

4.2 TRANSPORTATION IMPACTS

4.2.1 Traffic

The traffic study focused on examining potential traffic impacts associated with the proposed project on the surrounding intersection and roadway operations during the a.m. and p.m. peak periods, and identifying any necessary roadway modifications for mitigating these impacts. (Refer to Appendix F for the complete traffic analysis technical memorandum)

Five analysis alternatives were evaluated, including:

- Year 2007 Existing Condition AM and PM Peak Hour
- Year 2015 No Build Condition AM and PM Peak Hour
- Year 2015 Build Condition AM and PM Peak Hour
- Year 2030 No Build Condition AM and PM Peak Hour
- Year 2030 Build Condition AM and PM Peak Hour

Note that for each forecast year No Build and Build alternative, the USPS activities have vacated the proposed project area, and are moved to Eagan.

The extent of the study area was identified to be bordered by 7th St E to the north, Robert St to the west, Shepard Rd/Warner Rd to the south, and the East Broadway Parking Lot to the east. Twenty nine (29) key intersections were identified in the area. Capacity analysis was performed for each key intersection for each alternative during both peak hour periods.

Capacity analysis results are presented in terms of level of service (LOS), a qualitative letter grade (A-F) based on seconds of vehicle delay due to the traffic control device at an intersection. By definition, LOS A conditions represent high-quality operations (i.e., motorists experience very little delay or interference) and LOS F conditions represent poor operations (i.e., high delay or congestion). A level of service D is generally the desired minimum operating condition.

Existing Conditions

The Existing Condition capacity analysis was performed primarily utilizing field-collected peak hour traffic volumes, intersection lane geometrics and traffic control, and signal phasing and timings. Table 4.2.1-1 presents overall intersection LOS for each key intersection during both a.m. and p.m. peak hours under the Existing Conditions. The results indicated that all the study intersections are currently operating at acceptable levels during both the a.m. and p.m. peak hours except for the Kellogg Boulevard/Jackson Street intersection, for which operations were reported to be LOS E.



Impacts

No Build Alternative

The forecast traffic volumes for year 2015 and year 2030 No Build alternatives account for annual background traffic growth. The USPS existing truck and auto trips as shown in Table 4.2.1-2 were removed from the existing traffic volumes before developing future traffic volumes for both year 2015 and year 2030. Relocation of USPS functions will eliminate approximately 550 daily truck trips and 1,960 daily automobile trips from the vicinity of the project site.

TABLE 4.2.1-1 PEAK HOUR OVERALL INTERSECTION LOS – 2007

Intersection	AM Peak	PM Peak
	2007	2007
Jackson Street/Shepard Road	B	D
Sibley Street/Warner Road	C	A
Kellogg Boulevard/Robert Street	C	C
Kellogg Boulevard/Jackson Street	E	E
Kellogg Boulevard/Sibley Street	C	B
Kellogg Boulevard/Wall Street	A	A
Kellogg Boulevard/Wacouta Street	A	A
Kellogg Boulevard/Broadway Street	A	B
Kellogg Boulevard/Parking Access	B	A
Fourth Street E/Robert Street	B	B
Fourth Street E/Jackson Street	B	B
Fourth Street E/Sibley Street	B	B
Fourth Street E/Wacouta Street	A	B
Fourth Street E/Wall Street	A	A
Fourth Street E/Broadway Street	A	A
Fifth Street E/Jackson Street	B	B
Fifth Street E/Sibley Street	A	A
Fifth Street E/Wacouta Street	A	A
Fifth Street E/Wall Street	B	A
Fifth Street E/Broadway Street	A	A
Sixth Street E/Jackson Street	A	A
Sixth Street E/Sibley Street	B	A
Sixth Street E/Wacouta Street	A	B
Sixth Street E/Wall Street	B	B
Seventh Place/Jackson Street	A	A
Seventh Street E/Jackson Street	A	B
Seventh Street E/Sibley Street	A	A
Seventh Street E/Wacouta Street	B	A
Seventh Street E/Wall Street	B	B

