste reduction.

## CURRENT PRACTICES

Roseville's commitment to environmental protection and resilience is reflected in its participation in Minnesota's GreenStep Cities program, which is a voluntary challenge, assistance and recognition program to help cities achieve their sustainability and quality-of-life goals. This program is based upon 29 best practices, which can be implemented by completing one or more actions that are tailored to Minnesota cities, focusing on cost savings, energy use reduction, and civic innovation.

Roseville became a GreenStep City in July of 2014 by City Council Resolution, became a Step 2 City in June of 2015, has been working towards achieving Step 3, and will continue work towards becoming a Step 3, 4, and 5 City over the next Comprehensive Plan cycle.

The City has used this program to document action related to energy efficiency in city facilities and street lighting, land use policies that promote density, multimodal transportation support, solid waste reduction, water management, and more.

Visit [www.MnGreenStep.org](http://www.MnGreenStep.org) to learn more about this program and to see what Roseville and other cities have accomplished. Additional detail about Roseville's current and past initiatives is provided in the Goals and Policies section below.

## GOALS AND POLICIES

The following Goals and Policies outline a path forward that supports Roseville's vision as an environmentally healthy community.

### 1. Environmental Protection

#### *Goal*

Protect, preserve, and enhance Roseville's water, land, trees, and pollinators for current and future generations.

This goal includes subsections for each of the referenced resources: water, land, trees, and pollinators.

#### **Water**

Protection of Roseville's water resources is addressed in the Water Resources chapters of the Comprehensive Plan (Surface Water, Water Supply and Wastewater).

#### **Land**

##### *Background*

One of the issues facing potential developers of property these days is liability due to contaminated soils. Minnesota was one of the first states to address, through statutes, the liability issues associated with buying, selling, or developing property contaminated by hazardous substances. The Minnesota Land Recycling Act of 1992 provides statutory authority to quickly approve cleanup of contaminated properties and provide land owners and lenders assurances that minimize potential liability. The Minnesota Pollution Control Agency's (MPCA) Voluntary Investigation and Cleanup (VIC) program can streamline the time and expense of cleanup that may be required through a normal Super Fund process. The VIC program was established to provide standards for site investigation, MPCA review of the adequacy and completeness of investigation, and approve cleanup plans to address identified contamination. Depending on the type and degree of contamination, the MPCA will provide various levels of assurance to voluntary parties completing response actions, property owners, financial institutions, and future property owners.

The Minnesota Petroleum Release Compensation Fund program has been utilized at several gas stations in the community to clean up contamination from leaking underground fuel storage tanks. This program provides 90% reimbursement of eligible cleanup costs, which include investigation,



development of remediation plans, and cleanup of contaminated soils and ground water. It does not cover the costs of tank removal or replacement, or cleanup of non-petroleum tank leaks and spills.

#### *Current and Past Initiatives*

Tax increment financing (TIF) is a financial tool available in Roseville to assist with cleanup of contaminated soils. The City has used TIF for soil cleanup in the Twin Lakes area, as well as the Gateway Business Center. The City has also created a hazardous soil subdistrict in the Twin Lakes area. Within this subdistrict, the City can capture the frozen base taxes, which normally go to all the taxing districts, to fund a cleanup plan approved by the MPCA.

#### *Policies*

- 1.1. Continue to use TIF to assist with environmental cleanup on sites identified as economic development priority or opportunity areas.

### **Trees**

#### *Background*

Trees are a significant asset to the Roseville community. They provide color and interest to the urban landscape, filter air, manage stormwater, protect soil, conserve energy, reduce noise, provide wildlife habitat, and positively impact property values. Faced with increased threats from insects, diseases, and higher temperatures, establishing and maintaining tree diversity is critical to the resilience of the urban canopy.

#### *Current and Past Initiatives*

The City of Roseville has been a designated Tree City USA community for over 20 years. The Tree City USA program provides direction, technical assistance, public attention, and national recognition for urban and community forestry programs in thousands of towns and cities across the United States.

To protect and preserve the City's established trees as land is being developed or redeveloped, Roseville created a Tree Preservation and Restoration Ordinance (1011.04). The ordinance puts an emphasis on protecting trees, and if needed, replacing trees in a thoughtful manner to restore the canopy that has been disturbed. The Community Development Department and Planning Commission administers the Tree Preservation and Restoration Ordinance.

Roseville has also developed a tree master plan to begin diversifying the City's urban canopy, and is currently looking to add more diversity as emerging threats to trees move into the metro area. Since Emerald Ash Borer (EAB) was

identified in Roseville in 2013, the City has managed this infestation using the Best Management Practices plan established and implemented in that same year. The plan requires most of the infested trees on public property be removed. Since the initial EAB infestation, Roseville has planted 180 trees on City boulevards. The tree master plan calls for planting a different tree species approximately every 500 feet, and has been used to guide this reforestation. The Parks & Recreation Department and Commission oversee City Tree Board and City Forester administer the implementation of the tree master plan.

Roseville's Parks and Recreation Department has been aggressive in its efforts to remove invasive/nonnative plant species from City parks, and to restore and manage the native prairie/savannas, woodlands, wetlands, and shorelines. Much of the success of these efforts is due to the physical work of many community volunteers.

