Arboretum *Area* Transportation Plan

A Community-Focused Transportation Vision for Eastern Carver County

The Arboretum Area Transportation Plan is an effort to create a traffic management, safety and phasing plan for major roads near the Minnesota Landscape Arboretum in Victoria, Chanhassen and Chaska. Study corridors include sections of Highway 5, Highway 41, Rolling Acres Road, Bavaria Road, and 82nd Street West.
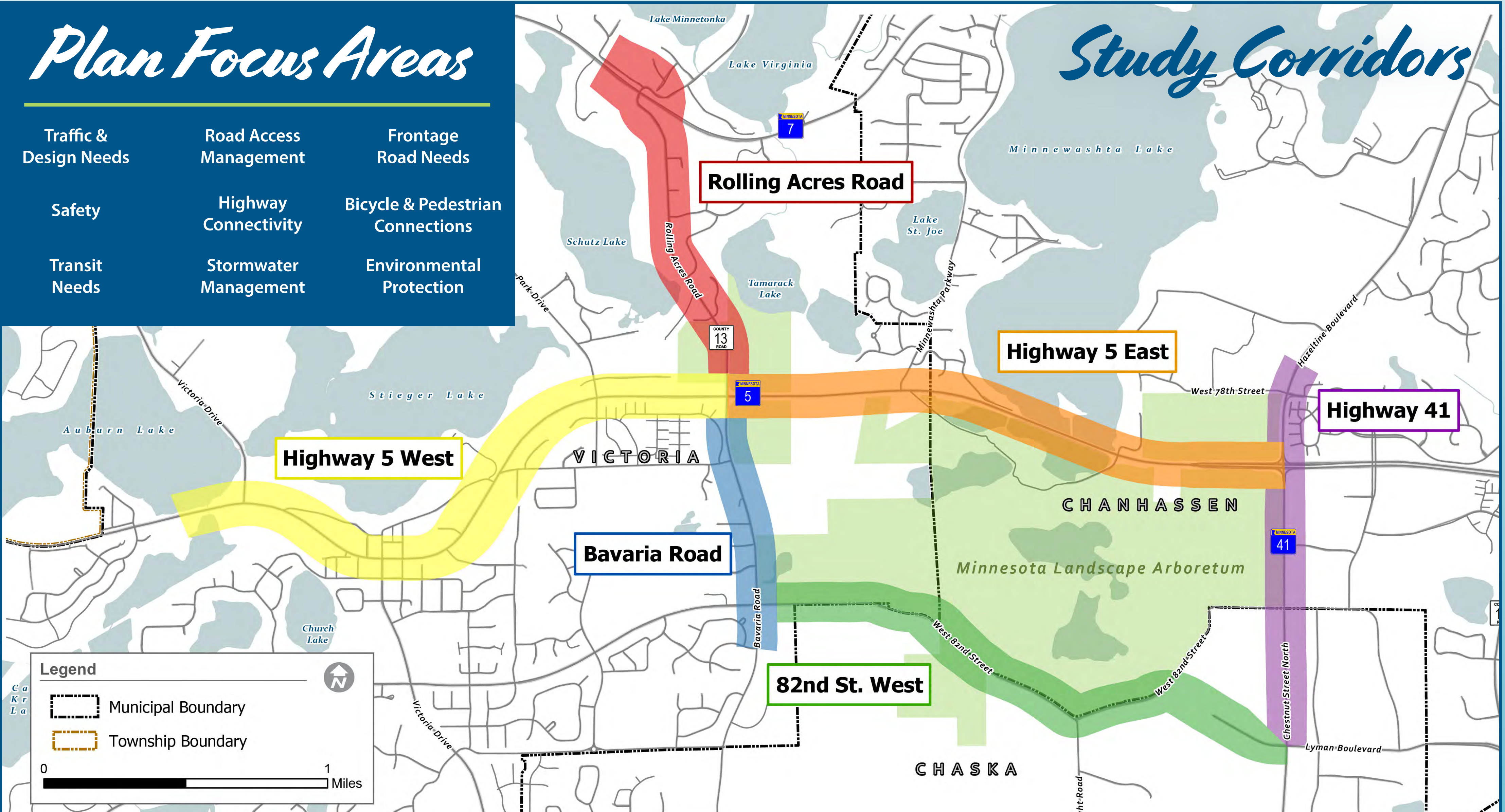
Plan Objectives

- Understand existing issues and needs
- Engage communities to build consensus on an area-wide transportation vision
- Develop plan for short, mid, and long-term improvements in corridors
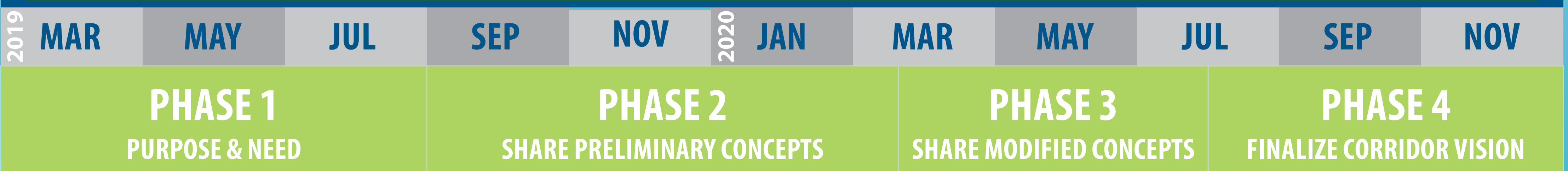
Project Goals

The following goals are consistent with broader goals adopted by project partners.

- Provide efficient and reliable vehicle mobility
- Safely accommodate all system users
- Provide a comprehensive network for pedestrians and bicyclists
- Provide infrastructure improvements that respect the environment
- Develop a financially responsible implementation plan

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Plan Focus Areas

Traffic & Design Needs	Road Access Management	Frontage Road Needs
Safety	Highway Connectivity	Bicycle & Pedestrian Connections
Transit Needs	Stormwater Management	Environmental Protection

Study Corridors

Rolling Acres Road

Highway 5 East

Highway 41

Highway 5 West

Bavaria Road

82nd St. West

Legend

Municipal Boundary
Township Boundary

0   1 Miles

Timeline

2019					2020					
MAR	MAY	JUL	SEP	NOV	JAN	MAR	MAY	JUL	SEP	NOV

PHASE 1	PHASE 2	PHASE 3	PHASE 4
PURPOSE & NEED	SHARE PRELIMINARY CONCEPTS	SHARE MODIFIED CONCEPTS	FINALIZE CORRIDOR VISION

Project Manager
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CARVER COUNTY

DEPARTMENT OF TRANSPORTATION

VICTORIA City of Lakes & Parks

CITY OF Chanhassen Minnesota

CITY OF Chaska MINNESOTA

Arboretum *Area* Transportation Plan

Community Involvement

Stay Informed, Get Involved

Engaging stakeholders is a key component of the Arboretum Area Transportation Plan. There are multiple ways you can get involved!

Subscribe to e-Bulletins
Subscribe to receive project updates and announcements by email.

Follow @CarverCountyPW on Social Media
Carver County Public Works (@CarverCountyPW) will share project news and announcements on Facebook and Twitter. You can also search for project-related posts using #ArbArea.

Attend an Open House
Multiple open houses will be held to share updates and collect public input. For notification of schedule information, subscribe to e-Bulletins or follow Carver County Public Works (@carvercountypw) on social media.

Visit the Project Website
Check back frequently for schedule updates and announcements about upcoming events such as open houses and online surveys.

Participate in a Subarea Group Meeting
Meetings will be held over the next few months to involve participants located in specific areas of concern.

