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CHAPTER 5: TRANSPORTATION

INTRODUCTION

The way in which a community's transportation system and local roadway network connects to other major transportation corridors and services throughout the region is critical to the economic vitality and quality of life not only within the community, but to the region as a whole. The integration of transportation plans and projects, with land use and future development, is key to developing a well-balanced, accessible and sustainable community.

While some roadways within the City of East Bethel currently do experience high levels of congestion over extended periods of time in comparison to other transportation corridors in the region, indicators do suggest that thoughtful planning for the future is becoming more and more necessary to avoid allowing development to occur that could potentially jeopardize the efficient operation of travel within and/or through the community. As an example, motorists traveling to and from the metro area along Trunk Highway 65 (TH 65) for work purposes, as well as weekend recreational travel heading north, experience varying degrees of congestion under current conditions. The City of East Bethel has identified key areas for study and improvement within its local and regional roadway network to ensure safety and mobility into the future.

REGIONAL PERSPECTIVE

The *2040 Transportation Policy Plan (TPP)* is the Metropolitan system plan for highways, transit, and aviation to which local comprehensive plans must conform. This system statement summarizes significant changes to these three systems, as well as other changes made to the Transportation Policy Plan since the last *2030 TPP* was adopted in 2010. The *TPP* incorporates the policy direction and the new 2040 social economic forecasts adopted by the Metropolitan Council in the *Thrive MSP 2040*, and extends the planning horizon from 2030 to 2040.

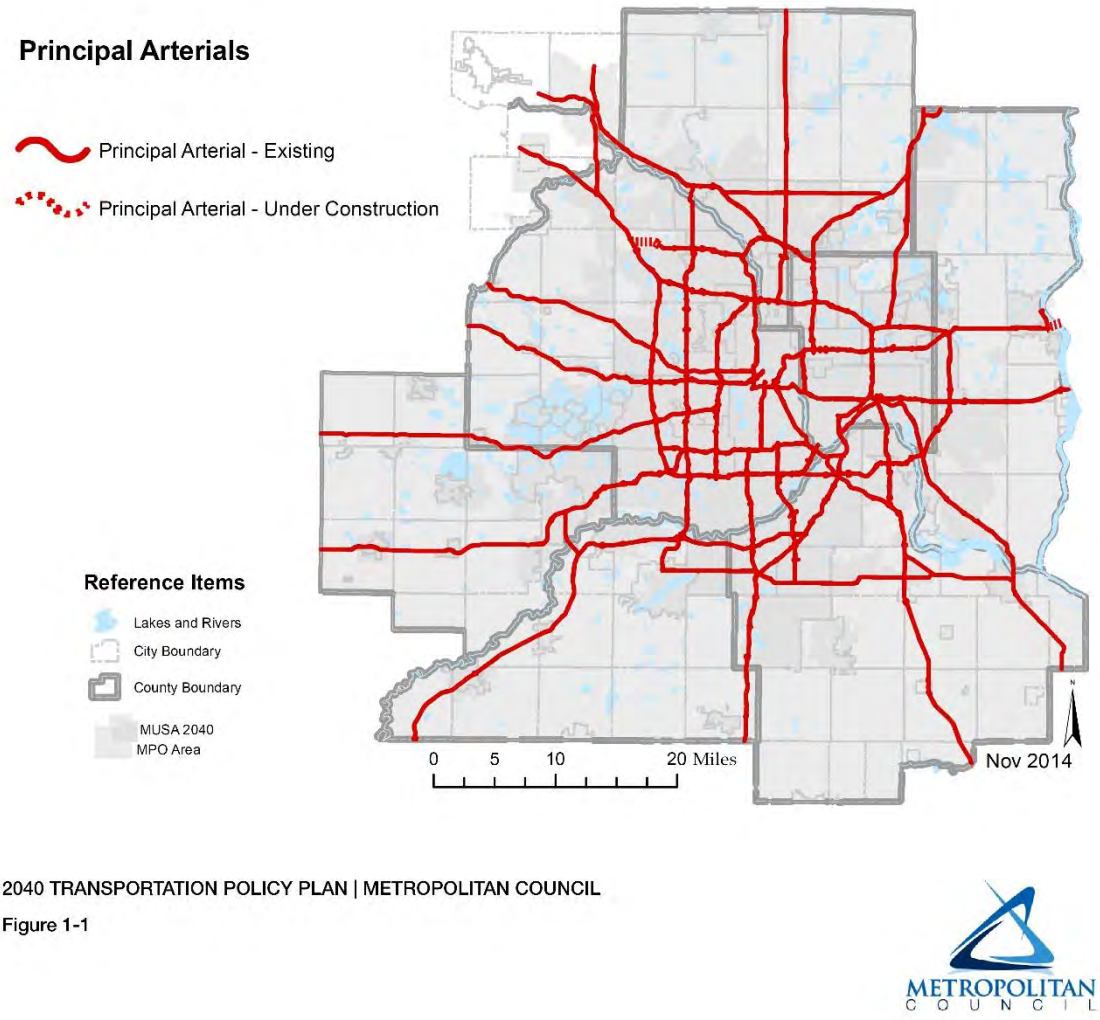
Federal Requirements

The *TPP* must respond to requirements outlined in state statute, as well as federal law, such as some new requirements included in the federal law known as the Moving Ahead for Progress in the 21st Century Act. Federal law requires the long-range plan to identify regionally significant transportation investments expected to be made over the next two decades, and to demonstrate that these planned investments can be afforded under the plan's financial assumptions.

Metropolitan Highway System

The Metropolitan Highway System is made up of principal arterials that are shown in Figure 1. No new highways have been added to this system in the *2040 TPP*.

Figure 1: Principal Arterials



TH 65 in East Bethel is identified as a principal arterial. The *TPP* does not identify any specific regional mobility improvements for TH 65, although maintenance and preservation investments will be made on all highways.

LOCAL TRANSPORTATION PLAN

The intent of this Transportation Plan is to identify the general location and extent of the City of East Bethel's transportation needs for the future as an integral part of its planning and development process – particularly as it relates to the location of existing and future frontage roads and collector streets, based on proposed zoning and existing features including wetlands. Transportation needs involve both the City's roadways as well as recreation trail systems.

The primary purpose of the plan is to foresee, as accurately as possible, the inadequacies of the existing systems and to offer viable solutions or alternatives. Other objectives of the adopted plan are to ensure that the necessary right-of-way, easement, and access controls are provided or obtained along the roadway and trail routes. The plan acts as a guide with respect to the recommended standards and widths to use when programming improvements.

Once the Transportation Plan has been officially adopted by the City Council, it should be updated periodically. As the socioeconomic factors affecting travel change, and as more is learned about the impact of energy supplies on the use of streets, the plan should have a major review or update at least every ten years. The Transportation Plan should also reflect consistency and a coordinated planning effort with the functional classification, design standards, and access spacing guidelines with the Minnesota Department of Transportation (MnDOT) and Anoka County, who have roadway facilities within the City of East Bethel, as well as with the neighboring governmental jurisdictions of Isanti County, St. Francis, Bethel, Oak Grove, Ham Lake, Columbus, Linwood Township, and Athens Township.

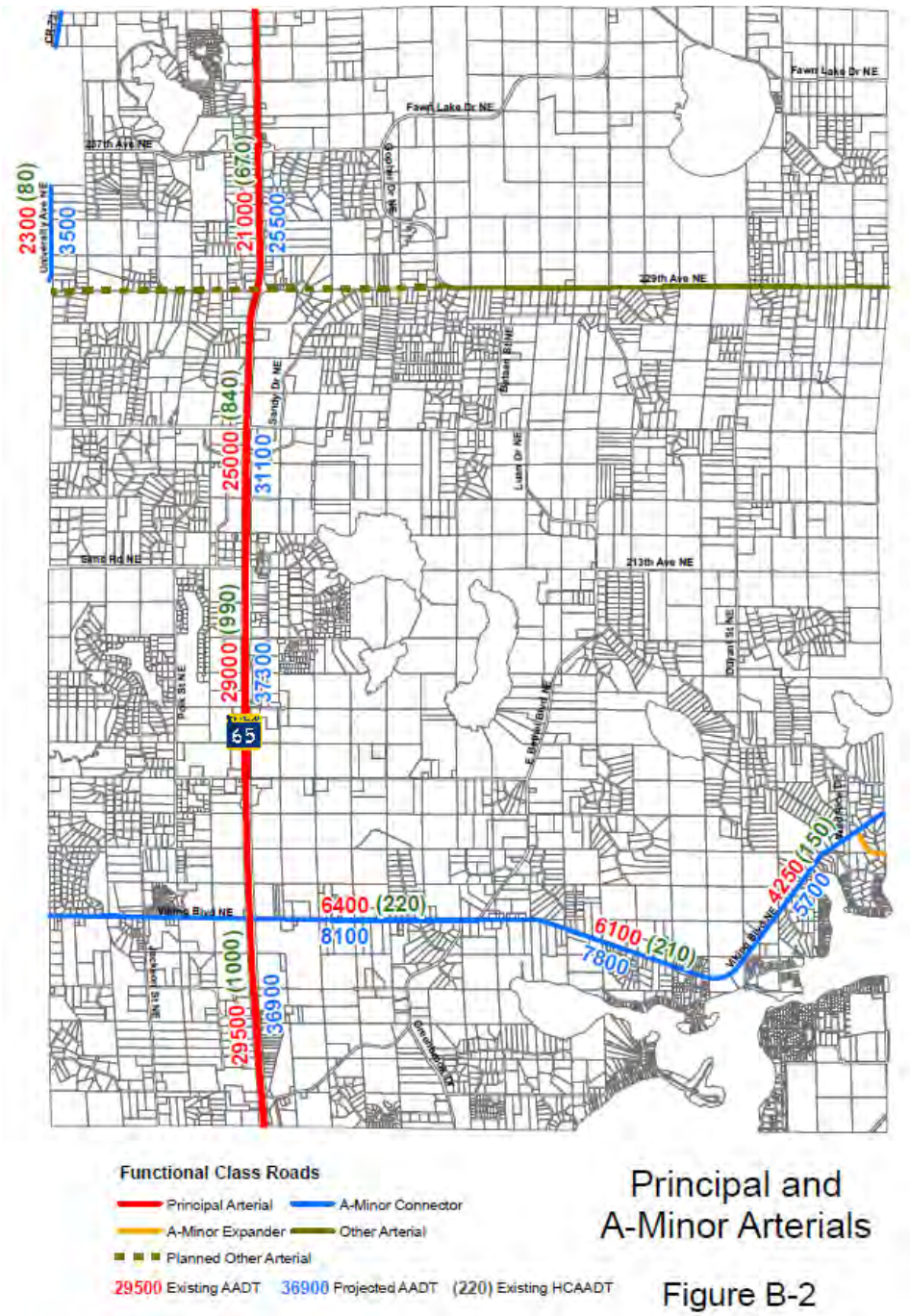
Existing Conditions

TH 65 serves as the principal arterial north-south corridor with some commercial, retail, and light industrial uses located adjacent to the roadway. County State Aid Highway 22 (Viking Boulevard) serves as an east-west A-Minor Connector route in the southern portion of the City. Figure 2 on the next page shows all of the Principal and A-Minor Arterials located in East Bethel. TH 65 has two through lanes in each direction and all other A-Minor Arterials in East Bethel have one through lane in each direction. Based on Figure 3 of the Anoka County 2040 Transportation Plan these roadways are not planned to be expanded during this planning period.