In 2017, the City partnered with a team of students in the Environmental Sciences, Policy, and Management Degree program at the University of Minnesota. The Capstone project's goal was to examine the current tree canopy composition within the city, identify potential threats to the current species (diseases, insects, warmer climate, etc.) and make recommendations to help increase tree diversity. A report was created that highlights specifics about the City's current tree diversity, and is available on the City website, or available at City Hall. There are ~~and provides~~ six recommendations that will help add more tree species into the landscape:

- Implement emerald ash borer removal and canopy replacement plans that address treatment and removal costs.
- Increase urban canopy and species diversity to ensure resilience against disease and climate change.
- Focus on expanding the tree canopy in the designated priority areas.
- Conduct a tree survey by volunteers to collect information on the city's urban forest.
- Organize an Arbor Day tree sale to engage citizens.
- Apply for grants from several sources to fund planting opportunities.

#### *Policies*

- 1.1. Finalize and implement a management plan for ash trees on park land and streets.
- 1.2. Create a full tree canopy survey for the city.

- 1.3. Working with neighboring cities, modify procurement policies to ensure diversity of tree species on city property.
- 1.4. Promote tree diversity on public and private lands, including establishment of diversity requirements as part of any development of commercial or multi-unit residential property.
- 1.5. Expand tree canopy in priority areas.
- 1.6. Create policies and procedures on proper tree planting for all city installations, and promote this to residents.

## Pollinators

### *Background*

Pollinators play an essential role in the life cycle of almost 90% of our earth's plant species. Whether it is a hovering hummingbird, lumbering beetle, or one of over 350 Minnesota bee species visiting a flower in our own backyard, these animals and many others contribute to a process called pollination. Examples of pollinators are bees, flies, beetles, butterflies, moths, birds, and bats. Bees have proven to be some of the most effective pollinators, and as a result are the focus of many pollination efforts.

Pollination occurs when the pollen from one plant reaches the stigma of another, usually when carried there by a pollinator. This initiates the formation of seeds, fruits, and nuts that will later be consumed and disbursed. Many foods consumed by humans and wildlife rely on pollinators. Without pollinators, there is no seed formation, which means future generations of plants and the creatures that rely on them are at risk of decline.

In recent years, there has been a dramatic decline in pollinator species. Pesticides, pests and pathogens, loss of habitat, and lack of available nutrition are part of an unfortunately long list of factors which have led to depressed immune systems, a decrease in genetic diversity, and ultimately the decline of pollinator populations.

### *Current and Past Initiatives*

The City of Roseville has adopted practices to make our city a place where pollinators can thrive. In June 2017, City Council passed Resolution No. 11422, committing the City to developing even stronger policies and practices to help protect pollinators.

Roseville provides habitat for pollinators through preservation of acres of natural vegetation, through enhancement of natural habitats, creation of new

habitat during City projects, and by altering existing turf grass Right-of-Way areas to pollinator friendly plantings.

*Policies*

- ~~1.1. Continue to Ddevelop stronger policies and practices to help better protect pollinators per City Council Resolution No. 11422.~~
- 1. The City shall review its practices for the use of insecticides and use best practices to limit systemic insecticide uses on city property including insecticides from the neonicotinoid family where possible and will encourage commercial applications to be free of systemic insecticides including neonicotinoids where possible.
- 2. The City shall undertake its best efforts to plant native plants and plants favorable to bees and other pollinators in the City's public spaces.
- 3. The City shall undertake its best efforts to communicate to all Roseville property owners, residents, businesses, institutions and neighborhoods the importance of creating and maintaining pollinator friendly habitat and will encourage residents and business to use the pollinator-friendly practices including:
  - 3.1. Reducing the use of pesticides, including systemic insecticides, on their property;
  - 3.2. Avoiding planting flowering plants that are treated with systemic insecticides;
  - 3.3. Planting more pollinator forage on their property and adopting organic or chemical-free lawn and landscaping practices
- 4. The City shall provide information and avenues to identify pollinator-friendly plants and other opportunities.
  - 4.1.

Additional policies regarding natural resources management in Roseville's parks system are described in the Parks, Trails, and Open Space chapter.

## 2. Greenhouse Gas Emissions Reduction

*Goal*

Support Minnesota's Next Generation Energy Act goal of an 80% reduction in community-wide greenhouse gas (GHG) emissions from 2005 levels by 2050 through leading by example in addition to education, incentives, and regulation to encourage action by residents and businesses.

