



# TRANSPORTATION ANALYSIS

## SCANDIA CITY CENTER STUDY

### PURPOSE

A planning-level assessment was conducted to understand travel patterns and operations within the Scandia City Center Study area. This assessment included a review of pedestrian/bicycle trips, traffic volumes, turning movement counts, and crashes. Findings from this assessment will help inform future investments to improve the transportation system for all users.



*Bike rest stop 'fix it' station wayfinding*



# PEDESTRIAN AND BICYCLE TRIPS

## OVERVIEW

A review of pedestrian and bicycle trip data was analyzed to understand who is taking non-motorized trips to and through Scandia. This information will provide insight on the types of amenities that will make biking and walking in Scandia comfortable and enjoyable. Trip estimates were derived from a location-based service data set (StreetLight Data©). This data is collected via cell phone data gathered from people who opt into mobile applications that track their movement. The information is anonymous and is overlaid with existing census data to provide a snapshot of the demographics of people who are biking or walking in the area.

The study reviewed the average number of trips occurring during a typical weekday (Tuesday – Thursday) and weekend (Saturday – Sunday). The study’s analysis also looked at three time periods (April/May, June/July, and September/October) that represent a time of year when most people are outside walking, biking, or rolling. The data was collected in 2022.



## PEDESTRIANS IN SCANDIA

On average, there are over 500 pedestrian trips occurring throughout the day within the study area. These trips may include someone taking a casual stroll in their neighborhood or parking their car and walking to a business. The fall months (September - October) and weekends generate the highest number of people walking in the study area.

Data associated with those trips are summarized below along with commentary on what this tells us about potential opportunities.

- 47% of pedestrian trips are from households with children. Family households with children make up about 75% of the Scandia population (ACS 5-year estimates). This shows an opportunity to explore how to make it easier for families to walk more, and also potentially shows that pedestrian trips may be taken more by seniors, who tend to live in households without children.
- 74% of pedestrian trips are from owner-occupied households. 26% are renters. This shows that renters are generally walking more. This makes sense, as ACS 5-Year estimates for Scandia show that 40% of renter households in Scandia do not have a vehicle.
- 84% of pedestrian trips are people who identify as white, with 5% as Hispanic or Latino, and 10% as multiple races. This generally aligns with the overall population of Scandia.
- 11% of pedestrian trips are made by people with a disability, which aligns with a similar percentage of Scandia residents who live with a disability (10.3%). Considerations for how future investments can support walking and pedestrian activity for people of all ages and abilities will continue to be a priority in Scandia.