Other than TH 65, the existing streets and roadways in East Bethel are generally two-lane, two-way rural type facilities with travel lanes and shoulders of variable widths. Speeds on the through-routes are generally established by the State or County, while the City residential streets are posted by the City

to reflect safety and design constraints. Stop signs control the flow of traffic and define the through-streets on City and county streets while signals control the flow of traffic on TH 65.

FIGURE 2: PRINCIPAL AND A-MINOR ARTERIALS

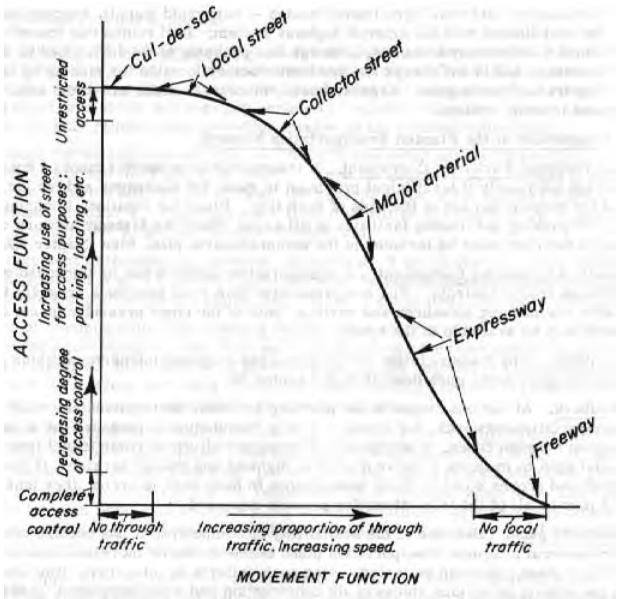


Roadway Functional Classification

Streets and highways are grouped into classes according to the character of service they are intended to provide. Essentially, there are two primary services to be provided by the transportation network. The first is to provide access to properties, while the second is to move traffic efficiently and safely.

The conflict of these two services or functions is evidenced by the undesirability of fast, through-traffic on local streets, and the equal undesirability of allowing private driveway access onto high speed arterials or freeways. The balance of these two service functions provides the basis for the functional classification of each street and highway. The relationship between the access function and the movement function with regards to the functional classification of streets is shown in Figure 3 below.

FIGURE 3: SCHEMATIC RELATIONSHIP BETWEEN ACCESS AND MOVEMENT FUNCTIONS OF STREETS



The functional classification needs to be determined before determining street widths, speed limits, intersection control, or other design features. It should be pointed out that while functionally different, streets and highways are usually thought of in terms of their design standards and visual appearance. However, the critical distinction that determines the functional classification is the degree of access control. For example, a rural two-lane highway with widely spaced access points or intersections can be functionally classified the same as an urban four-lane thoroughfare.

The City has adopted the Metropolitan Council's functional classification system. The functional classification system consists of four classes of roadways including principal arterials, minor arterials, collector streets, and local streets. The region has defined a sub-set of minor arterials as a means to supplement the Metropolitan highways and to establish priorities in federal funding. The roadways are the publicly provided elements of a land transportation system. The existing functional classifications for all arterials and collectors are shown in Figure 4 on the next page.

Principal Arterials

The Metropolitan highway system is made up of the principal arterials in the region. Principal arterials include all interstate freeways. Interstate freeways connect the region with other areas in the state and other states. They also connect the metro center to regional business concentrations. The emphasis is on mobility as opposed to land access. They connect only with other interstate freeways, other principal arterials, and select minor arterials and collectors. The interstate freeways provide for the longest trips in the region and express bus service.

Spacing will vary from 2 to 3 miles in the fully developed area, to 6 to 12 miles in the rural area, where only radials into the urban service area will exist. Other principal arterials are very similar to the interstate freeways but they are less likely to connect the region to other states. They will provide land access somewhat more frequently than interstate freeways.

Minor Arterials

The minor arterial system connects the urban service area to cities and towns inside and outside the region. They provide supplementary connections between the two metro centers and the regional business concentrations. They connect major generators within the central business district and the regional business concentrations.

The emphasis of minor arterials is on mobility as opposed to access in the urban area; only concentrations of commercial or industrial land uses should have direct access to them. The minor arterial should connect to principal arterials, other minor arterials, and collectors. Connection to some local streets is acceptable. Minor arterials should service medium-to-short trips. Both local and limited-stop transit will use minor arterials.

The spacing of minor arterials in the metro centers and regional business concentrations will vary from one-fourth to three-fourths mile. Typically, in the fully developed area, spacing would range from one-half mile to one mile. In the developing area, one-to-two-mile spacing is adequate. The characteristics of the four types of "A" minor arterials are given in Table 1 which is included on page 8.

FIGURE 4: ARTERIALS AND COLLECTORS

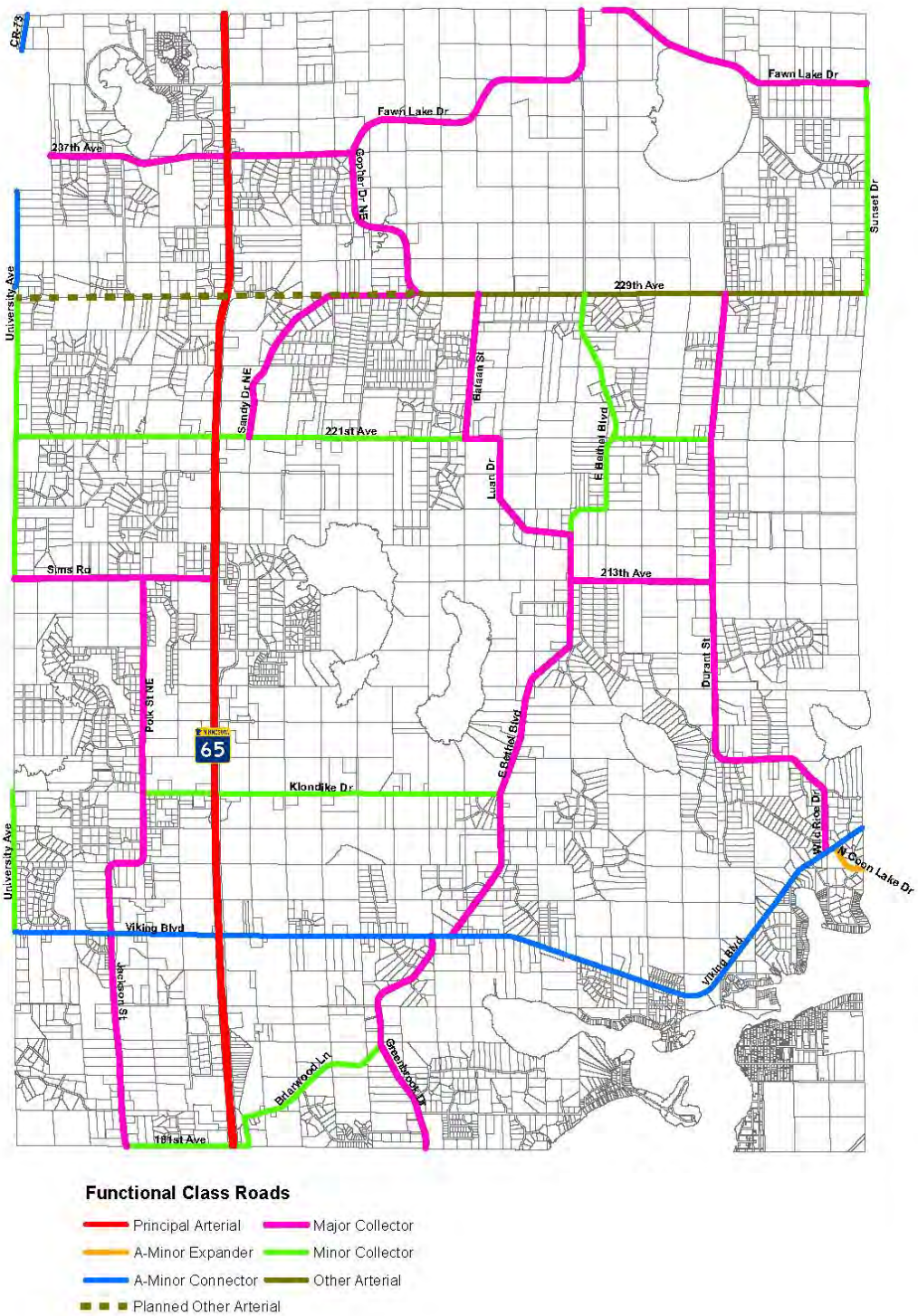


TABLE 1: CHARACTERISTICS OF "A" MINOR ARTERIALS

CHARACTERISTICS	RELIEVERS	AUGMENTERS	EXPANDERS	CONNECTORS
Use	Provide direct relief for traffic on Metropolitan Principal Arterials	Augment the Principal Arterials within the Beltway	Provide connection between developing areas outside the Beltway, connect Principal Arterials	Provide connection between rural town centers in the urban reserve and rural area
Location	Developed and developing areas within the MUSA and 2040 Urban Reserve	Within the I-494/I-694 Beltway	Outside the I-494/I-694 Beltway with the 2020 MUSA or 2040 Urban Reserve	In or near the seven county area, one end may be in the urban area
Trip Length	Medium length trips less than eight miles	Medium to long trips	Medium to long trips	Medium to long trips
Problem Addressed	Relief of parallel congested Principal Arterials	Serve Principal Arterial function where Principal Arterials don't exist	Accommodate added urban development	Improve the safety and directness of routes without continuous lane adds

Collector Streets

The collector system provides connection between neighborhoods and from neighborhoods to minor business concentrations. It also provides supplementary interconnections. Mobility and land access are equally important. Direct land access should predominately be to development concentrations. Collection connections are predominately to minor arterials.

Typically, collectors serve short trips of one to four miles. Local transit service uses these streets. Spacing in the metro centers and regional business concentrations may vary between one-eighth to one-half mile. In the fully developed areas, collectors are needed one-fourth to three-fourths mile apart. In the developing areas, spacing may range from one-half to one mile.

Local Streets

Local streets connect blocks and land parcels. The primary emphasis is on land access. In most cases, local streets will connect to other local streets and collectors. In some cases, they will connect to minor arterials. Local streets serve short trips at low speeds. In the urban areas, local streets will occur every block. In the rural areas, one-mile spacing may be adequate.

