

Maintain and Grow Bus Ridership

Transit Market Areas

The transit system will respond to five distinct transit market areas identified by the Council, defined by population and employment density and the number of people who depend on transit (see Appendix G for detailed definitions). Transit market areas are shown on Figure 7-19.

The downtowns of Minneapolis and St. Paul, the University of Minnesota, and the Minneapolis-St. Paul International Airport/Airport South/Mall of America areas are the primary destinations for transit trips in the region. They also have the largest concentrated employment and surrounding roadways have the highest levels of congestion in the region. Measures to strengthen the role of transit in serving these major activity centers are crucial to the health of the entire transportation network and the region's economy.

Regular-Route Bus System

The regular-route bus system will change and expand as population, congestion and the cost of travel increase, as the region implements rail transit and as customer needs change.

Local routes will benefit from expanded coverage and frequency improving transit connections between workplaces, residences, retail services and entertainment activities. Routes that may be added or improved by 2030 are included in Figure 7-20. In 2008 local bus routes carried 63 million rides – 66% of the total regional transit ridership.

Arterial routes are high-demand local bus routes with a high level of service. Arterial routes will receive the highest level of local bus service – 15 minutes or better frequency during peak periods, seven-day, up-to-24-hour service, with highly visible passenger facilities at major stops. A subset of arterial routes has a very high level of service branded as the “Hi-Frequency Network”, offering 15-minute or better frequency from 6am to 7pm on weekdays and 9am to 6pm on Saturdays. (See <http://metrotransit.org/hi-frequency-network.aspx> for info). Arterial routes that may be added or improved by 2030 are included in Figure 7-21. The high frequency network will also expand and improve. Some of these arterial routes also have potential to be upgraded to arterial bus rapid transit service as described in the transitway section.

Express routes will be enhanced and expanded in congested highway corridors. Park-and-ride facilities will be developed to support these routes and other improvements will be made within these corridors. Potential routes are shown in Figure 7-22. A minimum level of express service (three trips per peak hour) from any one location within a corridor should be provided.

Long-distance express routes may be introduced outside of the seven-county area where appropriate to provide transit service between exurban areas and downtown Minneapolis or St. Paul. The Council has been working with some adjacent counties to identify feasible corridors. A connection between the Big Lake Northstar commuter rail station and St. Cloud is currently being operated by St. Cloud Metro Bus.

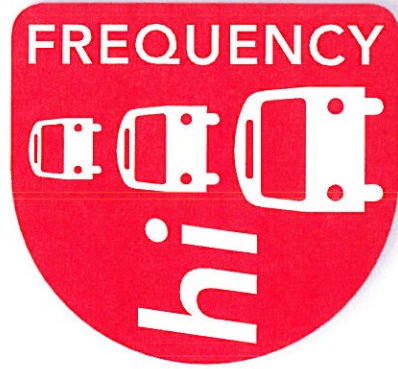
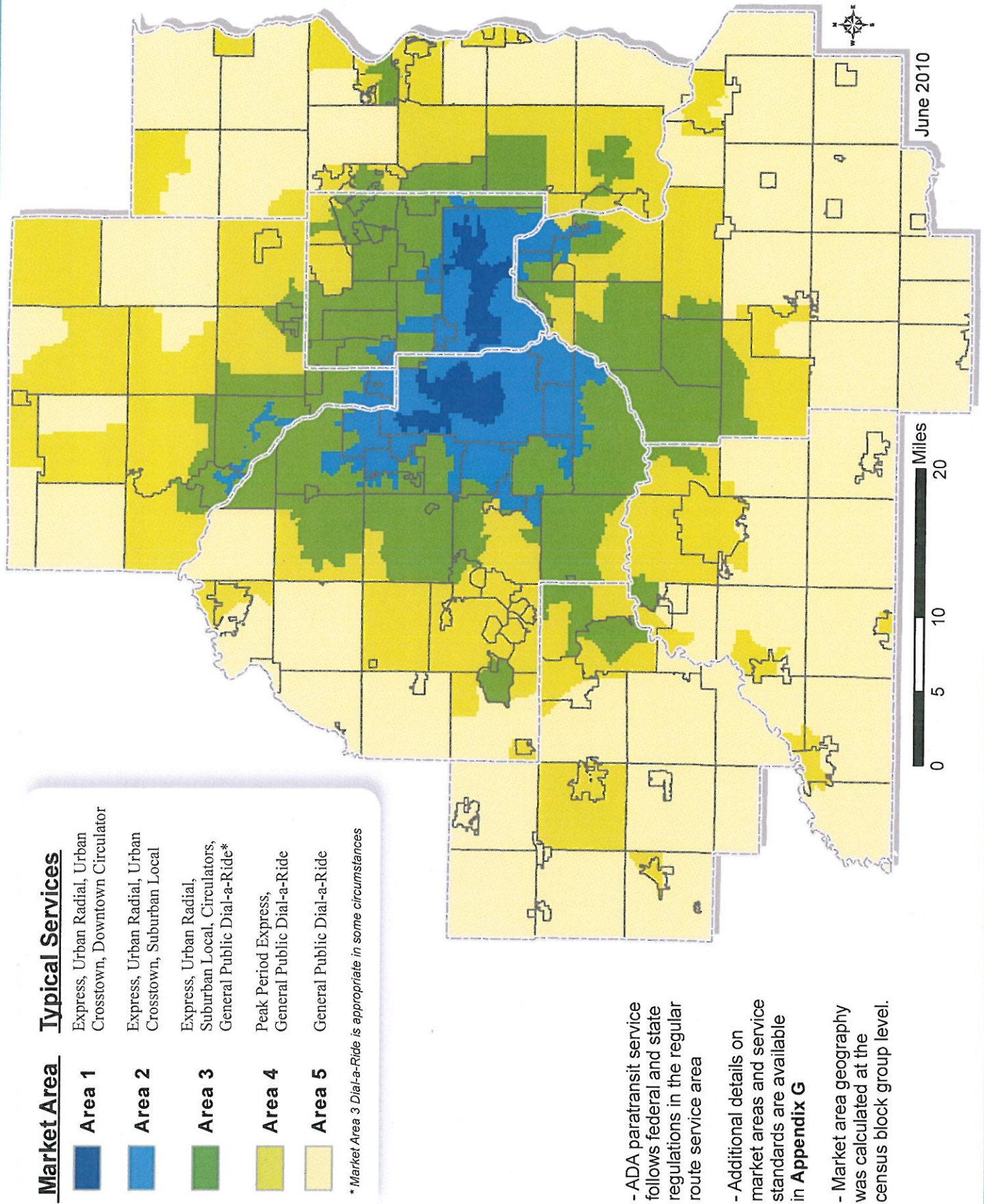


Figure 7-18: The Hi-Frequency Route Signage

High frequency routes are marked with the “hi-frequency” brand sign and listed in red

Figure 7-19: Transit Market Areas



- ADA paratransit service follows federal and state regulations in the regular route service area

- Additional details on market areas and service standards are available in **Appendix G**

- Market area geography was calculated at the census block group level.

