

4.0 TRANSPORTATION

This chapter compares the effects of the Preferred and No-Build Alternatives on the transportation system, including:

- Forecast traffic volumes
- I-494 corridor operations
- Changes in local and regional access
- Effects on alternative transportation modes
- Role in the regional transportation system

4.1 FORECAST TRAFFIC VOLUMES

4.1.1 INFORMATION FROM THE DEIS THAT REMAINS UNCHANGED

The DEIS traffic forecasts for year 2010 (Section 5.3.1 of the DEIS) no longer reflect 20 years after build conditions. Therefore, all of the forecast information has changed since the DEIS.

4.1.2 CHANGES IN THE IMPACTS OR TECHNICAL ANALYSIS THAT HAVE OCCURRED SINCE THE DEIS

Travel forecasts for the FEIS were updated to reflect 20 years after anticipated construction of the first phase of construction (2002)—making the FEIS forecast year 2022. Updating the traffic forecasts to reflect 2022 conditions for the FEIS utilized a traffic forecast method and input data that differs from the DEIS analyses. A technical memorandum describing the forecasting process and results for the I-494 study area is included in Appendix B of this FEIS. The process is summarized below.

The travel forecasting process used the Twin Cities regional travel forecasting model, modified to improve responsiveness to issues relating to the specific study. The model includes a series of computerized procedures for systematically predicting travel demand changes in response to development and transportation facility changes. It provides sufficient accuracy for most regional and corridor-level transportation planning. The Metropolitan Council and Mn/DOT completed the current model in 1994 using data from an extensive regional Travel Behavior Inventory (TBI) conducted in 1990. The DEIS analysis was conducted with a “sub-regional” model that included only that portion of the Twin Cities region in the I-494 study area. That model was based on a version of the model developed in the 1970’s.

The nine main components of the travel forecasting process are as follows:

1. Highway Network Representation

All of the freeways, expressways, and major arterial roadways in the Twin Cities area are compiled into a computer representation of the region’s highway system. In addition, most

minor arterials and many collector roads and other local streets are included. The attributes of the roadways are described in terms of area type, facility type, distance, free-flow speed, number of lanes and capacity.

To better estimate the effects of different roadway designs, additional roadways in and near the I-494 study area were added to the regional model. The model assumptions were also updated to include specific future-year highway improvements. Additions to the highway network for 2022 modeling conditions are described in the traffic forecasting memorandum in Appendix B.

2. Transit Network Representation

All regional transit routes are included in a computer representation of the transit system, including links (which represent the highway system) and lines (which define a transit route's frequency and path). Data in the transit network include link speed, link distance, route frequency and route type. These forecasts assume completion of the Hiawatha Corridor light rail transit line from downtown Minneapolis to the Mall of America.

3. Zonal Socio-Economic and Demographic Data

The regional travel forecast model divides the seven county Minneapolis-St. Paul Metropolitan Area into geographic transportation analysis zones (TAZs) based on physical boundaries and major roadways. It also includes as "external" zones the most important points of entry into the region. The zones serve as the beginning and end locations of travel in the region.

To provide more refined analysis of traffic impacts of I-494 reconstruction, the regional model TAZs near I-494 were split into an additional 200 zones. Appendix B includes a figure that shows the location of the TAZ boundaries in the study area.

Various demographic and socio-economic data are allocated into the TAZs for the purposes of forecasting traffic. The source of this information is the May 2000 Metropolitan Council demographic database which includes socio-economic data provided by cities in the I-494 corridor and reflects planned development through year 2020. This TAZ data was modified to distribute activity to the more refined zone level and to pro-rate growth to the design year 2022.

4. Trip Generation

Trip generation is the process that estimates the number of "person-trips" attributable to a zone, based on the amount and type of activity in that zone, such as household size, location and automobile ownership, and employment. Person-trips calculations use trip rates (number of trips per persons, households, or employees) based on the 1990 regional TBI. These rates are applied to each zone to calculate the number and purpose of trips. The 2022 forecast also augmented the regional model with trip generation information from environmental studies for major development projects currently underway in the I-494 corridor area.

5. Trip Distribution

The trip distribution process converts the person-trips estimated in the generation step to movements between pairs of zones based on the amount of travel activity in a zone and the generalized travel time between the producing zone and other zones. The resulting trip tables provide the number of trips between zones. The FEIS analysis did not use any changes to the regional modeling process for trip distribution.