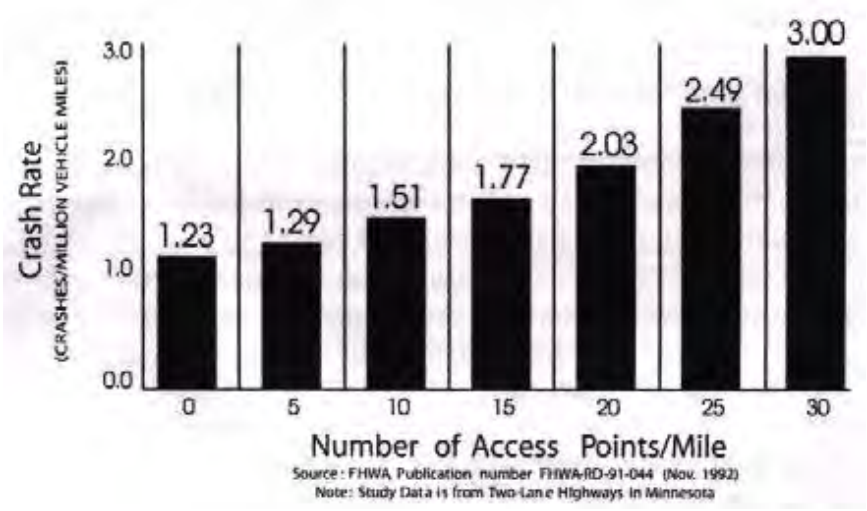
Access Management Guidelines

Access guidelines are important because they define a starting point for balancing property access, safety, and mobility concerns. Transportation agencies regularly receive requests for additional access (e.g., new public streets, commercial driveways, residential and field accesses), which are evaluated by numerous agencies and committees. Because of the number of individuals and agencies involved, it is easy to have inconsistent application of access policies. This can result in confusion between agencies, developers, and property owners, as well as long-term safety and mobility problems. Standard access guidelines can be used to improve communication, enhance safety, and maintain the capacity and mobility of important transportation corridors. In addition, access guidelines may be used to respond to access requests and to promote good access practices such as:

- Aligning access with other existing access points.
- Providing adequate spacing to separate and reduce conflicts.
- Encouraging indirect access rather than direct access on high-speed, high volume arterial routes.

Providing access management in some form, whether it is through grade-separated crossings, frontage roads, or right-in/right-out access, reduces the number of conflicts resulting in improved safety. A number of studies have demonstrated a direct relationship between the number of full access points and the rate of crashes. Figure 5 shown below illustrates this relationship.

FIGURE 5: ACCESS/CRASH RELATIONSHIP



Public road authorities have been directed by Minnesota State Statutes to provide "reasonable, convenient, and suitable" access to property unless these access rights have been purchased. Courts have interpreted this to:

- Allow restrictions of access to right-in/right-out.
- Allow direction of access to another public roadway that meets the definition of reasonable, convenient, and suitable.

In special circumstances, broader authority (police power) has been given to public agencies if the situation is deemed to jeopardize public safety. However, this is a very high standard to meet and is seldom used by public agencies. In addition to the above, land use authorities may exercise additional authority in limiting access through their development rules and regulations. Land use authorities can require:

- Dedication of public rights-of-way.
- Construction of public roadways.
- Mitigation measures of traffic and/or other impacts.
- Changes in and/or development of new access points.

These types of access controls are processed through local elected officials. Since stronger land use and access controls are available at the county and City level, and these units of government are usually involved at the planning stages, access guidelines and corridor management practices should be focused at this level.

Coordination of Jurisdictional Access Management Policies

The City of East Bethel exhibits an interjurisdictional network of state, county, and City roadways. Since MnDOT and Anoka County each retain access management authority over their particular roadway system, it is important the existing access policies of these entities be considered prior to the preparation of new access guidelines for East Bethel.

Anoka County has adopted minimum access spacing guidelines. The county's access spacing guidelines are presented in Table 2 on the next page. These access management guidelines are meant to promote coordination between land use and transportation strategies, the same issues that affect decisions on the City and county level. Establishing the appropriate spacing between public streets and private driveways is an important step toward maintaining the safety and mobility of the traveling public without sacrificing the accessibility needs of local residents. The access guidelines are based on functional classification rather than traffic volumes. Having access recommendations based on future functional classification enables cities/counties to protect access on roadways based on their intended long-term function.

Anoka County requires an access permit be approved prior to any new driveway connection to county roads. The county also requires shared driveways, where possible, to reduce the number of direct accesses to county roads. The county reviews access during the platting process to assure appropriate mobility and safety levels. Anoka County has a unique opportunity to properly plan for access along future collector and arterials before City urbanization and development occurs. Because the county does not have planning authority within the City, interagency support of access management strategies is crucial, especially within East Bethel. Anoka County and East Bethel should continue to work together in this regard.

In 2015 MnDOT assembled a Technical Advisory Committee (TAC) to review access along TH 65 from Bunker Lake Boulevard to 245th Avenue North. The TAC included staff members from Anoka County, East Bethel, Ham Lake, Metropolitan Council, MnDOT and FHWA. The goal of the TAC was to develop a Access Management Plan to serve as a guide for the County, Cities, MnDOT, Metropolitan Council, landowners, and developers on desired access changes and future access locations along the corridor. East Bethel will use the findings of the TAC as a tool to plan their local transportation system.

TABLE 2: ACCESS SPACING GUIDELINES

ROADWAY TYPE	ROUTE SPEED (MPH)	INTERSECTION SPACING (NOMINAL[4])		SIGNAL SPACING	PRIVATE ACCESS [1]
		Full Movement Intersection	Conditional Secondary Intersection [2]		
Principal Arterial	50 - 55	1 mi.	1/2 mi.	1 mi.	Subject to conditions for all roadway types and speeds
	40 - 45	1/2 mi.	1/4 mi.	1/2 mi.	
	< 40	1/8 mi.	300 - 660 feet[3]	1/4 mi.	
Arterial Expressway	50 - 55	1 mi.	1/2 mi.	1 mi.	
Minor Arterial	50 - 55	1/2 mi.	1/4 mi.	1/2 mi.	
	40 - 45	1/4 mi.	1/8 mi.	1/4 mi.	
	<40	1/8 mi.	300 - 660 feet[3]	1/4 mi.	
Collector and Local	50 - 55	1/2 mi.	1/4 mi.	1/2 mi.	
	40 - 45	1/8 mi.	N/A	1/4 mi.	
	<40	1/8 mi.	300 - 660 feet[3]	1/8 mi.	
Specific Access Plan		By adopted plan/agreement/covenant on land			

(1) Private access refers to residential, commercial, industrial and institutional driveways. Reference Anoka County's Development Review Manual for specifics on private access.

(2) Conditional secondary access is defined as right-in/out.

(3) Access spacing may be determined by planning documents approved by the county (e.g., Lino Lakes I-35E AUAR)

(4) Any spacing deviations shall have a detailed traffic study completed by the requesting agency, AND approved by the County Engineer.

A key challenge facing East Bethel and its planning partners, Anoka County and MnDOT, is adequately balancing access and mobility on the roadway system. Most roadways serve both functions to some degree.

In an efficient roadway network, the different roadway classifications function together in a complementary fashion to serve the needs of the traveling public. The proportion of arterials, collectors, and local streets must have proper balance to achieve a roadway system that operates effectively. Modifications made to a roadway's functions without consideration of the complete roadway system will tend to undermine the operations of the system. For example, a system comprised of all local streets would not move traffic very well. Conversely, a system of too many arterials would not provide adequate land use access.

The City will adopt the Anoka County Highway Department Access Spacing Guidelines as presented in Table 2. The guidelines are broken into different area or facility types within each functional classification. For each facility type, the recommended full-movement intersection spacing is given along with the spacing for a conditional secondary intersection. This secondary intersection typically has restricted movements (e.g., right-in/right-out). In addition, each facility type identifies the treatment of private access. It should be noted that the guidelines are more restrictive (exception/deviation) of private access in urbanizing areas than in rural and/or urban core areas (subject to conditions). This is due to the fact that planning should be able to limit private access in these developing areas versus areas that have already been developed (core urban area) and/or areas where there is no other supporting street system (rural).

Access Policy Implementation

It is important to consider the following points when implementing these guidelines:

- The guidelines are long-term goals, not absolute rules.
- Maintaining flexibility is important in promoting access consolidation.
- The City's approach to implementation is as important as the guidelines themselves.
- Existing physical barriers or constraints need to be considered.

The City of East Bethel will adopt the Access Spacing Guidelines presented in Table 2 for the following reasons:

- By establishing these policies, the City can plan, design, and implement land use and transportation strategies that control the flow of traffic between roadways and surrounding land uses.

- The proposed access management guidelines are based on the City's updated functional classification map, which was coordinated with the City's future land use map. Therefore, by adopting these access guidelines, they will parallel any future developments or land use changes resulting from the Comprehensive Land Use Plan update. Appropriate sections of the guidelines should also be incorporated into City zoning and subdivision ordinances.

- The proposed Access Management Guidelines, as noted, identify access spacing recommendations based on functional classification rather than traffic volumes. This method provides a long-term understanding of how each corridor will function and operate and will enable the City to protect access on roadways before traffic volumes reach specific thresholds.

Access guidelines can be implemented using different methods such as land use regulations, subdivision regulations, access permit processes, and access/transportation committees. Any process should also deal with situations outside the guidelines, such as hardship cases. In existing corridors where significant development has occurred, the number of existing access points usually exceeds access guidelines. Unless these areas are undergoing redevelopment, access management must be approached differently.

The following access suggestions provide some alternatives for minimizing access and access problems in areas where the guidelines cannot be met:

- Encourage shared driveways and internal circulation plans: If indirect access cannot be achieved during plat reviews, promote internal site circulation using shared access points.

- Restricted turning movements to reduce conflicts: If access points cannot be eliminated, consider turning movement restrictions (e.g., left-in only or right-in/right-out only) through installation of raised median or other channelization or signing. Eliminating a single turning movement can significantly reduce vehicle conflicts and potential crashes.

- Develop good parallel street systems for carrying local traffic: Make sure that important arterial routes have a good parallel street system to provide the local access function and to carry shorter local trips.

- Develop proper setbacks for future frontage roads, interchanges, and overpasses: If frontage roads, interchanges, or overpasses cannot be justified (benefits do not outweigh costs), make sure that proper building and parking lot setbacks are established so that future frontage roads can be installed with minimal impacts.

- Develop proper secondary street spacing: When reviewing plats and new development proposals, be sure that they provide proper intersection spacing for future signals. As a guideline, signalized intersections should be limited depending upon the type of street. Collector streets should provide some continuity and connectivity with other street systems.

- Encourage proper lot layout to minimize access points: Promote direct residential access points onto local routes, not arterials or major collectors. Direct residential access to arterial or collector routes can result in complaints when traffic levels increase.

- Encourage connectivity between developments: Individual development should align streets to provide access to existing developments or reserve right-of-way to provide for future connections to adjacent developments. This promotes neighborhood connectivity, good emergency services, and more efficient travel for mail, garbage, and bus services, as well as street maintenance activities.

Roadway Design Standards

In conjunction with the designation of the functional classification of each East Bethel roadway, and based on the City's Land Use Zoning, minimum road design standards are recommended as part of this Transportation Plan. Recommended standards to be established for the City jurisdictional roads are provided in Table 3 on the next page and include: pavement load design weight; right-of-way width; roadway widths at and between intersections including shoulder and travel lane widths; and intersection spacing. The City will also implement traffic calming measures and strategies where appropriate and applicable to minimize incidents and improve safety, particularly in residential neighborhoods and near schools, etc.

The location of trails adjacent to the roadways should be governed by the roadway functional classification. On arterial roads, the trail should be located beyond the traffic clear zone or behind a protective barrier. Major and minor collectors should maintain a clear zone between the trail and the traffic lane. On frontage roads, neighborhood collectors, and city streets, the trails should be designated by barriers, striping, signage, and pavement markings. Trail standards will be developed and approved through City Council policies.

