

11. TRANSPORTATION

Goal: Provide a transportation system that has convenient and effective multi-modal connections within Arden Hills and to adjacent municipalities, the remainder of the Twin Cities Metropolitan Area and greater Minnesota.

To achieve this *transportation goal*, the following policies are proposed:

- Approach transportation in a comprehensive manner by giving attention to all travel modes and related facilities, linking transit and land use and by combining or concentrating various land use activities to reduce the need for transportation facilities.
- Coordinate transportation plans with adjacent communities and the County, State, and Federal governments to assure system continuity, determine priorities, increase safety, and to efficiently use resources and reduce congestion.
- Create/provide a safe, cost effective, and efficient transportation system that is adequate for car, transit, pedestrian, bicycle, and truck transportation for the movement of people and goods and services in the community.
- Encourage transportation methods that are less dependent on motor vehicles such as walking, biking, and transit.
- Maintain the existing transportation infrastructure to protect the existing investments, increase efficiency, and delay the need for improvement or expansion. Where necessary, expand the City's transportation system to meet current and future transportation needs.
- Continue to work with the County and State elected and appointed officials to include County road reconstruction projects to address needed reconstruction and potential trails along the roadways when improved.
- Work with developers to construct needed improvements prior to development.
- Work to manage traffic in residential neighborhoods to not overburden any particular City street.

11.1 INTRODUCTION

The transportation system in the City of Arden Hills is largely established, made up of metropolitan freeways and highways, County roads, and City streets. Except for the proposed TCAAP redevelopment, the City's transportation system is not likely to see major changes in the next 10 to 20 years. The fact that the network is established, however, does not diminish the importance of continually monitoring the system to ensure that it performs adequately. As such, whether an existing roadway is proposed for upgrading or a land use change is proposed on a property, this Plan provides the framework for decisions regarding the nature of roadway infrastructure improvements necessary to achieve safety, adequate access, mobility, and performance of the existing and future roadway system.

Arden Hills is classified by the Metropolitan Council under the Suburban community designation. Suburban communities typically have automobile-oriented development patterns. Suburban communities are expected to plan for forecasted population and household growth at average densities of at least five units per acre for new development and redevelopment. In addition, Suburban communities are expected to target opportunities for more intensive development near regional transit investments identified in the Metropolitan Council 2040 Transportation Policy Plan.

This chapter includes established local goals, policies, standards, and guidelines to implement a future roadway network and transit vision that is coordinated with respect to county, regional, and state plans in such a way that the transportation system enhances quality economic and residential development within the City of Arden Hills.

This chapter also includes two appendices. Appendix B describes the general transportation system principles and standards, including functional classification, roadway capacity by type, access management guidelines, geometric design standards, and roadway jurisdiction. Appendix C includes the full transportation forecast and traffic modeling methodology.

11.2 EXISTING TRANSPORTATION SYSTEM EVALUATION

The transportation system in Arden Hills includes a roadway system that accommodates a variety of vehicles including cars, trucks, and public transit. Transportation also includes pedestrian movement and bicycles, which is also discussed in Chapter 9 (Parks & Recreation) of this Plan. While upgrades will need to be made over time, existing City controlled roads provide sufficient transportation service to the City.

11.2.1 Existing Traffic Volumes and Capacity Issues

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 Arden Hills.

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. Table 11.1 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, the availability of dedicated turn lanes, parking availability, intersection spacing, signal timing and a variety of other factors.

Table 11.1 – Planning-Level Roadway Capacity

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	

At the planning level, capacity problems are identified by comparing the existing number of lanes with current traffic volumes. Table 11.2 and Figure 11.1 illustrate the existing number of lanes on arterial roadways within the city. Figure 11.2 illustrates existing traffic volumes on Principal Arterial, A-Minor Arterial and other significant roadways within the city.

Congestion analysis shows I-35W and I-694 as the roadways with significant congestion. The rest of the existing transportation system throughout Arden Hills is primarily periodically congested, with areas that are near congested. Of primary concern to the City of Arden Hills is the congestion on TH 51/Hamline Avenue, south of I-694 and the county roadways at the interchanges with I-35W. This indicates that the congestion on I-35W is impacting the county roadways that have access to it. As I-35W becomes more congested, more traffic will likely use TH 51 or other adjacent minor arterials as an alternate route, which may also become congested.

Table 11.2 – Existing Number of Lanes on Arterial Roads

Functional Classification	Roadway Name	Location	Number of Lanes
Principal Arterial	I-35W	Western border	6-8
	I-694	I-35W to Lexington Avenue	4
“A” Minor Augmentor	TH 51 (Snelling Avenue)	Southern border to I-694	4
	Lexington Avenue (CSAH 51)	Southern border to I-694	3-5
“A” Minor Expander	Lexington Avenue (CSAH 51)	I-694 to County Road I	4-5
	County Highway 96	I-35W to Lexington Avenue	4
	Hamline Avenue (CSAH 50)	I-694 to County Highway 96	3
“A” Minor Reliever	US Highway 10	I-35W to I-694	4
	Cleveland Avenue (CSAH 46)	County Road D to County Road E2	2