*Background*

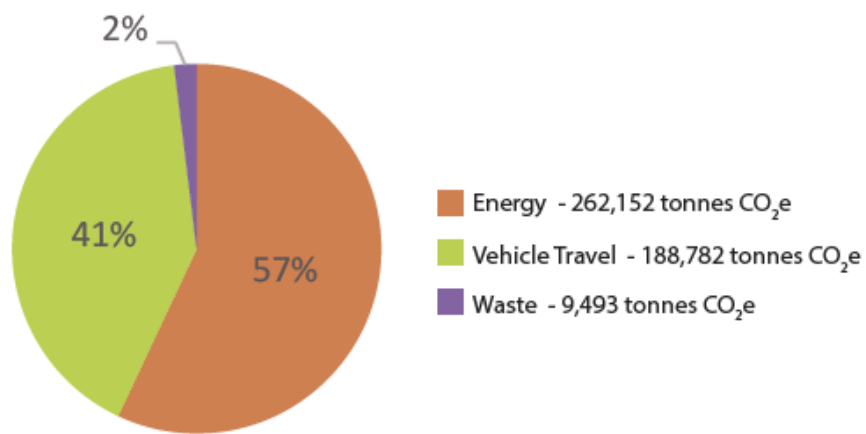
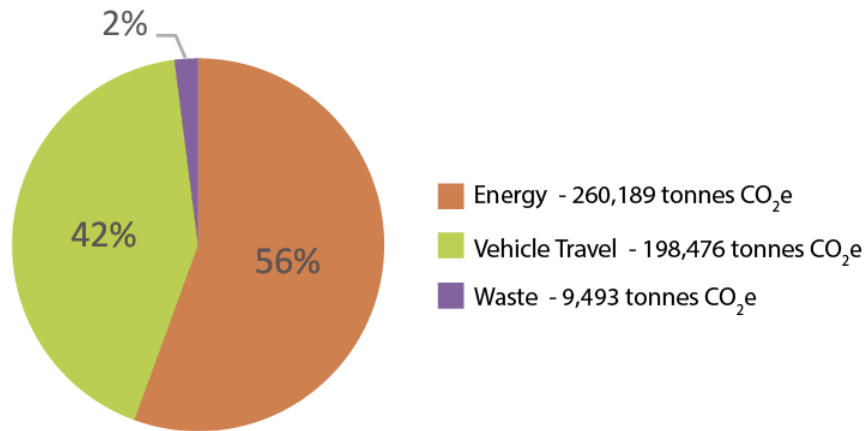
Since greenhouse gases (e.g. carbon dioxide) trap heat within the atmosphere, acting to reduce these emissions can help mitigate future climate risks.<sup>1</sup> Minnesota Statute 216H.02 establishes a goal “to reduce statewide greenhouse gas emissions across all sectors producing those emissions to a level at least 15 percent below 2005 levels by 2015, to a level at least 30 percent below 2005 levels by 2025, and to a level at least 80 percent below 2005 levels by 2050.” With many human activities contributing to the emission of these gases – from driving to work to burning natural gas to heat a home – local governments like the City of Roseville can have a strong influence on the emissions caused by activities within its boundaries. Roseville can lead by example to reduce emissions from City operations through strategies like improving building and fleet efficiency and replacing fossil fuel use with renewable energy. Additionally, the City can use education, incentives, and regulation to impact emissions from residents and businesses.

According to the Regional Indicators Initiative, in 2016 Roseville is attributed with an estimated 13.1 tonnes of carbon dioxide equivalents (CO<sub>2</sub>e) per person for a total of 468,159 tonnes.<sup>2</sup> The greatest source of GHG emissions in the community comes from building energy consumption, making up 56% of total emissions. Broken down by sector, the commercial and industrial sector accounts for 39%, while residential energy use accounts for 17% of all emissions. Broken down another way, electricity emissions account for 33% and natural gas emissions account for 23% of the community’s total. Emissions for vehicle travel make up 42%, and treatment of municipal solid waste is 2%. Additional sources of emissions not included in this analysis come from air travel and wastewater treatment.

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<sup>1</sup> Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, B. DeAngelo, S. Doherty, K. Hayhoe, R. Horton, J.P. Kossin, P.C. Taylor, A.M. Waple, and C.P. Weaver, 2017: Executive summary. In: *Climate Science Special Report: Fourth National Climate Assessment, Volume I*. U.S. Global Change Research Program, Washington, DC, USA, pp. 12-34, doi: 10.7930/J0DJ5CTG.

<sup>2</sup> Metric tons (tonnes) of carbon dioxide equivalent (CO<sub>2</sub>e) is the typical unit used for greenhouse gas inventories. Along with carbon dioxide, CO<sub>2</sub>e includes other greenhouse gases (methane and nitrous oxide) that are weighted based on their global warming potential. A metric ton is equal to 1.102 short tons.



*Roseville's community-wide emissions (2016 estimate). Source: Regional Indicators Initiative*

#### *Current and Past Initiatives*

As signatories of the U.S. Mayors Climate Protection Agreement in 2007, Roseville's 2030 Comprehensive Plan committed to striving to meet the targets identified in the Kyoto Protocol. Since then, the City has:

- conducted an emissions inventory through the Clean Air Climate Protection software,
- developed and started implementing a campus-wide geothermal master plan,
- engaged with University of Minnesota students and Minnesota's Clean Energy Resource Teams to identify and evaluate potential emissions reduction strategies,
- joined Minnesota's GreenStep Cities program and become a Step 2 City,



- started tracking facility energy use through Minnesota’s B3 Benchmarking program, an online platform that facilitates building energy data tracking and analysis,
- started exploring opportunities for solar energy installations on City facilities, and
- started tracking community-wide energy, water, travel, waste, and emissions data through the Regional Indicators Initiative.