Table 3: Recommended Standards by Functional Classification

FUNCTIONAL CLASSIFICATION	LAND USE ZONING	DESIGN SPEED MPH	PAVEMENT WEIGHT DESIGN TONS	SHOULDERS TONS	*RIGHT-OF-WAY WIDTH FEET	STREET SECTION WIDTH		MINIMUM INTERSECTION SPACING (MILES)
						Between Intersections Shldr-Lane	At Intersections Shldr-Lane	
Local	Residential	30	9	9	66	31.5′	31.5′	1/16
Local	Commercial Industrial	30	10	10	80	44′ (10′-12′-12′-10′)	58′ (11.5′-12′-11′-12′-11.5′)	1/16
Frontage Roads	All Residential Commercial, & Industrial	35-45	10	10	80	49′ (10′-12′-12′-10′)	59′ (11.5′-12′-12′-12′-11.5′) (1) (2) (3)	1/8
Minor Collector	All Residential Commercial, & Industrial	40-55	10	10	80-urban 100-rural	36′ (6′-12′-12′-6′)	44′ (4′-12′-12′-12′-4′) (1) (2) (3)	1/8
Major Collector	All Residential Commercial, & Industrial	40-55	10	10	100	44′ (10′-12′-12′-10′)	52′ (8′-12′-12′-12′-8′) (1) (2) (3)	1/4
Minor Arterial	Per Anoka County							
Principal Arterial	Per Mn/DOT							

* Add 20′ of right-of-way or permanent easement for each proposed trail along roadway.

1) Exiting Lane – Leaving Intersection
2) Approach Left Turn Lane
3) Approach Combination Thru- Right Turn Lane
4) Approach Thru Lane
5) Approach Right Turn Lane

Future Roadway Needs and Improvements

As the City of East Bethel continues to develop and implement strategies to encourage well-planned growth and development, transportation linkages will remain an important aspect of all related activities. Developing and enhancing the local streets, pathways, and bikeways as part of an interconnected system is important to the overall mobility and accessibility within the community. Integrating land use and transportation planning activities will help to create sustainable developments both commercial and residential and provide residents with a variety of options as they utilize local services and amenities.

Equally important is the development of an adequate regional roadway network. Many of the challenges and opportunities relating to the roadway system in East Bethel are regional in nature and involve state and county roads over which the City of East Bethel does not have direct jurisdiction. The City can, however, work in cooperation with MnDOT and Anoka County to discuss ideas and develop plans for improvements and enhancements to the roadway system. Traffic operations on the arterial system undoubtedly have a significant impact on the collector and local street system and the community as a whole.

TH 65 is the only Metropolitan highway located within the community. As previously discussed on page 12, the City will use the TAC finding as a guide for future planning adjacent to TH 65.

Viking Boulevard, is also being considered by MnDOT as a future state highway that would provide for an east-west corridor/connection through northern Anoka County. Presently there are no efficient roadways that serve motorists in these directions other than County State Aid Highway 242 which is also a two-lane highway. Additional traffic lanes - potentially five lanes total including turn lanes and access improvements - would be necessary. These additions would have significant impacts through East Bethel. The City will be actively engaged as these discussions progress with MnDOT and Anoka County.

The next section of this plan discusses future roadway projects anticipated by the City to maintain an acceptable level of service on the roadway network. The City is committed to ensuring that land use and transportation plans are integrated and will work to ensure that future right-of-way needed for the construction of access improvements along the TH 65 and the Viking Boulevard corridor are set aside, and that any future development considers these improvements.

Anoka County is currently updating their transportation plan for the entire county. The City anticipates that the study may reclassify the function of certain road segments and understands that changes in the transportation plan may be needed in response to the study findings.

Roadway Improvement Projects

Traffic Forecasts

Daily traffic forecasts for the year 2040 were prepared by Anoka County for the Principal and A-Minor Arterials. The Metropolitan Council's new Twin Cities travel demand forecasting model was used to develop the future traffic forecasts. These traffic forecasts are presented on Figure 2.

Improvements

In order to expand the proposed roadway system from the existing system and to meet future traffic needs, the City will have to prepare for a series of improvement projects between now and the year 2040 and beyond. The City's primary focus for new infrastructure improvements are the construction of service roads adjacent to TH 65. As further discussed in Appendix A of this document, the City has been divided into three Growth Areas. The service roads with the highest priority include those roads from 181st Avenue to Viking Boulevard, which are in Growth Area C. East Bethel would initiate infrastructure improvements in Growth Area A and Growth Area B as needed to facilitate development and the expansion of the municipal sewer and water system.

As discussed on page 12, MnDOT has prepared an Access Management Plan for the TH 65 Corridor through East Bethel. The focus of intersection improvements on TH 65 include the construction of five reduced conflict intersections (RCI). MnDOT has already constructed the RCI's at 181st Avenue, 187th Lane, and Viking Boulevard. The proposed service road alignments and RCI locations are shown on Figure 6 on the next page. Estimated costs for the City service road system are presented in Appendix A of this document.

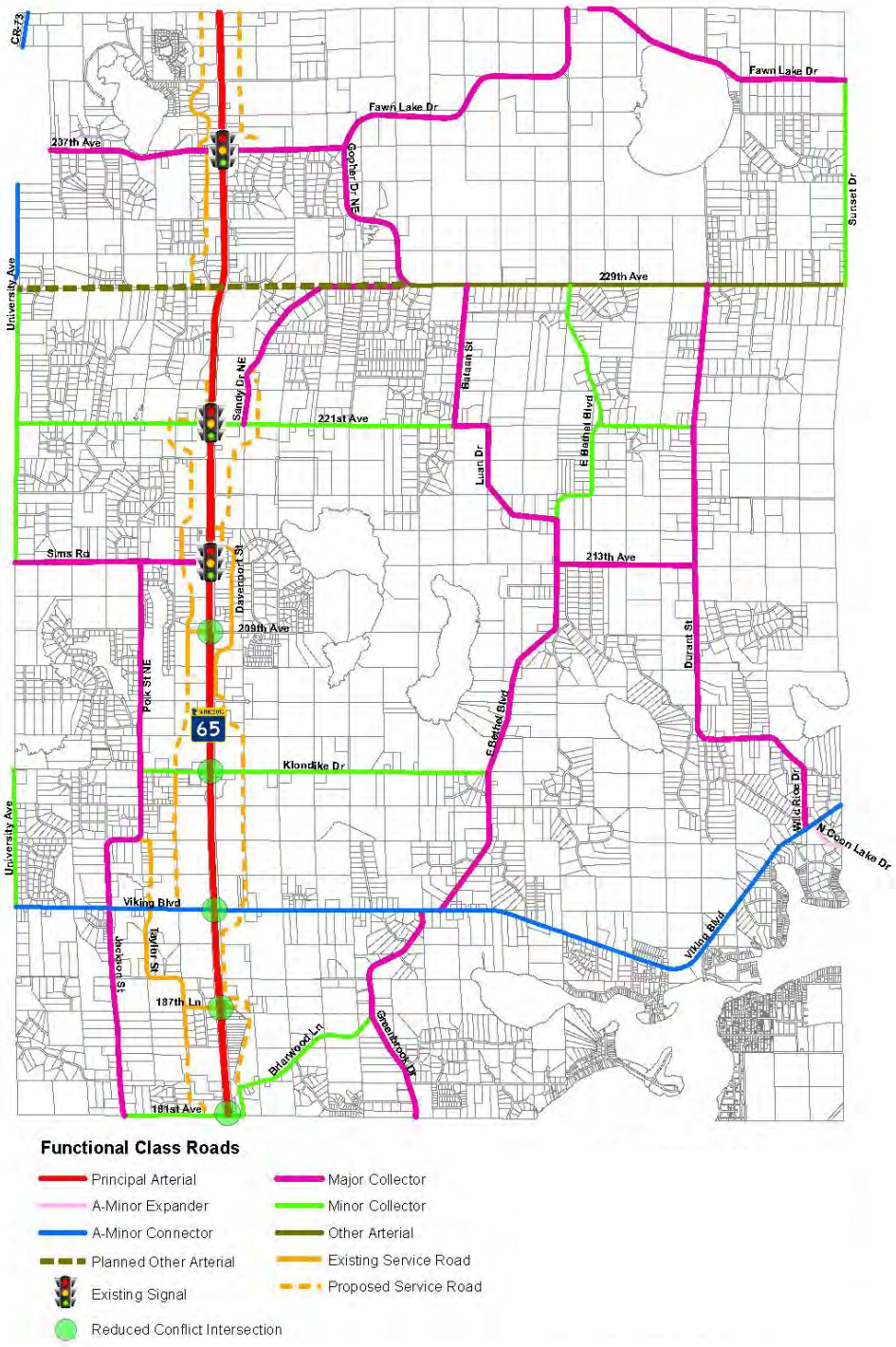
Roadway Financing Options

The construction of the City's functionally classified local, jurisdictional city collectors and frontage roadways is expected to be financed by MSA funding and assessments to the abutting and benefiting property owners or by the developers as they plat and subdivide the undeveloped lands. The construction and financing of principal arterials is handled almost exclusively by MnDOT, while Anoka County would carry the primary role in the construction and financing of the functionally classified arterials and collectors which are under the County's jurisdiction.

A primary difficulty for local units of government is the financing of minor and major collector roadways, which are under their jurisdiction, but on the perimeter of the developments. Direct private access onto these collector roadways is limited and controlled to promote a higher level of mobility, which makes it more difficult to show benefit for assessment purposes. Cities are, therefore, looking at alternative financing options and seeking legislation, which would permit such things as: street utility fees; street

access fees, and area connection fees. These fees usually are most successful when imposed in conjunction with new adjacent developments that utilize these connector roadways for access.

FIGURE 6: HIGHWAY 65 INTERSECTION CONTROLS AND SERVICE ROADS



Future Planning Activities and Needs

The City of East Bethel recognizes the need for further study as it relates to various transportation impacts that future development and growth present. The City is considering a policy that would require traffic impact studies in the future relative to proposed developments. As part of East Bethel's continued growth and development, it is likely that the City will receive applications for large-scale development. In order to continue to provide traffic safety and mobility, the impacts of these developments need to be understood. The technical focus of this transportation plan was to identify the need and general location of proposed streets, regulate access, and guide right-of-way acquisition.

Transportation Goal and Policies

Goal:

Integrate land use and transportation planning to create a land use pattern and a transportation system that enhances the livability of the community.

Policies:

1. Maintain a safe, efficient and convenient road transportation system.
2. Protect the integrity of the transportation system.
3. Incorporate transportation mobility and access into development plans.
4. Promote transit-oriented design in major community development areas and adjacent to future commuter rail stations.
5. Maintain and/or enhance linkages to the county and regional networks.
6. Work with the Metropolitan Council and Anoka County to provide transit opportunities to residents including express and local bus service, van/carpooling, commuter rail, and paratransit services.
7. Work with neighboring communities to identify opportunities that will ensure transit, bikeways, and other corridor connections to commuter rail services.
8. Preserve major transportation corridors through responsible development.
9. Draft and enforce the inclusion of bicycle/pedestrian ways as part of all new development plans.

10. Restrict access to TH 65 through the adoption of reasonable intersection spacing and access management guidelines.

11. Work with MnDOT to replace existing accesses on TH 65 with frontage and backage roads and intersections that meet spacing goals.