Figure 11.1 – Existing Number of Lanes

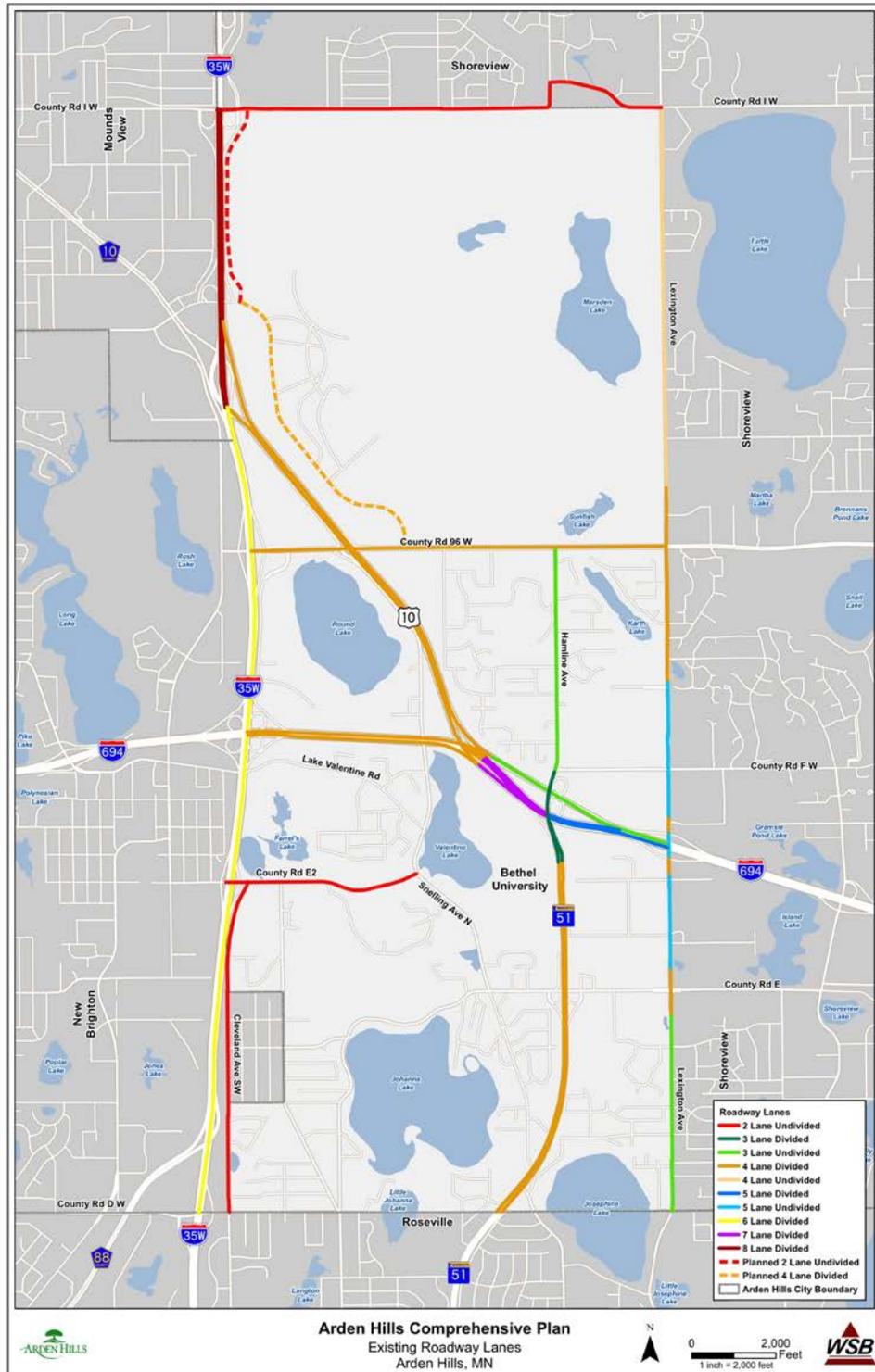
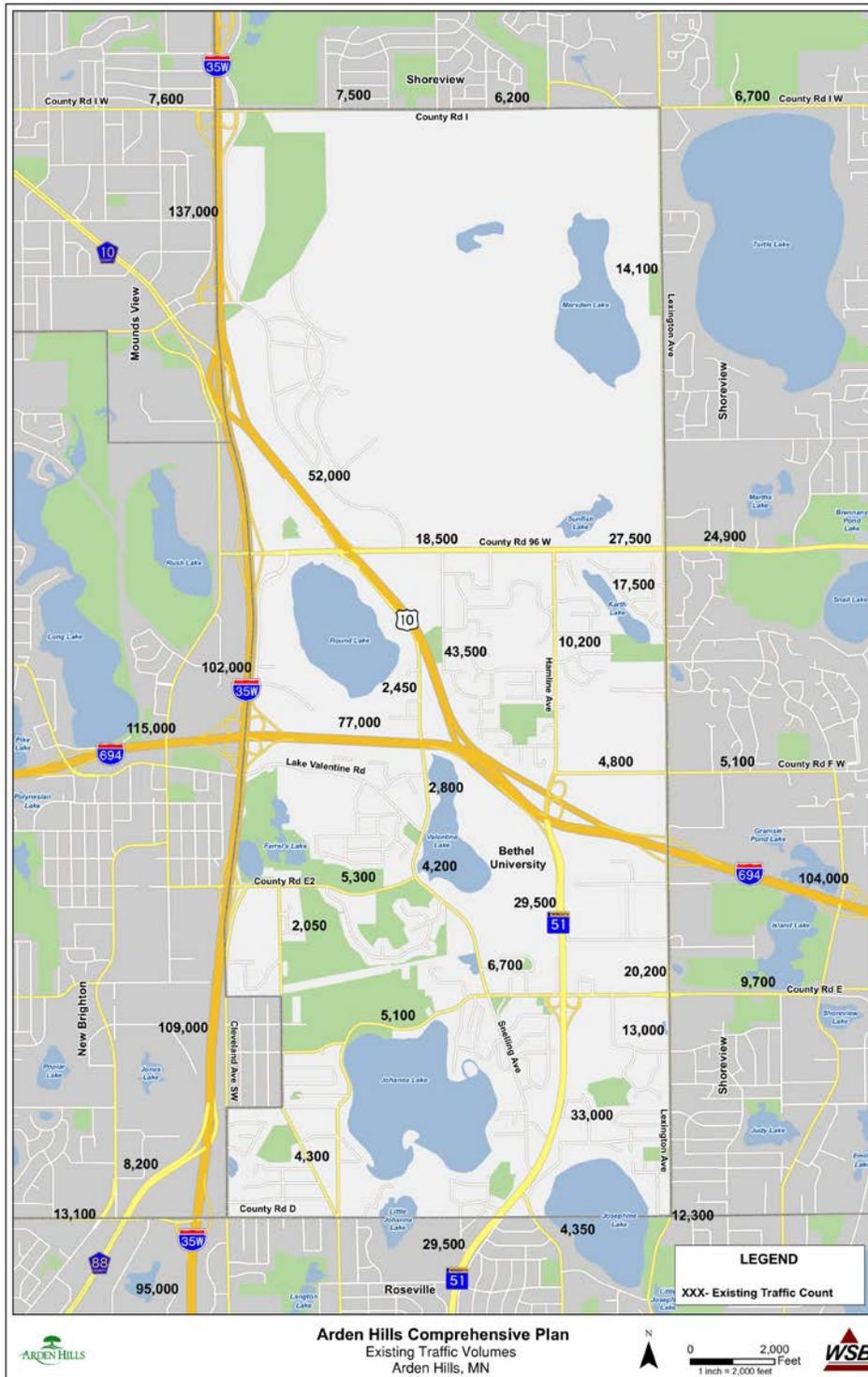


Figure 11.2 – Existing Traffic Volumes



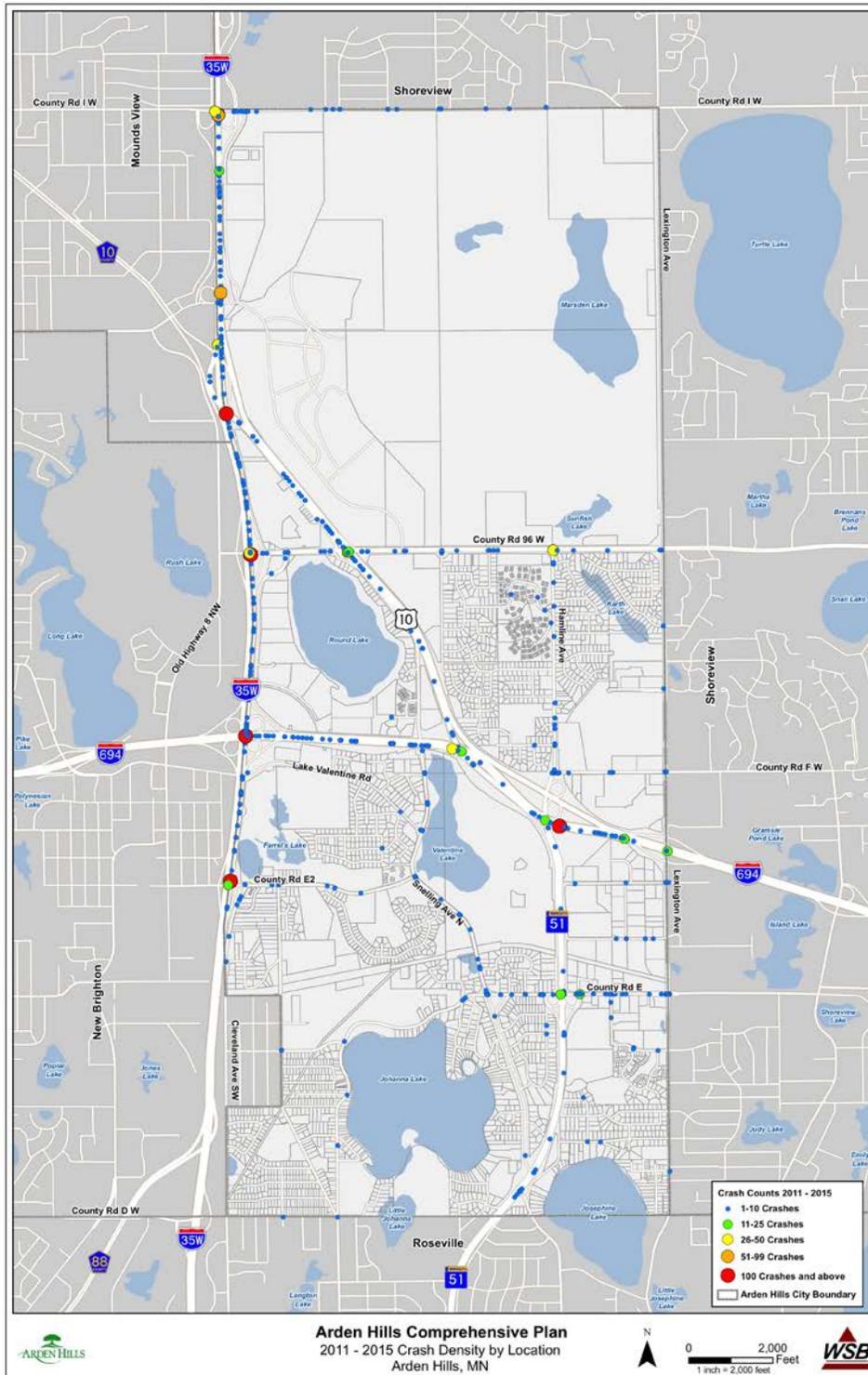
11.2.2 Safety

A planning-level analysis of the existing transportation system in Arden Hills was completed and included evaluating crash records for crash trends, the types of crashes most commonly occurring, and where crash trends may exist. In the five-year time period from January 1, 2011, through December 31, 2015, there were 2,340 crashes on the roadways within or adjacent to the City of Arden Hills. The locations with high crash rates are primarily on the county and state highway intersections (Figure 11.3). Locations with the highest crash frequency are on I-694 with TH 51, and I-694 with I-35W. Additionally, there are high crash rates along I-35W and I-694 at every interchange location.