Transit Market Areas

While several factors influence the propensity to use transit, the primary predictors of transit productivity are density of development at the origin and destination of trips. Transit markets in the seven county region are identified using the Transit Market Index, which is calculated using three primary factors: 1) population density, 2) employment density, and 3) transit dependent population. This Transit Market Index measures the potential market for transit services in a given area. Different types and levels of transit services are appropriate for each transit market area.

The Transit Market Index for an area is expressed in relative units of expected transit demand per acre and is calculated as follows:

$$\text{Transit Market Index} = \frac{(\text{Total Population}) + (\text{Total Employment} / 3) + (\text{Population Over 16} - \text{Available Automobiles})}{\text{Acreage of populated land uses (including industrial, institutional, commercial, and residential uses)}}$$

For the purposes of this plan, Transit Market Index is calculated at the Census block group level.

The region has five distinct Transit Market Areas that are determined based on the Transit Market Index for a given location. The Transit Market Area for a location is determined not only based on the Transit Market Index for that location, but also on the Transit Market Index of surrounding areas.

Transit Market Area I has the highest density of population, employment, and people who depend on transit. Because of this, Market Area I is able to support intensive transit service.

Transit Market Area II has high to moderately high population and employment densities yielding a market area that is conducive to fixed route transit operations, but not as intensive as in Market Area I.

Transit Market Area III has moderate density and can support a variety of transit services, but at lower intensity than areas I and II. In some cases, general public dial-a-ride services may be appropriate in Market Area III.

Transit Market Area IV has lower concentrations of population and employment. This market can support peak-period express bus services, if a sufficient concentration of commuters likely to use transit service is located along a corridor. Some areas may have sufficient den-

Table G-1: Transit Mark Area Characteristics

Transit Market Area	Transit Market Index
Area I	Transit Market Index above 20.0
Area II	Transit Market Index between 10.0 and 20.0
Area III	Transit Market Index between 5.0 and 10.0
Area IV	Transit Market Index between 1.0 and 5.0
Area V	Transit Market Index below 1.0

sity for Market Area IV, but may not have sufficient aggregate commuter demand to justify extension or improvement of express service. General public dial-a-ride services are appropriate in Market Area IV. The low population and employment densities of Transit Market Area V increase the complexity and challenge of matching transit service to transit need. General public dial-a-ride service may be appropriate in Market Area V, but due to very low-intensity land uses, these areas cannot support regular route transit. In the longer term to meet transit needs in suburban and rural settings, intensification of land use with a minimum 'critical mass' of increased intensity is necessary to provide and sustain increased transit service.

Transit Markets/Service Options

The table below identifies transit strategies that appear to be most appropriate for the different transit market areas. The service types presented are general descriptions for each market area; specific implementation of transit services will depend on available resources, specific analysis of transit demand, complementary and competing services, and other factors. Detailed analysis of specific communities within the metropolitan area may generate additional transit service delivery strategies.

Table G-2: Market Areas - Suggested Service Types

Transit Market Area	Suggested Service Type
Area I	Primary emphasis on regular route service. Downtown area circulators possible.
Area II	Primary emphasis on regular route service. Crosstown routes and limited stop services are appropriate to link major destinations.
Area III	A mix of regular route and community circulator service complemented by dial-a-ride service in specific cases. Community circulators should tie into regular route regional service at a transfer point.
Area IV	Peak period express service, if potential demand for service is sufficient to support at least three peak-period trips. General public dial-a-ride services are appropriate.
Area V	Primary emphasis on general public dial-a-ride services
ADA Paratransit Services	Paratransit service as determined by state and federal regulation. See ADA section of this appendix for additional details.
Transitways	Transitway service is unique to each transitway corridor, and is determined through detailed planning and study unique to individual transitway corridors.

Transitways

Transitways are unique transportation corridors with specific, detailed planning processes that result in appropriate levels of service for specific corridors. The detailed planning work on transitway corridors leads to unique applications of transit service design standards and specific types of service unique to each corridor.

ADA Paratransit Services

ADA paratransit service is public transportation for certified riders who are unable to use the regular fixed-route bus due to a disability or health condition. In the Twin Cities region, the Metropolitan Council oversees all ADA Paratransit Services. Metro Mobility contracts with ADA Paratransit service providers, who provide customers with "first-door-through-first-door" transportation.

ADA Eligibility

Eligibility is determined using federal guidelines established by the Americans with Disabilities Act

(ADA). A person may be eligible for ADA Paratransit Service if any of the following conditions apply:

- He/she is unable to independently navigate the fixed-route transit system because of a health condition or disability (OR)
- He/she is unable to independently board or exit fixed-route vehicles due to a health condition or disability (OR)
- He/she is unable to propel to or from a bus stop within the fixed-route service area due to a health condition or disability.

ADA Service Span and Coverage

The ADA Paratransit Service coverage area and hours of service is determined by several factors including Federal and State requirements. Per the Federal requirements, ADA paratransit service must operate at a minimum within $\frac{3}{4}$ of a mile of the local fixed route network during the same hours of the day as the fixed route transit service operates.

Metro Mobility achieves this by analyzing the fixed routes hours of service delivery for weekday, Saturday and Sunday/Holiday service in each community where service is provided and then matches that service level.

Beyond the federal requirements, the State requires Metro Mobility to provide service to all communities within the transit taxing district. Metro Mobility is available to these eligible residents living outside of the federally mandated service area by currently providing 12 hours of service on weekdays, and on an as space is available basis on Saturday's and Sundays/Holidays.