TABLE 4.2.1-2 YEAR 2015 AND 2030 UNION DEPOT TRIP GENERATION AND DIRECTIONAL DISTRIBUTION

	Trip Type	Year	AM Peak Hour			PM Peak Hour			Daily		
			Entering	Exiting	Total	Entering	Exiting	Total	Entering	Exiting	Total
Amtrak	Auto Trip ⁽¹⁾	2015	62	55	117	12	12	24	349	353	702
		2030	62	55	117	12	12	24	349	353	702
Metro Transit	Bus Trip ⁽²⁾	2015	24	24	48	24	24	48	315	315	630
		2030	24	24	48	24	24	48	315	315	630
Jefferson Lines	Bus Trip ⁽³⁾	2015	1	1	2	0	0	0	8	8	16
		2030	1	1	2	0	0	0	8	8	16
	Auto Trip ⁽⁴⁾	2015	3	3	6	0	0	0	24	24	48
		2030	3	3	6	0	0	0	24	24	48
Greyhound Lines	Bus Trip ⁽³⁾	2015	1	1	2	1	1	2	11	11	22
		2030	1	1	2	1	1	2	11	11	22
	Auto Trip ⁽⁴⁾	2015	3	3	6	3	3	6	33	33	66
		2030	3	3	6	3	3	6	33	33	66
Central Corridor LRT	Auto Trip ⁽⁵⁾	2015	8	8	16	8	8	16	55	55	110
		2030	10	10	20	10	10	20	69	69	138
Union Depot	Total Bus Trip	2015	26	26	52	25	25	50	334	334	668
		2030	26	26	52	25	25	50	334	334	668
	Total Auto Trip	2015	76	69	145	23	23	46	461	465	926
		2030	78	71	149	25	25	50	475	479	954
	Total Vehicle Trip	2015	102	95	197	48	48	96	795	799	1594
		2030	104	97	201	50	50	100	809	813	1622
Existing USPS PD&C	Truck Trip ⁽⁶⁾	2007	14	19	33	24	24	48	280	271	551
	Auto Trip ⁽⁶⁾	2007	28	15	43	23	32	55	980	980	1960
	Total Vehicle Trip	2007	42	34	76	47	56	103	1260	1251	2511
Total Net Vehicle Trip ⁽⁷⁾		2015	60	61	121	1	-8	-7	-465	-452	-917
		2030	62	63	125	3	-6	-3	-451	-438	-889

- Note: (1) Trips were estimated based on the traffic counts collected at the existing Midway train station during both AM and PM peak periods. A 15 percent reduction was applied to the traffic counts to account for taking other transit modes after Amtrak station is relocated to the Union Depot.
(2) Bus trips for Metro Transit are not new bus trips added to the surrounding roadways but existing bus trips to be rerouted to the Union Depot.
(3) Bus trips for Jefferson Lines and Greyhound Lines are new bus trips that are added to the surrounding roadways of the project site.
(4) Trips were estimated based on year 2006 annual ridership data provided by intercity bus providers.
(5) Trips were estimated based on the report "Central Corridor Alternative Analysis and Draft Environmental Impact Statement" prepared by Ramsey County Regional Railroad Authority dated April 2006.
(6) The data are based on the turning movement counts and tube counts collected at the USPS Broadway St site access.
(7) The existing USPS total vehicle trips were subtracted from the total vehicle trips forecasted for the proposed Union Depot.



Table 4.2.1-3 presents overall intersection LOS for each key intersection during both the a.m. and p.m. peak hours under both year 2015 and year 2030 No Build alternatives. With continuing growth in background traffic volumes, the operations of the Kellogg Boulevard/Jackson Street intersection are expected to get worse during both peak periods. The results also indicated that during the p.m. peak hour, the Jackson Street/Shepard Road intersection is expected to operate at LOS E in year 2015 and at LOS F in year 2030.