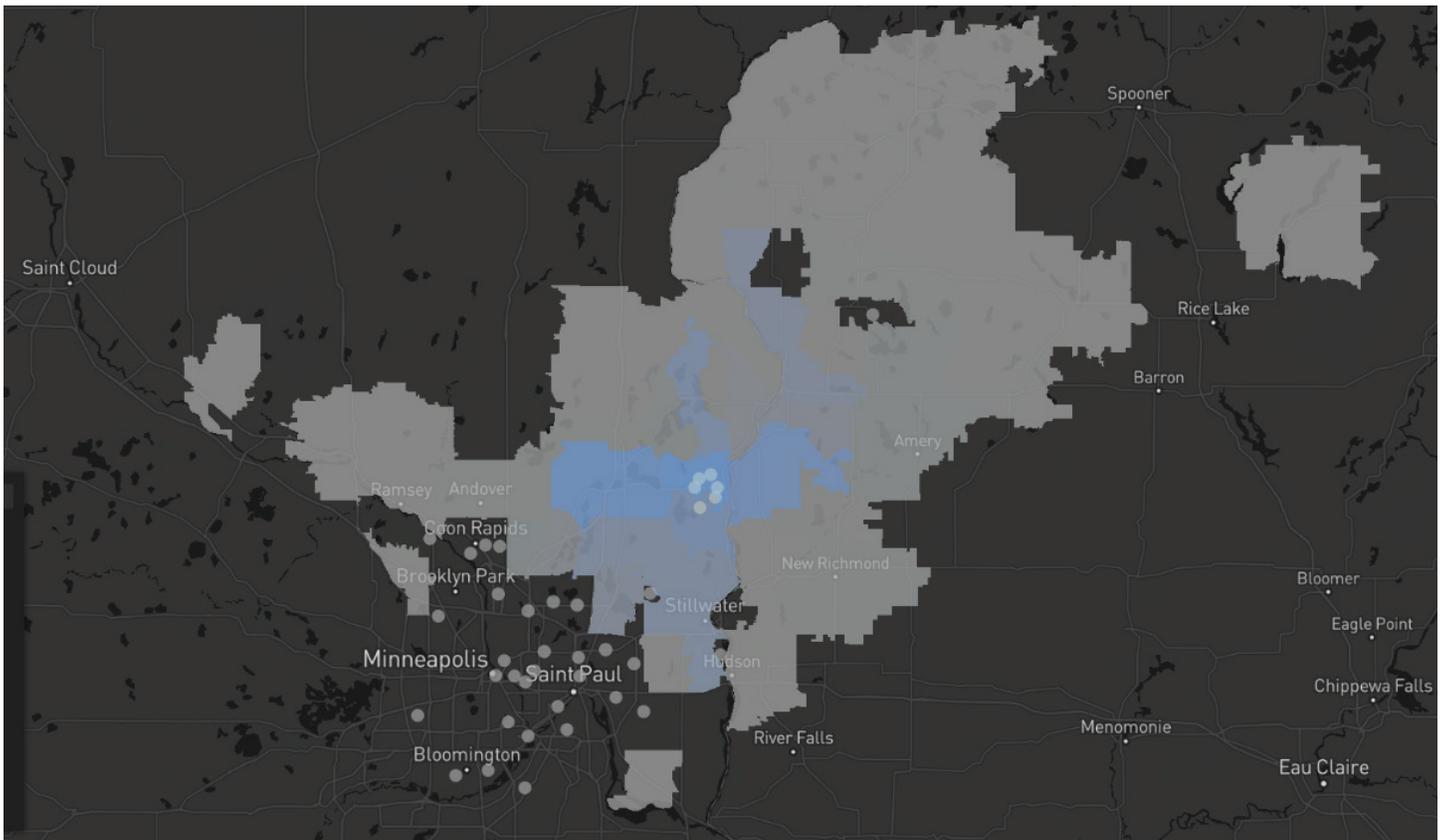
## BICYCLISTS IN SCANDIA



On average, there are approximately 6 bicycle trips occurring during a weekday and 17 trips on average on a weekend day in Scandia. Bicyclists are typically non-residents traveling greater distances (13+ miles) to visit the community via the Gateway Trail. The Gateway Trail stretches between Saint Paul and Pine Point County Park (Stillwater Township). This regional trail has generated over 158,000 users in 2021, with most trips occurring in Washington County. There has been a steady increase in Gateway Trail users, and it is assumed an extension of the trail will generate a higher number of bicycle trips to and from Scandia.

Data associated with those trips are summarized below along with commentary on what this tells us about potential opportunities.

- 38% of bicycle trips are from households with children, which tracks much lower than the overall population of Scandia (75% of households have children). Similar to the pedestrian data, this shows an opportunity to make biking to and through Scandia potentially more family friendly.
- 90% of pedestrian trips are people who identify as white, with 6% as Hispanic or Latino, and 4% as multiple races. This generally aligns with the overall population of Scandia and the surrounding area.



Streetlight analysis map showing origin and destination data for bicyclists traveling to Scandia. Origins of visitors are primarily from the immediate area, within 3-5 miles, with some visitors coming from as far as Stone Lake, WI or Becker, MN.

## EXISTING CONDITIONS FOR BIKING AND WALKING IN SCANDIA



Existing sidewalk terminates without crosswalk or pedestrian ramp along Oakhill Road.



Pedestrians crossing Olinda Trail at 209th Street near Gammelgarden. Visibility of pedestrians at this crossing is a concern raised by residents.