6. Mode Choice

The mode choice phase of forecasting estimates number of person-trips between each pair of zones by mode (single-occupant vehicles, carpools, or transit). The models are further used to determine whether the trip is a candidate for a high occupancy vehicle (HOV) lane.

This study did not make any changes to the regional modeling process for mode choice. However, the HOV component of the mode choice model served as a basis for estimating the number of new HOV users.

7. Time of Day Estimation (Temporal Distribution)

Time-of-day, or “temporal distribution” models, take the estimated trips and distribute them across periods of time for the purposes of more accurately reflecting peaking conditions on roadway and transit systems. The basis for the temporal distribution is the 1990 regional TBI. The time periods considered are:

- a. A.M. peak hour
- b. A.M. peak shoulders
- c. First P.M. peak hour
- d. Second P.M. peak hour [generally used for operations analysis]
- e. P.M. peak shoulders
- f. Off peak time periods

Differentiation among peak hours enables better estimates of congested conditions on an hourly basis.

This analysis did not make any changes to the regional modeling process for mode choice. However, refinements were made to the forecast peak hour traffic volumes on specific roadway segments if warranted by traffic counts.

8. Highway and Transit Assignment

The trip assignment models choose the route between zones for any given trip. The highway assignment process chooses routes based on travel times that reflect the appropriate traffic volume, roadway capacity and speed relationship. The regional model uses the TRANPLAN travel forecasting software. This study used the TP-PLUS software package, an updated version of TRANPLAN.

The regional modeling process was modified to provide more accurate freeway and ramp capacities and speed. Transit assignment was not conducted for this study. See Appendix B for detailed discussion of model assumptions and modifications.

9. Model Validation

To measure the usefulness of the regional modeling process, its outputs for current traffic were compared to actual existing traffic counts. The results, which are detailed in Appendix B, indicated that the model is rendering reasonable results for traffic analysis purposes.

4.1.3 PREFERRED ALTERNATIVE IMPACTS

Table 4.1 below shows Average Daily Traffic (ADT) for existing (1999), No-Build (2022) and the Preferred Alternative (2022) at seven selected segments. Appendix B provides additional details and figures showing traffic volumes.

**TABLE 4.1
DAILY TRAFFIC FORECAST ON SELECTED TWO-WAY SEGMENTS OF I-494**

Segment	Existing (1999)	2022	
	ADT	No-Build	Preferred Alternative
Minnetonka Blvd. and I-494 <i>% Change from existing</i>	110,000	135,000 23%	148,000 35%
Valley View Rd. and TH 62 <i>% Change from existing</i>	77,000	101,000 31%	110,000 43%
TH 212/Flying Cloud Drive and TH 169 <i>% Change from existing</i>	100,000	125,000 25%	146,000 46%
East Bush Lake Rd. and TH 169 <i>% Change from existing</i>	123,000	132,000 7%	164,000 33%
Penn Ave. and France Ave. <i>% Change from existing</i>	187,000	218,000 17%	255,000 36%
Portland and Nicollet Ave. <i>% Change from existing</i>	175,000	212,000 21%	236,000 35%
34th Ave. and 24th Street <i>% Change from existing</i>	178,000	214,000 20%	225,000 26%

4.1.4 MITIGATION MEASURES

Since the effects of the Preferred Alternative on the capacity and use of I-494 are beneficial, no mitigation is needed.

4.2 I-494 CORRIDOR AND REGIONAL SYSTEM OPERATIONS

4.2.1 INFORMATION FROM THE DEIS THAT REMAINS UNCHANGED

Analysis of corridor operational impacts for Build and No-Build conditions has changed since the DEIS (Section 5.3.1 of the DEIS) to reflect 2022 conditions and the Preferred Alternative.

In addition, the DEIS included analysis of travel times and average travel speeds in the Section 5.3.1 sub-section: “Corridor Accessibility.” This information is useful for comparison, but needed to be updated for the FEIS to reflect year 2022 conditions and the Preferred Alternative.

4.2.2 CHANGES IN THE IMPACTS OR TECHNICAL ANALYSIS THAT HAVE OCCURRED SINCE THE DEIS

4.2.2.1 Analysis of Regional System Operations Impacts

The FEIS analysis of I-494 corridor and regional highway system operations for year 2022 compares No-Build and Build conditions at a “planning” level that compares peak hour (afternoon) forecast traffic volumes to assumed typical lane capacities and number of lanes, similar to the comparisons made in the DEIS.