TABLE 4.2.1-3 PEAK HOUR OVERALL INTERSECTION LOS – 2015 & 2030 NO BUILD ALTERNATIVE

Intersection	AM Peak		PM Peak	
	2015	2030	2015	2030
Jackson Street/Shepard Road	B	B	E	F
Sibley Street/Warner Road	C	D	A	A
Kellogg Boulevard/Robert Street	D	D	D	D
Kellogg Boulevard/Jackson Street	E	F	E	F
Kellogg Boulevard/Sibley Street	D	D	C	C
Kellogg Boulevard/Wall Street	A	A	A	A
Kellogg Boulevard/Wacouta Street	A	A	A	A
Kellogg Boulevard/Broadway Street	A	A	B	B
Kellogg Boulevard/Parking Access	B	B	A	A
Fourth Street E/Robert Street	B	B	B	B
Fourth Street E/Jackson Street	B	B	C	C
Fourth Street E/Sibley Street	B	B	B	B
Fourth Street E/Wacouta Street	A	A	B	B
Fourth Street E/Wall Street	A	A	A	A
Fourth Street E/Broadway Street	A	B	A	A
Fifth Street E/Jackson Street	B	B	C	C
Fifth Street E/Sibley Street	A	A	B	B
Fifth Street E/Wacouta Street	A	A	A	A
Fifth Street E/Wall Street	B	B	B	B
Fifth Street E/Broadway Street	A	A	A	A
Sixth Street E/Jackson Street	A	B	B	B
Sixth Street E/Sibley Street	B	B	B	B
Sixth Street E/Wacouta Street	B	B	B	B
Sixth Street E/Wall Street	B	B	B	B
Seventh Place/Jackson Street	A	A	A	A
Seventh Street E/Jackson Street	A	A	B	B
Seventh Street E/Sibley Street	A	A	A	B
Seventh Street E/Wacouta Street	B	C	B	A
Seventh Street E/Wall Street	B	C	B	C

Note: Signal timings were optimized in the analysis.

Build Alternative

The forecast traffic volumes for year 2015 and year 2030 Build alternatives incorporate new trips generated from the proposed project. Hosting Amtrak, Metro Transit, intercity bus (Jefferson Lines and Greyhound Lines), and Central Corridor LRT, the proposed Union Depot multi-modal transit hub are expected to generate both automobile trips and bus trips. Table 4.2.1-2 provides a breakdown of the a.m., p.m. and daily trips expected to be generated from the proposed Union

Depot for year 2015 and year 2030. As shown in the table, the terminal facility is expected to generate approximately 1,620 vehicle trips per day including approximately 670 daily bus trips. With the existing USPS trips removed from the project site, there will be a net reduction in daily vehicle trips generated by the site, a slight decrease in trips during the p.m. peak hour and an increase of approximately 130 vehicle trips generated during the a.m. peak hour.

Table 4.2.1-4 presents overall intersection LOS for each key intersection during both the a.m. and p.m. peak hours under both year 2015 and year 2030 Build alternatives. The results indicate that both the Kellogg Boulevard/Jackson Street and Jackson Street/Shepard Road intersections are reported to continue poor operations (i.e. LOS E or LOS F) under Build alternatives.

TABLE 4.2.1-4 PEAK HOUR OVERALL INTERSECTION LOS – 2015 & 2030 BUILD ALTERNATIVE

Intersection	AM Peak		PM Peak	
	2015	2030	2015	2030
Jackson Street/Shepard Road	B	B	E	F
Sibley Street/Warner Road	C	D	A	A
Kellogg Boulevard/Robert Street	D	D	D	D
Kellogg Boulevard/Jackson Street	E	F	E	F
Kellogg Boulevard/Sibley Street	D	D	C	C
Kellogg Boulevard/Wall Street	A	A	A	A
Kellogg Boulevard/Wacouta Street	A	A	A	A
Kellogg Boulevard/Broadway Street	A	B	B	C
Kellogg Boulevard/Parking Access	B	B	A	A
Fourth Street E/Robert Street	B	B	B	B
Fourth Street E/Jackson Street	B	B	C	C
Fourth Street E/Sibley Street	B	B	B	B
Fourth Street E/Wacouta Street	B	B	B	B
Fourth Street E/Wall Street	A	A	A	A
Fourth Street E/Broadway Street	B	B	A	B
Fifth Street E/Jackson Street	B	B	C	C
Fifth Street E/Sibley Street	A	A	B	B
Fifth Street E/Wacouta Street	A	A	A	A
Fifth Street E/Wall Street	B	B	B	B
Fifth Street E/Broadway Street	A	A	A	A
Sixth Street E/Jackson Street	A	B	B	B
Sixth Street E/Sibley Street	B	B	B	B
Sixth Street E/Wacouta Street	B	B	B	B
Sixth Street E/Wall Street	B	B	B	B
Seventh Place/Jackson Street	A	A	A	A
Seventh Street E/Jackson Street	A	A	B	B
Seventh Street E/Sibley Street	A	A	A	B
Seventh Street E/Wacouta Street	B	C	B	A
Seventh Street E/Wall Street	B	C	B	C