Bringing these efforts together into a Greenhouse Gas Action Plan will help identify, quantify, and prioritize emissions reductions strategies that support other community goals.

#### *Policies*

- 1.1. With appropriate community engagement, develop a Greenhouse Gas Action Plan to establish city-specific energy and greenhouse gas reduction goals and select strategies to reduce emissions from building energy, travel, solid waste, and water use. The Greenhouse Gas Action Plan should include goals and strategies for both community-wide emissions and City operations., and should:
  - Identify current community-wide greenhouse gas emissions and, separately, emissions associated with City operations.
  - Establish mid- and long-term emissions reduction goals that support Minnesota’s goal of an 80% reduction from 2005 levels by 2050 (M.S. 216H.02).
  - Propose reduction strategies and identify associated:
    - savings potential,
    - economic and business development potential,
    - implementation methods through existing or new policies and programs, and
    - implementation costs, financing mechanisms and funding sources.
  - Develop an implementation plan with a schedule, responsible party, and measure of success for every strategy.
  - Indicate the method that will be used to track progress.
- 1.2. Continue to participate in Minnesota’s GreenStep Cities program, working towards becoming a Step 3, 4, and 5 City by implementing additional best practices, reporting on performance metrics, and demonstrating improvement across multiple metrics.

### **3. Resilience**

#### *Goal*

Take action to equitably reduce climate-related risks to City residents.

*Background*

Increases in the global surface temperature and changes in precipitation levels and patterns are expected to continue and intensify for decades, regardless of mitigation strategies currently being implemented. In turn, these changes in climate have impacts on the economy and health of local communities.

Weather and climate shape our economy. The National Aeronautics and Space Administration (NASA) explains that weather represents the conditions of the atmosphere over a short period of time, and climate represents how the atmosphere “behaves” over relatively long periods of time. Temperature impacts everything from the amount of energy consumed to heat and cool homes and offices to the ability for some workers to work outside. Temperature and precipitation levels not only determine how much water we have to drink, but also the performance of entire economic sectors, from agriculture to recreation and tourism. Extreme weather events, like tornadoes, hail storms, droughts, and inland flooding can be particularly damaging. ~~In the last ten years~~ Since 2008 alone, extreme weather events have cost Minnesota and the Midwest \$96 billion in damage and resulted in 440 deaths. (NOAA National Centers for Environmental information).

~~In addition, climate conditions affect the quality of life and life safety of communities — particularly those populations especially sensitive to climate impacts. Extreme weather events linked to climate change have the potential to harm community member health in numerous ways. Rising temperatures, for example, can result in a longer than average allergy season, erode air quality, and prolong the stay and increase the population of insects, increasing the risk of vector-borne diseases. Climate impacts also exacerbate economic challenges that can directly impact the ability of at-risk populations to cope while creating more exposure to dangerous living/working conditions and poor nutrition.~~

Strengthening community resilience is rooted in an ongoing assessment of potential vulnerabilities, anticipation of potential climate impacts, development and implementation of strategies to address those vulnerabilities, and communication and outreach to the members of the community.

*Current and Past Initiatives*

The City completed a *Population Vulnerability Assessment and Climate Adaptation Framework* in November 2017. This report identifies habitats, infrastructure, and neighborhoods that are more vulnerable to the climate change risks described above and recommends adaptation strategies.

*Policies*

- 1.1. Using the *Population Vulnerability Assessment and Climate Adaptation Framework*, develop a Resilience Plan that establishes community resilience goals and strategies.

## 4. Renewable Energy

*Goal*

Support increased adoption of renewable energy by protecting access to direct sunlight and supporting the development of local renewable energy installations.

*Background*

In addition to providing clean sources of energy that have much lower environmental impacts than fossil fuels, local renewable energy systems can provide local economic opportunities and can help increase energy security if there are disruptions to the global energy supply.

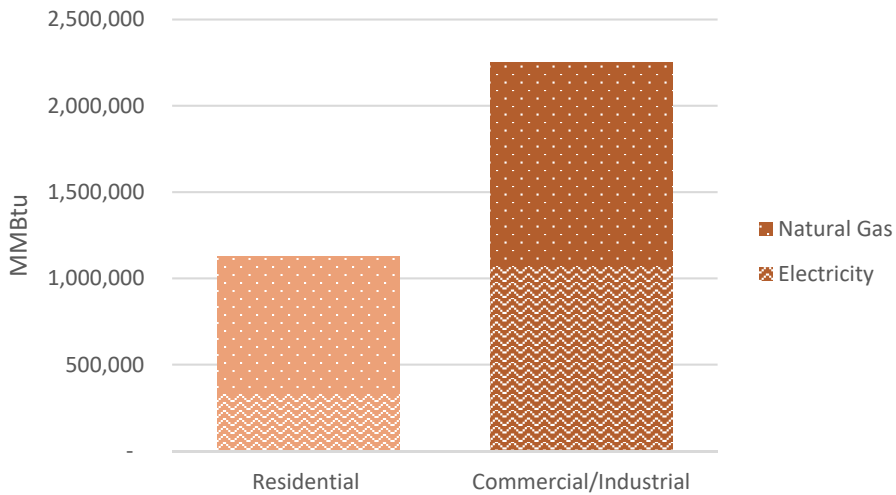
While Minnesota does not have an indigenous fossil fuel supply, the state does have many renewable energy resources available for development. The following list includes excerpts from the “Existing Energy Conditions” report developed through the Minnesota Local Government Project for Energy Planning.