Reach out to the Project Manager
Questions, comments, or concerns? Reach out to Angie Stenson, AICP, Carver County Senior Transportation Planner at 952-466-5273 or astenson@co.carver.mn.us.

Project Website

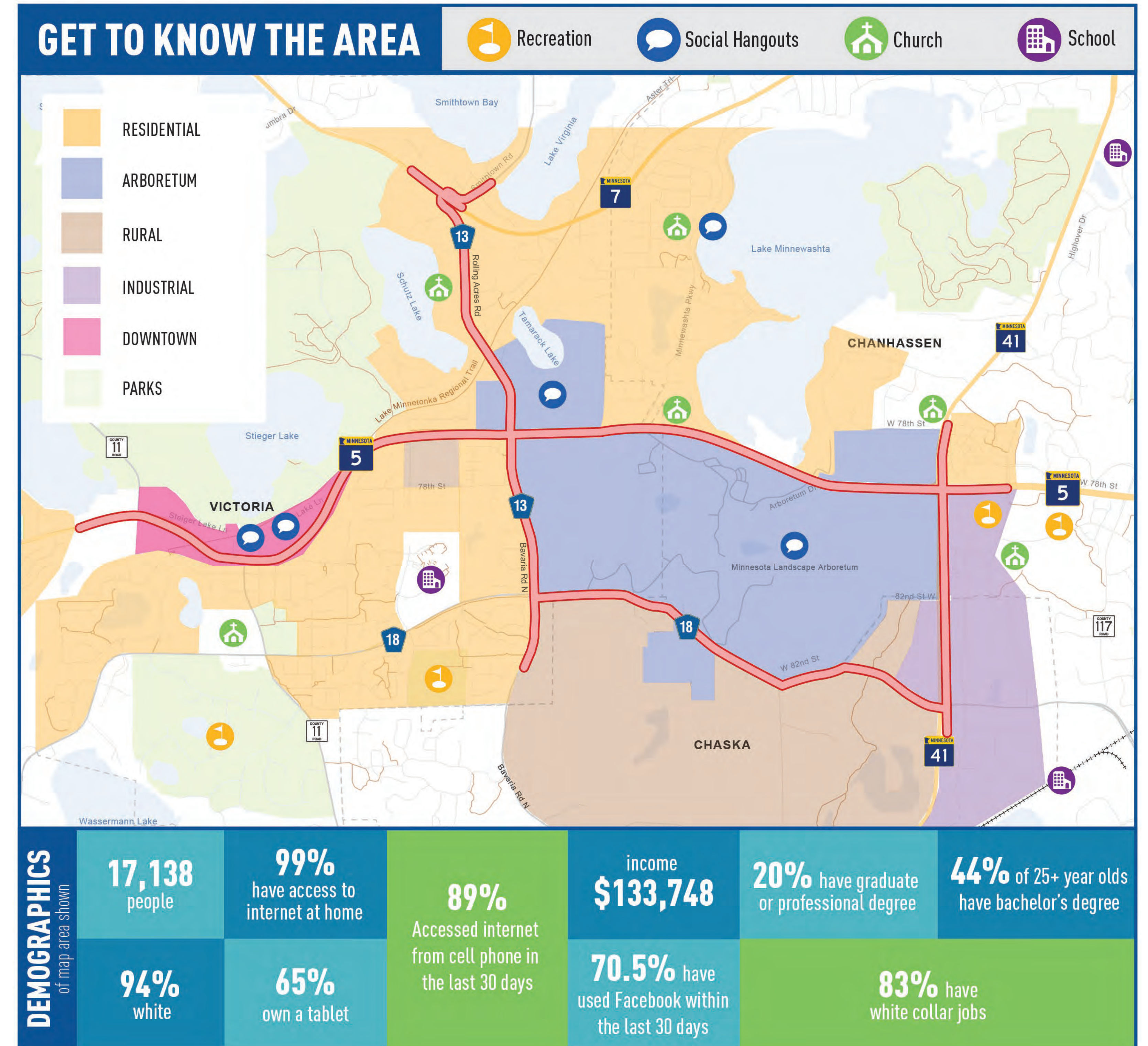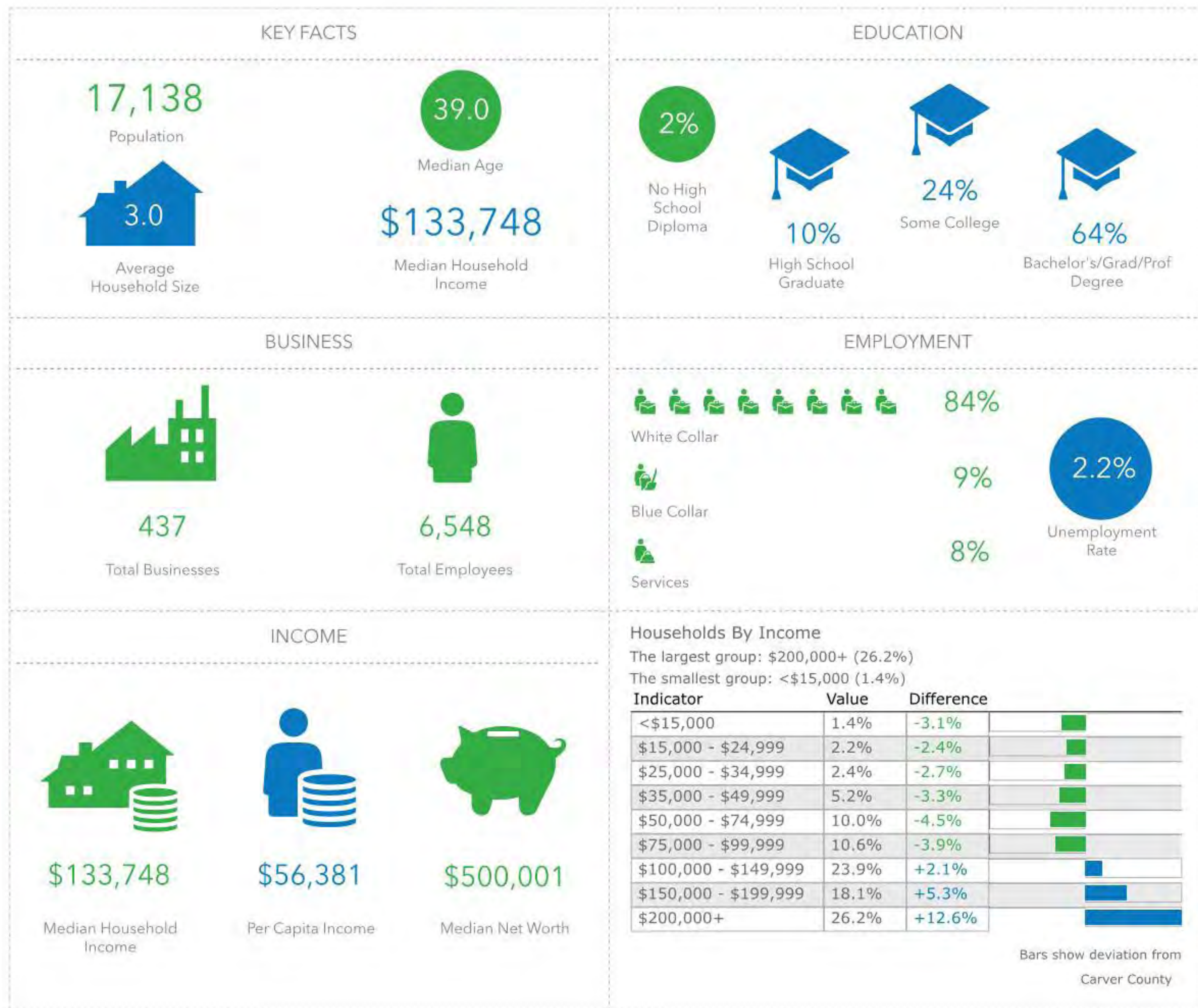**co.carver.mn.us/ArboretumAreaTransportation Plan**

What you can do today:

- Review informational materials and displays

- Make comments on the comment forms

- "Vote" for issues you feel are most important

- Ask questions - we are here to listen and help!