Transit Service Design Standards

A consistent set of transit service design standards ensures regional coordination and consistency. Regional design standards are custom-tailored for each transit market area. These standards represent typical design guidelines for transit service, though exceptions often exist based on specific circumstances and conditions.

Transit Service Options

This table outlines what type(s) of service are appropriate for each Transit Market Area.

Services Considered:	Area I	Area II	Area III	Area IV	Area V
Express	Yes	Yes	Yes	Yes	No
Urban Radial	Yes	Yes	Yes	No	No
Urban Crosstown	Yes	Yes	No	No	No
Suburban Local/ Circulator	Yes*	Yes	Yes	No	No
General Public Dial-a-Ride	No	No	Specific	Yes	Yes

*Area I circulators applicable for downtown or other employment areas over 30,000

Service Span

Service Span is the number of hours during the day between the start and end of service on a transit route

Days and Times of Service:	Area I	Area II	Area III	Area IV	Area V
Express	PMENW	PMENW	PME	P	n/a
Urban Radial	PMENOW	PMENOW	PMENW	n/a	n/a
Urban Crosstown	PMENW	PMENW	n/a	n/a	n/a
Suburban Local/ Circulator	PMENW	PMENW	PMENW	n/a	n/a
General Public Dial-a-Ride	n/a	n/a	Up to 18 hours	Up to 14 hours	Up to 14 hours

A trip's service period is determined by the time the route crosses its maximum load point. This standard represents the upper limit of service. For example, owl service is allowable but not required in Area I for an urban local route.

Peak: 6:00am-9:00am and 3:00pm-6:30pm; Midday: 9:00am-3:00pm; Evening: 6:30pm-9:00pm; Night/Early AM: 9:00pm-1:30am and 5:00am-6:00am and Owl: 1:30am-5:00am. Weekend is Saturday, Sunday/Holiday. Times do not necessarily correspond with fare structure times.

Table G-5: Minimum Frequency

	Area I	Area II	Area III	Area IV	Area V
Express	30" Peak	30" Peak	3 Peak Trips	3 Peak Trips	N/A
Urban Radial	15" Peak/ 30" Offpeak	30" Peak/ 60" Offpeak	60" Peak/ 60" Offpeak	N/A	N/A
	30" Peak/ 30" Offpeak	30" Peak/ 60" Offpeak	N/A	N/A	N/A
Suburban Local/ Circulator	N/A	30" Peak/ 60" Offpeak	60" Peak/ 90" Offpeak	N/A	N/A

Additional service may be added as demand warrants. Applies primarily to peak travel direction

Minimum Frequency

Service frequency is expressed as the average number of minutes between transit vehicles on a given route or line, moving in the same direction. This table shows the recommended minimum service frequency for each service type in a given market area.

Route Spacing

Maximum desired distance between bus routes, in miles.

Table G-6: Maximum Route Spacing

	Area I	Area II	Area III	Area IV	Area V
Express	Subject to availability and demand of a highway corridor				
Urban Radial	0.5	1	Specific	n/a	n/a
Urban Crosstown	1	2	n/a	n/a	n/a
Suburban Local/Circulator	n/a	2	Specific	n/a	n/a

"Specific" means the route structure will be adapted to demographics, geography and land use that impact route spacing.

Route Deviations

Route deviations are departures from a route's primary street to serve a specific transit generator. The route then returns and continues on the primary street.

- The number of riders served on the deviation must be greater than thru riders (deviation rides > thru rides).

Other factors, such as bus stop siting, access, and operational feasibility, are also involved in determining whether a route deviates.

Minimum Branch or Extension Productivity

Some transit routes serve multiple destinations at the end of a route using route “branches”. In addition, some routes are extended to serve additional destinations. To ensure that any route branches or extensions carry enough riders to justify the added cost of operation, the following productivity standards apply. Productivity is measured by passengers per in-service hour, as defined by the number of passengers getting on or off on a specific route segment, divided by the additional time required to operate the segment.

Table G-7: Minimum Branch or Extension Productivity*

	Area I	Area II	Area III	Area IV	Area V
Express	25	25	15	9	n/a
Urban Radial	25	20	15	n/a	n/a
Urban Crosstown	25	20	n/a	n/a	n/a
Suburban Local/Circulator	n/a	15	9	n/a	n/a

* As measured by passengers per in-service hour for boardings/alightings

Travel Time Competitiveness Guidelines

To be successful in attracting riders who have access to automobiles, transit service must provide travel times that are competitive with comparable auto travel times.

- Local bus travel time should generally not exceed 2.0 times average auto time.
- Express bus travel time should generally not exceed 1.35 times average auto time.

Network Transfer Connectivity

Transit network connectivity is the ability to travel anywhere the transit network reaches with minimal waiting time for transfers between the trips. Ideally, all transfers are designed to occur within 5-15 minutes at the transfer point. In specific situations where connections are less than 5 minutes, timed transfers should be arranged with specific transit operator instructions to “meet” the other bus.

Transit Stop Service Area

Standard walking distance to access transit services is ¼ mile for local bus service and ½ mile for limited stop bus or transitway stations.

Recommended Bus Stop Spacing

Bus stops that are close together reduce walking distance and access to transit, but tend to increase bus travel time. This recommended spacing seeks to achieve a balance.

- 6-8 stops per mile for local service
- 1-2 stops per mile for limited stop service

An allowable exception to standards may be central business districts and major traffic generators. These guidelines are goals, not a minimum nor a maximum.

Bus Stop Siting

- Near side stops are preferred in most areas.
- Far-side/mid-block stops are preferred in high density commercial areas, where traffic movements impede bus operations, or in applications of transit signal priority.
- Individual stop sites must be evaluated for:
 - Traffic conditions in area (i.e., right turns, merging, etc.)
 - Curb availability (see stop dimensions table below)
 - General suitability for bus stop (i.e., curb cuts, ADA considerations, obstructions, etc.).

Bus Stop Dimensions

The length of the bus stop, in feet, needed in order for a bus to safely pull into and out of a bus stop.

Passenger Waiting Shelters

A standard shelter location may be appropriate if the following ridership target is met at a proposed stop.