Other locations off the freeway with high crash frequency are the intersections of TH 10/Old Highway 10 with CSAH 96, TH 51 with County Road E, CSAH 96 with Hamline Avenue, and Hamline Avenue with CR F.

Of the 2,340 crashes, there were 4 fatalities, 113 included injuries, 353 had possible injuries, and 1,870 involved property damage only. Rear end crashes represented 52 percent of the crashes, and 5 percent were right angle crashes. Half of the total crashes occurred at intersections.

Figure 11.3 – 2011-2015 Crash Density by Location



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11.2.3 Jurisdictional Issues

There are no planned jurisdictional transfers planned between Arden Hills and Ramsey County. The City desires active participation in any jurisdictional discussion.

11.2.4 Relevant Transportation Studies

A number of studies have been completed or are in the process of being completed to provide direction relative to the development of the City of Arden Hills' transportation system.

Twin Cities Army Ammunition Plant (TCAAP) Alternative Urban Areawide Review:

An Alternative Urban Areawide Review (AUAR) and Mitigation Plan was approved for the TCAAP site in 2014, including "Minimum" and "Maximum" development scenarios. A separate traffic study was conducted as part of the preparation of the AUAR. This included a more comprehensive summary of the analysis results than what was provided in the AUAR. To determine the impacts on the local roadway network, a traffic operations analysis was conducted for intersections within the vicinity of the TCAAP site for various development scenarios, and mitigation measures were identified based on the results.

In addition to Existing and 2030 No Build Scenarios, the future development scenarios for TCAAP included a Year 2030 Minimum Development Scenario and a Year 2030 Maximum Development Scenario. The minimum development scenario was based on the City's existing zoning requirements for the site, which provided a constrained analysis. A Maximum Development Scenario for 2030 was also analyzed to evaluate a land use mix that maximized the acceptable use of available and potential infrastructure, seeking a balance of financial feasibility, while maintaining community livability and sustainability.

Due to increases in background traffic and the proposed TCAAP redevelopment, transportation network changes are anticipated to occur in the future. Several long-term improvements are being implemented in and around the project study area. Improvements at the Interstate 35W interchanges with Highway 96, County Road H, and County Road I have been constructed. In addition, Old Hwy 8 and the "Spine Road" will provide regional connections through the TCAAP site and to the regional roadways. These improvements will influence trip distribution for the TCAAP redevelopment project.

I-35W North Reconstruction Project:

Several transportation studies have been completed over the past decade evaluating improvements to the I-35W North corridor to address safety, mobility, and pavement condition. Studies include the I-35 Corridor Management Plan, the MnPASS System Studies Phase 1 and Phase 2, and the Metropolitan Highway System Investment Study. Most recently, the 2013 I-35W North Managed Lanes Study recommended construction of an additional lane on I-35W from Roseville to Blaine.

Based on these study recommendations, the Minnesota Department of Transportation (MnDOT) has identified a major reconstruction project for I-35W between County Road C in Roseville north to Sunset Avenue in Blaine/Lino Lakes. The project is anticipated to begin in late 2018, and is expected to last three to four years. The project includes roadway rehabilitation, the addition of a managed lane (MnPASS), auxiliary lane extensions at various locations, and noise walls.

US Highway 10 Auxiliary Lane Project:

To address safety issues and improve mobility and access along eastbound US Highway 10, MnDOT is planning to construct an auxiliary third lane on eastbound US Highway 10 between I-35W and CSAH 96 and a second lane to the ramp from southbound I-35W to eastbound US Highway 10. In addition, the project will straighten and realign Prior Avenue to connect the intersection at a right angle to US Highway 10 at Arden Manor and build a new right turn only exit to eastbound US Highway 10 from Arden Manor/Big Ten Tavern. Construction is expected to begin in late 2018 be completed in 2019.

County Road F Improvements:

Ramsey County is planning a construction project in 2018 on County Road F between Lexington Avenue and Hamline Avenue to install a center turn lane, add intersection improvements at County Road F and Innovation Way including a traffic signal and turn lanes, and complete the ten-foot wide trail along the south side of the road. This project is expected to improve safety and mobility.

Lexington Avenue Improvements:

Ramsey County is planning a construction project in 2020 on Lexington Avenue between County Road E and Interstate 694. This project is expected to include the reconstruction of the roadway and the inclusion of traffic control improvements.

11.2.5 Multimodal Transportation Opportunities

It is recognized that various methods of travel impact the economic vitality of a city, county, or broader region. In addition to the traditional road system, multimodal transportation includes transit, aviation, railway, and paths.

Transit Service

The City of Arden Hills is located within Transit Market Areas III and IV in the Transit Capital Levy District as shown in the Metropolitan Council's 2040 Transportation Policy Plan. Market Area III supports transit services primarily comprised of commuter express bus service. Market Area IV can support peak period express bus services if there is a sufficient concentration of commuters likely to use transit service located along a corridor. General public dial-a-ride services are available where fixed-route service is not viable. Service characteristics include peak-period express buses, one-to-two hour midday frequencies, dial-a-ride advance registration, service spans of 10-14 hours per day on weekdays and limited weekends, and access primarily tied to park-and-ride lots and hubs.

The closest Park and Ride facilities are located at I-35W and County Road H, Highway 10 and County Road H in Mounds View, I-35W and County Road C in Roseville, and at the Shoreview Community Center on County Road 96. The near Transit Center to Arden Hills is located at the Rosedale Center in Roseville, and is served by the A Line bus rapid transit (BRT) high-frequency bus route. Bus-only shoulders exist along I-35W and along US Highway 10 between I-35W and I-694.

Figure 11.4 – Existing and Planned Transit Routes and Passenger Facilities displays the current services available, including route and park and ride locations in and around the City of Arden Hills. Regular route service in the City as currently provided is described below:

- Routes 225 and 227 are local bus routes operated by Metro Transit. These route provides connectivity to the Rosedale Transit Center in the City of Roseville, and serves Shoreview, Arden Hills, and Roseville. Major destinations for Route 225 include Land O'Lakes, Deluxe, Super Target, Cub Foods, Roseville Medical and Dental Center, and Rosedale Center. Route 227 also serves the Roseville Skating Center. Schedules vary from 30 to 60 minutes between trips during rush hour, and hourly midday and weekend service.