Arboretum *Area* Transportation Plan

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Understanding the Study Area

KEY FACTS

17,138 Population

3.0 Average Household Size

39.0 Median Age

$133,748 Median Household Income

EDUCATION

2% No High School Diploma

10% High School Graduate

24% Some College

64% Bachelor's/Grad/Prof Degree

BUSINESS

437 Total Businesses

6,548 Total Employees

EMPLOYMENT

84% White Collar

9% Blue Collar

8% Services

2.2% Unemployment Rate

INCOME

$133,748 Median Household Income

$56,381 Per Capita Income

$500,001 Median Net Worth

Households By Income

The largest group: $200,000+ (26.2%)
The smallest group: <$15,000 (1.4%)

Indicator	Value	Difference
<$15,000	1.4%	-3.1%
$15,000 - $24,999	2.2%	-2.4%
$25,000 - $34,999	2.4%	-2.7%
$35,000 - $49,999	5.2%	-3.3%
$50,000 - $74,999	10.0%	-4.5%
$75,000 - $99,999	10.6%	-3.9%
$100,000 - $149,999	23.9%	+2.1%
$150,000 - $199,999	18.1%	+5.3%
$200,000+	26.2%	+12.6%

Bars show deviation from Carver County

GET TO KNOW THE AREA

Recreation · Social Hangouts · Church · School

Legend:
- RESIDENTIAL
- ARBORETUM
- RURAL
- INDUSTRIAL
- DOWNTOWN
- PARKS

DEMOGRAPHICS of map area shown

17,138 people

99% have access to internet at home

89% Accessed internet from cell phone in the last 30 days

income **$133,748**

20% have graduate or professional degree

44% of 25+ year olds have bachelor's degree

94% white

65% own a tablet

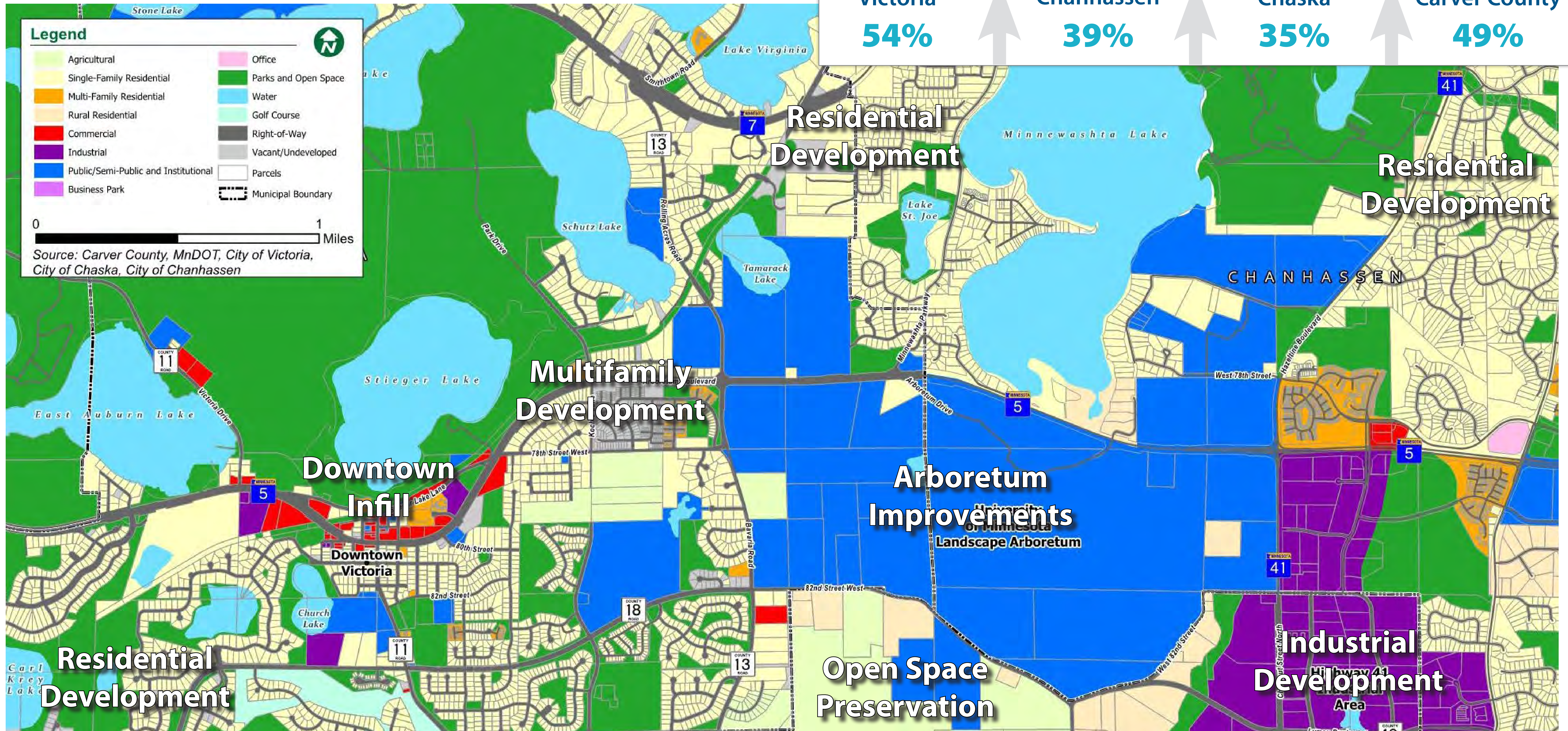**70.5%** have used Facebook within the last 30 days

83% have white collar jobs

The project will need to be responsive to the population of the study area, as well as commuters from the broader region.

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Arboretum *Area* Transportation Plan

Accommodating Growth

Population Growth by 2040

Victoria	Chanhassen	Chaska	Carver County
54%	39%	35%	49%

Legend

- Agricultural
- Single-Family Residential
- Multi-Family Residential
- Rural Residential
- Commercial
- Industrial
- Public/Semi-Public and Institutional
- Business Park
- Office
- Parks and Open Space
- Water
- Golf Course
- Right-of-Way
- Vacant/Undeveloped
- Parcels
- Municipal Boundary

0   1 Miles

Source: Carver County, MnDOT, City of Victoria, City of Chaska, City of Chanhassen

Residential Development

Residential Development

Multifamily Development

Downtown Infill

Downtown Victoria

Arboretum Improvements

University of Minnesota Landscape Arboretum

Residential Development

Open Space Preservation

Industrial Development Highway 41 Area

The area is growing rapidly in terms of people, households, and jobs - increasing demands on the transportation network.

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Increasing Capacity - Current Conditions

AM Peak Hour Operations

PM Peak Hour Operations

Understanding Level of Service (LOS)

LOS is used frequently to describe the level of congestion on a roadway.

- LOS A/B (under capacity) - no delays, relatively free flowing
- LOS C/D/E (approaching capacity) - minimal delays, with increasing unpredictability
- LOS F (over capacity) - significant delays, unstable with forced stops

Other Terminology

Traffic analysis has specific language for key concepts.

- 95th Queue - length of traffic queue that is only exceeded 5% of the time
- Signalized vs. unsignalized intersection - whether or not there is a traffic light present
- Capacity - the amount of traffic a road is designed to accommodate

The transportation network has significant delays due to congestion at peak hours, particularly at key intersections.