4.2.2.2 Analysis of I-494 Corridor Operations Impacts

In addition to the analysis of peak hour level of service assessment described above, the forecast model, which estimates daily traffic as the sum of six discrete time periods, was used to assess the number of time periods over which congestion in the I-494 corridor currently occurs and the periods it is expected to occur in the year 2022. While this method provides a reasonable overview of congestion levels, it must be remembered that the forecast congestion is based on link-specific comparison of forecast volumes to estimated roadway capacity volumes and does not account for additional congestion due to mainline queues that develop as a result of traffic bottlenecks.

The forecast model was also used to generate and compare average trip speeds and travel times for the corridor, similar to the process presented in the DEIS.

4.2.3 PREFERRED ALTERNATIVE IMPACTS

4.2.3.1 Regional System Operations Impacts

Figures 2.4, 2.5 and 4.1 show the relative level of congestion (based on level of service) for the peak travel hour on the regional highway system for existing (1999), 2022 No-Build and 2022 Preferred Alternative conditions, respectively. Regional roadways that would operate at various congested-related levels of service are designated on the figures. In general, freeways in the study area are currently operating at congested (level of service D) or heavily congested (level of service E/F) levels. Performance levels will continue to worsen by the year 2022 for No-Build conditions. The Preferred Alternative (Figure 4.1) shows fewer heavily congested regional roadways for 2022 conditions in the peak hour, compared to the No-Build Alternative (Figure 2.5). These figures reflect the peak hour but, as discussed in the following section, the Preferred Alternative shows substantial operational improvement on I-494 over the duration of the day.

4.2.3.2 I-494 Corridor Operations Impacts

In addition to the location of congestion, the expected duration of congestion can also be estimated. Table 4.2 shows that 74 percent of I-494 presently operates at level of service D or worse for at least one hour of the day, with 43 percent operating at level of service E or F (slow-and-go/stop-and-go). Currently, 24 percent is operating at level of service D or worse for four or more hours of the day.

Under the No-Build Alternative, 83 percent of the freeway will operate at level of service D or worse for at least one hour, but the duration of congestion and magnitude of the congestion would increase substantially compared to current conditions, with 52 percent of the freeway congested four or more hours per day and 65 percent experiencing at least one hour of level of service E/F conditions. Fourteen percent of the roadway would operate at level of service D or worse for at least six hours per day.

Under the Preferred Alternative, most of I-494 would still experience some congestion, but the congestion would not last for as long if a time period as it would under the No-Build condition. With the Preferred Alternative, 78 percent of the directional kilometers/miles traveled (i.e. eastbound plus westbound) could be expected to operate at level of service D for at least one hour. However, the duration of congestion falls substantially under the Preferred Alternative, with only four percent of the roadway experiencing level of service D or worse for four hours of the day. None of the facility would operate at level of service E/F outside of a single peak hour of the day.

Figure 4.2 shows that—based on regional travel forecast model analyses—projected 2022 Preferred Alternative peak hour trip times are comparable to existing conditions and 20 to 27 percent shorter than 2022 No-Build trip times. Figure 4.3 shows 2022 Preferred Alternative peak hour speeds as being similar to existing speeds and 24 to 38 percent faster than 2022 No-Build trip speeds.

Figure 4.1 8 1/2 x 11

Figure 4.2 8 1/2 x 11

Figure 4.3 8 1/2 x 11

**TABLE 4.2
PERCENT OF I-494 WITH CONGESTION ⁽¹⁾**

	2022		
	Existing	No-Build	Preferred Alternative
<u>Level of Service “D” or Worse⁽²⁾</u>			
At least one hour per day	74%	83%	78%
At least two hours per day	73%	80%	38%
At least three hours per day	52%	74%	6%
At least four hours per day	24%	52%	4%
At least five hour per day	14%	32%	0%
At least six hours per day	5%	14%	0%
<u>Level of Service “E” or Worse⁽³⁾</u>			
At least one hour per day	43%	65%	33%
At least two hours per day	39%	59%	0%
At least three hours per day	15%	40%	0%
At least four hours per day	5%	19%	0%
At least five hour per day	4%	7%	0%
At least six hours per day	0%	4%	0%

Source: SRF Consulting Group, Inc./regional travel forecast model

⁽¹⁾ Based on 58 directional kilometers (36 directional miles) of roadway, I-394 to Minnesota River

⁽²⁾ Level of Service “D” typically represents crowded, but stable conditions. Speed and freedom to maneuver are severely restricted, and there is generally a poor level of driver comfort.

⁽³⁾ Level of Service “E” or “F” represents “slow-and-go” or “stop-and-go” conditions. Freedom to maneuver within the traffic stream is extremely difficult.