Energy Efficiency Resource:

The most cost-effective clean energy resource is efficiency, which can be achieved through strategies like weatherization, efficient equipment, and efficient building operations. With Roseville residents and businesses spending \$55.8 million each year on electricity and natural gas, efficiency also represents an opportunity for cost savings.

As shown in the Regional Indicators Initiative graphic summary (attached), 2/3 of energy consumed within the city’s buildings is being used by commercial and industrial customers, despite making up only 13% of the total number of premises, making this sector a strong efficiency resource. These customers also use a greater percentage of electricity than residential customers, which is currently more carbon-intensive than natural gas. [However, the residential sector also provides an efficiency resource; since residential efficiency improvements are typically more standardized than commercial strategies, they may be easier to apply broadly.](#)

### Energy Efficiency Potential



The current energy use in Roseville's buildings indicates the potential efficiency resource (data from 2016). Source: Xcel Community Energy Report (accessed January 22, 2018)

There is also potential for energy efficiency within City-owned facilities, which represent about 0.6% of the community's total energy use. Energy use in City buildings is tracked through Minnesota's online B3 Benchmarking platform. By comparing Roseville's buildings to code-based benchmarks, B3 Benchmarking has identified energy savings potential of 25%, primarily in electricity.

City of Roseville

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SUMMARY
BENCHMARK
PEER COMPARISON
ENERGY STAR
BASELINE
REPORTS
IMPROVEMENTS

The B3 Benchmark is an engineering model that predicts how much energy a site would use if it were built to current energy code. The B3 Rating is a measurement of a site's actual consumption to its predicted benchmark.

(All Energy Sources)
(No Normalization)

Actual Meter Total ..... 21,977,842 kBtu

Benchmark ..... 28,300,773 kBtu

Index Ratio ..... 0.78

Potential Savings ..... 5,553,000 kBtu/Year | 25% | \$119,000

Site Name	Status	Building Type	Square F...	Actual	Bench...	Index R...	Potenb...	Potenb...	Benchmark Rating
Oval	⚠️	Parking: Enclose...	3,000	4,195,...	610,974	6.87	843,000	\$5,000	☆☆☆☆☆
Skating Center	✓	Ice Arena	50,000	7,889,...	6,078,...	1.30	3,982,...	\$95,000	☆☆☆☆☆
Harriet Alexande...	✓	Park/Recreation	6,000	357,407	468,439	0.76	0	\$0	☆☆☆☆☆
City Hall	✓	City Hall	62,800	4,460,...	6,745,...	0.66	728,000	\$19,000	☆☆☆☆☆
Fire Station No. 4	✓	Fire Station	35,000	1,392,...	3,665,...	0.38	0	\$0	☆☆☆☆☆
Public Works	✓	Maintenance Re...	59,254	3,682,...	10,730,...	0.34	0	\$0	☆☆☆☆☆

*Efficiency potential in City-owned buildings can be evaluated by comparing the "Actual" energy use to the code-based "Benchmark". Electricity is shown in red, natural gas in blue. Source: B3 Benchmarking (2017 data).*

Xcel Energy offers incentives to residential and business customers to help increase energy efficiency. Participation rates for these programs can be found in Xcel Energy's Community Energy Reports. For Roseville, 2016 participation rates by businesses and residents are shown in the table below, with savings equivalent to 1.4% of community-wide electricity and 0.6% of natural gas.

Sector	Rebates Given	Electricity Savings (kWh)	Natural Gas Savings (Therms)
Business	160	5,372,024	32,328
Residents	1,082	520,801	90,186

*Roseville participation in conservation improvement programs in 2016. Source: Xcel Community Energy Report (accessed January 22, 2018)*

Utility companies can manage the electric load through demand response programs. These programs incentivize consumers to allow the utility to ramp down appliances (e.g. Saver's Switch® for central air conditioning) or other larger electric equipment to relieve congestion from the electric grid during times of high use. In 2016, more than 298 Roseville businesses participated in such programs, creating 5,630 kW of available capacity; 5,782 residential customers participated, creating a load management resource of 3,147 kW.

Transportation efficiency is another significant resource, comprising over 40% of the city's GHG emissions and a significant portion of energy expenditures. Ramsey County is already active in working with its local governments and the Metropolitan Council to encourage transit use and expand the reach of multi-modal transportation infrastructure.

Solar Energy Resource:

[The University of Minnesota developed a high-resolution statewide solar resource map that allows cities to calculate potential electricity generation from local solar energy systems. These data \(see Roseville Solar Potential Map, attached\) were used to calculate Roseville's solar resource or "solar reserves," shown in the Table below. The solar reserves represent how much solar energy is reasonably economically available for development – similar to how oil or gas reserves are measured – not considering individual site limitations due to roof structure, ownership, or local regulations that might limit solar installations. The gross potential includes the total available resource, regardless of location; rooftop capacity and generation include only the resource available on the](#)

rooftops of buildings located in the city. Based on a Solar Suitability Analysis developed by the University of Minnesota (Roseville Solar Potential Map, attached), the Metropolitan Council estimates that the City of Roseville has the potential to feasibly generate 252,346 MWh/year through rooftop solar energy, equal to approximately 61% of the electricity currently consumed within the city. This analysis does not include the impact of potential energy efficiency measures or the potential for ground-mount systems, which would increase the percentage of citywide electricity that can be met through solar.