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Increasing Capacity - 2040 Growth

AM Peak Hour Operations

LEGEND:

X/X = Overall/Worst Leg LOS (Unsignalized Intersection)

X = Overall LOS (Signalized Intersection)

— = 95th Percentile Queue

* Assumes optimized signal timing plan updates

5/15/2019

PM Peak Hour Operations

LEGEND:

X/X = Overall/Worst Leg LOS (Unsignalized Intersection)

X = Overall LOS (Signalized Intersection)

— = 95th Percentile Queue

— = Additional Congestion

* Assumes optimized signal timing plan updates

5/15/2019

Understanding Level of Service (LOS)

LOS is used frequently to describe the level of congestion on a roadway.

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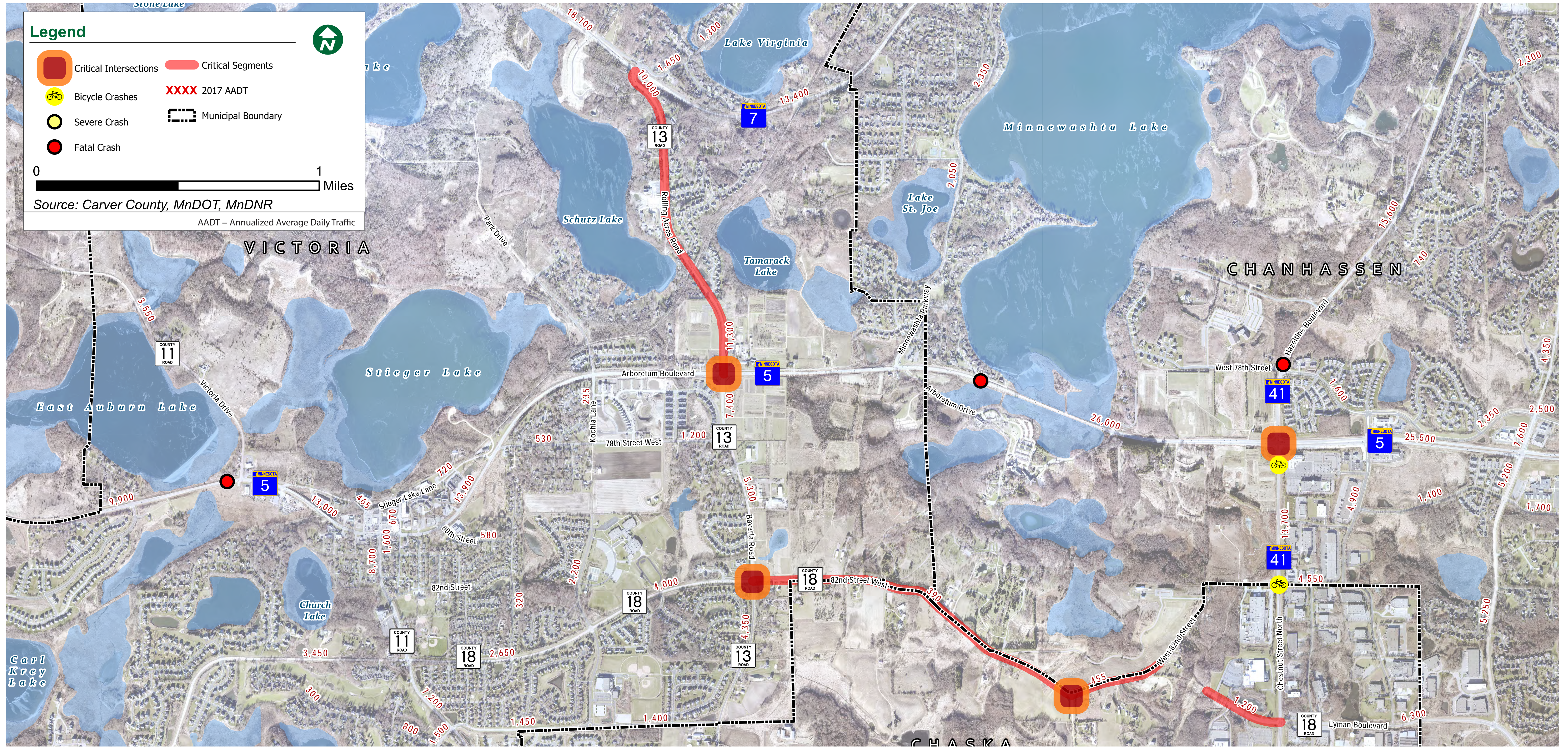
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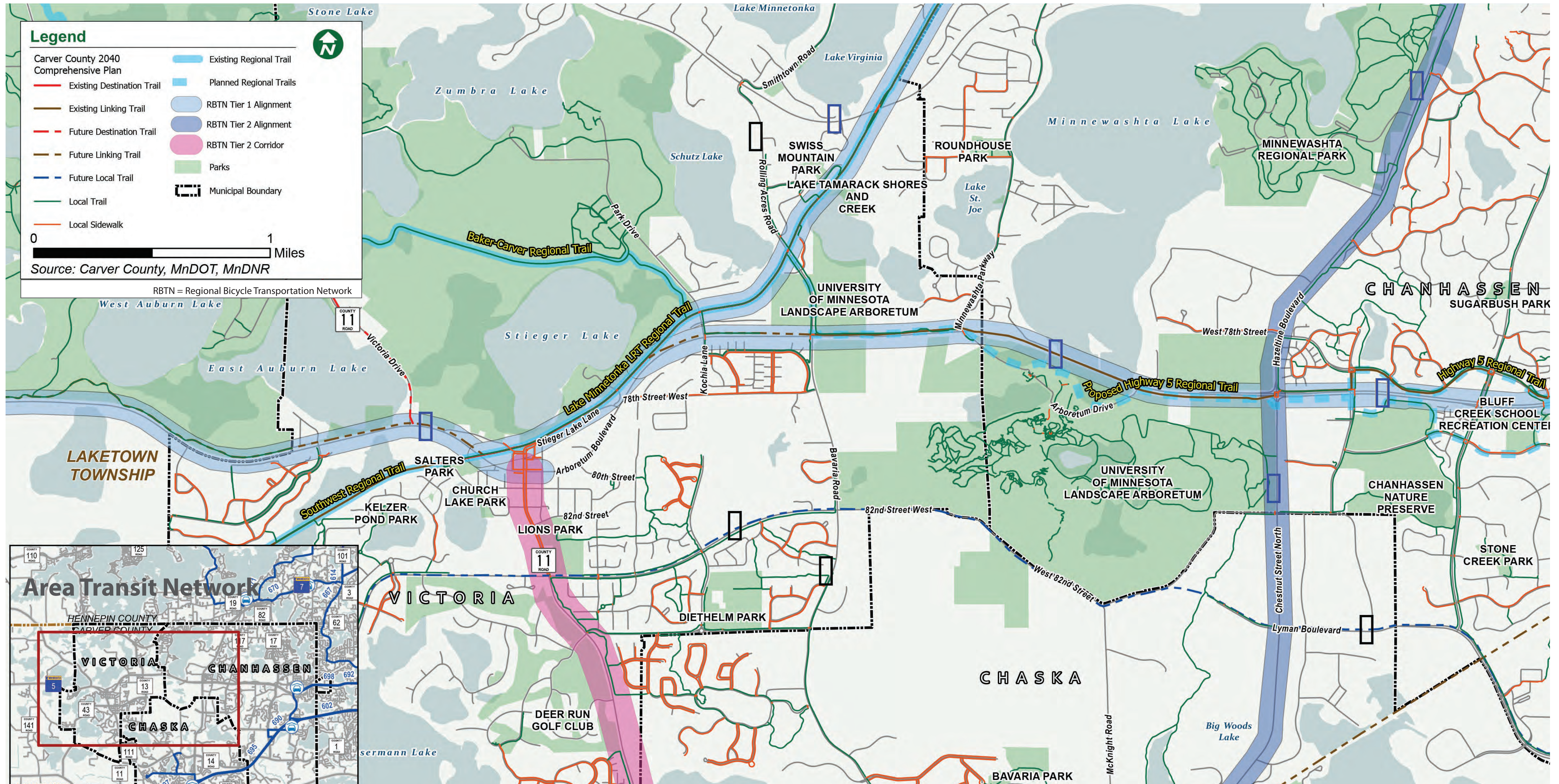**Delays and congestion will worsen in the future without improvements.**