4.2.4 MITIGATION MEASURES

Since the effects of the Preferred Alternative on the capacity and use of I-494 are beneficial, no mitigation is needed.

4.3 CHANGES IN LOCAL AND REGIONAL ACCESS

4.3.1 INFORMATION FROM THE DEIS THAT REMAINS UNCHANGED

Section 5.3.1 of the DEIS describes how access to/from the regional system would be affected by the alternatives and interchange sub-alternatives studied in the DEIS, based on concept-level plans for the alternatives. It is useful for concept-level comparison of alternatives, but more detailed/updated information is needed for FEIS discussions.

4.3.2 CHANGES IN THE IMPACTS OR TECHNICAL ANALYSIS THAT HAVE OCCURRED SINCE THE DEIS

Development of Preferred Alternative preliminary design layouts has allowed for more detailed review of potential changes in access that would result from the Preferred Alternative. Access change impacts in the FEIS were considered at two levels: 1) access to/from the I-494 corridor and 2) access to/from properties adjacent to I-494 due to changes in local roadway configurations resulting from I-494 construction.

4.3.3 PREFERRED ALTERNATIVE IMPACTS

The discussion of access changes that would result from construction of the Preferred Alternative compares this alternative to existing conditions. In all cases, access provisions for the No-Build Alternative would be the same as existing conditions. Access for the Preferred Alternative would also be the same as for existing conditions, except as noted below:

4.3.3.1 Access To/From the I-494 Corridor

I-494/TH 62/CSAH 62 Interchange

Access at this interchange for the Preferred Alternative would remain essentially the same.

I-494/TH 5/TH 212/Flying Cloud Drive Interchange

Interstate 494 access to/from Valley View Road, TH 5/TH 212/Flying Cloud Drive, and Prairie Center Drive for the Preferred Alternative would remain the same as the existing condition except that the existing single eastbound entrance ramp from Flying Cloud Drive/Prairie Center Drive will be separated into two entrances.

I-494/East Bush Lake Road Interchange

A full access interchange is proposed at East Bush Lake Road for the Preferred Alternative. Access to and from the west is not currently provided.

I-494/TH 100 Interchange

This interchange is proposed for reconstruction as a partial directional interchange for the Preferred Alternative. The existing movements would be accommodated, but the southbound TH 100 to eastbound I-494 and northbound TH 100 to westbound I-494 movements would be accommodated by fly-over ramps, in lieu of the existing cloverleaf loops. Several ramps would also be bridged with ramps to both East Bush Lake Road and the TH 100/77th Street interchanges. As a result, vehicles traveling from 77th Street to southbound TH 100 would not be able to access I-494 (although travelers from I-494 to northbound TH 100 will be able to exit at 77th Street).

TH 100/77th Street Interchange

The existing interchange configuration – folded diamond to the north with full access to TH 100 – would be reconfigured for the Preferred Alternative. Interchange reconstruction would maintain the folded ramps to the north (providing access to 77th Street from I-494 via TH 100). However, the southbound entrance ramp would be bridged by the TH 100 exit ramps to I-494. Thus, access to I-494 from 77th Street via southbound TH 100 would be eliminated. Seventy-seventh Street drivers destined for I-494 would have to use either the East Bush Lake Road or France Avenue interchanges.

I-494/I-35W Interchange Area (including Penn and Lyndale Avenue Interchanges)

The existing cloverleaf interchange configuration would be revised for the Preferred Alternative. The interchange would be constructed with directional (flyover) ramps replacing the loops in the northeast and southwest quadrants.

Collector-distributor roads would be utilized along both I-494 and I-35W for the interstate-to-interstate connections and the interstate-to-interstate ramps would be bridged with local ramps to 82nd Street, Penn Avenue and Lyndale Avenue. Existing full-direction access would be maintained at 82nd Street, Penn Avenue and Lyndale Avenue interchanges. However, access from I-494 to 82nd Street via I-35W would be eliminated, and drivers would have to use the Penn or Lyndale Avenue interchanges for access to the 82nd Street area. Similarly, access to Penn Avenue and Lyndale Avenue from I-35W via I-494 would be eliminated, and I-35W drivers would have to utilize 82nd or 76th Street interchanges for access to these areas.

I-494/Nicollet Avenue

Existing full access at Nicollet Avenue will be eliminated by the Preferred Alternative. Interstate-494 drivers would need to utilize either the Lyndale or Portland Avenue interchanges for local access to this area.