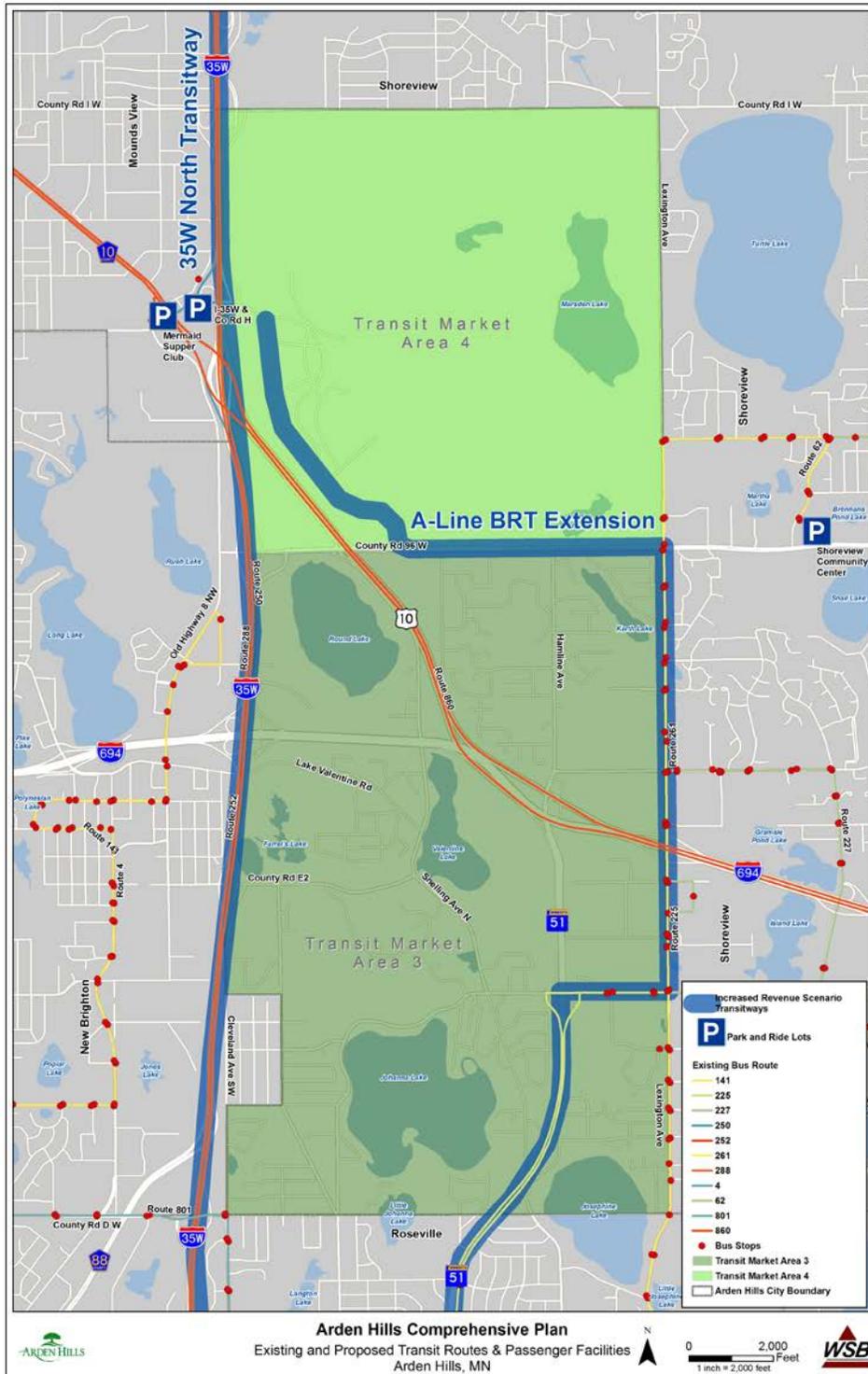
- Route 250 is an express bus route operated by Metro Transit. The route provides connectivity to downtown Minneapolis from Lino Lakes, Circle Pines, Lexington, Blaine, Shoreview, and Mounds View, primarily along I-35W, I-694, and I-94. Arden Hills' residents can access the route from the park and ride lot in Mounds View along County Road H, just west of I-35W. Schedules with stops at the park and ride lot vary from five to fifteen minutes between trips during the peak hours. Two midday trips are also provided.
- Route 261 is an express route to downtown Minneapolis operated by Metro Transit. The route provides connectivity between Shoreview, Roseville, and Minneapolis, along with Arden Hills along Lexington Avenue. There are five-six total peak hour trips during weekdays only.
- Route 801 is a local bus route operated by Metro Transit. This route provides service between the Brooklyn Center Transit Center and the Rosedale Center. There is a bus stop that serves the southwestern corner of Arden Hills at County Road D and Cleveland Avenue. Hourly weekday service is provided.
- Route 860 is an express bus route operated by Metro Transit. This route provides connectivity to downtown St. Paul from Coon Rapids, Blaine, and Mounds View. Arden Hills' residents can access the route from the park and ride lot in Mounds View along County Road H and Highway 10, just west of I-35W. Schedules vary from 15 to 20 minutes between trips during the peak hours. It has seven trips each peak hour during the weekdays only.

Local ADA service is provided by Metro Mobility. Metro Mobility is a shared public transportation service for certified riders who are unable to use regular fixed-route buses due to a disability or health condition. Rides are provided with ADA-equipped vans, and need to be scheduled ahead of time.

General public dial-a-ride service is provided by Transit Link, a small bus service for the general public where regular route transit service is not available. Transit Link is for trips that can't be accomplished on fixed route bus service alone, and may combine regular route and Transit Link service. Both Metro Mobility and Transit Link are services provided by the Metropolitan Council serving the seven-county region.

Arden Hills 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.

Figure 11.4 – Existing and Proposed Transit Routes and Passenger Facilities



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Aviation Plans/Facilities

There are no existing or planned aviation facilities within Arden Hills, but the Anoka County/Blaine Airport is located approximately 1.5 miles northwest of the City of Arden Hills, west of I-35W and north of TH 10.

Railway

There is one railway line within the City of Arden Hills. The rail line is active and operated by the Canadian Pacific Rail System (CPR) with an average of four trains per day using the line. It runs east-west through the southern portion of Arden Hills, north of County Road E with a speed threshold of 40 mph. The line includes a spur into the Red Fox/Grey Fox business area.

Minnesota Commercial Railway (MNNR) operates a north-south railway line in New Brighton west of I-35W. One MNRR rail spur provides service to the Scherer Brothers Lumber Yard and ends west of Highway 10 in Arden Hills. The rail spur previously accessed the Twin Cities Army Ammunition Plant (TCAAP) site, but has since been abandoned at Highway 10 to the east. A second rail spur that accessed the Gateway Business District has also been removed and abandoned.

Ramsey County has Regional Rail Authority, which reviews, recommends, proposes, and buys abandoned rail lines for future transportation purposes. It has identified a transitway corridor through the northeast metropolitan area. The Northeast Diagonal transitway corridor follows the partially abandoned and existing Burlington Northern Santa Fe railroad tracks from northeast Minneapolis through St. Anthony, Roseville, Shoreview, Little Canada, Vadnais Heights, Gem Lake, White Bear Township, and ending in White Bear Lake. The potential route does not directly impact Arden Hills.