Arboretum *Area* Transportation Plan

Carver County · Department of Transportation · Victoria City of Lakes & Parks · City of Chanhassen Minnesota · City of Chaska Minnesota

Enhancing Safety

Legend

- **Critical Intersections**
- **Critical Segments**
- **Bicycle Crashes**
- **XXXX** 2017 AADT
- **Severe Crash**
- **Municipal Boundary**
- **Fatal Crash**

0 — 1 Miles

Source: Carver County, MnDOT, MnDNR

AADT = Annualized Average Daily Traffic

Intersections and roadway segments in the study area have above average crash rates that need to be addressed.

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Supporting Multi-Modalism

Legend

Carver County 2040 Comprehensive Plan

- Existing Destination Trail
- Existing Linking Trail
- Future Destination Trail
- Future Linking Trail
- Future Local Trail
- Local Trail
- Local Sidewalk

- Existing Regional Trail
- Planned Regional Trails
- RBTN Tier 1 Alignment
- RBTN Tier 2 Alignment
- RBTN Tier 2 Corridor
- Parks
- Municipal Boundary

0 ___ 1 Miles

Source: Carver County, MnDOT, MnDNR

RBTN = Regional Bicycle Transportation Network

Area Transit Network

The bicycle and pedestrian network is well used, but gaps and safety concerns remain. Transit is a future possibility.

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Respecting Environmental Resources

Legend

Known Cultural Resources

- ■ Property Considered Eligible (orange square)
- ■ Property Listed on NRHP (green square)
- College / University
- Government Office
- Place of Worship
- School

- ─── Rivers & Streams
- ─── Impaired Streams
- ▱ Impaired Lakes
- ┈┈ 100 yr Floodzone
- ▨ Public Waters - Basins
- ▨ Parks
- ▭ Municipal Boundary

0 _____ 1 Miles

Source: Carver County, MnDOT, MnDNR, Met Council
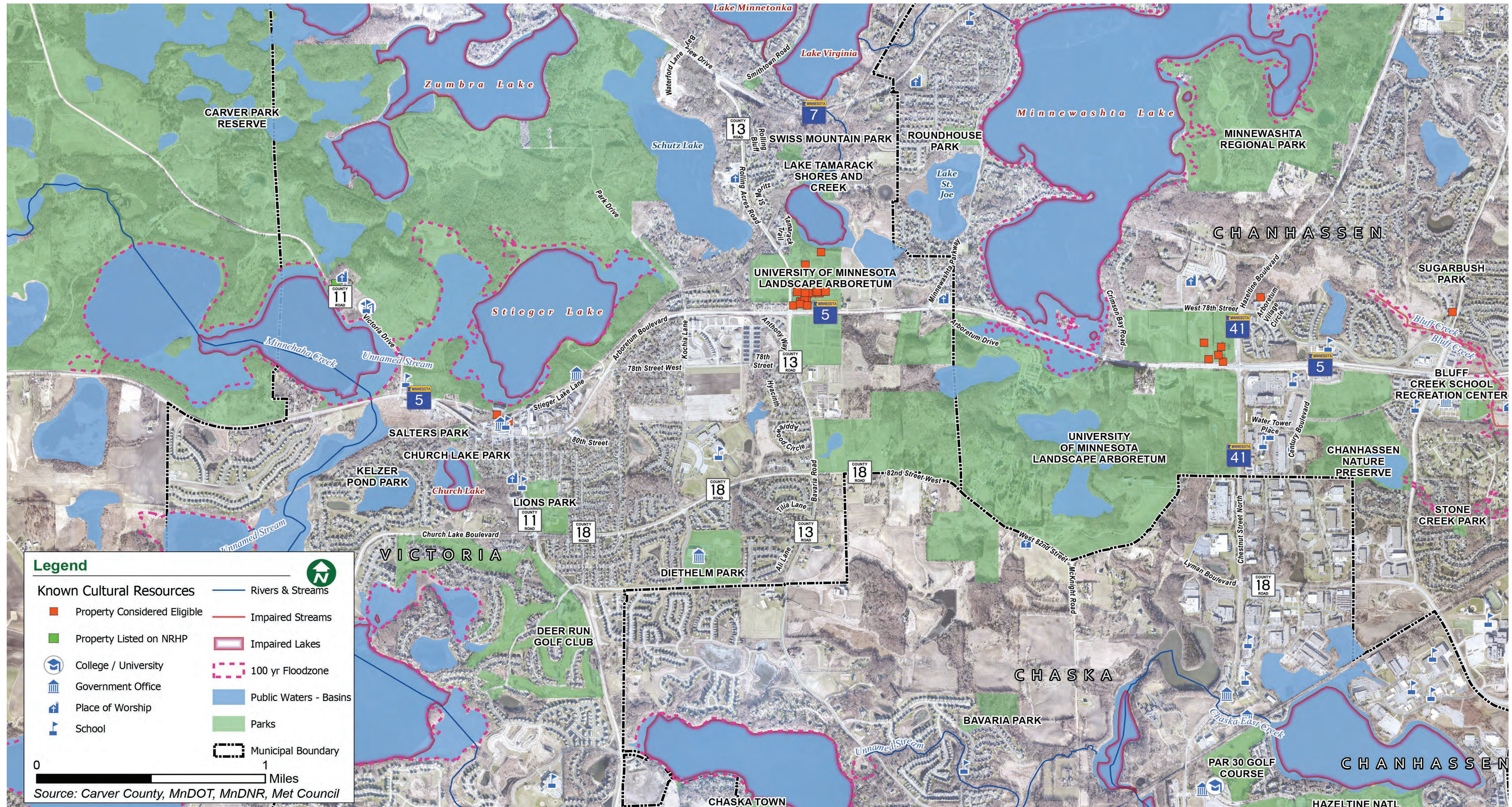
The study area is rich with natural, historic, and cultural resources. These will need to be identified and respected.
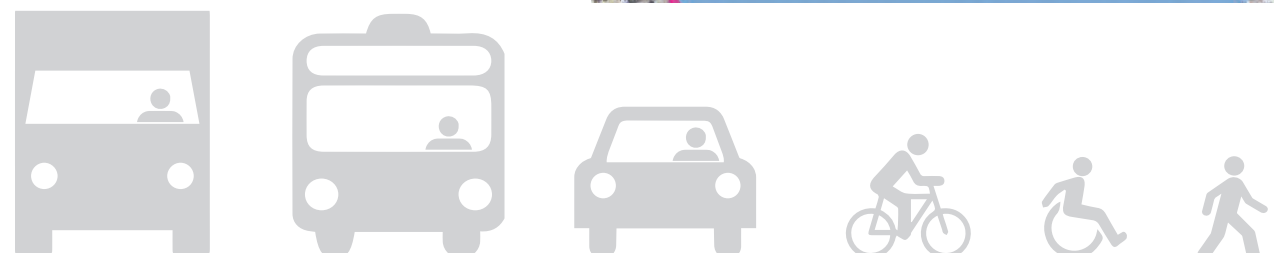
Connecting Communities
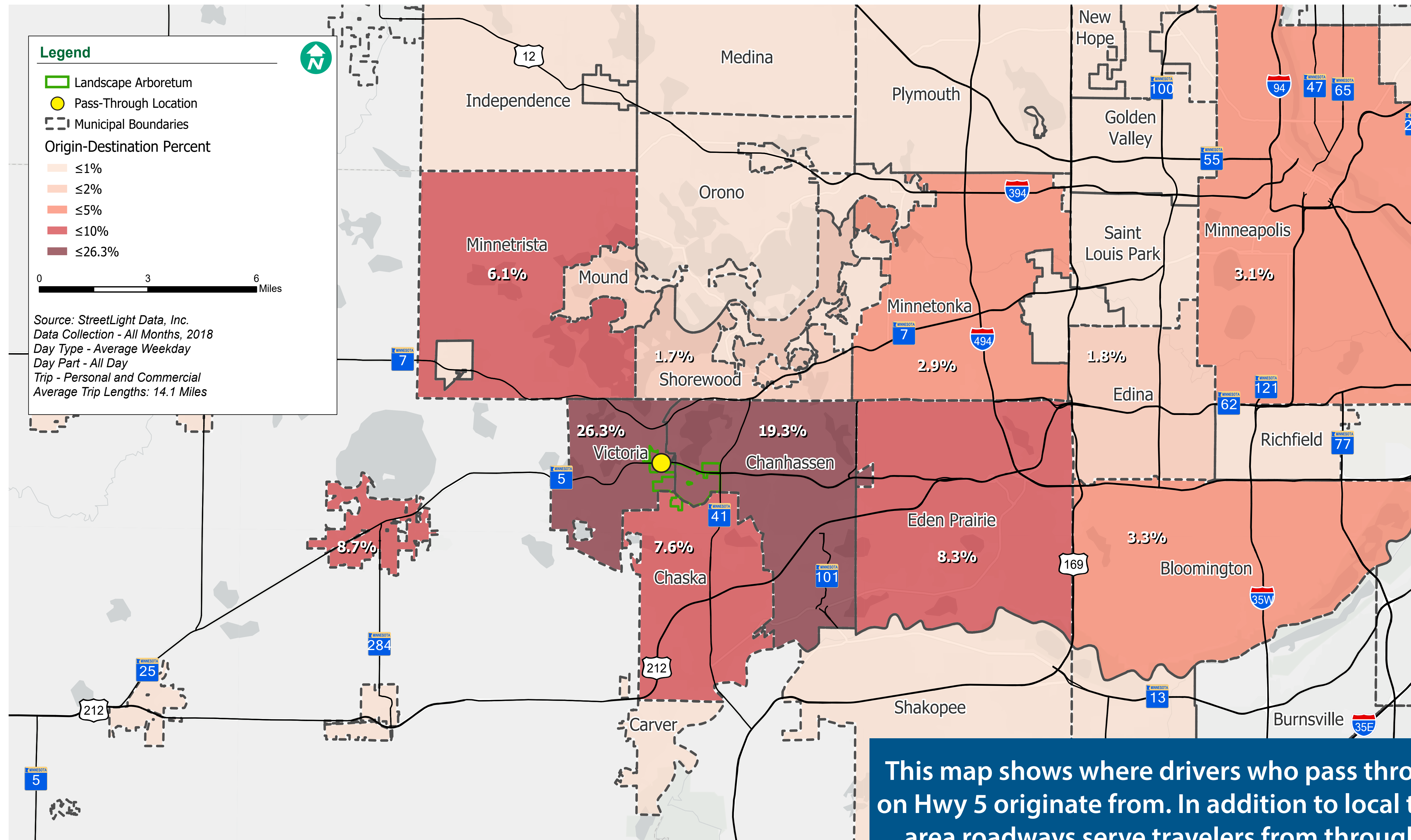
This map shows where drivers who pass through the yellow point on Hwy 5 originate from. In addition to local trips, Hwy 5 and other area roadways serve travelers from throughout the Twin Cities region and beyond. Around half of the trips are from Victoria, Chaska, or Chanhassen, with the remainder from elsewhere.