Note: Signal timings were optimized in the analysis.

Based on the analysis, the proposed Union Depot project is expected to result in a relatively low number of additional trips to the surrounding roadways during both the a.m. and p.m. peak hours.



The operations of the study intersections would not deteriorate as a result of the proposed Union Depot project. The Kellogg Boulevard/Jackson Street and Jackson Street/Shepard Road intersections have already operated at or near the capacity on critical movements under Existing conditions and No Build conditions. Therefore, there is no significant traffic impacts associated with the proposed Union Depot project to be identified on the surrounding roadways for both year 2015 and year 2030.

Midway Amtrak Station and Greyhound Bus Terminal

The proposed vacation of the Midway Amtrak Station and Greyhound Bus Terminal is not expected to result in any negative traffic impacts to the roadway network at or in the near vicinity of these sites.

Central Corridor LRT Extension

Although not included as part of the initial phase of the Union Depot project. Plans have been made for a possible future extension of the Central Corridor LRT from Fourth Street to a platform under the waiting room. This would require the introduction of LRT tracks through the intersection of Kellogg Boulevard and Broadway Street. To determine the impact to this intersection a separate traffic analysis was conducted. This analysis can be found as an addendum to the original traffic analysis included in Appendix F.

This analysis explored three possible traffic signal timing options. However, it was discovered that none of these traffic signal timing options resulted in unacceptable intersection operations, with excessive delays in 2030. The delay per vehicle in 2030 ranged from 52 to 62 seconds depending on the signal timing options, with 95th percentile queues affecting other intersections in downtown Saint Paul.

Mitigation Measures

Based on the findings of this analysis, there is no significant traffic impacts associated with the proposed Union Depot to be identified on the local roadway network. No mitigation measures would be required for the initial phase of the proposed action.

If in the future, if an extension of the Central Corridor LRT is added to the Union Depot further analysis will need to be done to minimize its impact of traffic. One way to mitigate the excessive delay problem at this intersection is to eliminate the need to provide time for the LRT movement. The way to do this would be to provide a grade separated crossing for the LRT. The Kellogg/Broadway intersection is at a lower elevation than the Fourth Street/Broadway Street intersection to the north and the top of the parking lot to the south. This overpass would eliminate much of the grade change and provide a delay-free movement for the LRT operation. It would also create a safer more efficient operation at the Kellogg Boulevard/Broadway Street intersection as it would operate much as it does without the LRT phase.

However, there are drawbacks including increased cost, right-of-way considerations and historical buildings it would pass. Many of these drawbacks would have to be investigated, but the grade-separated intersection would allow the intersection to operate in an acceptable manner for vehicular traffic.

4.2.2 Parking and Access

Existing Conditions

Two existing parking lots including the West Broadway Under Track Parking Lot and the East Broadway Parking Lot, would provide parking spaces for future parking demands associated with the proposed Union Depot. The East Broadway Parking Lot includes two levels - ground level and upper-deck level. The two existing parking lots currently are both open to the public, and the primary use is employee parking. Existing parking spaces and parking occupancies at both parking lots were collected in the field. Table 4.2.2-1 shows existing available parking spaces, and daily peak parking occupancies based on field-collected data. The daily peak parking occupancy at both parking lots occurred after the AM peak period.