Gross Generation Potential (MWh/year)	Rooftop Generation Potential (MWh/year)	Rooftop Capacity (MW)	Top Ten Rooftop Generation Potential (MWh/year)
1,706,136	252,346	194	29,272

*Roseville solar resource. Source: Metropolitan Council and Great Plains Institute*

This analysis estimates that the City of Roseville has enough solar reserves to generate 252,346 MWh/year through rooftop solar energy, equal to approximately 61% of the electricity currently consumed within the city. The top ten rooftops alone have enough solar resource available to meet 7% of the electricity currently consumed within the city. This analysis does not include the impact of potential energy efficiency measures or the potential for ground-mount systems, which would increase the percentage of citywide electricity that can be met through solar.

In its 2016 Community Energy Report, Xcel Energy reports that there are six on-site commercial solar installations within Roseville, with a total capacity of 167 kW. These installations produced 54,961 kWh in 2016. For residential, Xcel reports 39 on-site solar installations with a total generating capacity of 291 kW. These residential installations produced 81,976 kWh in 2016. These are reported through Xcel’s Solar\*Rewards program. Many installations had been made through the Made in Minnesota Program as well: 18 residential installations with a total capacity of 140 kW and one commercial installation with a capacity of 39.4 kW.

Wind Energy Resource:

A good wind energy site needs to meet a number of characteristics, such as: a good wind resource; soils that can support the weight of the turbine; a site large enough to accommodate safety setbacks from neighboring properties, structures, or other uses; and surrounding land uses for which the visual impact and potential nuisances will not create a conflict.



The Minnesota Department of Commerce developed wind speed maps at a 500-meter resolution to give a general sense of the wind resource at various tower heights (Figure X); these maps are not appropriate for a specific site assessment.



Figure X Wind speeds at different tower heights in Roseville, 30 meters, 80 meters, and 100 meters from left to right. Source: MN Department of Commerce

According to the current rule of thumb, the minimum average annual wind speed required for a good wind resource is 12 miles per hour. At 30-meter heights (about 100 feet), Roseville has an average wind speed of less than 11 mph. At 80 meters (about 260 feet), wind speeds are more favorable – between 13 and 15 mph throughout the city. At 100 meters (about 330 feet), wind speeds are over 15 mph throughout the city. As a suburban community with some urban and rural characteristics, Roseville may or may not be suitable for the taller towers needed for productive wind energy systems.

Alternatively, residents and businesses can participate in Xcel Energy's Windsource® or Renewable\*Connect programs. These programs provide the clean energy benefit of having local wind (and solar) energy, although the economic benefits of clean energy development are realized elsewhere. According to Xcel Energy, seven businesses are subscribed to a total of 642,209 kWh, and 702 residences are subscribed to a total of 1,884,077 kWh in Roseville as of 2016. This amounts to 0.6% of the community's total electricity use. Due to its metropolitan location, Roseville is a community that may not be suitable for towers above 30 meters. In general, the wind resource available at this height in Roseville is below the optimal speed needed for a productive wind energy system, according to the wind speed maps developed by the Minnesota Department of Commerce.

~~While the City does not have many opportunities for wind energy development, residents and businesses can participate in Xcel Energy's Windsource® or Renewable\*Connect programs. These programs provide the clean energy benefit of having local wind (and solar) energy, although the economic benefits are realized elsewhere. In Roseville, according to Xcel, eight businesses are subscribed to a total of 644,191 kWh of wind energy, and 700 residences are subscribed to a total of 1,880,247 kWh of wind energy. This amounts to 0.6% of the community's total electricity use.~~

Biomass Resources:

Fuel derived from biomass can be used in several processes as a source of renewable energy, including electricity, waste heat, and renewable gas. [Minnesota has several facilities that use biomass to generate electricity and/or heat.](#) Biomass resources include municipal solid waste, landfill gas, wood waste, agricultural byproducts, food processing residue and other organic waste. Much of the biomass resource can come from the metropolitan area, particularly for solid waste and landfill gas, as well as yard waste.