Bench along Olinda Trail sidewalk south of TH97



Sidewalk along Olinda Trail north of Oakhill Road with wide shoulder used by bicyclists today



Paved shoulder along TH97 (not signed as a bicycle route)



Wayfinding for the local bicycle route along 209th Street

## VEHICLE TRAFFIC OVERVIEW

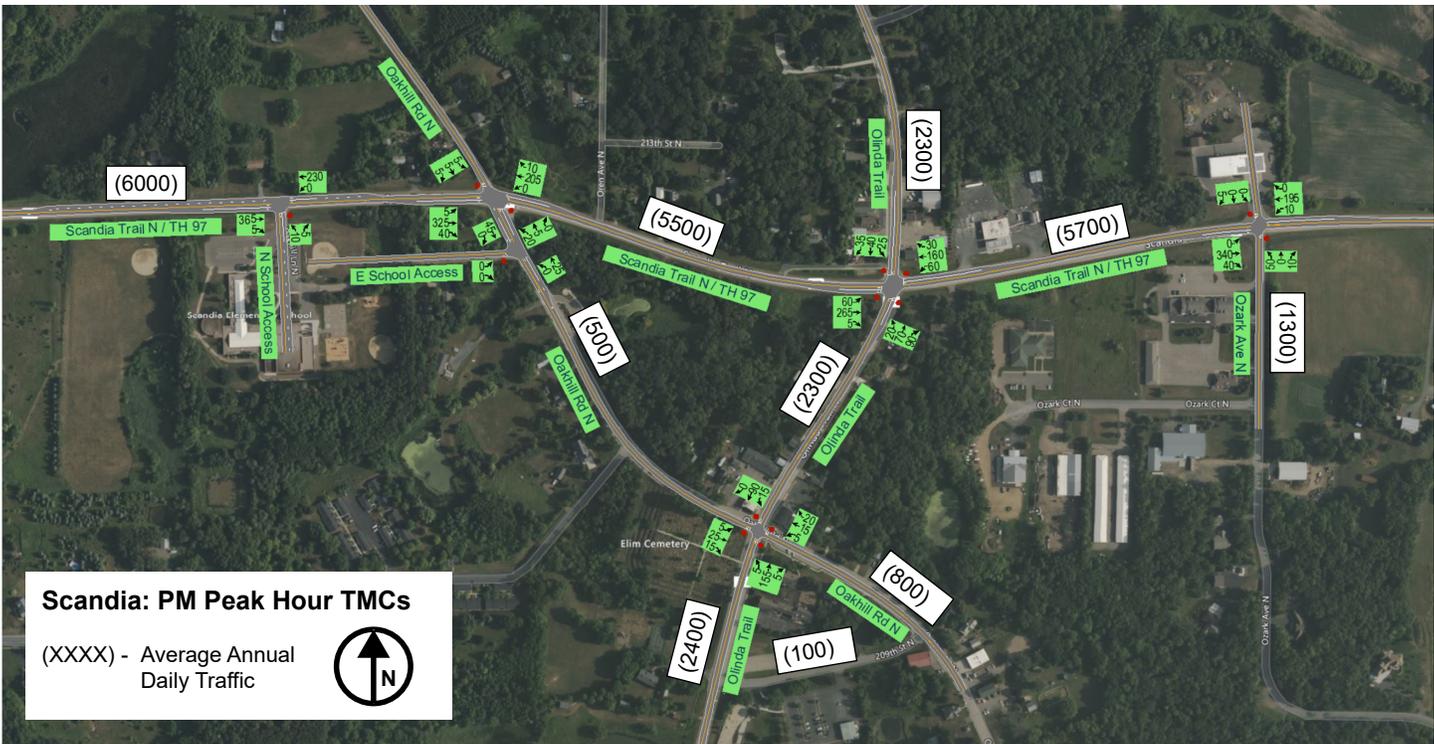
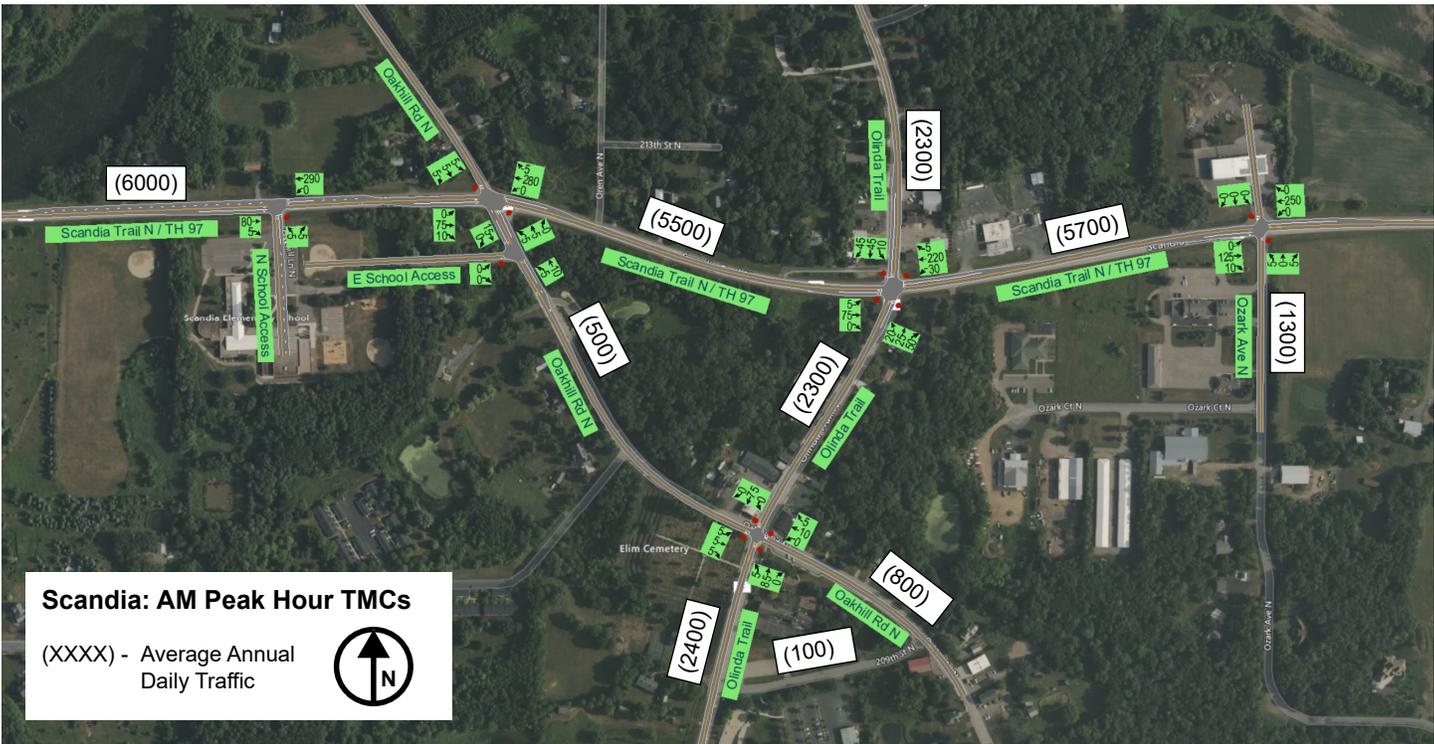
To understand how traffic moves, the study has analyzed traffic volumes and patterns over the last two years. This helps us determine if the roads and intersections are designed accordingly to handle traffic properly. Turning movement counts were gathered using StreetLight data from the year 2023. Data was cross-referenced and refined based on MnDOT average annual daily trip (AADT) counts.