TABLE 4.2.2-1 EXISTING PARKING SPACES AND DAILY PEAK OCCUPANCIES OF THE TWO PARKING LOTS

Parking Lot	Parking Space	Daily Peak Parking Occupancy	Occupancy Percentage
West Broadway Under Track Parking Lot	671	347	52%
East Broadway Parking Lot	1722	441	26%
Total	2393	788	33%

The table indicates that approximately 52 percent of the available parking spaces are occupied at daily peak time at the West Broadway Under Track Parking Lot, and approximately 26 percent of the parking spaces are occupied at daily peak time at the East Broadway Parking Lot.

Impacts

No Build Alternative

The existing parking demand is expected to increase by an annual background growth rate of 0.5 percent which was also used as the background traffic growth rate previously. Forecasts for the parking demand in the area around the Union Depot for 2015 and 2030 indicate that the parking supply will be more than meet the demand for parking, as shown in Table 4.2.2-2.

TABLE 4.2.2-2 FORECAST YEAR 2015 AND YEAR 2030 PARKING DEMAND AND SUPPLY – NO BUILD ALTERNATIVE

Parking Lot	Parking Space	Daily Parking Occupancy		Occupancy Percentage	
		2015	2030	2015	2030
West Broadway Under Track Parking Lot	671	361	387	54%	58%
East Broadway Parking Lot	1722	459	492	27%	29%
Total	2393*	820	879	34%	37%

*The track level could potentially be used for additional parking, which would increase the total number of available parking spaces.

Build Alternative

In forecast year 2015 and year 2030 with the build out of the Union Depot, the following space changes would be expected at the three parking lots:

- At the West Broadway Under Track Parking Lot, the parking spaces would be reduced by a approximately 180 spaces. In addition, a minimum of 170 parking spaces would be reserved for Amtrak and 30 for USPS.
- An additional parking lot will be added to the train deck with approximately 155



additional parking spaces.

- At the East Broadway Parking Lot, the upper-deck parking spaces would be reduced by a total of 475 parking spaces to accommodate Amtrak rail track installation.

Park-and-ride trips generated from Metro Transit, intercity bus, and Central Corridor LRT are expected to be minimal and negligible, and are considered to be reflected in the background growth.

Table 4.2.2-3 presents the parking demand and supply forecast year 2015 and year 2030 of the project area.

TABLE 4.2.2-3 FORECAST YEAR 2015 AND YEAR 2030 PARKING DEMAND AND SUPPLY – BUILD ALTERNATIVE

Year	Parking Supply (spaces)				Daily Peak Parking Demand				Occupancy Percentage
	West Broadway Undertrack Parking Lot	West Broadway Train Deck Parking Lot	East Broadway Parking Lot	Total	Public Parking	Amtrak Parking	USPS Parking	Total	
Year 2015	491	155	1247	1,893	820	170	30	1,020	54%
Year 2030	491	155	1247	1,893	879	170	30	1,079	57%

The analysis indicated that in forecast year 2015 and year 2030, the total spaces of the two parking lots would be able to provide sufficient parking capacity to meet the estimated parking demands, with 54 percent parking occupancy expected in year 2015 and 57 percent parking occupancy expected in year 2030. It should be noted that some existing vehicles that park at the West Broadway Undertrack Parking Lot will have to be shifted to the East Broadway Parking Lot or to the Train Deck as well all future growth in parking demand.

Project Site and Parking Access

The Broadway Street/Kellogg Boulevard intersection is the only access for pick-up/drop-off vehicles and buses to enter and exit the proposed Union Depot. Currently, a parking access to the East Broadway Parking Lot is provided on Broadway Street just south of Kellogg Boulevard. The proximity to the Broadway Street/Kellogg Boulevard intersection has introduced safety concerns. A bus waiting on the south approach stop line could easily block this parking access. Closing the existing parking access has been discussed and determined to be recommended with the build out of the Union Depot. All vehicles entering and exiting the East Broadway parking lot would use the other two parking accesses on Kellogg Boulevard approximately 500 feet east of Broadway Street. At these two parking accesses, the western one is signalized and the eastern one is stop controlled. The traffic analysis indicated that both Broadway Street/Kellogg Boulevard and Kellogg Boulevard/East Parking Access intersections are expected to operate at LOS A or LOS B in year 2015 and year 2030. The closure of the Broadway Street parking access is not expected to cause any traffic operation deficiencies with the forecast traffic volumes.