12. Aggressively pursue providing other transit programs and opportunities that benefit residents and businesses.

13. Coordinate transportation planning and system improvements with affected local, county, regional, and state jurisdictions.

14. Develop land use development standards that promote safe access to the transportation system in the City.

15. Utilize Anoka County resources when appropriate as part of transportation planning data collection including traffic modeling projections for county, municipal state aid, and collector roadways.

TRANSPORTATION ANALYSIS ZONES (TAZ)

The City of East Bethel was divided into 13 TAZ which are show on Figure 7 on the next page. Table 4, provides projected 2020, 2030 and 2040 population, household and employment densities by TAZ. These forecasts were provided by the Metropolitan Council. Traffic projections and roadway capacity data currently available take into account the implementation of municipal services, and therefore accurately reflect transportation needs into the future. Anticipated 2040 traffic volumes are presented on Figure 2.

FIGURE 7: TRAFFIC ANALYSIS ZONES (TAZ)

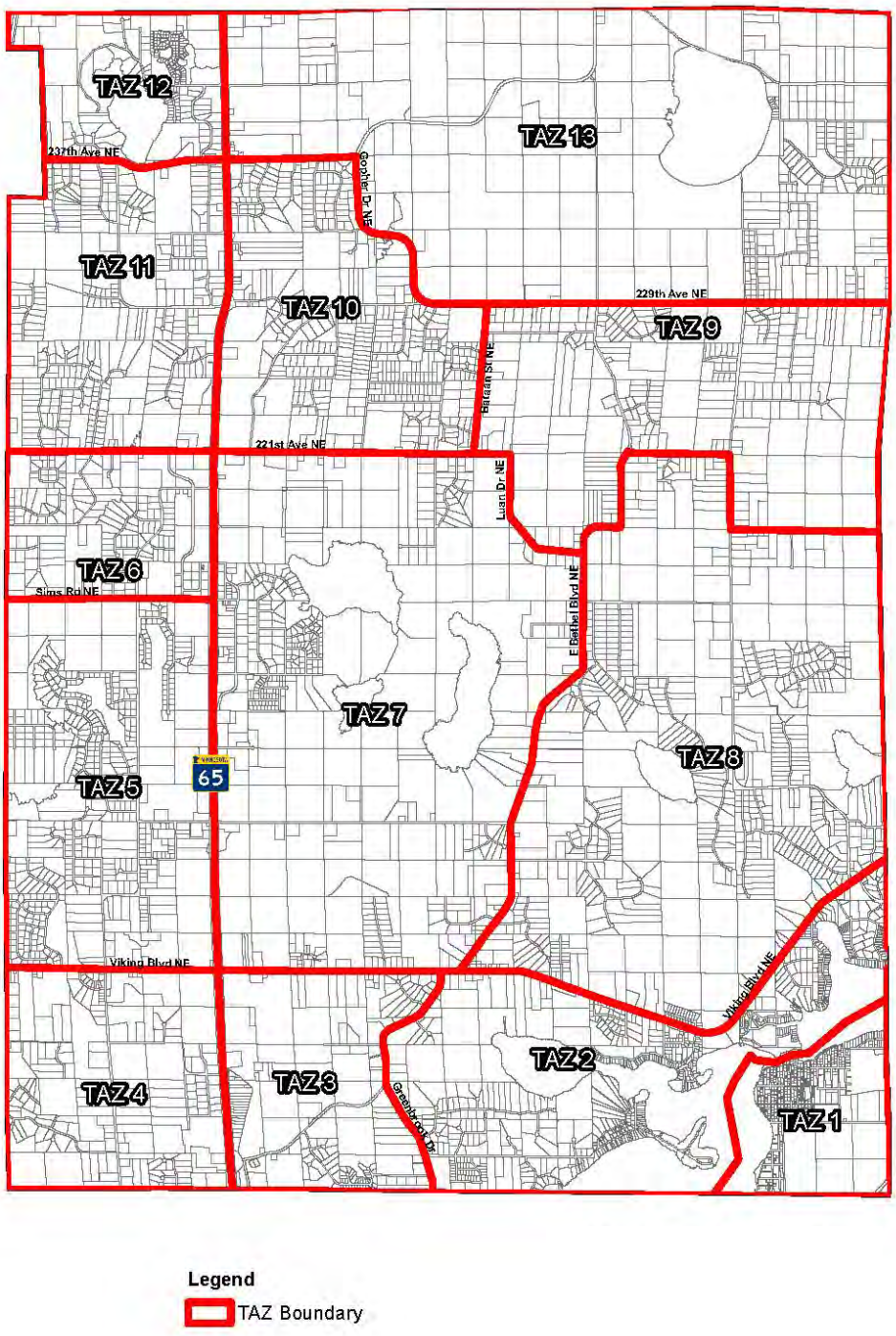


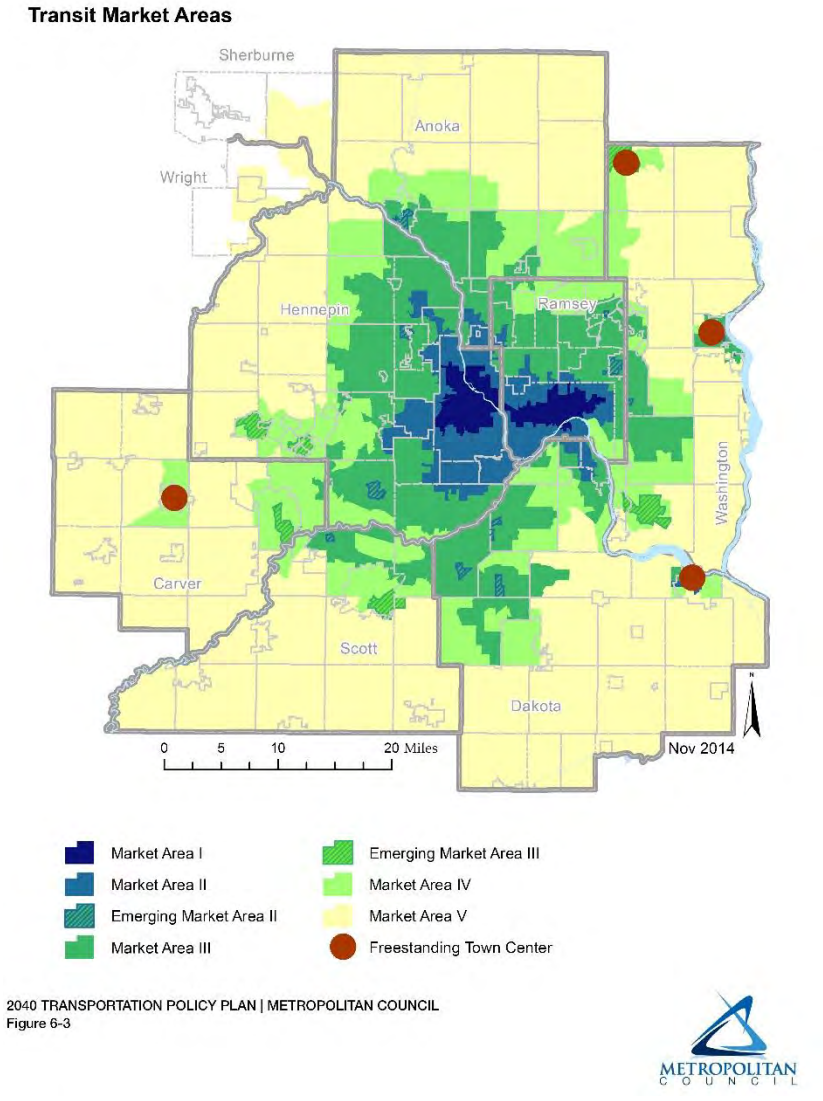
TABLE 4: POPULATION, HOUSEHOLDS AND EMPLOYMENT

TAZ	2020			2030			2040		
	POPULATION	HOUSEHOLDS	EMPLOYMENT	POPULATION	HOUSEHOLDS	EMPLOYMENT	POPULATION	HOUSEHOLDS	EMPLOYMENT
1	690	270	50	860	340	50	1010	410	50
2	1800	700	100	2200	860	100	2470	990	100
3	390	150	120	690	270	120	1140	460	120
4	880	350	160	1150	470	160	1410	590	150
5	1410	560	220	1820	740	230	2230	940	240
6	460	170	90	490	190	140	520	210	190
7	1280	470	270	2110	800	320	3210	1250	370
8	1730	640	180	1920	720	180	1800	700	170
9	610	230	0	630	240	0	600	240	0
10	1160	430	160	1380	530	170	1650	660	160
11	850	320	200	940	360	220	1060	430	240
12	640	240	20	670	260	20	680	280	30
13	480	180	120	550	210	240	620	250	370

TRANSIT SYSTEM

The transit system plan provides an overview of the basic components of transit planning, including demographic factors, transit route and network design factors and urban design factors that support transit usage. Local governments have the primary responsibility for planning transit-supportive land use through their comprehensive planning and subdivision and zoning ordinances. The *TPP* includes updated Transit Market Areas, which are shown in Figure 8, which reflect 2010 Census information and an updated methodology that better aligns types and levels of transit service to expected demand. These market areas identify the types of transit services that are provided within each area.

FIGURE 8: TRANSIT MARKET AREAS



East Bethel is a Transit Marked Area V. Transit Market Area V is defined as an area that "has very low population and employment densities and tends to be primarily rural communities and agricultural uses. General public dial-a ride service may be appropriate here, but due to the very low intensity land uses these areas are not well-suited for fixed-route transit service". The *TPP*'s Transit Investment Plan does not show any transit investments planned for East Bethel in the Current Revenue Scenario.

Key to the regional system is the expansion of transit services that will ultimately provide commuters and other travelers with choices in how they choose to get to work, school, and other activities. Enhancements as part of the local and state roadway improvement projects such as the addition of bus-only lanes on highway shoulders and the construction of added park-and-ride facilities will assist in developing a "network" of transit services and options. Residents of the community have existing alternative transit options such as Dial-A-Ride through the Anoka County Traveler and volunteer driver programs and ridesharing.

East Bethel currently has two park-and-pool facilities. One at 237th Avenue and TH 65 and a second at 207th Avenue and TH 65 at the City-owned ice arena. Residents of the community can obtain further information on the park-and-pool sites on the City's website. While East Bethel currently does not have regular route or express bus service, the demand is increasing for facilities such as a park-and-pool/ridesharing sites or park-and-ride facilities serviced by express buses that would travel to the Twin Cities Metropolitan areas.

BICYCLE AND PEDESTRIAN TRANSPORTATION

Regional Bicycle Transportation Network

The *2040 TPP* encourages the use of bicycles as a mode of transportation. The TPP establishes for the first time a Regional Bicycle Transportation Network (RBTN). Figure 9 on the following page shows the RBTN. East Bethel does not have any identified routes on the RBTN. The goal of the RBTN is to establish an integrated seamless network of on-street bikeways and off-road trails that complement each other to most effectively improve conditions for bicycle transportation at the regional level. Cities, counties, and park agencies are encouraged to plan and implement future bikeways within and along these designated corridors and alignments to support the RBTN vision.

The RBTN corridors and alignments make up the "trunk arterials" of the overall system of bikeways that connect to regional employment and activity centers. These are not intended to be the only bicycle facilities in the region, and local units should also consider planning for any additional bike facilities desired by their communities.