- Minneapolis and St. Paul: ≥40 boardings per day
- All other areas: ≥25 boardings per day

Heaters are occasionally installed in shelters with a warrant of 80 or more passenger boardings per day.

Custom Shelters

Custom shelters will meet a warrant of 100 boarding passengers per day, if one of the following criteria is met:

- Part of a larger project such as a bus corridor
- Transit Centers
- Park-and-Ride lots owned and maintained by regional transit providers
- Downtown bus stops

Bus Stop Dimensions*	Standard Bus Stop	Small Bus Only Stop
Near-side Stop	100 ft.	75 ft.
Far-side Stop	120 ft.	90 ft.
Mid-Block Stop	150 ft.	110 ft.

*Bus stops which have multiple buses stopping at the same time require more space.

Facility Amenities

Regional transit providers offer a range of amenities at bus stops, transit centers and other facilities for the comfort, convenience and safety of our customers. The following table identifies the standard amenities that are included with various facility types. Some amenities are always provided and others are occasionally provided, depending on the specific size, location or use of the facility.

Table G-9: Facility Amenities

Facility Type	Lights	Heaters	Trash Receptacles	Stand Alone Benches	Cameras	Electronic Customer Information Displays
Transit Centers	Y	Y	Y	Y	O	O
Park & Ride Lots	Y	O	O	O	O	O
Rail Stations	Y	Y	Y	Y	Y	Y
Standard Shelters	O	O	N	N	N	O
Custom Shelters	O	O	N	O	O	O

Y = Yes, always provided; N = No, not provided; O = Occasionally provided

Note that this guideline applies only to public transit agency-owned facilities. Providers also lease park & ride lots, and some shelters are owned and maintained by other entities. In those cases, providers do not normally offer customer amenities, although some may be included in certain situations.

Transit Vehicle Load Guidelines

The number of riders on board the vehicle as a percentage of the number of seats. This value is used to determine when the bus is overloaded and additional service is needed. If the result is greater than 100%, then some standees are acceptable.

Table G-10: Peak Periods

	Area I	Area II	Area III	Area IV	Area V
Express*	70-100%	70-100%	70-100%	70-100%	n/a
Urban Radial	85-125%	85-125%	85-125%	n/a	n/a
Urban Crosstown	50-125%	50-125%	n/a	n/a	n/a
Suburban Local/ Circulator	n/a	50-125%	50-125%	n/a	n/a
Light Rail Transit	200%	200%	200%	n/a	n/a

*Limited stop routes traveling less than 4 miles on freeways have a maximum load standard of 115%. Limited stop routes that do not travel on freeways have the same guidelines as urban radial or urban crosstown routes.

Guidelines are based on the number of seats on the vehicle, measured at the maximum load point of route. These standards are flexible on the fringe of peak period.

Maximum customer load average over a 15 minute period on a consistent basis

Table G-11: Off Peak Periods

	Area I	Area II	Area III	Area IV	Area V
Express	65-100%	60-100%	50-100%	n/a	n/a
Urban Radial	60-100%	60-100%	n/a	n/a	n/a
Urban Crosstown	50-100%	30-100%	n/a	n/a	n/a
Suburban Local/ Circulator	n/a	30-100%	30-100%	n/a	n/a
Light Rail Transit	200%	200%	200%	n/a	n/a

Limited stop routes that do not travel on freeways have the same guidelines as urban radial or urban crosstown routes.

Guidelines are based on maximum load point of route.

Maximum customer load average over a 30 minute period on a consistent basis.

Transit Performance Standards

The primary performance standards to measure service performance are Subsidy per Passenger and Passengers per In-Service Hour. Performance standards are used to evaluate the relative productivity and efficiency of the services provided. To be responsible and dynamic, a transit system must consistently measure and adjust service in unproductive routes and address insufficient service in productive areas. The use of two regional performance standards provides better insight into the operational and financial performance of individual routes and services.

Revision of Transit Performance Standards

The Metropolitan Council will complete a review of these transit performance standards. Working with regional transit providers, the Council will review and potentially modify the standards listed below. Following this review and potential revision, all providers will review their transit service annually based on the regional transit performance standards. Providers will annually submit their performance reviews to the council for inclusion in a regional service performance review.

Threshold No.	Level of Subsidy per Passenger Performance	Monitoring Goal	Possible Action
1	20 to 35% over peer average	For Quick Review	Minor Modifications
2	36 to 60% over peer average	For Intense Review	Major Changes
3	More than 60% over peer average	For Significant Change	Restructure/ Eliminate

Subsidy per Passenger

Subsidy or net cost is the difference between the total cost of providing service minus revenue from passenger fares. Subsidy per passenger represents the net cost divided by the number of passengers using the service. This standard identifies services that are not operating within regional efficiency ranges and focuses corrective actions for those services. Subsidy thresholds are determined by calculating the non-weighted subsidy per passenger average within each service classification plus fixed percentage deviations from that average.

Passengers per In-Service Hour

The passenger per in-service hour standard establishes a minimum threshold of performance for light rail transit, big bus fixed route service, small bus fixed route service and paratransit operations. Passengers per in-service hour represents the total passengers carried divided by the in-service time. This measure is most often calculated at the route level, but can also be used less formally at a route segment or trip level.

Type of Service	Average Passengers per In-Service Hour	Minimum Passengers per In-Service Hour
Light Rail Transit	≥70	≥50
Big Bus Fixed Route – All Day	≥20	≥15
Big Bus Fixed Route – Peak Only	≥20	N/A
Small Bus Fixed Route	≥9	≥5
Small Bus Non-Fixed Route	≥3	≥2
Other/Rideshare/Shared Ride Taxi	≤2	N/A

TRANSIT

The need for transit in the City of Blaine will likely increase with the expected increases in population, households, and employment in the future. Blaine is within the Metropolitan Transit Taxing District with some portions within Market Areas II and III.

Blaine also receives transit services from the Anoka County Transit Office's Anoka Traveler program. Two of the Anoka Traveler fixed routes (805 and 831) run through portions of the City (Figure 7-7). In addition, the future bus routes identified in Figure 7-8 are initiatives of the City and Anoka County and may not be included in future Metropolitan Council transportation policy plans. The Anoka Traveler also provides Dial-a-Ride service to the County.