Legend

- Landscape Arboretum
- Pass-Through Location
- Municipal Boundaries

Origin-Destination Percent

- ≤1%
- ≤2%
- ≤5%
- ≤10%
- ≤26.3%

0   3   6 Miles

Source: StreetLight Data, Inc.
Data Collection - All Months, 2018
Day Type - Average Weekday
Day Part - All Day
Trip - Personal and Commercial
Average Trip Lengths: 14.1 Miles

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Planning for 82nd Street Connection

Population Growth by 2040

Victoria	Chanhassen	Chaska	Carver Co.
54%	**39%**	**35%**	**49%**
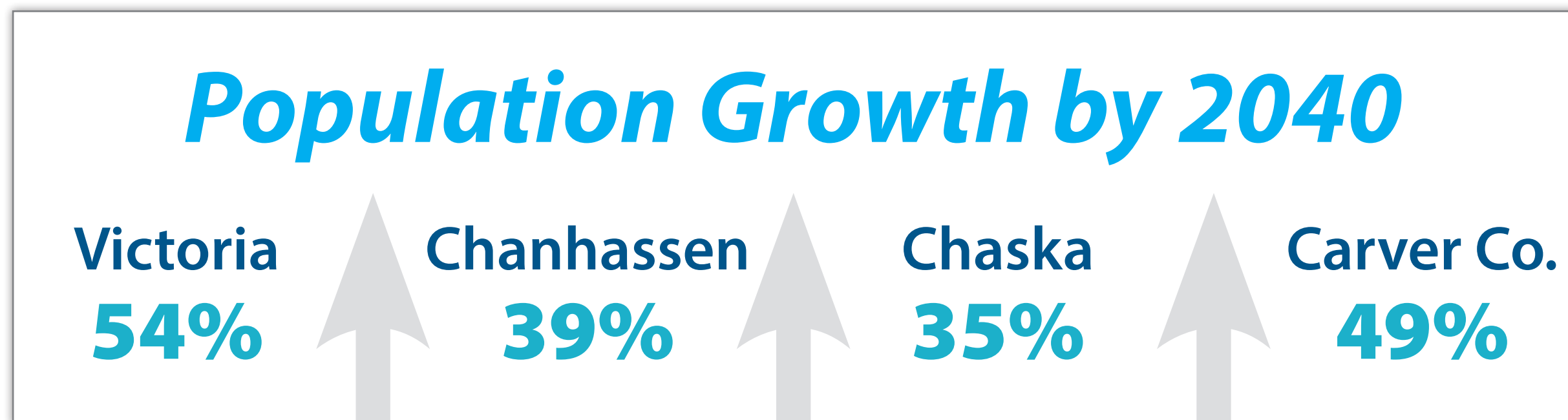
The old rural roadway network needs to transition to meet the needs of a developing community.
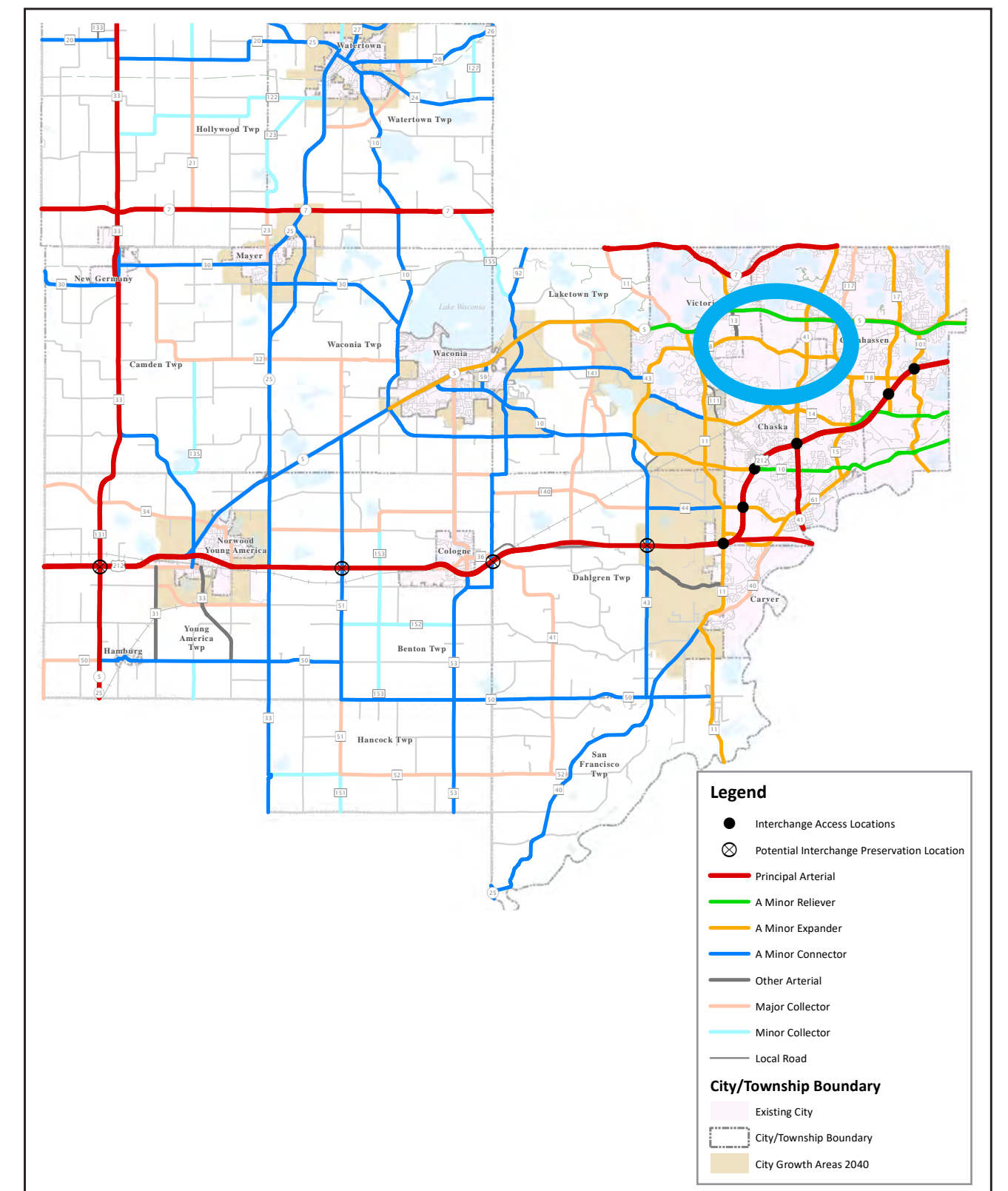