FIGURE 9: REGIONAL BICYCLE TRANSPORTATION NETWORK VISION

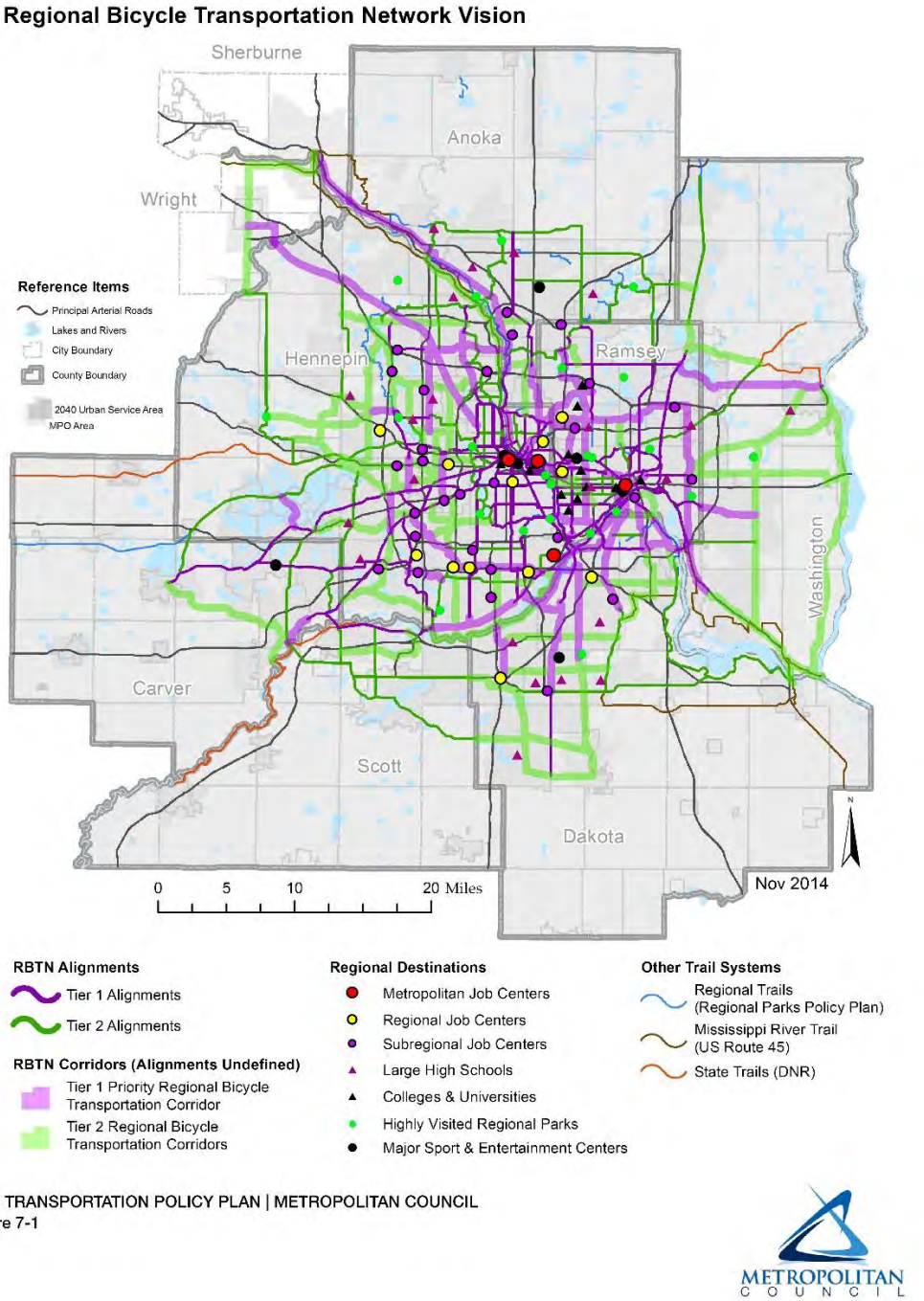


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Figure 7-1

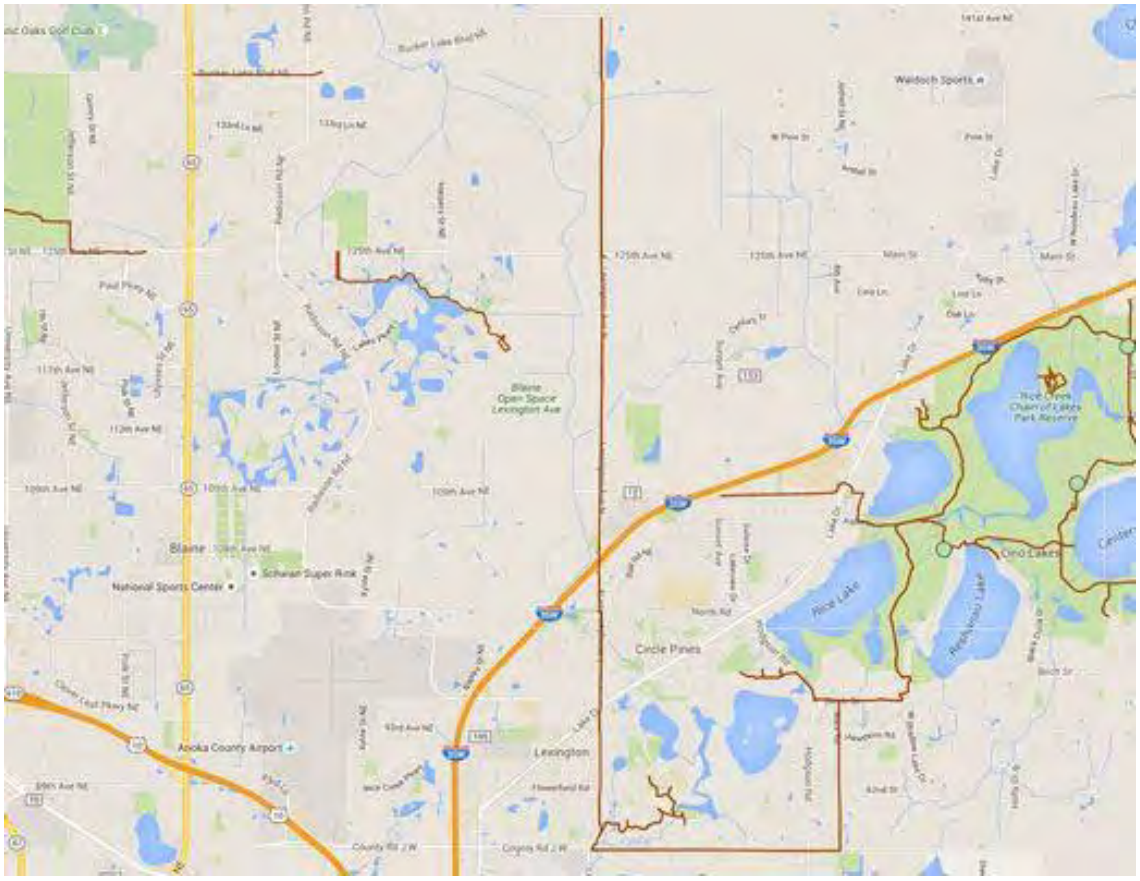
METROPOLITAN COUNCIL

Anoka County Regional Trails

The North Anoka County Regional Trail is a search corridor that proposes a route that crosses the northern section of the county from Sherburne County east to Washington County. The trail alignment is proposed to pass through Nowthen, Oak Grove, East Bethel, and Linwood Township. The plan is for the North Anoka County Regional Trail to connect to Lake George and Martin-Island-Linwood Lakes Regional Parks. The trail will connect with two north/south routes, those being Rum River and East Anoka County Regional Trails. The estimated cost of this new 17-22 mile long trail would be $1.87 to 2.3 million. To date, only a small segment of the trail is complete – about one mile that runs through Lake George Regional Park. The County will work with the local agencies and the County Highway Department to develop the trail. This regional trail is a search corridor, which means that they do not have Met-Council-approved master plans that identify the trail alignments. Since alignments have not yet been approved they are not eligible for Regional Parks System funding for acquisition and development.

The East Anoka County Regional Trail is located in the northeast corner of the city and another very short segment in the southeast corner. There is a Met-Council approved master plan for the alignment, but there is no timeframe for the section that still needs to be built in East Bethel. The trail will be 27 miles long and will connect the north end of the county to the south end, starting in East Bethel and ending in Blaine. It will be linked to four (4) other regional trails and will have access to many city trails and parks. Figure 10 illustrates what is currently constructed on the East Anoka County Regional Trail.

FIGURE 10: THE EAST ANOKA COUNTY REGIONAL TRAIL CURRENTLY, BEFORE THE EXPANSION NORTH INTO EAST BETHEL



On the next two pages, Figures 11 and 12 illustrate the expansion areas for both the North and East Anoka County Regional Trails on a county and city basis.