The primary emphasis for Market Area II is on big bus and regular route services, complemented by paratransit service. Any neighborhood circulators should tie in with the regular route service. Service options for Market Area II include regular-route locals, all-day expresses, small vehicle circulators, special needs paratransit (ADA, seniors), and ridesharing. Service in Market Area II is intended to be accessible (routes 0.5 – 1.0 miles apart with 6 – 10 stops per mile), frequent (15 – 30 minutes) and with a wide availability (up to 20 hours per day and 7 days per week).

Market Area III serves a similar purpose as Market Area II, however service levels are reduced due to the lower density population and employment characteristics found in this area. Market Area III has a mix of big and small bus service, complemented by paratransit service. Market III service options include peak-only express, small vehicle circulators, midday circulators, special needs paratransit (ADA, seniors) and ridesharing. Service in Market Area III is often spaced further apart (0.5 – 1.5 miles) but still has a similar stop spacing (6 – 10 stops per mile). Frequency of service is about half of what is experienced in Area II (30 – 60 minutes) and transit availability is reduced slightly (up to 18 hours per day and 7 days per week). A further explanation of the Transit Market Areas is contained in Table 7-15.

TABLE 7-15: METROPOLITAN TRANSIT MARKET AREAS

Market Area	Land Use Patterns	Transit Service Options	Service Characteristics
I	Established urban environment with highest concentrations of activity, housing and jobs	Regular-route locals, all-day expresses, special-needs paratransit (ADA, seniors), ridesharing	Frequencies: 5-15 minute local and circulator. Span of Service: 18-24 hours, 7 days per week. Access: Locals spaced 0.25-0.5 mile apart with 8 bus stops per mile.
II	Established urban environment with moderate concentrations of jobs, housing and activities	Regular-route locals, all-day expresses, small vehicle circulators, special-needs paratransit (ADA, seniors), ridesharing	Frequencies: 15-30 minute or 30-60 minute, depending on land use pattern. Span of Service: 12-20 hours per day, 7 days per week. Access: Locals spaced 0.5-1.0 mile apart with 6-8 bus stops per mile.
III	Some established and developing land use patterns. Generally lower concentrations with intermittent pockets of moderate concentrations (pockets would receive highest service levels)	Expresses during peak period only, small vehicle dial-a-ride, midday circulators, special-needs paratransit (ADA, seniors) ridesharing	Frequencies: Expresses during peak period only, 1-2 hour midday frequencies. Dial-a-ride advance registration. Span of Service: 10-14 hours per day, weekdays and limited weekends. Access: Services tied to park-and-ride lots and hubs
IV	Generally rural or small town centers. Lowest concentrations of housing and jobs.	Dial-a-ride, volunteer-driver programs, ridesharing	Frequencies: As needed Span of Service: 8-10 hours per day, weekdays Spacing: Services tied to park-and-ride and park-and-pool lots

Table 10-5: Airport Facility Status

Airport Name and Identifier	Long Term Comprehensive Plan	Airport Size (Acres)	Total No. And Type Runway's	Primary Runway Length	Crosswind Runway Length	Air Traffic Control	Primary Runway Landing Aids	Based Aircraft 2009	Total Annual Aircraft Operations 2009
Minneapolis-St. Paul International (MSP)	2010 Plan adopted by MAC in 1996. 2030 Plan Update prepared 2010	3,400	Four Paved	Rwy 30L-12R 10,000'	Rwy 4-22 11,003' Rwy 17-35 8,000'	24 Hr. FAA ATCT Customs Service	Precision Instrument, High Intensity Runway Lights	24	432,395
St. Paul Downtown (STP)	2025 Plan Update approved 2010.	540	Three Paved	Rwy 14 -32 6,491'	Rwy 13/31 4115' Rwy 9-27 3,657'	16 Hr. FAA ATCT Customs on-call	Precision Instrument, High Intensity Runway Lights	124	110,846
Anoka Co.-Blaine (ANE)	2025 Plan Update approved 2010.	1,900	Two Paved	Rwy 9-27 5,000'	Rwy 18-36 4,855'	15 Hr. Contract ATCT	Precision Instrument, High Intensity Runway Lights	439	69,406
Flying Cloud (FCM)	2025 Plan Update approved 2010.	760	Three Paved	Rwy 10R-28L 5,000'	Rwy 18-36 2,691'	16 Hr. FAA ATCT	Precision Instrument, High Intensity Runway Lights	413	119,139
Crystal (MIC)	2025 Plan Update approved 2008	436	Three-Paved, one turf	Rwy 14R-32L 3,267'	Rwy 6L-24R 2,500'	16 Hr. FAA ATCT	Non-Precision Instrument, Medium Intensity Runway Lights	238	48,877
So. St. Paul (SGS)	1993 Plan adopted by city 1976; Airport Layout Plan updated 2002; CPU approved 2010	270	One Paved	Rwy 16-34 4,000'	None	Unicom	Non-Precision Instrument, Medium Intensity Runway Lights	217	40,800
Airlake (LVN)	2025 Plan Update approved 2008	425	One Paved	Rwy 12-30 4,098'	None	Unicom	Precision Instrument, High Intensity Runway Lights	158	39,021
Lake Elmo (21D)	2025 Plan Update adopted by MAC in approved 2008	640	Two Paved	Rwy 14-32 2,850'	Rwy 4-22 2,497'	Unicom	Non-Precision Med. Intensity Runway Lights	229	37,600
Forest Lake (25D)	City Feasibility study 1996, Airport Area AUAR in 2000; CPU approved 2009.	330	One Turf	Rwy 13-31 2,575'	None	Unicom	Visual Low Intensity Runway Lights	26	8,000
Rice Lake SPB (8Y4) Private, Public-Use	City of Lino Lakes CPU approved 2009.	20 Land area only	Two Water Lanes	NE/SW 6,500'	N/S 5,500'	Unicom	Visual No Lighting	45	4,100

Source: Airport LTCP's, Airport Master Record, FAA ATCT data.

Aviation Systems Statements are prepared by the Council after adoption of each aviation system plan. The statements describe what specific system elements are to be included and considered in updating or amending a local plan. Three types of aviation statements are given to communities:

- Communities with only general airspace protection and notification to FAA for proposed tall structures.
- Communities with general airspace protection considerations, but also directly affected by aircraft and adjacent airport facility operations.
- Communities with general airspace protection, but also an aviation facility located within its corporate limits.