Information about the type of biomass resources at the community level is difficult to acquire; there is little standardized assessment of potential biomass resources, and the types of resources vary widely across communities. [At present, Ramsey County operates public compost sites for the disposal of leaves, grass clippings, brush and other compost materials and the City collects and composts leaves. Additionally, residents can bring their food waste and non-recyclable paper to Ramsey County Yard Waste Sites.](#)

[The draft Solid Waste Management Master Plan from Ramsey County focuses on reducing risk to environment and public health, increasing waste to energy, reducing waste through recycling and composting, and reducing greenhouse gas emissions. Among the emerging technologies being considered is the utilization of organic waste as a feedstock for anaerobic digestion. There will likely be opportunities for the City to collaborate with the County to increase composting and maximize the benefits of organic material.](#)

~~However, the City does have biomass resources; its municipal solid waste is currently being used for electricity production at a facility in Newport shared by Washington and Ramsey Counties, and additional opportunities may be available. The City can work with Ramsey County to determine the volume for different waste that can be used as a biomass resource, and identify opportunities for utilizing this energy.~~

*Current and Past Initiatives*

City of Roseville staff and Public Works Environment & Transportation Commission (PWETC) is currently studying the utilization of solar energy to help reduce demand for non-renewable energy sources. City staff has met with different solar representatives from installers, financiers, non-profit organizations, and the state to look at available options. Each option presents different payback periods, upfront costs, long-term maintenance, grant funding, etc. These considerations will help determine the best course of action to help reduce City energy costs over the next 20+ years.

Other ongoing ways that the City encourages residents and businesses to conserve energy or take advantage of renewable sources available on-site include:

- partnering with the Minnesota Center for Energy and Environment (CEE) to offer a variety of home improvement loan options
- referring residents to Ramsey County's offers Home Improvement and Suburban Weatherization loan programs
- teaming up with Xcel Energy up to give 200 Roseville residents a free \$60 energy audit each year
- connecting residents to the CEE Lending Center for 0% financing on a 10 year forgivable loan for up to \$6,500 for energy conservation improvements

Currently the City is looking at the City Hall rooftop, where there is potential to have substantial energy savings over the course of the lifetime of a photo-voltaic (PV) system. Staff will be meeting with consultants in 2018, with the goal of installing a solar PV system on the City Hall Campus by the end of 2019.

The City is also studying Community Solar Programs. Through these programs, an entity can install larger solar arrays on rooftops or ground-mounted systems. Roseville residents, businesses, faith organizations, etc., could purchase a share of the solar garden to help offset their demand for non-renewable energy.

Another program that the City is working to participate in is SolSmart through the Metropolitan Council. SolSmart is a local government designation program designed to recognize communities that have taken steps to improve solar market conditions. Communities pursuing SolSmart designation, regardless of their level of solar energy experience, can receive no-cost technical assistance (similar to consulting services) from a team of national solar experts.

SolSmart designation at the Bronze, Silver, or Gold level will provide high-profile, national recognition for communities that have made it faster, easier, and more affordable for residents and businesses to invest in solar energy. Achieving designation will signal that a community is “open for solar business,” attracting new solar businesses and gaining the economic development benefits attached to solar market development.

*Policies*

- 1.1. [Incorporate energy efficiency and renewable energy strategies into the City's Greenhouse Gas Action Plan \(described in Resilience and Environmental Protection Goal 2\).](#)
- ~~1.1.2.~~ [Protect access to direct sunlight for solar energy systems through revisions to the City's \[planning, zoning, and development regulations while minimizing potential adverse impacts to other natural resources.\]\(#\)](#)
- ~~1.2.1.3.~~ [Strive to source 100% of the electricity used for City operations from renewable sources \[such as solar, wind, biomass, geothermal, and wind\]\(#\) by 2040, with a minimum of ~~30~~25% in on-site generation at City properties.](#)
- ~~1.3.1.4.~~ [Strive to produce enough solar electricity within city boundaries to meet 10% of citywide electricity use by 2030, which aligns with Minnesota's solar energy goal \(M.S. 216B.1962\).](#)
- ~~1.4.~~ [Promote community solar installations within the city through outreach and education.](#)
- 1.5. [Facilitate and promote local solar installations by ~~becoming~~ a SolSmart Bronze Level community by the year 2020 and \[working\]\(#\) towards the Silver and Gold level by 2040.](#)

## 5. Environmental Education and Outreach

*Goal*

Increase community awareness of resilience and environmental protection issues.

*Background*

One of the most cost-effective and efficient ways to protect the environment is through education. By working with residents, businesses, and schools to identify ways to promote environmental awareness, the City can help create durable public will for resilience and environmental stewardship.

*Current and Past Initiatives*

The City sponsors many programs and events on a local and regional level that focus on preserving and enhancing the environment. In 2017, the City partnered with a team of students in the Environmental Sciences, Policy, and Management