FIGURE 11: REGIONAL TRAIL SEARCH CORRIDORS IN ANOKA COUNTY

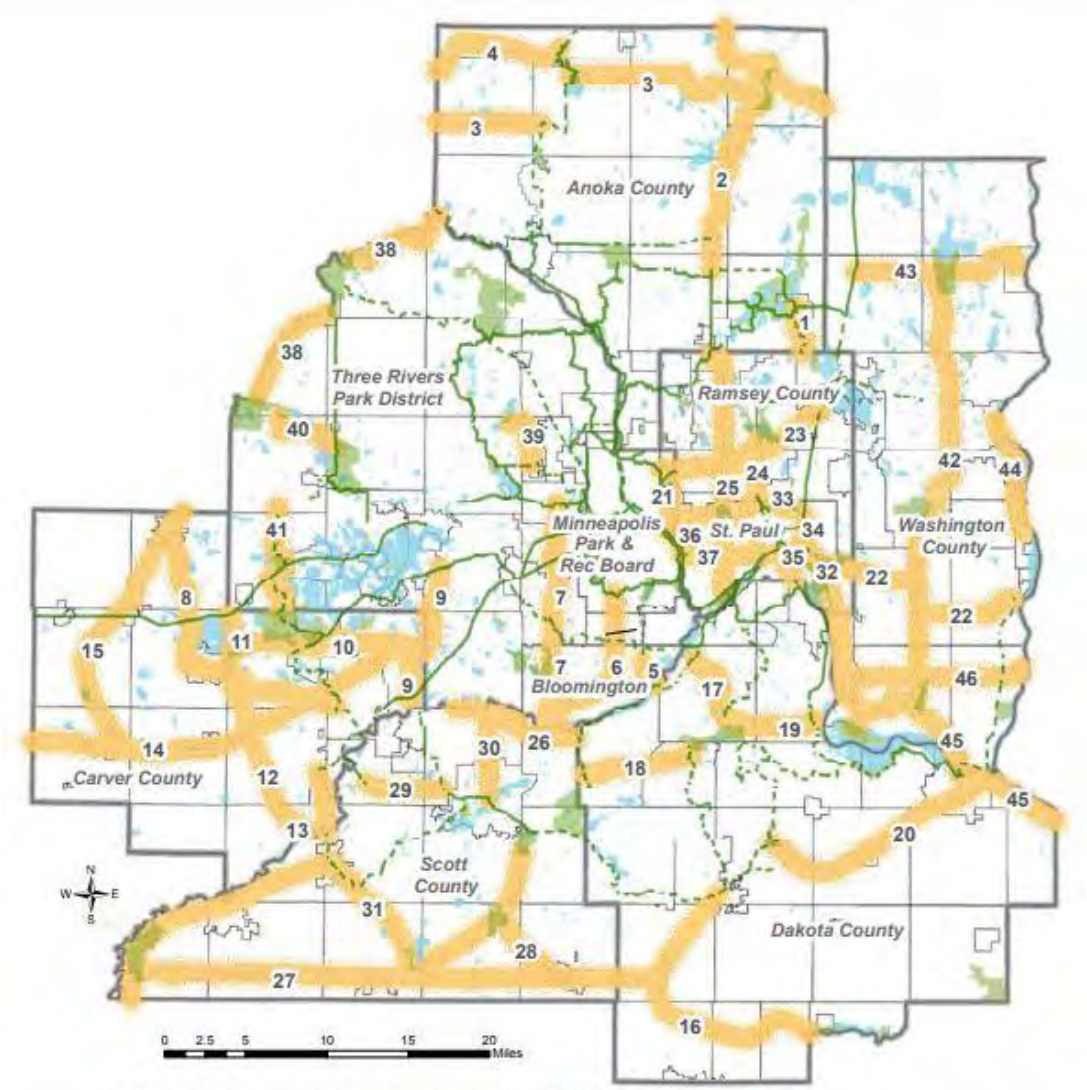
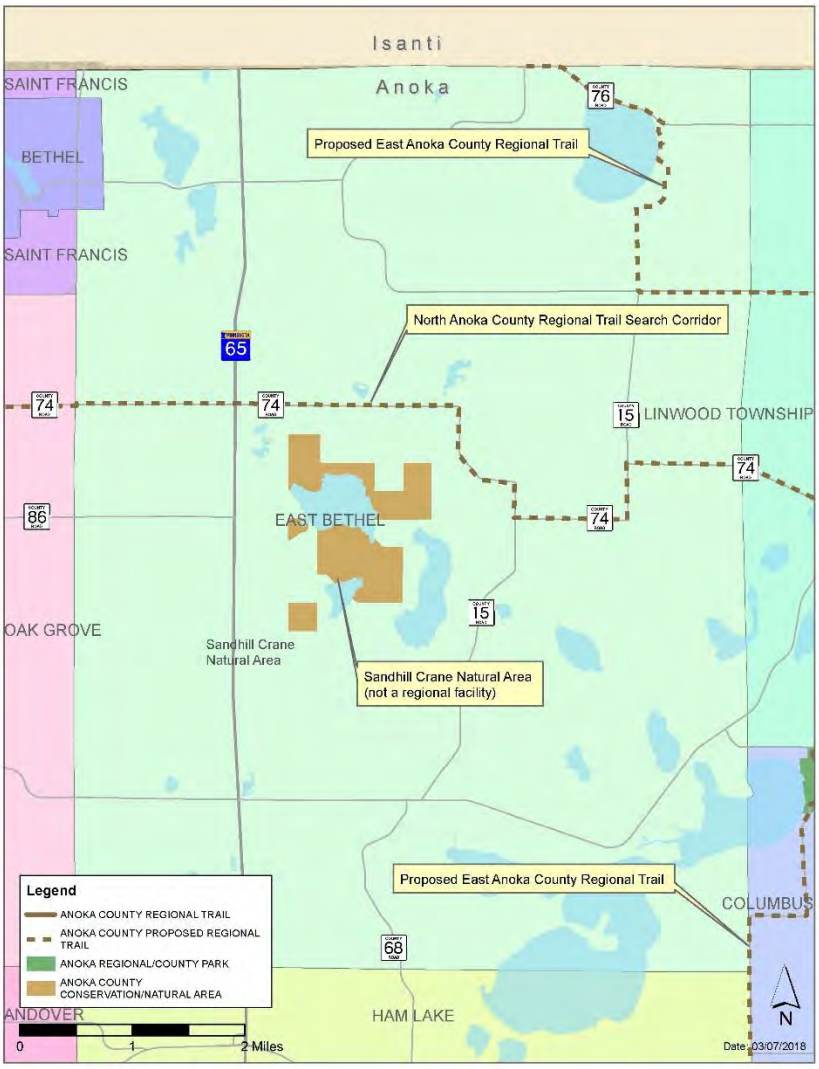


FIGURE 12: REGIONAL TRAIL SEARCH CORRIDORS IN EAST BETHEL



Local Bicycle and Pedestrian Trail System

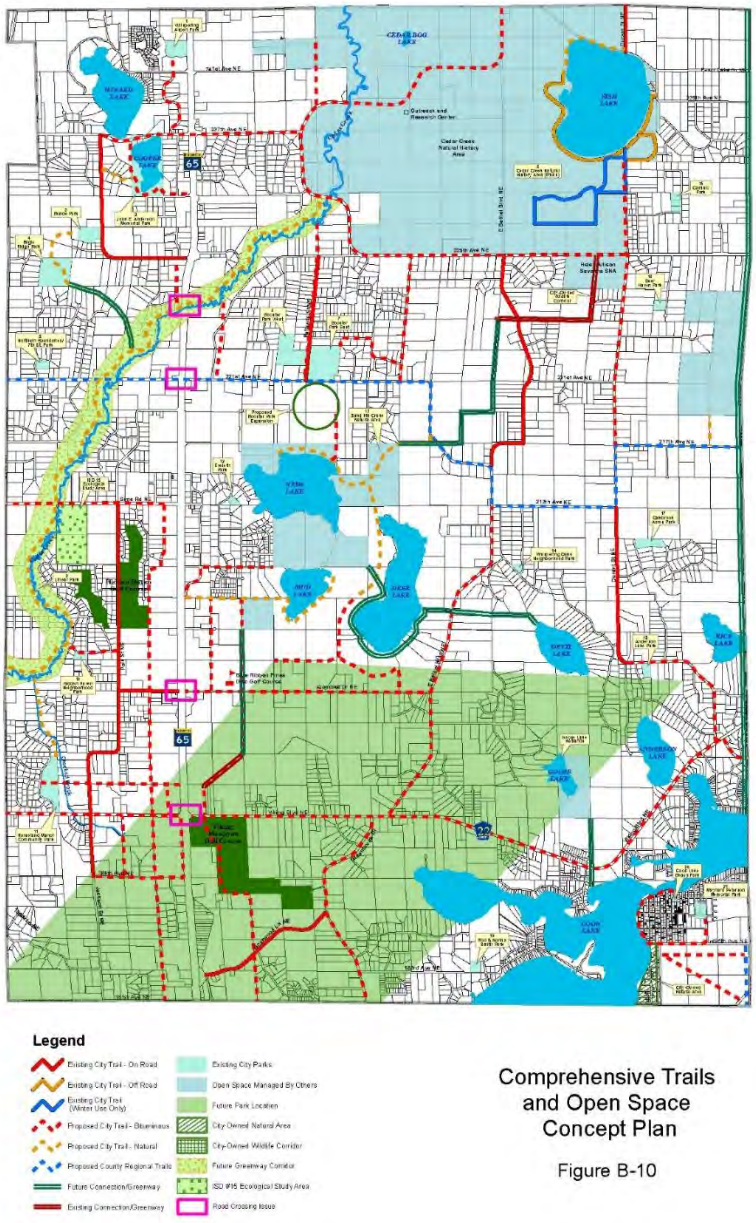
Throughout the past several years, many additions, improvements, and recognition of trail corridors have occurred. The Parks and Recreation Department has worked cooperatively with the Anoka County Highway Department and local municipalities in establishing and developing the regional trail system. These coordinated efforts have allowed for creative ways to finance, develop, and construct trails.

While pedestrian and bicycle systems can serve a wide variety of purposes, walking and biking are primarily recreational activities in East Bethel. The provision of adequate facilities for pedestrians and bicyclists promotes non-motorized travel and improves safety.

A pedestrian and bicycle system should provide a connection between concentrated activity areas such as schools, parks, and dense commercial properties. There is currently only one school and no concentrated commercial areas within East Bethel. However, East Bethel is fortunate to have two nature areas, which are the Cedar Creek Natural History Area and the Sandhill Crane Nature Area. One of East Bethel's goals is to eventually connect these two areas with a trail system.

The map on the following page, Figure 13, illustrates the proposed city trails and whether they are to be bituminous or natural.

FIGURE 13: COMPREHENSIVE TRAILS AND OPEN SPACE CONCEPT PLAN



Facilities in Proposed Urban Area

As discussed in this document, the City of East Bethel plans to develop its Trunk Highway 65 corridor with municipal sewer and water, which will include high density residential and commercial development. Current City Code requires that sidewalks be constructed on one side of all new streets in this urban development area. The sidewalks are predominantly designed for pedestrian traffic only. Since the neighborhood roads will be low volume and low speed, it is anticipated that bicycle traffic will use the streets for travel.

Facilities in Existing Rural Area

The area outside the Trunk Highway 65 corridor is currently and will remain rural in nature. Most of the developments in these areas include 2-acre average lot densities. These neighborhood streets are very low volume and low speed and typically do adequately accommodate both pedestrian and bicycle traffic.

Crossings at Local Major Collectors and Arterial Roadways

The City of East Bethel receives annual funding from MnDOT to maintain and construct their Municipal State Aid System. These streets are the City's major local collectors and typically begin or terminate at a County or State Highway. It is the City's policy to construct, at a minimum, 6-foot shoulders on each side of their local major collectors as they are constructed or reconstructed. These shoulders are intended to facilitate both pedestrians and bicyclist travel in a one-way direction.

East Bethel has two major highway corridors, through the City, including Trunk Highway 65 and Viking Boulevard. Crossings for pedestrians and bicyclists can be challenging for these types of roadways. When opportunity presents itself, the City will work with MnDOT and Anoka County to improve trail crossings at these major highway corridors. For example, MnDOT recently constructed reduced conflict intersections on Trunk Highway 65 at 181st Avenue, 187th Lane and at Viking Boulevard. All of these intersections included pedestrian ramps, lighting, and the RCI signal at Viking Boulevard includes push buttons.

AVIATION SYSTEM

The Metropolitan Aviation System is comprised of nine airports, which are shown on Figure 14, and off-airport navigational aids. There are no new airports or navigational aids that have been added to the system in the *2040 TPP*.