The planning process and local plan requirements are further defined in the *Local Planning Handbook*. Figure 10-24 depicts the regional aviation system and identifies those communities and geographical areas affected by one or more types of air transportation planning and development considerations. The *Airport Compatibility Area* identifies where aviation planning considerations are likely to apply, and is a tool used by the Council in its initial assessment of whether public and private projects referred for review are going to require additional coordination or information.

Table 10-23: Airport Classifications

Airport	Federal NPIAS	State	Regional
MSP International	Commercial Service - Primary	Key	Major
(None in metro system)	Commercial Service - Other	Key	N/A
(e.g. St. Cloud)	Commercial Service - Reliever	Key	N/A
St. Paul Downtown	Reliever	Key	Intermediate
Flying Cloud	Reliever	Key	Minor
Anoka County-Blaine	Reliever	Key	Minor
Crystal	Reliever	Intermediate	Minor
Lake Elmo	Reliever	Intermediate	Minor
Airlake	Reliever	Intermediate	Minor
South St. Paul	Reliever	Intermediate	Minor
(e.g. Red Wing)	General Aviation (G.A.)	Key	N/A
Forest Lake	N/A	Landing Strip	Minor

System Plan Elements

Classification of Airports

All airports are subject to the rules of airspace sovereignty and national governmental controls. Most airports in the metropolitan and state systems are part of the national plan of integrated airport systems. These systems classify airports as to their role and function in the particular system. Each level of system planning categorizes the airports in different ways to address the agency purpose and goals for their particular system. Policy, design, operations, facility use, and funding are tied to these facility designations. A comparison of the federal, state and regional nomenclature and classification is depicted in Table 10-23.

Table 10-25 gives a summary overview of airport functional and operational characteristics and regional airport facility classification, including application of the airport influence area. The existing regional airport system plan for the metropolitan area (RASP) depicted in Appendix J includes a figure identifying the metro airports system including the hub airport, reliever airports, and special purpose facilities. No publicly-owned airports exist in either Scott or Carver Counties. Also included in this appendix are figures depicting the NPIAS airports and the state airport system plan (SASP) airports.

Table 10-25: Airport Functional and Operational Characteristics / Classification of Metro Region Airport System Facilities

Facility Classification	Functional Characteristics			Operational Characteristics		Airport Compatibility Area *	
	System Role	Users Accommodated	Air - Service Access Provided	Primary Runway Length	Instrumentation Capability		Compatibility Considerations
Major Airport							
MSP International	Commercial/Air Service Hub	Scheduled Passenger & Cargo, Charter, Air Taxi, Corporate G.A., Military	International, National, Multi-State, Regional	8,001 - 12,000 ft, Paved	Precision	Airport Compatibility Area requirements for airport system functioning: <ul style="list-style-type: none"> Regional Airspace Protection Airport Airspace and land use safety zoning Land Use Guidelines for Aircraft Noise Local Infrastructure and Services <ul style="list-style-type: none"> Sewer Service Water Service Storm Water Road Access Police-Fire Non-Aviation Uses 	
Tier 2 Airport (SASP) ** St.Cloud	Commercial Hub Reliever	Scheduled Passenger & Cargo, Charter, Air Taxi, Corporate G.A., Military	International, National, Multi-State, Regional	8,001 - 10,000 ft, Paved	Precision		
Intermediate Airport							
St. Paul Downtown	Corporate Jet Reliever	Air Charter, Air Taxi, Corporate Jet, Military, G.A.	International, National, Multi-State, Regional	5,001 - 8,000 ft, Paved	Precision		
Minor Airport							
Anoka Co. -Blaine	Business Jet Reliever	Air Taxi, Business Jet	Nat'l./Multi-State	5,000 ft, Paved	Precision		
Flying Cloud	Business Jet Reliever	Air Taxi, Business Jet	Nat'l./Multi-State	5,000 ft, Paved	Precision		
Airlake	G.A. Reliever	Rec./Training/Business	Multi-State/State	4,098 ft, Paved	Precision		
So. St. Paul	G.A. Reliever	Rec./Training/Business	Multi-State/State	4,001 ft, Paved	Non-Precision		
Crystal	G.A. Reliever	Rec./Training/Business	Multi-State/State	3,263 ft, Paved	Non-Precision		
Lake Elmo	G.A. Reliever	Rec./Training/Business	Multi-State/State	2,850 ft, Paved	Non-Precision		
Forest Lake Airport	Recreational/Business	Recreation/Training	State, Region	2,650 ft Turf	Visual		
Special Purpose							
Surfside Seaplane Base	Recreational/Business	Rec./Training/Per. Bus.	Multi-State/State	6,500 ft Water	Visual	Variable by Facility	
Wipline Seaplane Base	Recreational/Business	Training/Business	Nat'l/Multi-State	8,000 ft Water	Visual		
Public Heliports	General Aviation	Business/Air Taxi	State, Regional	Variable by facility	Visual		
Private Heliports	Business	Bus./Training	State, Regional	Variable by facility	Variable by facility		
Hospital Heliports	Emergency Services	Business	State, Regional	Variable by facility	Variable by facility		
*Airport Compatibility Area is defined as a radius area 3 nm and 6 nm off the ends of the existing and planned runways of the nearest system airport; within 3 nm it addresses general land use compatibility issues, and out to 6nm it also addresses sanitary landfills, and wind-generation facilities.							
** The St. Cloud Airport is not part of the metro airports, but is included here for comparison purposes since it is designated in the 2006 State Airport System Plan (SASP) and airport master plan as a commercial service reliever to MSP International Airport.							