I-494/Portland Avenue Interchange

The Portland Avenue interchange currently has access only to/from the west. The Preferred Alternative includes reconstructing this interchange for full access to/from I-494, utilizing a single point interchange. This interchange, and the connecting parallel reliever roads north and south of I-494, would serve previous users of the Nicollet and 12th Avenue interchanges that are being eliminated.

I-494/12th Avenue

Existing I-494 access to/from the east at 12th Avenue will be eliminated in the Preferred Alternative. Interstate-494 drivers would need to utilize the Portland Avenue interchange for local access to this area.

I-494/TH 77 Interchange

Existing access at this interchange would not change for the Preferred Alternative, except for replacing the southwest loop (southbound TH 77 to eastbound I-494) with a directional flyover ramp.

I-494/24th Avenue and 34th Avenue Interchanges

Access at the 24th Avenue and 34th Avenue interchanges for the Preferred Alternative would remain the same as the existing condition, except that the easterly ramps from 24th Avenue would be bridged with the western 34th Avenue ramps. This would prohibit traffic from using I-494 to travel between 24th and 34th Avenues.

4.3.3.2 Access To Adjacent Land Uses

TH 212/Flying Cloud Drive to East Bush Lake Road

Frontage roads exist along the portion of this segment between TH 212/Flying Cloud Drive and West Bush Lake Road. The only impact to frontage roads will be a small portion of Marth Road which would need to be shifted slightly to the south of its current alignment. This shift will not result in change of access to any adjacent land use.

East Bush Lake Road to TH 77

Frontage roads exist along the majority of this corridor segment. Many segments of these frontage roads would be removed as part of the Preferred Alternative. Where possible, new access will be provided to adjacent properties by extending adjacent roadways or by reorienting access to parallel reliever arterials. Properties where existing access is removed and no alternative access can be provided are included in the right-of-way acquisition totals in Section 5.2. Green Valley Drive in the southeast quadrant of the East Bush Lake Road/I-494 interchange would be realigned to the south, maintaining access to the properties that are not being acquired for the project.

4.3.4 MITIGATION MEASURES

4.3.4.1 Access To/From the I-494 Corridor

Most interchange areas maintain the existing access movements to/from the I-494 corridor. In some cases (e.g. TH 100, I-35W and TH 77), strong directional movements are expedited with improved directional ramp provisions.

Local accessibility to the system was modified in the vicinity of the TH 100, I-35W and Nicollet to Portland Avenue interchanges. In all cases where access was limited from existing provisions, mitigation for impacts was achieved by providing alternative access points to the regional system via collector-distributor or frontage road system connections to the next closest interchange access point.

4.3.4.2 Access To Adjacent Land Uses

Where possible, new access will be provided to adjacent properties by extending adjacent roadways. Properties where existing access is removed and no alternative access can be provided are included in the right-of-way acquisition totals in Section 5.2.

4.4 TRANSIT

4.4.1 INFORMATION FROM THE DEIS THAT REMAINS UNCHANGED

Section 2.2.3 of the DEIS described the transit system (existing and planned future) components at that time (1992). However, many changes in the transit system, including future plans, have occurred since that time. An updated description of the transit system is provided below:

4.4.2 CHANGES IN THE IMPACTS OR TECHNICAL ANALYSIS THAT HAVE OCCURRED SINCE THE DEIS

Because many changes in the transit system have occurred since the DEIS was prepared, an updated description of the system (existing and planned) is provided below.

4.4.2.1 Existing Transit Service and Infrastructure

Transit Service

Existing transit service and infrastructure in the I-494 corridor area is shown on Figure 2.2. Most bus routes do not actually travel on I-494 but rather pass through the study area on their way to destinations along I-494 or outside of the study area – primarily on parallel collector or arterial routes. There are currently sixty-two routes in the area. The majority of the routes are oriented in a north-south direction providing service into downtown Minneapolis.

Metro Transit (MT), the primary transit provider in the Minneapolis-St. Paul region, directly provides much of the transit service in the I-494 corridor area. Metro Transit service in the area includes seventeen express routes to downtown Minneapolis, eight local routes and two limited stop routes.

In addition to Metro Transit, there are three private transit providers serving the I-494 corridor area. Minnesota Valley Transit Authority (MVTA) provides service between areas south of I-494 (Apple Valley, Burnsville, Eagan, Rosemount, Prior Lake and Savage) and activity centers to the north. Metro Valley Transit Authority contracts with Metro Transit and two other transit providers to operate its service. Metro Valley Transit Authority service in the I-494 corridor area includes nine express routes from the south suburbs to downtown Minneapolis, one express route from the Mall of America to downtown Minneapolis, five local routes serving the Mall of America and the Minneapolis-St. Paul International Airport, and a local route serving the Bloomington strip.