The existing parking access to the West Broadway Undertrack Parking Lot, on Sibley Street between Warner Road and Kellogg Boulevard will remain right in/right out access. An additional Access will be added to the Broadway Street Site access. Both parking accesses are not expected to have any traffic operational issues in the future.

Mitigation Measures

Based on the findings of this analysis, the parking facilities are expected to provide sufficient parking capacity for the future parking demand in the project area, and there are no operation issues on the site/parking accesses in year 2015 and year 2030. No mitigation measures are required.

The Broadway Street access to the East Broadway Parking Lot is recommended to be closed. The analysis indicated that the access closure is not expected to cause any traffic operational deficiencies with the forecast traffic volumes.

4.2.3 Transit

Existing Conditions

Metro Transit, Greyhound, Jefferson Lines, and Amtrak all have representatives on the LOCATE committee, which was charged with the mission of identifying a location for a multi-modal transit hub in downtown Saint Paul. In addition, they have participated in discussions with project staff regarding issues such as site design, access, capacity, and parking (Appendix A).

Metro Transit

Currently 15 percent of all transit routes in the Twin Cities provide service to downtown Saint Paul, making it the second largest concentration of transit service in the Twin Cities, trailing only downtown Minneapolis. Transit service in downtown Saint Paul operates primarily on an east-west spine, with a secondary north-south spine. Twenty-three bus routes provide service along the parallel one-way Fifth and Six Streets and eight routes travel north-south on Cedar Avenue, with Minnesota and Wabasha Avenues splitting the return trips. Concentrating transit service along spines in this manor increases the transfer potential by minimizing the walking necessary for a transfer. In 2000, 34.4 percent of downtown Saint Paul residents and 12.8 percent of downtown Saint Paul workers commuted via transit.

The Greyhound Bus Station is well serviced by Metro Transit buses; it is located along a Hi-Frequency Transit Route with service at least every 15 minutes from 6:00 a.m. to 7:00 p.m. on weekdays and 9:00 a.m. to 6:00 p.m. on Saturdays. Six other routes also provide service to the Greyhound Bus Station, a mix of local and express buses. Neither Metro Transit nor any of the Suburban transit providers currently provide transit service within a quarter of a mile of the Midway Amtrak Station.

Intercity Bus

Two intercity bus companies provide service to Saint Paul, Greyhound Bus and Jefferson Lines. Greyhound and Jefferson Lines both operate from the Greyhound Bus station on University Avenue. Greyhound operates 12 buses a day at this station. Two of the Greyhound buses also



provide service to the Midway Amtrak station. Jefferson Lines operates eight buses a day at the Greyhound Bus Station. Service is provided to Chicago, Dallas, Duluth, and Madison, with stops in between.

Amtrak

Amtrak's Empire Builder provides service to the Midway Amtrak station twice daily; one eastbound and one westbound train. There were more than 130,000 boardings and alightings a year at the Midway Amtrak Station from 2005-2007.⁶ The Empire Builder provides service from Chicago to Seattle and Portland. Westbound Amtrak trains come into Saint Paul on the Canadian Pacific tracks, passing along the south side of the Union Depot, before turning north onto Minnesota Commercial Railway tracks. The Midway Amtrak Station is located on a sidetrack adjacent to the Minnesota Commercial tracks. After leaving the station, the trains continue west to Seattle or Portland via BNSF tracks. The eastbound trains operate on the same track, but in reverse.

Impacts

No Build Alternative

Under the No Build Alternative there would be no modification of transit service resulting in no impact.

Build Alternative

The Build Alternative includes the relocation of Amtrak and intercity bus stations and the rerouting of several Metro Transit Bus Routes to Minnesota's Union Depot. Consolidating these services in a single location, which is also accessible by automobiles, pedestrians, and bicyclists, will allow for convenient transfers between modes providing greater accessibility throughout both the Twin Cities and the upper Midwest.