Table 10-50: System Development Phasing Priorities

Aviation Facility	Short-Term 0 to 5 Years (2010-2015)		Mid-Term 6 to 15 years (2016-2020)		Long-Term 16 to 30 years 2021-2025		Post 2030	
MSP International	Implement projects to Expand Terminal 2 Humphrey (Assumes all non-Sky Team Alliance airlines are moved to Terminal 2) Implement the MAC annual Capita Improvement Program.	Implement projects to Modernize and Expand Terminal 1 Lindbergh Complex. (Assumes all non-Sky-Team Alliance Airlines are moved to Terminal 2 – Humphrey)	Complete Terminal 2 HHH Expansion, Expand Terminal 1 Lindbergh, Concourse G, Expand Parking, Develop Hotel	Construct Crossover Taxiways and Access Road to Terminal 1				
STP St. Paul Downtown	Pavement maintenance and replacement program, on-going throughout planning period. Terminal sub-drain, electric vault improvements, MAC building maintenance on-going, Non-aeronautical land use development.	Pavement Maintenance Building Maintenance Non-Aeronautical land use Development	Pavement Maintenance Building maintenance	Pavement Maint. Building Maint.	On-going On-going			
ANE Anoka County- Blaine	Security Gate Improvements, Taxiway Charlie Extension, Xylite Street Relocation, Pavement Maintenance Program, Non-Aeronautical Land Use Dev.	Pavement Maintenance Non-Aeronautical Dev.	Pavement Maintenance	Pavement Maint.	West Bld. East Bldg. N/S Rwy. E/W Rwy.			
FCM Flying Cloud	Extend, shift, reconstruct Rwy. 18/36, Construct North perimeter Rd, Replace 18/36 VASI's, So. Hangar Area Utilities, Pavement Management Program.	Pavement Maintenance Non-Aeronautical Dev.	Pavement Maintenance Clear Taxiway (A) object-free area. Relocate ATCT.	Pavement Maint.				
MIC Crystal	Pavement Rehabilitation Obstruction Removals Runway 14R/32L modifications							

Figure I-5: ANOKA COUNTY-BLAINE AIRPORT 2025 LTCP

OBJECTIVES

- Maintains current runways.
- Retains parallel runways for post 2025 system needs.
- Continues the pavement maintenance Program.
- Completes relocation and construction of Xylite street.
- Relocates/extends Taxiway Charlie.
- Improves security gates
- Continues development of non-aviation uses for revenue enhancement.

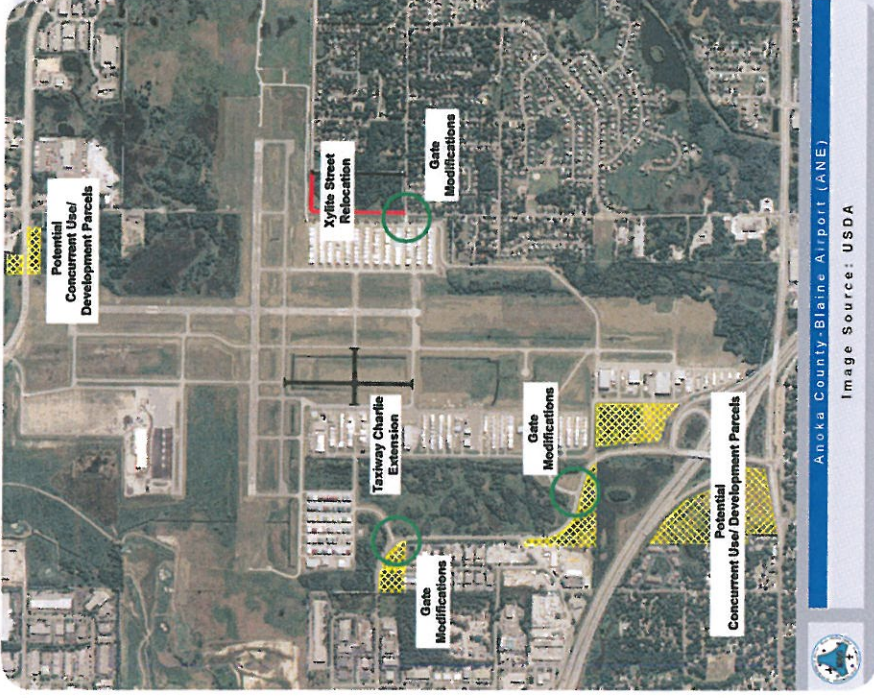
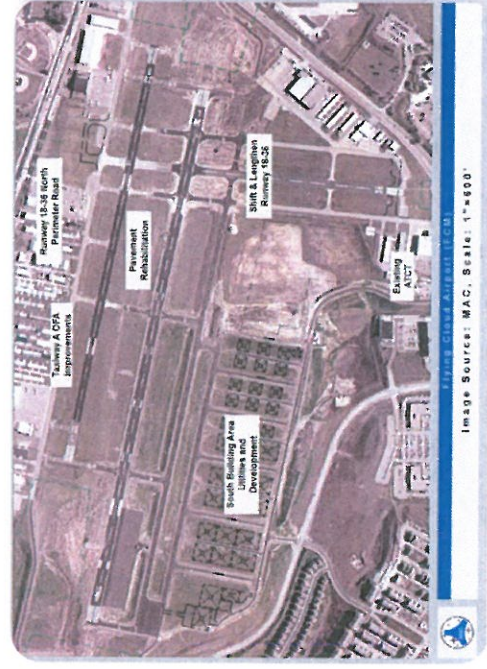


Figure I-6: FLYING CLOUD AIRPORT 2025 LTCP

OBJECTIVES

- Maintain parallel runways
- Shift/extend cross runway
- Continue the runway maintenance program
- Complete So. Bldg. Area utilities
- Provide object-free area on Taxiway (A)
- Relocate ATCT
- Continue development of non-aviation land uses for revenue enhancement



BIKE AND PEDESTRIAN

The discussion of the bicycle and pedestrian system is in the Parks chapter (Chapter 6).

AVIATION

Blaine is served by the Anoka County-Blaine Airport. The airport is located entirely within the City of Blaine. The Airport is owned and operated by the Metropolitan Airports Commission (MAC). The City provides sanitary sewer service to the airport per agreement.

Airports are primarily classified by three different classification systems, each designed to respond to the different needs of the applicable regulatory authority.

Federal Aviation Administration

The Federal Aviation Administration (FAA) has four primary classifications for airports defined as follows:

- **Commercial Service Airport** - Publicly owned airports having at least 2,500 passenger boardings each calendar year and receive scheduled passenger service.
- **Cargo Service Airport** - Airports that are served by aircraft providing air transportation of only cargo with a total annual landed weight of more than 100 million pounds. An airport may be both a commercial service and a cargo service airport.
- **Reliever Airport** - Airports designated by the FAA to relieve congestion at Commercial Service Airports and to provide improved general aviation access to the overall community. Reliever airports may be publicly or privately-owned.
- **General Aviation Airport** - Airports that do not fall under any of the previous categories. Airports in this category can vary significantly from a small, rural airport to a privately owned, public use airport that enplanes 2,500 or more passengers annually and receives scheduled airline service.