Existing Right-of-Way
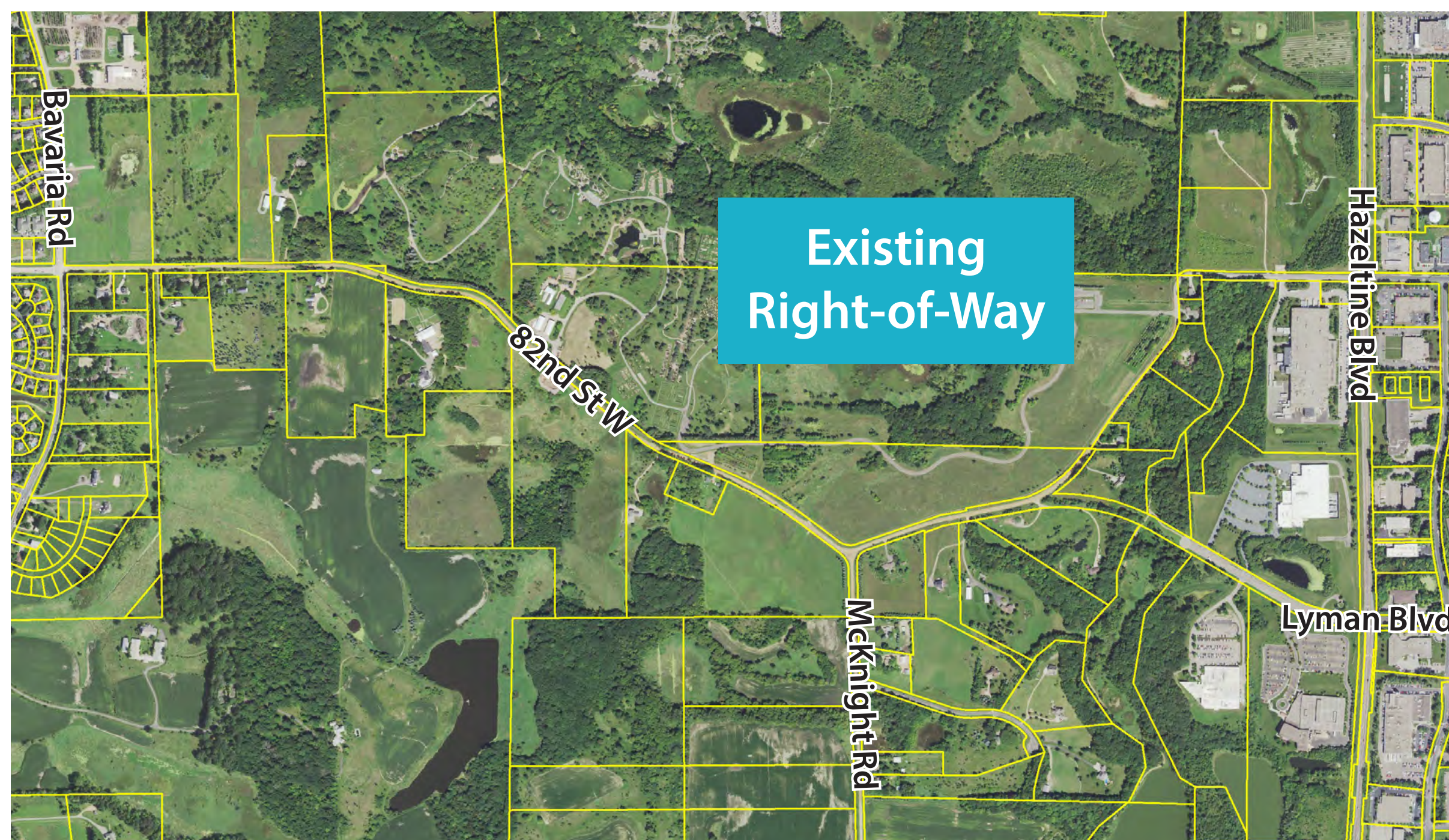
City of Victoria - Draft 2040 Comp Plan
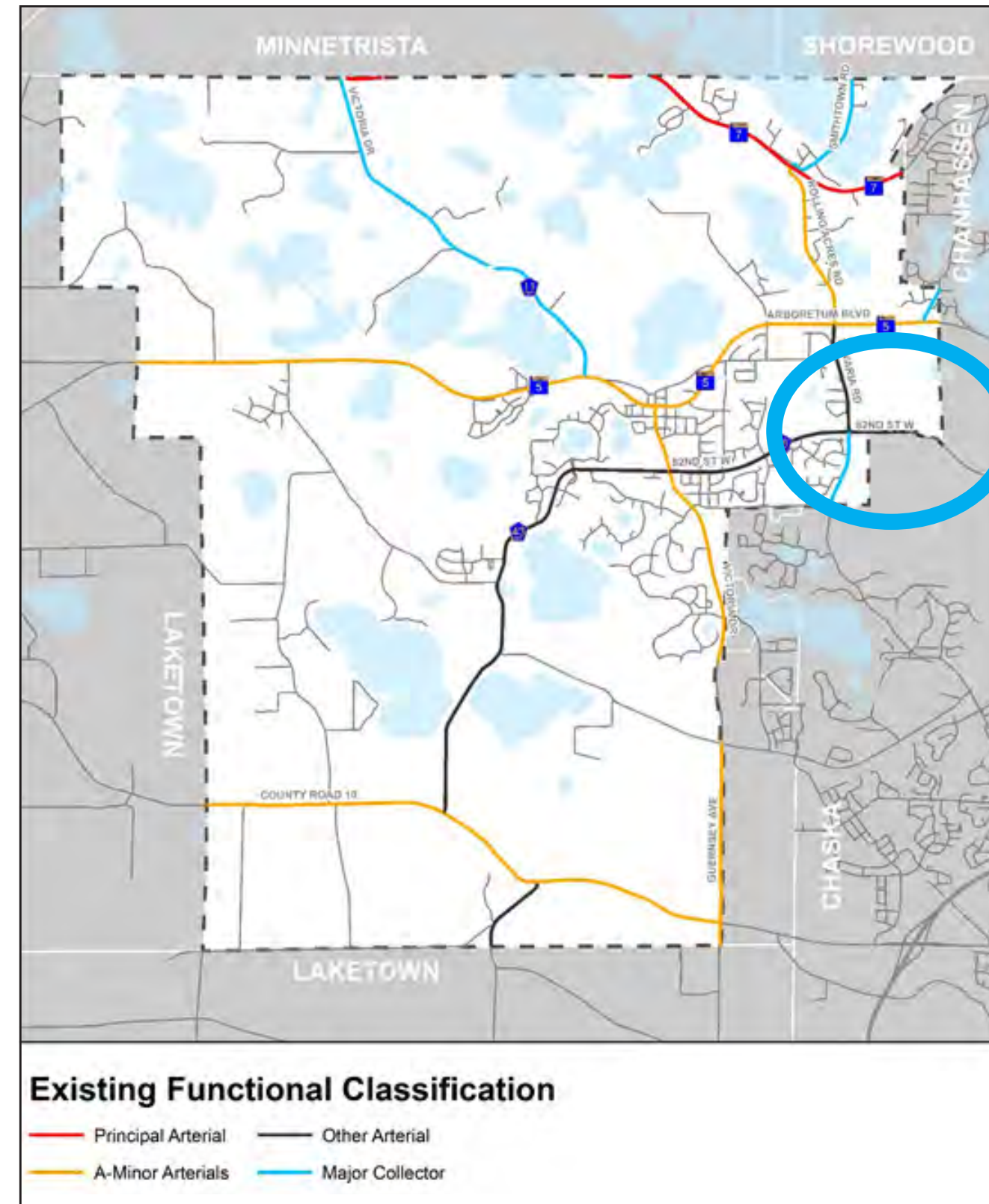
City of Chaska - Draft 2040 Comp Plan
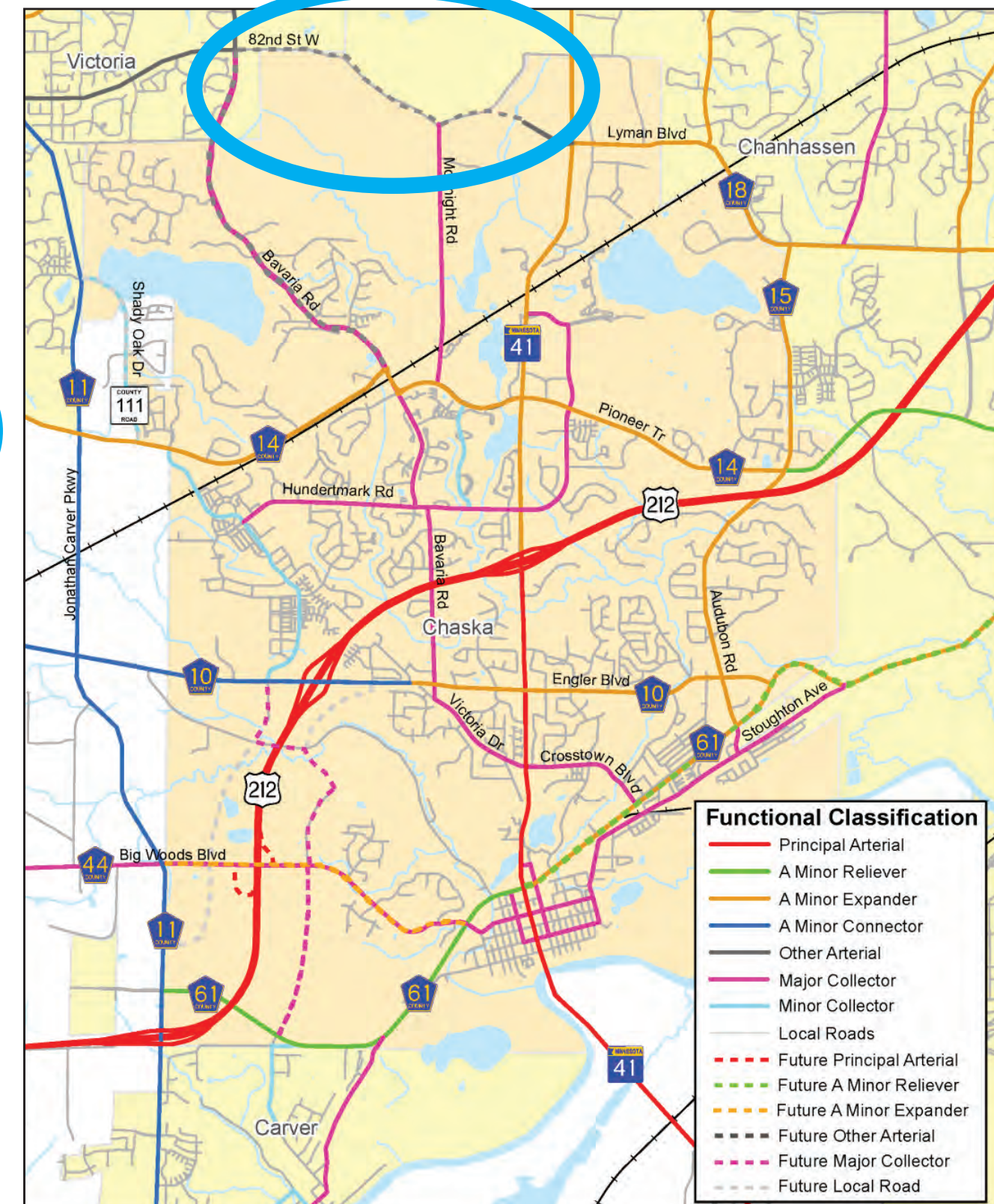
Carver County - Draft 2040 Comp Plan

The plans for Carver County and the cities of Chaska and Victoria all show 82nd Street West as a future arterial with connectivity to the rest of the system.

Implications for 82nd Street

- When is this connection needed?
- What will the corridor look like?
- What bicycle and pedestrian facilities should be included?
- How will access and crossing be handled?

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