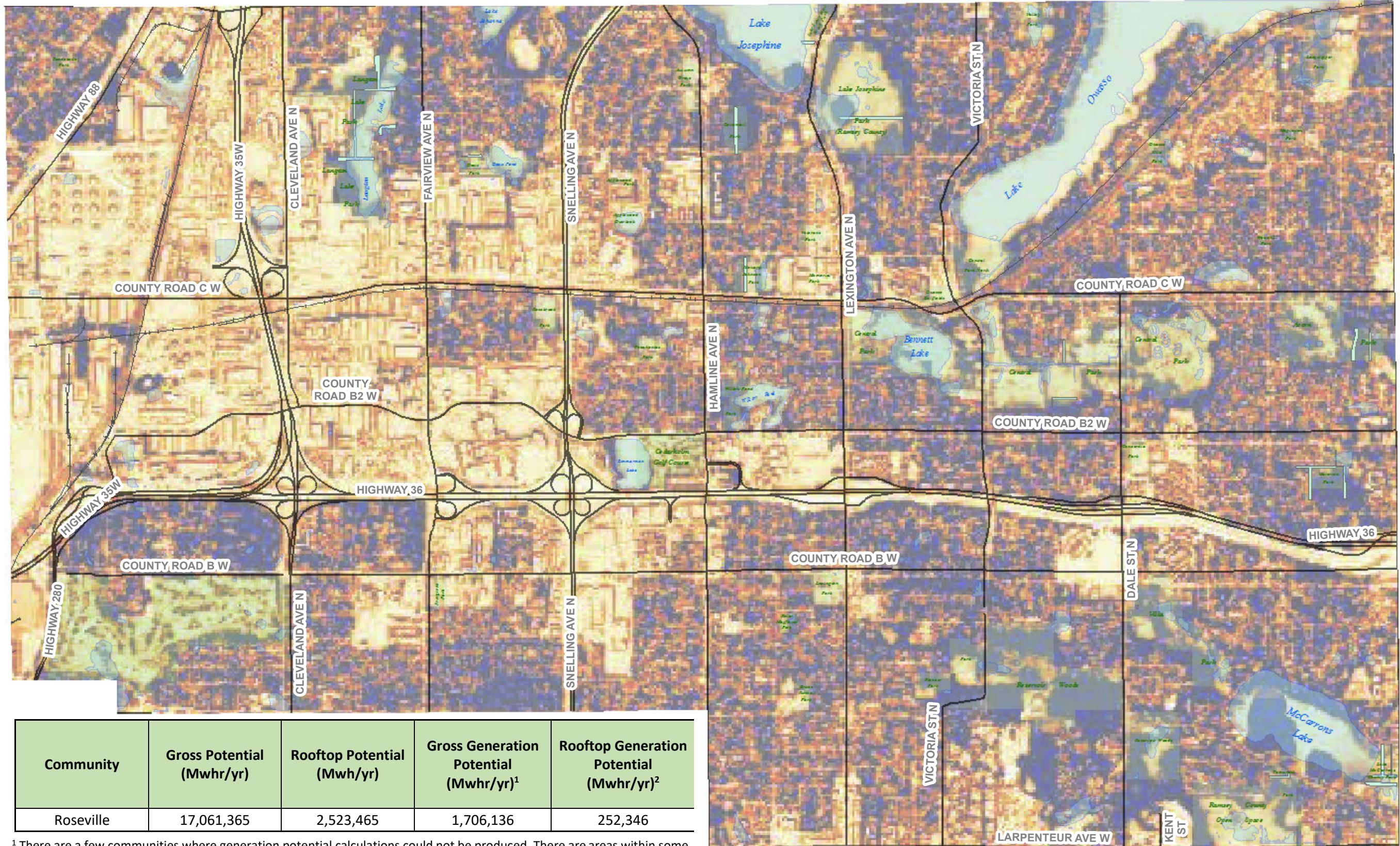
Degree program at the University of Minnesota to identify ways that the City could improve upon current education and outreach strategies. A goal of the project was to help develop a strategy that would create social influence by providing a consistent and dependable message for the residents. While this Capstone project focused on education and outreach related to stormwater management and water quality, the three recommendations listed below can also be applied to other environmental protection issues.

- Partner with watershed districts and Blue Thumb ([www.bluethumb.org](http://www.bluethumb.org)) -to provide educational materials on stormwater management for residents.
- Strengthen engagement of community members through residential certification programs.
- Utilize multi-faceted toolkit to reach multiple audiences through various outreach methods.

*Policies*

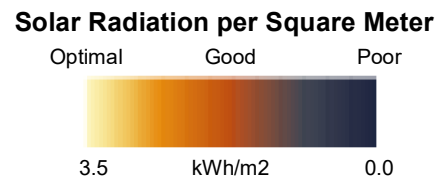
- 1.1. Partner with ~~federal, state, and regional~~other government ~~agencies-entities and local school districts~~ to sponsor and/or host resilience education and environmental stewardship programs.
- 1.2. Promote local resilience efforts and environmental stewardship through City-led communications, such as the city newsletter, City website, and the local cable-access channel.





Community	Gross Potential (Mwhr/yr)	Rooftop Potential (Mwh/yr)	Gross Generation Potential (Mwhr/yr) <sup>1</sup>	Rooftop Generation Potential (Mwhr/yr) <sup>2</sup>
Roseville	17,061,365	2,523,465	1,706,136	252,346

<sup>1</sup> There are a few communities where generation potential calculations could not be produced. There are areas within some maps where data was unusable. These areas were masked and excluded from gross rooftop potential and generating potential calculations. <sup>2</sup> In general, a conservative assumption for panel generation is to use 10% efficiency for conversion of total insolation into electric generation.



Data Sources and Contacts:  
 \* Ramsey County GIS Base Map (11/2/15)  
 \* City of Roseville Engineering Department  
 For further information regarding the contents of this map contact:  
 City of Roseville, Engineering Department,  
 2660 Civic Center Drive, Roseville MN

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mapdoc: Roseville Solar Potential Map v3.mxd  
 map: Roseville Solar Potential Map v3.pdf



## Roseville Solar Potential Map

Prepared by:  
 Engineering Department  
 January 25, 2018