The Anoka County-Blaine Airport is designated a Reliever Airport in the FAA system, reducing congestion at the Minneapolis-St. Paul International Airport. ***The City of Blaine agrees that this is the correct classification and does not support a status change.***

State Of Minnesota

The State of Minnesota has three classifications for airports that differentiate airports by infrastructure, rather than use. The classifications are defined as follows:

- **Key System** - Airports having a heavy paved and lighted runway over 5,000 feet in length that are capable of accommodating heavy, multi-engine aircraft as well as most corporate jets.
- **Intermediate** - Airports having a paved and lighted runway less than 5,000 feet in length that are capable of accommodating all single-engine, most twin-engine, and some light jet aircraft.
- **Landing Strip** - Airports with turf runways capable of accommodating single-engine and light twin-engine aircraft.

The Anoka County-Blaine Airport is designated as an Intermediate Airport in the State of Minnesota system. ***The City of Blaine agrees that this is the correct classification and does not support a status change.***

Metropolitan Council and Metropolitan Airports Commission

There are four primary classifications for airports that differentiate airports primarily by their role in the regional airport system, users, runway length and instrument capability. Figure 7-10 shows the Regional Airport System as described in the Metropolitan Council's 2030 Transportation Policy Plan. The classifications are defined as follows:

- **Major** - Airports that have scheduled air service. Major airports have primary runway lengths of 10,000 feet, precision instrument capability and support air carriers.
- **Intermediate** - Airports that are primary relievers to the Minneapolis-St. Paul Airport. Intermediate airports have primary runway lengths of 5,001 to 8,000 feet, precision instrument capability and support general aviation, including Regional/Commuter.
- **Minor** – Airports that are secondary relievers to the Minneapolis-St. Paul Airport. Minor airports have primary runway lengths between 2,500 and 5,000 feet, precision or non-precision instrument capability and support general aviation, not including Regional/Commuter.
- **Special Purpose** – Airports that do not fall into other categories.

The Anoka County-Blaine Airport is designated by the MAC and the Metropolitan Council as a Minor Airport. ***The City of Blaine agrees that this is the correct classification and does not support a status change.***

The volume of aircraft using the Anoka County-Blaine Airport has remained relatively constant over the last several years at approximately 200,000 annual operations. The number of based aircraft at the airport is 490 and is likely to rise due to the addition of hanger storage space at the airport.

The airport has a new air traffic control tower, a 4,855-foot long north-south runway, and a 5,000-foot east-west runway.

The Anoka County-Blaine Airport has a land envelope of approximately 1,900 acres. The airport is accessible via a network of roadways, primarily I-35W, U.S. 10, TH 65, and 85th Avenue NE. Direct access to the airport grounds is provided at three locations.

There are no existing traffic counts or estimates for vehicular traffic using the airport access locations. Observations indicate that traffic volumes at the various access locations are low. The airport grounds are served by a network of roadways. Airport Road is the primary roadway within the airport grounds. The airport roadways are private and are owned and maintained by the MAC. Parking at the airport is provided at each individual Flight Based Operation (FBO). Ample parking is available throughout the airport.

TRANSPORTATION IMPLEMENTATION

1. The City will work with Anoka County and surrounding communities to initiate a transportation study of the Lexington Area that is projected to experience significant capacity problems in the future.
2. Transportation investments and land development will be coordinated to create an environment conducive to alternative travel modes including transit, pedestrian and bicycle travel.
3. The City will continue to work with MnDOT to explore incremental improvements for TH 65.
4. The City will continue to work cooperatively with the I-35W Corridor Coalition.
5. Roadways in the Northeast Area will continue to be based on a hierarchy of roads and limit the use of cul-de-sacs. Right-of-way preservation is considered through mock platting of future development areas and designation of Municipal State Aid collector routes, and implementation is through dedication of right-of-way during the plat development process.
6. The City should work with Anoka County and the City of Lino Lakes to discuss improvements to the intersection of 109th Avenue and Sunset Avenue.
7. Preservation efforts should be made for an east-west collector corridor at the 131st Avenue alignment.
8. The City should continue to implement the TH 65 Frontage Road System.
9. All new residential and commercial developments should be reviewed to determine if sidewalks and/or trails should be included.
10. Inter-city connectivity with key activity nodes (parks, schools, libraries, shopping, etc.) for the pedestrian and bicycle system should be promoted.
11. Improved pedestrian and bicycle accommodations should be explored for the following corridors:
 - a. 109th Avenue
 - b. Radisson Road
 - c. Naples Street
 - d. TH 65 Easter Frontage Road
 - e. 105th Avenue
 - f. Northeast Area Collector
12. All new collector roadways should include provisions for pedestrian and bicycle facilities.
13. Connectivity should be promoted between the City pedestrian and bicycle systems and the regional trails and recreation facilities.
14. Appropriate amenities associated with the pedestrian and bicycle system should be included to enhance safety, convenience and promote non-motorized travel.
15. The City supports expanded bus transit service in the following areas:
 - a. TH 65 Corridor
 - b. Radisson Road/Northeast Area
 - c. Express Transit Service to Downtown St. Paul

- d. U.S. 10 Corridor
 - e. Service to support the Northstar Corridor commuter rail line
16. The City will explore opportunities to promote higher density initiatives along dedicated transit corridors and increase links between job centers and medium-high density residential developments to improve the jobs/housing connections, community vitality and efficiency of the transportation system.
 17. Transit stations and service should be catalysts for the development or growth of centers along transit corridors.
 18. The City will work with the Metropolitan Council to determine future transit services consistent with the transit market area and its associated service standards and strategies.
 19. The City supports the implementation of commuter rail service, including the Northstar Corridor and encourages MnDOT to consider acceleration of the timetable of the Bethel Corridor.
 20. The City supports the continued use of and improvement of the Anoka County – Blaine Airport as long as it does not upgrade the airport’s classification at the federal, state or local level.
 21. The City will continue to work with Anoka County to meet the transportation needs along the University Avenue Corridor.