Metro Transit

Metro Transit is still examining possible modifications to bus service to incorporate the Union Depot and Central Corridor LRT. The following discusses the possible rerouting of bus service, which will be further refined in the Central Corridor Environmental Impact Statement. Seven Metro Transit bus routes would be rerouted to provide service to the Union Depot: Routes 16, 21, 50, 53, 54, 63, and 70². In order to minimize the impact of transit on the community, bus routes will operate only on streets that currently have bus service and buses will operate as close as possible to their current route. Routes 21, 53, 54, 63, and 70 will operate along the primary east-west transit spine. They will continue to operate on Fifth Street in downtown. When they reach Broadway Street they will turn south for two blocks to the Union Depot, return up Broadway Street to Sixth Street, and turn left along Sixth Street as they currently operate. Routes 16 and 50 operate along the secondary north-south transit spine focused around Cedar Avenue. These routes would travel south along Cedar Avenue to Fifth Street and turn left. They will take Fifth Street to Broadway Street, turn right on to Broadway Street, and travel two blocks to the Union Depot. Upon exiting the Union Depot, these routes will travel up Broadway Street

² If the Central Corridor LRT is built it would become Route 50, eliminating the bus route 50. The Central Corridor DEIS indicated that the Central Corridor would operate on Fourth Street. The final alignment will be determined in the Central Corridor EIS.

to Sixth Street, turn left and travel down Sixth Street to Minnesota Street. The buses would then continue on their current route.

The rerouting of buses will add an additional 14 buses along the primary east-west transit spine of Fifth and Sixth Streets during the a.m. and p.m. peak hour. These streets currently carry 63 and 58 buses during the a.m. and p.m. peak hour, respectively. As discussed in Section 4.2.1, Traffic, it is not anticipated that the additional buses will negatively affect traffic operations. However, the addition of two routes to the primary transit spine will encourage transfers from route to route.

Intercity Bus

The Build Alternative would include closing both the Greyhound Bus and Amtrak Stations and relocating the stops to the Union Depot. It is not anticipated, at this time, that there will be any substantial changes to the frequency of bus service or the schedule. Due to the site's proximity to both I-94 and I-35E it is not anticipated that there would be a significant change in travel time, except for the buses to and from Duluth, (that currently stop at the Midway Amtrak) which would experience some travel time savings because of one less stop. Ridership may increase because of the increased access to the station via multiple Metro Transit routes.

Amtrak

Amtrak currently operates on the tracks adjacent to the Union Depot site. Amtrak does have plans to increase service of the Empire Builder; however, no timeline has been set for the possible increase in service. The project will be designed to accommodate both the current level of service and potential future increases in service. In a 2004 letter of support of this project, Amtrak wrote, "The potential of a future station stop in downtown Saint Paul is quite appealing and presents a unique opportunity to have Amtrak serve a multi-modal transit hub housed in a historic building, with the added attraction of being convenient to downtown services." Amtrak has testified before a Minnesota Senate Committee in support of the Minnesota Union Depot project³. In a February 2009 letter, Amtrak reiterated their support for the resuming passenger rail service at the Union Depot. Based on this, it is apparent that Amtrak considers the possibility of increased access for its passenger to downtown Saint Paul and other modes of transportation to be a benefit to its service. Through locating in a multi-modal transit hub, Amtrak passengers will be able to transfer to any one of twenty intercity buses or utilize the extensive local transportation network focused on the Union Depot.

Four tracks and two platforms will be constructed for Amtrak operations on the train deck. It is likely that Amtrak trains will be able to continue to operate on the same tracks as they currently do, utilizing the sidetrack to bring trains under the concourse.

Mitigation Measures

The rerouting of buses in downtown Saint Paul is not expected to have a negative impact on the level of service provided or on traffic operations in downtown Saint Paul. As a result, no mitigation is required.