Southwest Metro Transit (SW) provides service between areas southwest of the I-494 corridor (Chanhassen, Chaska, and Eden Prairie) and activity centers to the northeast. Similar to MVRTA, SW also contracts with Metro Transit and other transit providers to operate its service. Southwest Metro Transit service in the I-494 corridor includes fifteen express routes from the southwest suburbs to downtown Minneapolis, one local route serving the Bloomington strip to the Mall of America, and one local route serving Eden Prairie Center.

The Bloomington-Edina (BE) Line provides local service in Bloomington and Edina. The BE Line service consists of two local routes between the Mall of America and Southdale.

Several organizations provide specialized transportation services in the I-494 corridor. Metro Mobility, a service of the Metropolitan Council, provides door-to-door transit service for people with disabilities in the Minneapolis-St. Paul area and many adjoining suburbs. Dakota Area Resources and Transportation for Seniors (DARTS) provides door-to-door rides for seniors and people with disabilities in northwestern Dakota County with transfers to other transit providers serving the I-494 corridor. In addition, there are some private non-profit organizations providing service with vans and volunteer drivers.

Transit Support Services

Metro Commuter Services (formerly Minnesota Rideshare), a section of the Transportation and Transit Development unit of the Transportation Division of the Metropolitan Council, provides a variety of services to employers and individual commuters relating to travel demand management.

Transit Facilities

Metro Transit, Southwest Metro Transit, and Minnesota Valley Transit provide transit service to 28 park-and-ride facilities [including transit stations or hubs, private lots (usually located at a church or shopping center), public lots (usually municipal but sometimes Mn/DOT-owned) and transit provider-owned] in the I-494 corridor area (see Figure 2.2). These facilities are used by individuals who either drive and take the bus or drive and use a carpool or vanpool for the remainder of their trip.

In addition to these park-and-ride facilities, the I-494 corridor area is home to Southwest Metro Transit's headquarters and Metro Transit's South Garage. Southwest Metro Transit's Administration Offices are housed in the Southwest Station, a transit station and park-and-ride facility located in the southwest quadrant of TH 5 and Prairie Center Drive.

The South Garage is located in the northeast quadrant of I-494 and TH 77. The garage includes bus storage and maintenance facilities, and can accommodate approximately 176 buses. Approximately 166 buses currently operate out of the facility. Buses housed at the garage serve most of the routes described above. A number of buses operating out the South Garage use I-494 for non-revenue or "deadhead" service to get to and from the start or end of regular service.

Transit Advantages

The Minneapolis-St. Paul metropolitan region is continuously investing in transit and HOV advantages such as bus-only shoulders, HOV ramp meter bypasses, HOV lanes, and synchronized lights. The I-494 freeway corridor does not currently have a large number of these transit advantages. There are bus-only shoulders in both directions along I-494 between Highway 5 and East Bush Lake Road. There are HOV ramp meter bypasses at the following locations:

- Northbound and southbound TH 169 to eastbound and westbound I-494
- Northbound and southbound 24th Avenue to westbound I-494 (shared ramp)
- Eastbound and westbound Minnetonka Boulevard to northbound I-494 (shared ramp)
- Eastbound and westbound TH 62 to northbound I-494 (shared ramp)
- Eastbound and westbound Valley View Road to northbound I-494 (shared ramp)
- Eastbound TH 5 to southbound and northbound I-494

4.4.2.2 Planned Transit Service and Infrastructure

Planned Future Transit Facilities

As noted in Section 2.0, the most recent federal transportation legislation – the Transportation Equity Act for the 21st Century (TEA-21)—put increased emphasis on the need to provide alternatives to the single-occupant automobile. This includes high occupancy vehicle (HOV) preference and support of increased transit operations. The Metropolitan Council’s *Transit 2020 Master Plan* for the Minneapolis-St. Paul Metropolitan Area reflects this philosophy and also incorporates transit features that promote their Smart Growth goals.

As noted previously, I-494 has some ramps that include HOV by-pass lanes at ramp meters and there is provision for bus use on shoulders where the shoulders are of adequate width to support such use, however, the existing I-494 facility does not provide HOV advantages throughout the corridor. The *Transit 2020 Master Plan* includes incorporating bus shoulder use on I-494 throughout the study area (and extending north to I-94 and east to TH 61) as part of its planned “Freeway Transit Corridor” system, but does not include exclusive HOV lanes on I-494 as part of its concept for the corridor.