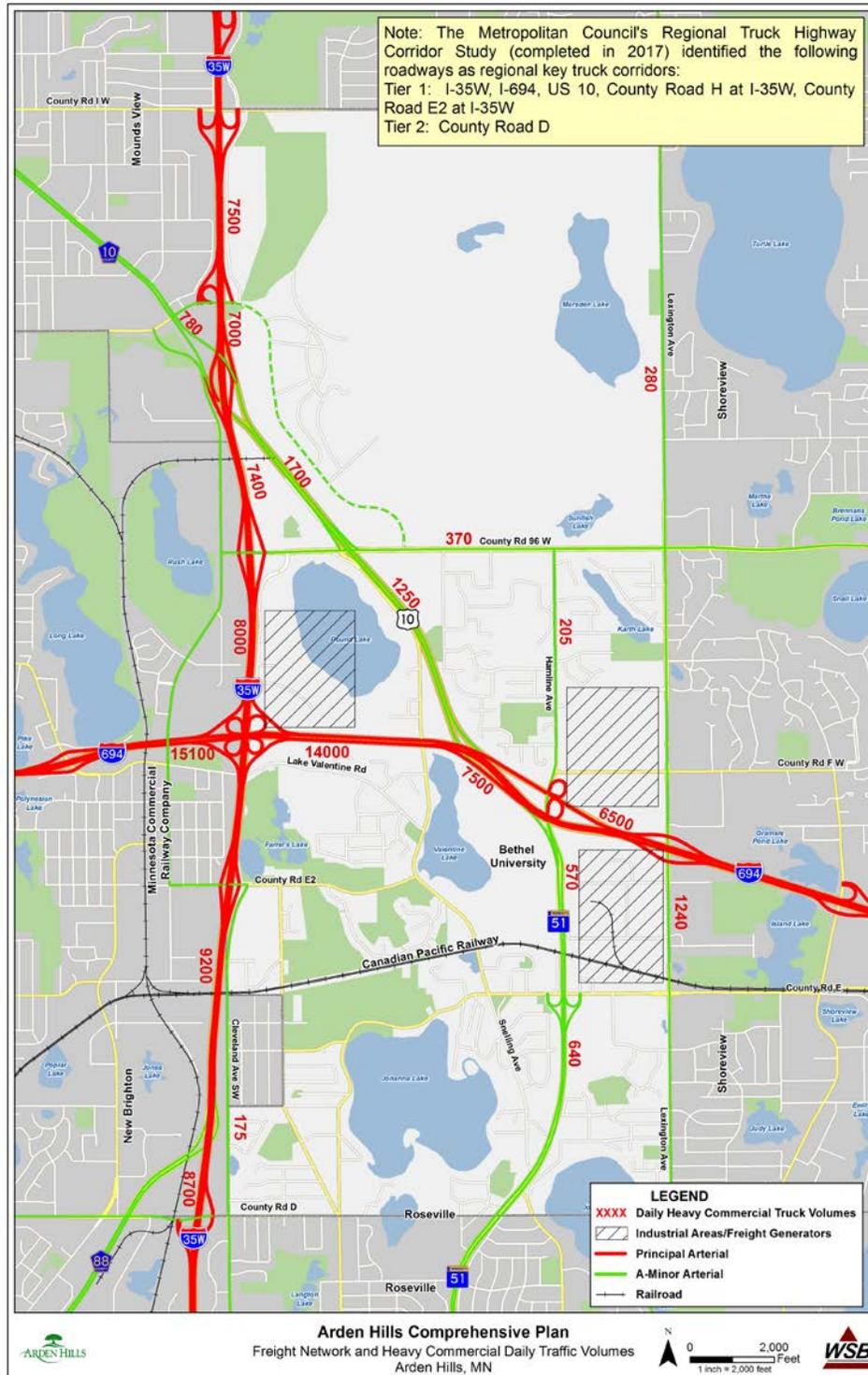
Truck Freight

Truck freight transportation in Arden Hills is served by the arterial highways, I-35W, I-694 and US 10. Figure 11.5 shows the City's freight system. There are no large freight traffic generators within the City as identified by the Metropolitan Council. Freight generators within the City include a concentration of light industrial, office, and commercial land uses east of TH 51/Snelling Avenue and along the I-35W corridor.

The Metropolitan Council's Regional Truck Highway Corridor Study (completed in 2017) identified I-35W, I-694, and US 10 as Tier 1 regional key truck corridors. County Road D (between I-35W and Fairview Avenue) was identified as a Tier 2 regional key truck corridor, and TH 51/Snelling Avenue (south of I-694) was identified as a Tier 3 regional key truck corridor. In addition, nearby Old Highway 8, County Road E2 west of I-35W, and County Road H west of I-35W were defined as regional key truck corridors. As defined in the Regional Truck Highway Corridor Study, the interstate system serves as the freight backbone, and other tiered roadways provide redundancy to the interstate system, as well as provide door-to-door access to manufacturing facilities, distribution centers, intermodal freight hubs, and ultimately, retailers and customers.

Figure 11.5 shows Heavy Commercial Average Annual Daily Traffic (HCAADT) within Arden Hills on the Principal Arterial and "A" Minor Arterial system. Within the City, the largest amount of heavy commercial vehicles travel on I-694 and I-35W (14,000 and 7,000-9,000 trucks per day, respectively).

Figure 11.5 – Freight and HCAADT



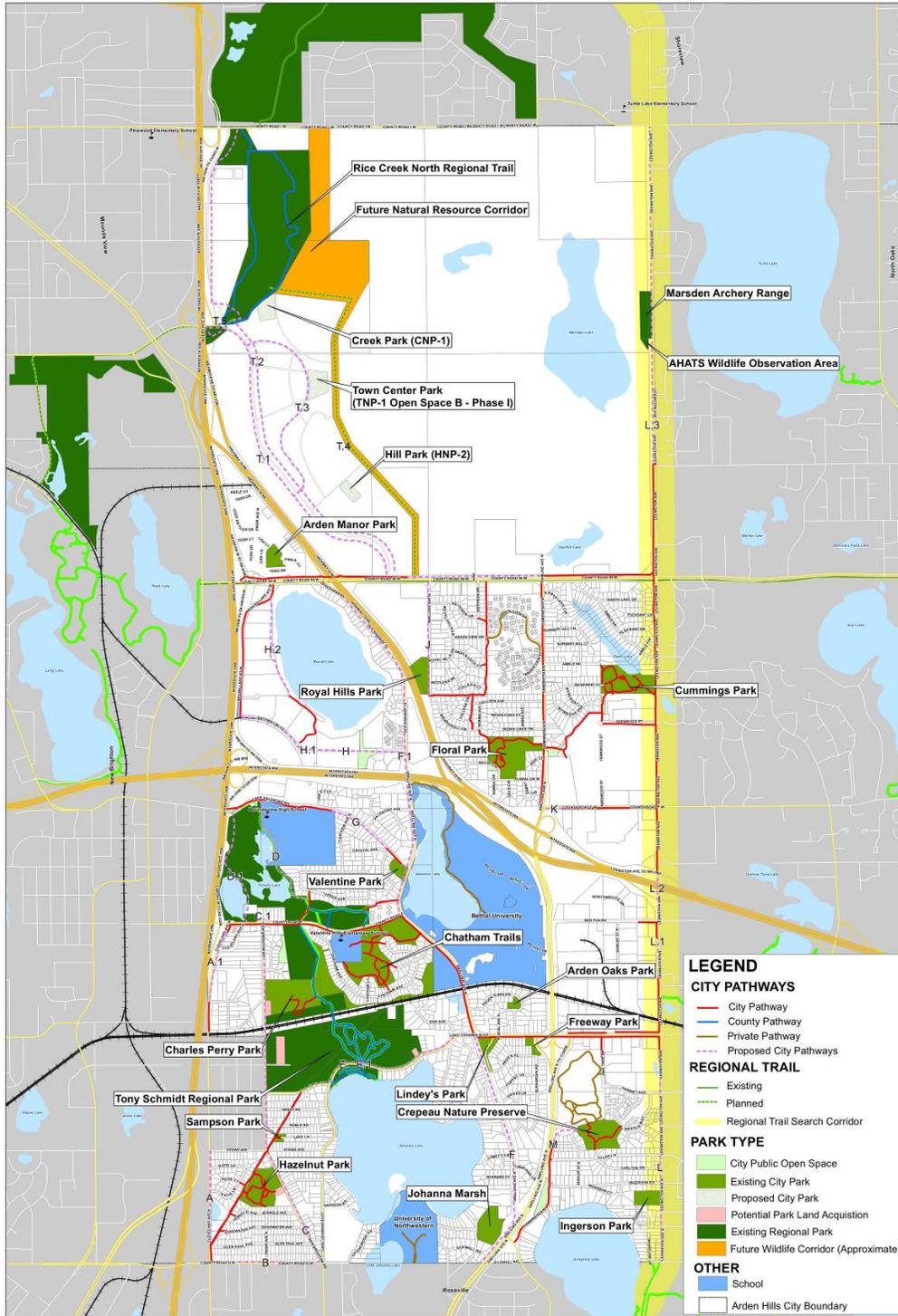
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Pathways

The City includes a number of pedestrian and bike pathways that are an integral part to the City’s transportation system as shown in Figure 11.6. While paths are popular for recreational purposes, there is also a growing demand for utilitarian pathways that connect residential areas to destinations such as commercial areas, offices, parks, and other popular places. Providing multiple destinations on a pathway system can increase use, promote physical activity, and reduce motorized travel in suburban communities. The existing system is more fully described in Chapter 9.

Active Living Ramsey Communities (ALRC) is an initiative designed to encourage and support active living by bringing about and sustaining changes in public and private design, transportation and policies. ALRC encourages healthy lifestyles by bringing people and resources together to build active, bikeable and walkable communities. In 2015, ALRC completed the Ramsey County-Wide Pedestrian and Bicycle Plan. The plan provides a framework for development of a connected Ramsey County where walking and biking are regular everyday parts of people's lives. This plan provides a set of tools, analysis and actions to engage Arden Hills and community members at all levels in supporting a place where people of all ages and abilities can safely and comfortably walk and bicycle. The City will utilize this resource in the further development of its pathway network.

Figure 11.6 – Bicycle and Pedestrian Facilities



Arden Hills Comprehensive Plan
Bicycle and Pedestrian Facilities
Arden Hills, MN



11.3 FUTURE TRANSPORTATION SYSTEM PLAN

Except for the future roads on the TCAAP property, the transportation system within Arden Hills is generally considered developed, and improvements are anticipated as reconstruction of aging infrastructure is pursued. As reconstruction occurs, it will be important for the City to improve the roadway system and non-motorized travel opportunities consistent with the recommended Transportation System Principles and Standards in this Chapter and the pathways recommendations in Chapter 9 to the extent possible.