FIGURE 14: AIRPORT SERVICE AREAS

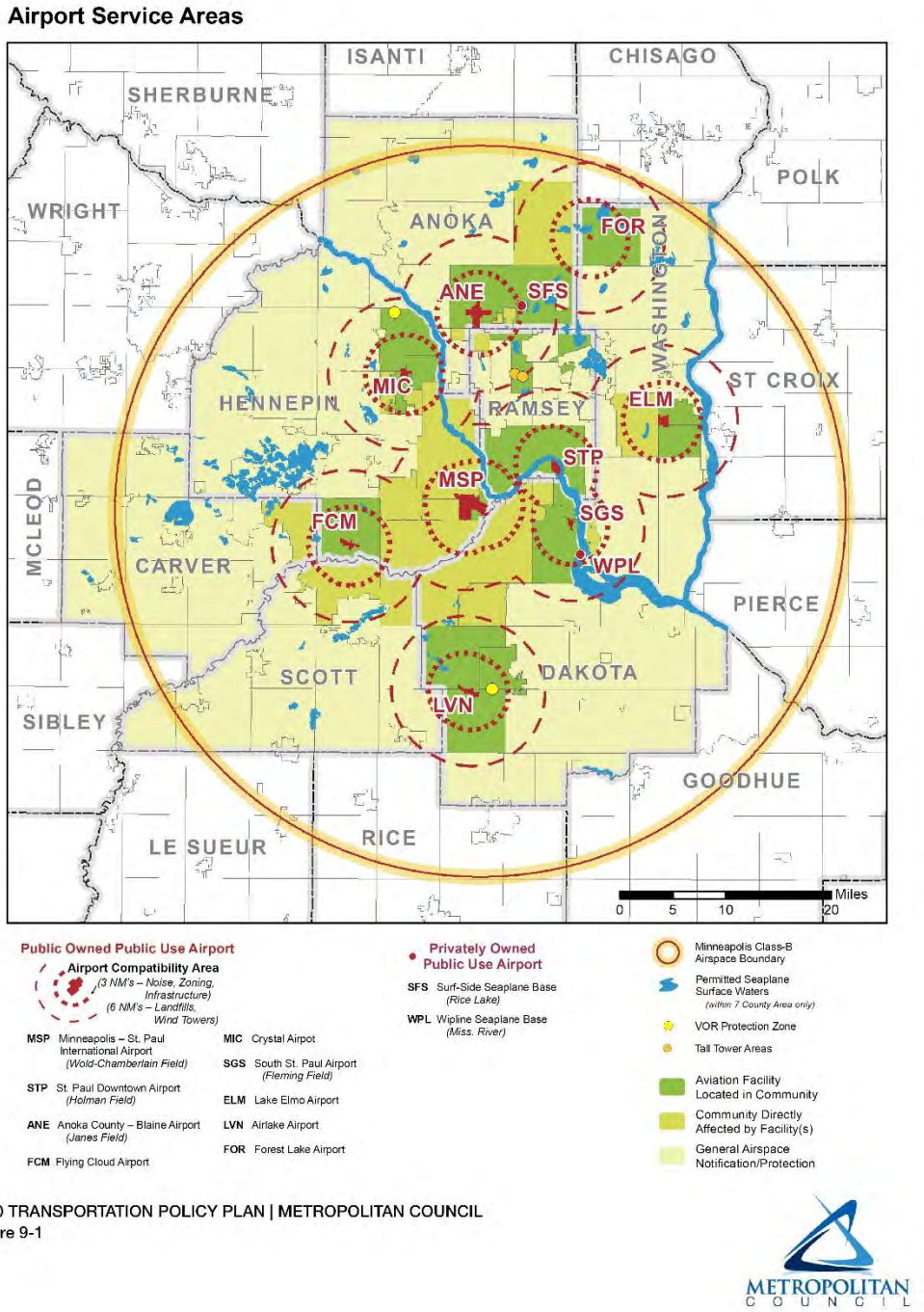


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Figure 9-1

METROPOLITAN COUNCIL

East Bethel is not located within any airport influence area. The closest airport to the City is the Anoka County-Blaine airport located 15 miles to the south of the City. The City will notify MnDOT in the event that any new structures are proposed in excess of 200 feet. The only lake where seaplane usage is permitted is Coon Lake in the southeast corner of the City.

Each community has a responsibility to ensure that the Comprehensive Plan includes airspace protection from potential hazards to air navigation, including electronic interference. Local codes and ordinances will reflect measures to control height of structures, particularly as it relates to conditional use permits.

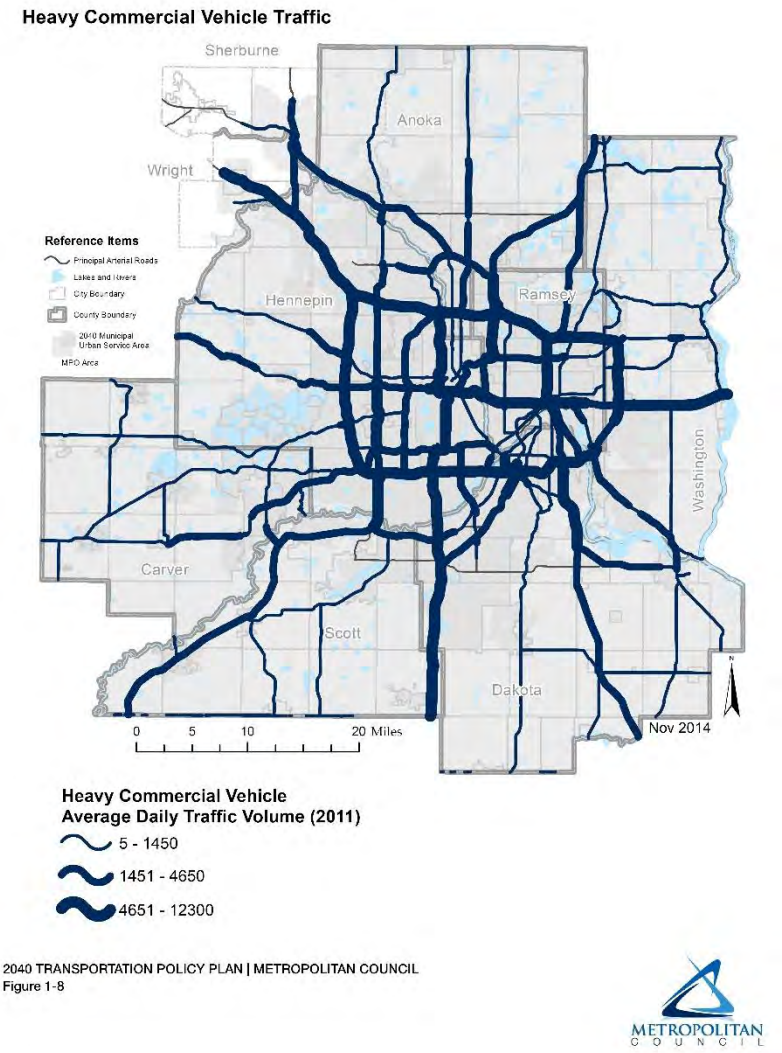
Additionally, East Bethel recognizes, for purposes of safe use of surface waters and compatible land use, that within the seven-county metro area certain public waters are designated by MnDOT Office of Aeronautics as permitted seaplane use areas under state rules.

FREIGHT

Most aspects of freight movement are controlled by the private sector, so unlike other sections of the *TPP*, there is not a specific plan adopted for future public-sector investment in freight facilities. East Bethel has one industrial park that generates truck-based freight movement. The industrial park is between 185th Avenue and 189th Avenue directly west of TH 65. In 2017 the City constructed a much-needed secondary access to this area via a new service road from 187th Lane to Viking Boulevard. The City has not experience any other issues, local roadway issues, or problems with facilities truck-based freight movement.

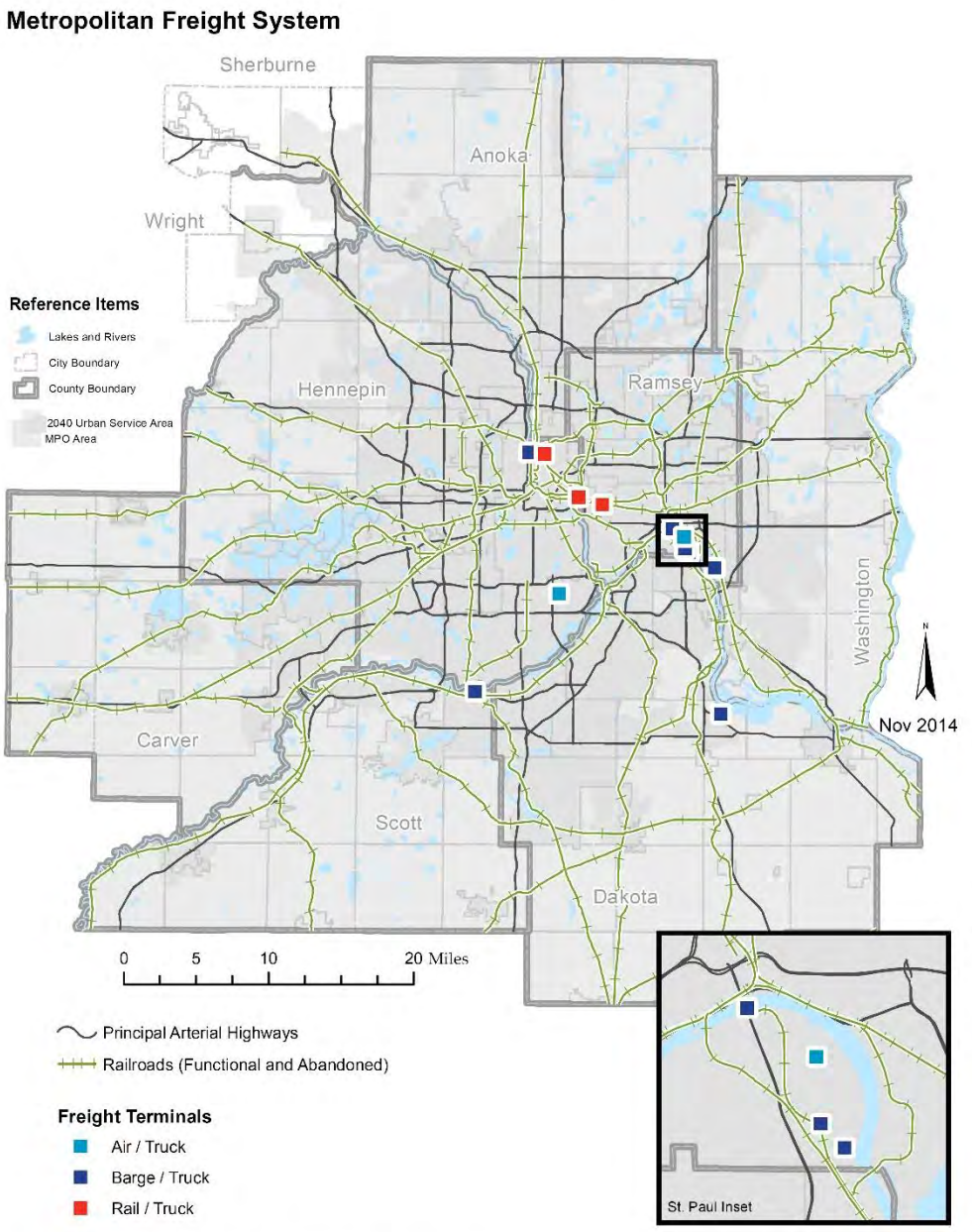
According to the most current Minnesota Department of Transportation Heavy Commercial Daily Traffic (HCDT) Map shown on Figure 15 on the next page, the only measured freight traffic is through traffic on TH 65.

FIGURE 15: HEAVY COMMERCIAL VEHICLE TRAFFIC



The Burlington Northern Santa Fe Railroad owns and operates a single-track freight railway that runs north/south on the east side of the City. A majority of the rail alignment is in Oak Grove as shown on Figure 16 on the next page.

FIGURE 16: METROPOLITAN FREIGHT SYSTEMS



2040 TRANSPORTATION POLICY PLAN | METROPOLITAN COUNCIL
Figure 1-6

METROPOLITAN COUNCIL