No additional transit hubs are indicated in the vicinity of the I-494 study corridor in the *Transit 2020 Master Plan*, other than the existing hubs. However, the existing stations, designated on Figure 2.2 could be served more effectively through the development of the Freeway Transit Corridor system, including incorporation of transit advantage features in the I-494 corridor.

Proposed Future Transitways

There are three proposed transit/rail lines that cross the I-494 corridor study area. Implementation of the Hiawatha LRT line (from downtown Minneapolis to the airport and Mall of America) is currently underway. This line will cross I-494 at 34th Avenue in Bloomington and ultimately connects with the transit hub at the Mall of America.

The Dan Patch commuter rail corridor is proposed to link Northfield (Rice County) to Minneapolis. It would utilize an existing rail line that crosses I-494 directly west of East Bush Lake Road. The feasibility of implementing this corridor is currently under study.

The Minneapolis Southwest Corridor is proposed for future LRT or busway use. One potential line crosses I-494 approximately 1.3 kilometers (0.8 miles) north of TH 62 and another crosses Minnetonka Boulevard (see Figure 2.3). These are currently being used as trails, pending potential development as transitways. The importance of I-494 as a transit route connecting these lines or as a route to access related transit hubs could increase as these lines are developed.

4.4.3 PREFERRED ALTERNATIVE IMPACTS

4.4.3.1 Transit Facilities

The No-Build Alternative would perpetuate the inability of the existing I-494 mainline to efficiently serve transit use, due to limited areas suitable for bus use of shoulders and limited HOV bypass lanes at metered ramps. The Preferred Alternative includes “transit advantage” features such as bus-only use of shoulders throughout the corridor and HOV bypass lanes at metered ramps, where feasible (see Section 1.4).

4.4.3.2 Transit Facility Plan for the I-494 Corridor Area

In addition to the transit advantage design features (described above) that will be provided by the Preferred Alternative, Mn/DOT, the Metropolitan Council and the cities and transit providers along the I-494 corridor have been working together to define an overall transit facility plan for the corridor. There are 28 “official” park-and-ride lots currently functioning in the I-494 corridor area. These facilities are used by individuals who drive and take the bus and individuals who drive and use a carpool or vanpool for the remainder of their trip. These lots are typically shared-use facilities (often churches) where Metro Transit agrees to provide maintenance and snow plowing in return for a certain number of parking spaces. Use of additional spaces can be negotiated if the need arises. Mn/DOT will work with Metro Transit and the corridor cities if the need arises in the future to develop additional park-and-ride lots beyond those currently in operation.

Population and employment growth in the suburbs of the metropolitan area have created the need for transit services other than the traditional service focused on downtown as a destination. Because of lower densities, more diverse origins and destinations, and the availability of free and convenient parking, the most effective way to meet the growing need for service between suburbs is with a hub timed-transfer system. These hubs serve as timed transfer points for passengers between different types of transit services, such as small local circulators and express buses to the downtowns and other hubs.

There are four existing transit hubs in or close to the project corridor.

- Mall of America
- Southdale
- Southwest Transit Facility
- Ridgedale

There is a proposed high-speed bus line from Burnsville to downtown Minneapolis. This project would be implemented after the planned reconstruction of I-35W. It would include five stops and use of a diamond lanes in the middle of the roadway. The closest stop to the I-494 corridor will be near 82nd Street (“82nd Street Station”).

The system of transit stations and hubs described above will provide comprehensive coverage for the I-494 corridor; no additional hubs are planned to be developed as part of the I-494 reconstruction project. Transit operations plans to maximize transit and shared ride use are being developed by the following organizations: Team Transit, Metro Transit, Minnesota Valley Transit Authority, Southwest Metro Transit, BE Line and the I-494 Corridor Commission. Mn/DOT will coordinate with these organizations in their efforts to implement this plan.

4.4.4 MITIGATION MEASURES

Since the effects of the Preferred Alternative on transit use in the I-494 corridor are beneficial, no mitigation is needed.

4.5 PEDESTRIAN AND BICYCLE TRAVEL

4.5.1 INFORMATION FROM THE DEIS THAT REMAINS UNCHANGED

Section 5.2.7 of the DEIS describes pedestrian/bicycle trail facilities that would be impacted by the Build alternatives. While this information is still correct, there have been additional trails constructed or planned for construction since the DEIS.