11.3.1 Forecasted Traffic Volumes & Capacity Needs

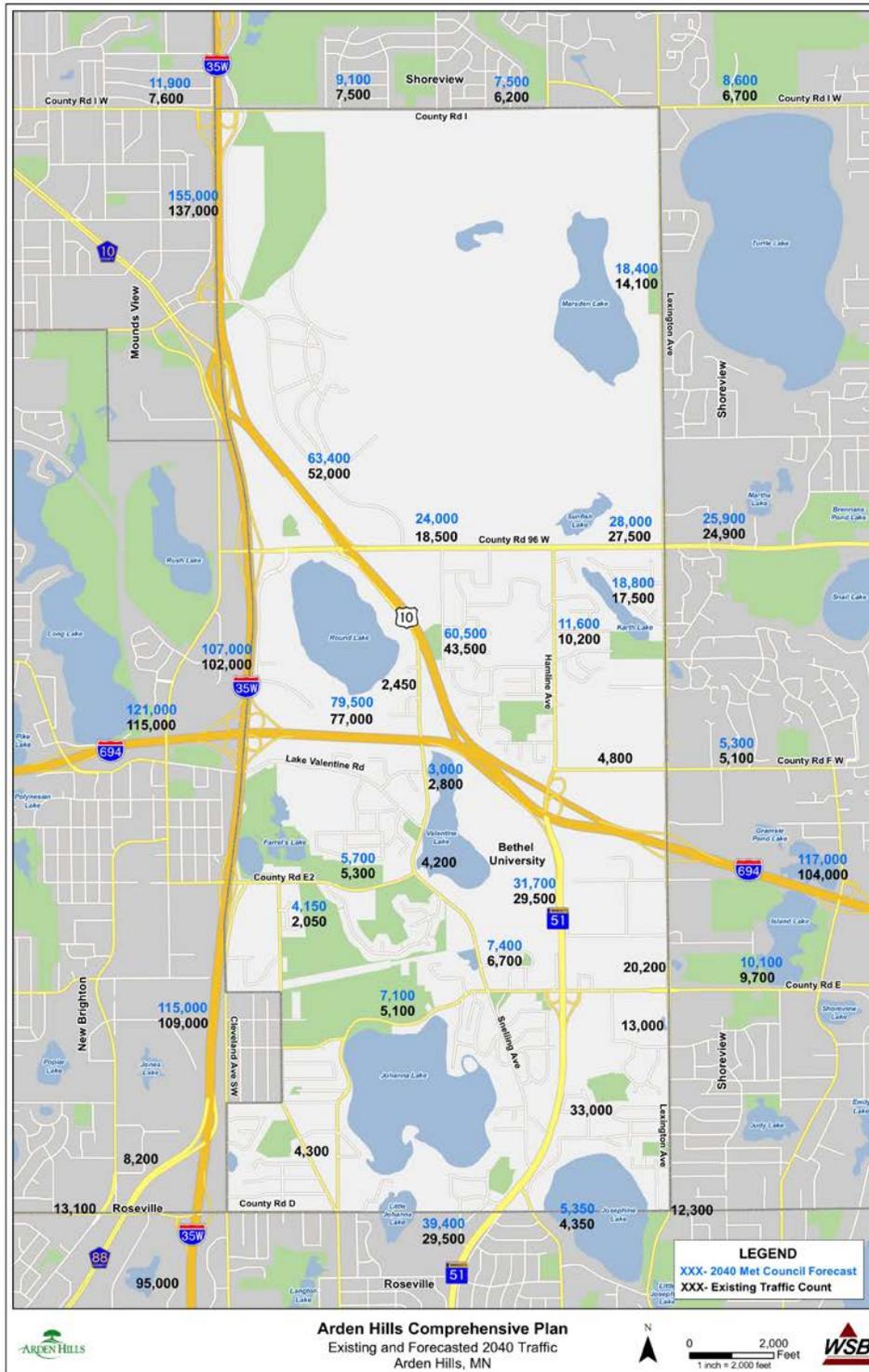
In the City of Arden Hills, the major roadways carrying traffic are county and state roadways, ranging from arterials to collectors. The City roadways are primarily local city streets that only carry local traffic. Generally, the roadways in Arden Hills serve areas that are fully developed, and the land use patterns in Arden Hills are not expected to significantly change, except on the TCAAP property. However, an increase in traffic on these corridors is expected due to the future growth in the northern part of the City and the future growth in adjacent communities. The existing pattern of rights-of-way and development setbacks present challenges for significantly improving the existing level of service on some roadways through roadway capacity improvements.

The forecasted 2040 average annual daily traffic volumes are illustrated in Figure 11.7 – Existing and Forecasted 2040 Traffic Volumes and also in Appendix C.

I-35W and I-694 are expected to continue experiencing congestion based on the forecasted Metropolitan Council 2040 travel demands. Recent and programmed improvements on these roadways will ease but not alleviate congestion levels over the 20-year planning horizon due to regional population growth.

The recently completed reconstruction of the Interstate 35W interchanges at County Road 96, County Road I, and County Road H are critical to support development intensities on TCAAP. In addition, the planned I-35W North reconstruction project (which includes adding managed lanes) and I-694 expansion (underway) from Lexington Avenue to I-35E will provide additional capacity to support TCAAP development.

Figure 11.7 – Existing and Forecasted 2040 Traffic Volumes



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11.3.2 Roadway Safety & Mobility Needs

Many of the roadways within and adjacent to the City of Arden Hills are in need of capacity improvements by 2040 due to the anticipated growth throughout the area. This is due not only to growth within the City of Arden Hills but also growth within adjacent cities and other cities along the freeway and highway corridors. With this increase in development and increase in traffic, an increase in congestion is expected for most roadways throughout Arden Hills. Improvements are recommended for Hamline Avenue, Lexington Avenue, Old Highway 10, and the interstate freeways. The expansion and reconstruction of I-694 will improve operations, especially from I-35W to TH 10, even with the increased traffic expected by 2040. The other areas of I-694 will likely be congested as much as they are today by 2040. Since the primary roadways providing significant mobility within the City of Arden Hills are county and state roadways, the City will need to coordinate with the State and County on roadway improvements.

Collector roadways carrying greater than 1,500 vehicles per day have volumes that tend to create potential conflicts between vehicles, bicycles, and pedestrians. The City, in cooperation with Ramsey County, will need to monitor pedestrian and bicycle issues, crashes, near misses, and complaints, and prioritize roadway improvements with pavement rehabilitation needs. Strategies to improve safety and mobility will be considered, including the consideration of adding pedestrian facilities at intersections, non-motorized facilities both along and separate from roadways, additional roadway width for wider lanes or shoulders, or when possible, turn lanes to City collector roadways intersecting with County roadways. To accommodate necessary turn lanes or roadway widening, additional right-of-way may be required at the intersection. As reconstruction of aging infrastructure is pursued on City collector streets the recommended geometric design standards will assist in improving safety and mobility (Appendix B).

Additionally, as traffic volumes approaching an intersection increase, an intersection control evaluation may be necessary. Triggers for an evaluation may include an increase in correctable crashes or an unacceptable traffic back up. Higher volume roadways that could show traffic signal benefits are under the jurisdiction of the County. As the jurisdictional authority, the County would make decisions on appropriate traffic control. The intersection control evaluation would identify the traffic control option (e.g. all way stop, roundabout, possible signalization) and capacity improvements (e.g. turn lanes) necessary to accommodate the traffic volumes in a safe and efficient manner. Future reconstruction may require modifications of existing access to include strategies such as access consolidation, right-in, right-out access only, or the development

of a frontage road to improve the safety and mobility of the corridor. Additional right-of-way should be acquired for future improvements as properties in the area develop or redevelop.

The high crash locations along I-694 at I-35W, TH 10, and TH 51 should be partially rectified by recent and proposed improvements on I-35W and I-694 through the area. Further improvements should be studied with the Minnesota Department of Transportation and Ramsey County at the problem intersections.

11.3.3 Functional Classification Needs

Due to the developed nature of the City of Arden Hills, together with the community's pattern of water features and freeway facilities, there are minimal opportunities to expand the local roadway system in the developed areas of the City and develop additional continuous routes through the City.

Two roadways, the Spine Road and Old Hwy 8, are proposed to provide access to the TCAAP redevelopment area as detailed below.