Traffic volumes in the study area are at their highest during the morning (6:15 a.m. - 8:15 a.m.) and evening (3:30 p.m. - 5:15 p.m.) hours. During these times, roads and intersections are operating at acceptable levels. However, there are traffic operations and safety issues at Scandia Elementary School during pick-up and drop-off hours.

Traffic also has the tendency to back-up on TH97 when parents and buses are accessing the site. The school has adjusted their internal pick-up/drop-off route to mitigate those issues. There are still opportunities to improve traffic circulation and safety for buses, students, and families.

There are also opportunities to consider low-cost/high-benefit solutions that will improve intersections and pedestrian crossings. Potential projects could include changes to the roadway environment in order to improve visibility, calm traffic speeds, simplify decision-making or reduce pedestrian delays. Other traffic findings are noted below.

- Traffic volumes on TH97 east of Oakhill Road are generally higher during the week (over the months when school is in session).
- Traffic volumes on TH97 east of Olinda Trail are generally higher on the weekends.
- Approximately 2/3 of the traffic that passes through the study area in a typical day does so by way of TH97.
- The intersection of TH97 and Olinda Trail experiences the heaviest amount of traffic.
- Olinda Trail carries a higher volume of vehicles than Oakhill Road.



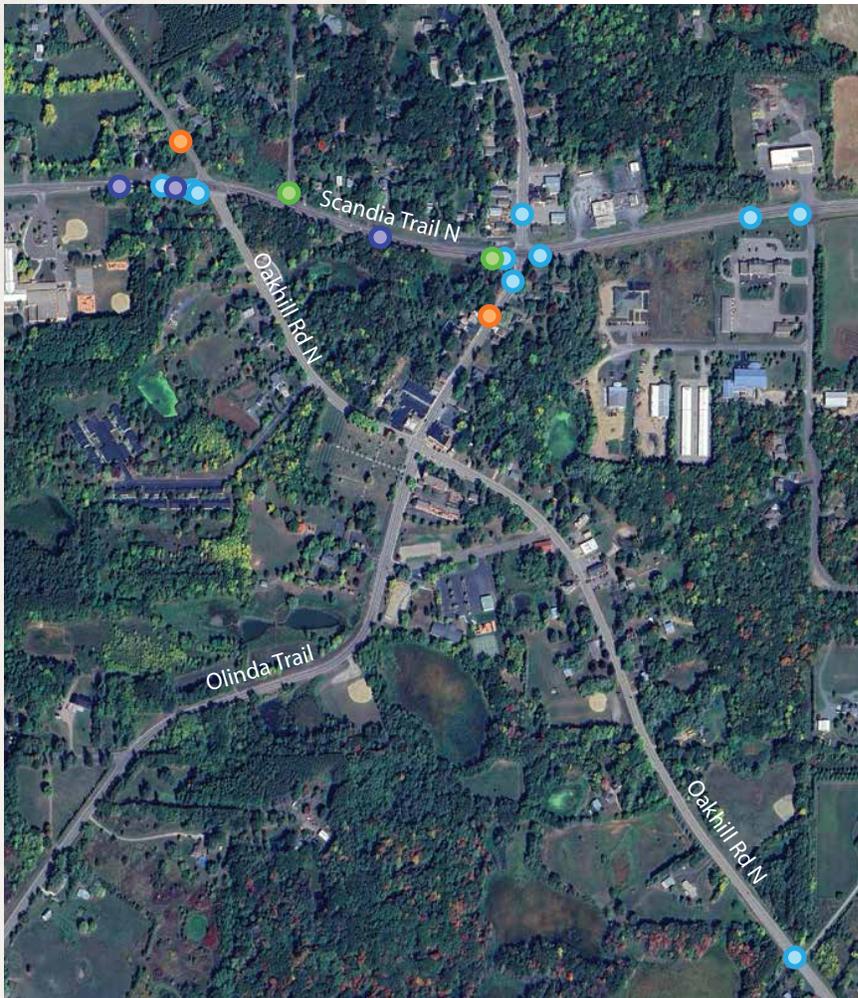
Turning Movement Counts (TMCs) and Average Annual Daily Traffic (AADT) in the study area (2023)

# SAFETY ANALYSIS

## OVERVIEW

The study has completed an analysis of past crash data that has been reported to law enforcement. The Minnesota Department of Public Safety (DPS) provides this data on a yearly basis, which includes crash locations, circumstances, and severity rates. To understand how the roadway system is currently operating, this analysis examined the last five years of full data available (2019 – 2023). Crash data helps us determine if safety improvements are needed at specific locations. The five-year crash history does not indicate any “hot spots” in need of immediate changes. However, there are opportunities to consider proactive safety measures (signage, lighting, sidewalks, access modifications, and pavement markings) that will help improve the safety of all modes of transportation. Below is a summary of the past five years of reported crashes.

- 17 reported crashes occurred within the study area.
- No fatal accidents occurred in the past five years.
- No pedestrian or bicycle crashes were reported.
- 60% of crashes resulted in property damage only.
- Several crashes resulted in injuries.
- Most of the crashes occurred on TH97 at Oakhill Road and at Olinda Trail.



This assessment also considered the community’s perception of safety. Through public engagement, input suggests that many people do not feel comfortable walking on or crossing TH97. People also perceive there to be more people speeding on TH97 and throughout town, which contributes to their uncomfortable experience when walking or biking in the area.

Crash data in the study area (2019 - 2023)