4.5.2 CHANGES IN THE IMPACTS OR TECHNICAL ANALYSIS THAT HAVE OCCURRED SINCE THE DEIS

Figure 2.3 summarizes the information currently available on existing and planned pedestrian and bicycle routes in the vicinity of I-494. In addition to highlighting the major facilities owned or proposed by the five communities along the corridor, the figure includes connections to facilities owned by Hennepin Parks and the regional system. Existing and planned transit centers to which bicycle routes connect are also illustrated. Pedestrian and bicycle routes include striped lanes on a roadway, paths/sidewalks adjacent to a roadway and independent trail alignments.

Figure 2.3 shows that the five communities along the corridor, along with Hennepin Parks and the Metropolitan Council, have developed extensive pedestrian and bicycle systems. A number of facilities in these systems currently cross, or are proposed to cross, I-494. Four of these crossings are located on former and existing railroad corridors. Of these four, two of them are interim trails on Hennepin County Regional Railroad Authority property. Trail usage on these corridors is temporary, pending the development of transit facilities. A third route, as illustrated in the Metropolitan Council’s Regional Recreation Open Space System, is planned to be a north-

south Regional Trail between Lyndale and Nicollet Avenues on the Canadian Pacific Railroad grade. The fourth trail, as noted on the City of Bloomington's Walkway and Bikeway Plan, is proposed to run on the Canadian Pacific Railroad grade near East Bush Lake Road. These two facilities will be developed if the railroads are abandoned.

4.5.3 PREFERRED ALTERNATIVE IMPACTS

The No-Build Alternative would not impact the existing pedestrian/bicycle facilities. More importantly, it would also not provide an opportunity to improve existing trail crossings at the I-494 corridor or to provide accommodation for planned new facilities in the area.

Existing or planned pedestrian/bicycle facilities that cross I-494 will have connections provided as part of Preferred Alternative construction. Existing crossings will be replaced at or near their present location, and every crossing will be rebuilt to Mn/DOT standards. Current Mn/DOT standards are defined in the *Minnesota Bicycle Transportation Planning and Design Guidelines* (Mn/DOT, June 1996), Chapter 4 (On-Road Designs). Mn/DOT staff will work with communities and agencies with facilities in the corridor to assure that any existing or committed pedestrian/bicycle facility improvements are coordinated with I-494 reconstruction plans. All improvements will be in compliance with the Americans with Disabilities Act.

4.5.4 MITIGATION MEASURES

As described above, the pedestrian/bicycle facilities that cross I-494 will have comparable or improved connections provided as part of Preferred Alternative construction and Mn/DOT staff will work with communities and agencies with facilities in the corridor to assure that any committed facility improvements are coordinated with I-494 reconstruction plans.

4.6 ROLE IN THE REGIONAL SYSTEM

4.6.1 INFORMATION FROM THE DEIS THAT REMAINS UNCHANGED

Section 2.2 of the DEIS described the role of the I-494 corridor in the regional transportation system. It described how the role of I-494 relates to federal and regional policies and to the metropolitan highway system. Although the basic role of I-494 has not changed since the DEIS, a number of the policies and plans referenced in the DEIS discussion have changed in the eight years since the DEIS was published.

4.6.2 CHANGES IN THE IMPACTS OR TECHNICAL ANALYSIS THAT HAVE OCCURRED SINCE THE DEIS

Section 2.1 of this FEIS provides an updated description of the role of I-494 in the regional transportation system, including the role I-494 plays as a collection/distribution facility for other metropolitan area highways and how I-494 provides access to/from the rest of the metropolitan area for the rapidly-growing population and employment bases in the southwestern suburbs.

Sections 2.3 and 4.2 describe existing and forecast congestion problems that limit the ability of I-494 to perform its role in conveying regional traffic in the southwest metro area.

4.6.3 PREFERRED ALTERNATIVE IMPACTS

The No-Build Alternative would perpetuate the deficiencies in the ability of I-494 to meet regional transportation demands, as described above. Over time, as traffic volumes increase and capacity issues become worse, the ability of I-494 to serve in its role would continue to decrease. Section 4.2 describes the forecast level of service for the No-Build condition in year 2022, compared to the Preferred Build Alternative. Construction of the Preferred Alternative results in the ability of the I-494 corridor to convey a larger volume of traffic with fewer periods of congestion than the No-Build condition, providing a benefit to the function of the regional highway system.

4.6.4 MITIGATION MEASURES

Since the effects of the Preferred Alternative on the regional transportation system are beneficial, no mitigation is needed.