As redevelopment occurs on the TCAAP property, the internal roadway system will be expanded to serve this area of the City. The internal roadway system for TCAAP will consist of a north/south A-Minor Expander arterial (referred to as the Spine Road) in addition to a network of local streets. The Spine Road will be consistent with County State Aid Standards (CSAH) for intersection spacing which is 1/4 mile minimum spacing for full access intersections and 1/8 minimum spacing for right-in/right-out accesses. The minor streets will primarily provide access to residences and private businesses. These local roads will be constructed on the property as future development occurs.

Old Hwy 8 is identified as Major Collector roadway that provides access through the TCAAP property between County Road H and County Road I (CSAH 3). Old Hwy 8 outside of the TCAAP site is approximately 2,000 feet long extending from County Road I to the north TCAAP property line. Old Hwy 8 will be under the jurisdiction of Ramsey County and is also expected to be part of the County State Aid Highway system (CSAH 13). The proposed typical section consists of a single travel lane in each direction with a center median or left turn lane. The intersection control at County Road I is a single lane roundabout.

Other roadway continuity improvements in Arden Hills are not anticipated. The City will review redevelopment plans with the option to consider opportunities to improve continuity or improve/consolidate accesses.

The City of Arden Hills does not support an additional road connection over Interstate 35W between Interstate 694 and CSAH 96 due to the likely traffic impact on Round Lake Road.

11.3.4 Multimodal Transportation Opportunities

It is important for the community to plan for the ability to accommodate multimodal activities (i.e. transit, pedestrian, and bicycle) on non-local roadways to provide other opportunities to move about the City and beyond.

Transit Service

While significant changes to existing transit opportunities in Arden Hills are not planned by the Metropolitan Council, the City recognizes the growing need for transit services in Arden Hills, and the City supports exploring additional transit options. With increasing fuel costs, worsening congestion, and an aging population, the demand for transit will increase.

The City will continue to be supportive of the park-and-ride lots used by Arden Hills' residents, such as the lots on County Road H in Mounds View and at Rosedale in Roseville. The City will evaluate the need for future park-n-ride opportunities along with redevelopment proposals where feasible.

The City supports efforts to add or expand transit options to Northwestern College, Bethel University, Mounds View High School, and employers, such as Boston Scientific, Land O' Lakes, and the businesses along Round Lake Road and Gateway Boulevard. As the City's population ages, the City will continue to work with Metro Transit and senior community services to ensure needs are being met. Para-transit, which is provided by Metro Mobility, is also an important resource for members of the community, particularly the disabled and seniors.

The Metropolitan Council 2040 Transportation Policy Plan does not show any transitway investments planned within Arden Hills under the current revenue scenario. Under the increased revenue scenario, two corridors within Arden Hills are identified: A Line BRT Extension and I-35W North Transitway. These two corridors are discussed below and are shown in Figure 11.4.

A Line BRT Extension

Ramsey County plans to redevelop the TCAAP site into a net-zero energy, mixed-use, high-density transit oriented development with the A Line connecting the site to the region’s high frequency transit network. In 2016, Metro Transit evaluated the feasibility of extending the A Line BRT route from Rosedale Center to TCAAP. As part of the study, a recommended alignment for the A Line extension was defined using Snelling Avenue, County Road E, Lexington Avenue, County Road 96, and the Spine Road at TCAAP (see Figure 11.8). The study identified that resources are currently not available and ridership is unlikely support an immediate A Line extension. However, the City, Ramsey County, private developers, and Metro Transit can plan for and implement transit oriented development and other transit ready infrastructure to support the A Line BRT extension to TCAAP. Study recommendations include:

- Include transit ready infrastructure and amenities in road reconstruction plans
- Continued development of pedestrian friendly street designs
- Evaluate using existing resources to provide more transit service
- Construct needed bus system infrastructure for service growth
- Plan for changes in density and land use patterns through comprehensive plan updates

Figure 11.8 – A Line Extension Map - Draft Preferred Alignment



Source: Metro Transit. A Line Corridor Extension Evaluation, Rosedale Center to Rice Creek Commons, September 2016.

35W North Transitway

The 35W North corridor links downtown Minneapolis with communities along I-35W north of downtown to Forest Lake. The corridor was studied through a feasibility study led by MnDOT in 2013. The study focused primarily on the highway managed-lane vision but included an analysis of BRT potential coordinated with that vision. The managed lane will be constructed as part of the major I-35W reconstruction project between Highway 36 and Sunset Avenue in Blaine starting in 2018. Additional study is needed to explore BRT implementation and transitway extension north of Blaine.

Aviation Plans/Facilities

Although there are not any aviation facilities within Arden Hills, standards for airspace protection are required to maintain a clear path for helicopters and for aviation related facilities.

Federal Regulation Title 14, Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for evaluating the effect of the construction or alteration on operating procedures, determining the potential hazardous effect of the proposed construction on air navigation, identifying mitigation measures to enhance safe air navigation, and charting of new objects. Notification allows the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance, thus preventing or minimizing the adverse impacts to the safe and efficient use of navigable airspace.

Title 14, Part 77.13 requires any person/organization who intends to sponsor any of the following construction or alterations to notify the Administrator of the FAA when:

- Any construction or alteration exceeding 200 feet above ground level;
- Any construction or alteration:
 - Within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet
 - Within 10,000 feet of a public use or military airport which exceeds 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet
 - Within 5,000 feet of a public use heliport which exceeds a 25:1 surface;
- Any highway, railroad or other traverse way whose prescribed adjusted height would exceed that above noted standards;

- When requested by FAA; and;
- Any construction or alteration located on a public use airport or heliport regardless of height or location.

Persons or organizations intending to sponsor construction or alterations require notification to the FAA under Title 14, Part 77.13 using FAA form 7460–1 and associated amendments. Any structure meeting the requirements in Title 14, Part 77.13 must receive permission from the Minnesota Department of Transportation (MnDOT) and the Federal Aviation Administration (FAA). Structures will be compatible with the Anoka County/Blaine Airport Long Term Comprehensive Plan.

Freight

The Metropolitan Council 2040 Transportation Policy Plan acknowledges several freight challenges that impact the City and the region. Freight traffic and congestion are expected to increase and place pressure on the region’s highway and rail systems. Additionally, there are concerns about compatibility between freight traffic and adjacent land use. While the City’s light industrial areas are located adjacent to primary freight corridors (I-35W, I-694, and US 10), it will be important to ensure that future development is also compatible with freight operations.

Pathways

A more detailed plan for expanding the City’s non-motorized pathway system is discussed in Chapter 9. Non-motorized pathways are an integral part of the City’s transportation system. The improvements and expansions in Chapter 9 work to ensure a sound transportation system within Arden Hills.

Pursuing pathway projects in combination with road reconstruction projects is a primary method for implementing pathway expansion and improvement recommendations in Chapter 9. For each of the County highways within Arden Hills, roadway shoulders, in addition to pathways, are recommended on both sides of the roadway to accommodate pedestrian, bicycle, and other non-motorized travel where feasible.

The City will also review pedestrian facilities and school routings to determine their adequacy as traffic conditions change. Shoulders and paths should be integrated with the roadway system to provide routes for non-motorized traffic to access existing and future controlled intersections where feasible. Non-motorized facilities are to be incorporated into road projects and land

redevelopments to safely accommodate pedestrians and bicycles with vehicle traffic in the City, as the City grows.

In conjunction with Ramsey County and MnDOT, grade separated crossings of major roads and railroads is one of the more important actions the City can take to improve the path network, increase safety, enhance access to parks, encourage increased physical activity, and help tie the community together. Recent interchange and road reconstruction projects have included pathway facilities to allow or enhance the crossing of major highway barriers like I-35W and US 10. Additional opportunities to improve connections for pedestrians and bicyclists across major physical barriers is provided in Chapter 9.

Regional Bicycle Transportation Network (RBTN)

The Metropolitan Council established a Regional Bicycle Transportation Network (RBTN) in 2015. The RBTN establishes regional priorities for bicycle transportation so that regional destinations are accessible by bicycle.

The Metropolitan Council established RBTN alignments in areas where existing facilities created a clear connection between regional destinations. RBTN corridors were identified in areas where there are several options for connections between regional destinations. The RBTN is further divided into two tiers. Tier 1 alignments/corridors are expected to attract the most bicycle use and are the highest priority for regional investments. Tier 2 alignments/corridors are the second priority for regional investments.

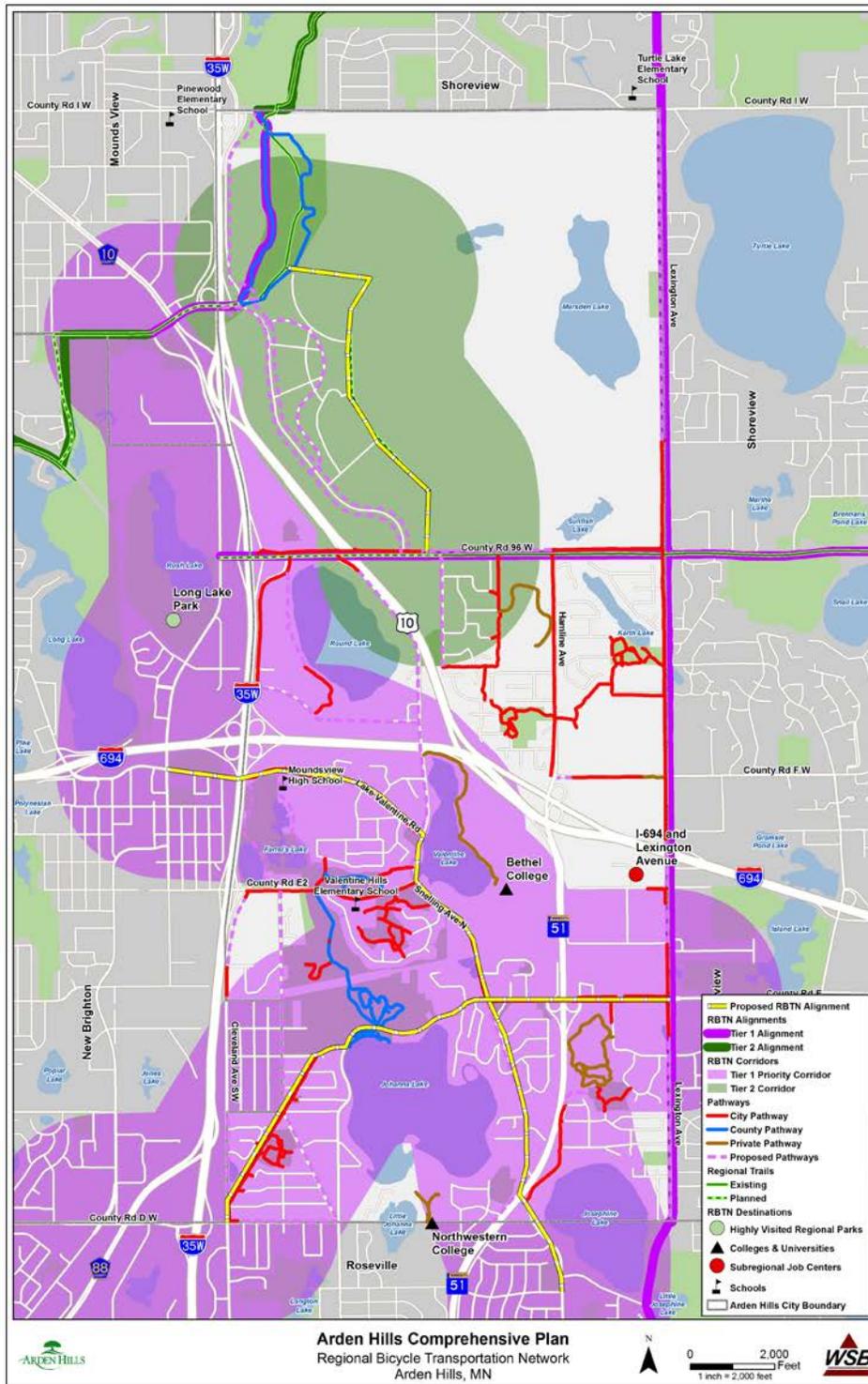
Within Arden Hills, the RBTN identifies three Tier 1 RBTN alignments. These alignments follow Lexington Avenue, Highway 96, and the western segment of the Rice Creek North Regional Trail between County Road H to County Road I.

In addition, two Tier 1 RBTN corridors and one Tier 2 RBTN corridor were identified. The first Tier 1 corridor runs east-west along the southern part of the city, generally following the Elmer L. Andersen Memorial Trail, Lake Johana Boulevard, and County Road D. The second Tier 1 corridor runs north-south, generally following Old Snelling Avenue and Lake Valentine Road to connect to the Rice Creek North Regional Trail in Mounds View. The Tier 2 corridor generally follows the planned Rice Creek North Regional Trail between Highway 96 and the existing regional trail segment. With these corridors, existing land use patterns and major roadway barriers limit other opportunities for an efficient and successful bikeway route.

Through the comprehensive planning update process, Metropolitan Council has requested communities to recommend specific alignments for planned bikeway connections that meet the intent of the RBTN corridors. The City proposes the following alignment for the RBTN corridor identified within the City. These alignments are also shown in Figure 11.9.

- The existing and planned pathways along the Elmer L. Andersen Memorial Trail, Lake Johana Boulevard, and County Road E.
- The existing and planned pathways along Hamline Avenue, Old Snelling Avenue, and Lake Valentine Road connecting to Long Lake Regional Park and Rice Creek Regional Trail in New Brighton.
- The planned Rice Creek North Regional Trail using the dedicated trail corridor between Highway 96 and the existing Rice Creek Regional Trail segment.

Figure 11.9 – Regional Bicycle Transportation Network



11.3.5 Long-term Transportation Planning

It is fundamental to rethink transportation plans and systems through at least 2040 as infrastructure needs and demands will inevitably change. Due to changing demographics and increasing energy costs, the demand for mass transit is likely to increase. While efficient transit requires different growth and development patterns, transit corridors can be developed to compliment and be integrated with a community. Transit corridors may offer growth potential for residential, retail, and business.

While the City does not have a significant influence on the nation's energy infrastructure and it is difficult to predict future energy infrastructure needs, the City will be impacted by outside forces beyond its control. It will be necessary to be flexible when implementing this Comprehensive Plan and other developments in order to be responsive to changing conditions.

11.4 IMPLEMENTATION STRATEGIES

The following below strategies are proposed to help advance the goal of the transportation chapter:

- Utilize the Capital Improvement Plan (CIP) and Pavement Management Program (PMP) to plan for long-term improvements.
- Require right-of-way dedication along County and local roads to meet future capacity needs as redevelopment is proposed.
- Consider the use of flexible street design standards when reconstructing roadways in parts of the City with unique topographical or environmental features.
- Develop standards to increase the safety of pedestrian crossings throughout the City.
- Update the Zoning and Subdivision Ordinances consistent with the Transportation Plan.
- Establish a policy outlining when a traffic impact study should be conducted, including acceptable information to be contained within the study.
- Maintain a Capital Improvement Plan (CIP) that contains elements for reconstruction of the roadway system, with scheduled maintenance included in annual budgets. Street maintenance includes routine patching, crack filling, and storm sewer cleaning. Implement a schedule for roadway maintenance and reconstruction, street widening/realignment, etc.
- Seek to partner and collaborate with Ramsey County, MnDOT, adjacent cities, and other agencies on transportation planning, upgrades, and other issues.

The above strategies should not be considered all-inclusive. New opportunities and strategies should be identified to further advance the City’s transportation goal and policies.

11.5 PROGRAMMED TRANSPORTATION IMPROVEMENTS

The regional transportation system will require continued improvements to satisfy current and future demands, particularly due to planned growth related to the TCAAP development. Table 11.3 lists programmed transportation improvement projects, along with the estimated timing and costs anticipated by the City of Arden Hills as a local partner agency.

Table 11.3 – Programmed Transportation Improvements

Project	Lead Agency	Estimated City Local Match Contribution	Year
County Road F Improvements	Ramsey County	\$600,000	2018
Spine Road Project	Ramsey County	To be Assessed	2019
I-35W North Reconstruction Project	MnDOT	\$0	2019
US Highway 10 Auxiliary Lane Project	MnDOT	\$0	2019
Lexington Avenue Improvements	Ramsey County	\$306,500	2020
Pavement Management Plan	City of Arden Hills	\$2,500,000	Biennial