³ <http://www.amtrak.com/pdf/factsheets/MINNESOTA07.pdf>



4.2.4 Pedestrians

Existing Conditions

The three facilities that would be affected by the reuse of the Union Depot as a multi-modal transit hub have poor pedestrian connections and/or are positioned in a manner that deters pedestrian activity. Currently, there are sidewalks along the north and west side of the Union Depot site. The lack of sidewalks along the east and south sides of the Union Depot are due to the proximity of the railroad in these directions. Sidewalks in these locations would encourage unsafe pedestrian crossings of freight railroads. The sidewalk along Kellogg Boulevard is five feet wide, squeezing pedestrians between a stucco wall on the south and a metal railing separating them from traffic (Figure 4.12.1-1). In addition to the narrow right-of-way for pedestrians, the concourse crosses over the sidewalk, casting a permanent shadow, which does not contribute to an inviting pedestrian environment or sense of security. Along the west side of the Union Depot, a sidewalk connects Shepard Road with Kellogg Boulevard. Although this sidewalk is safer (in regard to collisions with motor vehicles) and more appealing for pedestrians than the sidewalk along Kellogg Boulevard, it is still not pedestrian-friendly. The sidewalk runs under freight rail lines, creating a dark, covered walkway. In addition, the support structure under the tracks is not uniform, creating potential hiding places and casting shadows. Together, the narrow sidewalks and limited natural lighting around the Union Depot make the area unwelcoming to pedestrians. There are traffic signals with crosswalks at the intersections of Kellogg Boulevard and Broadway Street and Sibley Street and Kellogg Boulevard. The traffic signal at Broadway Street and Kellogg Boulevard has a pedestrian count down providing pedestrians with how much time they have to cross the street.

There is a sidewalk between the Sibley Street/Kellogg Boulevard entrance to the train deck and the proposed location of the 4th Street Central Corridor LRT station platform in front of the head house.

The Amtrak Station on Transfer Road is located in an industrial park, providing few potential areas for pedestrians to walk to or from. Although there is little in terms of other potential origins or destinations in the vicinity of the Amtrak Station, there is a sidewalk along the east side of Transfer Road from the station south over a quarter of a mile to University Avenue, where the closest transit line or retail business is located. University Avenue has good transit access and a mix of commercial, residential, and, along this section, industrial uses, providing some possible destinations and origins for pedestrians from the Amtrak Station.

The Bus Station along University Avenue is located in an area that has a large amount of pedestrian activity. However, simply because many people are walking in the area does not mean the area is a safe or inviting place for pedestrians. Both the block the Bus Station is located on and the block across the street have surface parking lots over 50 percent of the surface area. The expanse of parking discourages pedestrian activity in the area and creates cut-through opportunities for both pedestrians and motor vehicles, resulting in the potential for unsafe conflicts between them. This section of University Avenue is six lanes wide with parking on both sides. The width creates a physical barrier for pedestrians. The sidewalk leading up to the

Bus Station abuts University Avenue, leaving no barrier between pedestrians and motor vehicles other than parked automobiles.

Impacts

No Build Alternative

In the No Build Alternative, no improvements would be made to the pedestrian environment around the Union Depot. It is likely that the pedestrian environment would further deteriorate. If the Union Depot is not reused, fewer people would have a legitimate reason to be in the area reducing “eyes on the street” and making it less safe for those who are walking in the area. In addition, drivers would not be expecting pedestrians in the area and would be less likely to be looking for them. There would be no changes to the pedestrian environments surrounding the existing Amtrak Station or Bus Station.

Build Alternative

The area around the Union Depot is not pedestrian-friendly. Since a goal of the project is to enhance and encourage pedestrian circulation, efforts will be made to increase the pedestrian connectivity and make the area around the Union Depot more pedestrian friendly. Stairs and an ADA-compliant ramp will provide access from the intersection of Sibley Street and Kellogg Boulevard to the train deck. However, since there is an existing sidewalk on the west side of the head house, no modifications or upgrades for the sidewalk are included in the project. On the east end of the site there would be a sidewalk going up the ramp from the intersection of Broadway Street and Kellogg Boulevard to the train deck. An elevator and stairs would also be provided from the under-track level to the train deck and concourse.

The concourse would provide passengers with a grade separated access to the Amtrak, Taxis, and Buses (intercity and intracity), as well as the under track level with parking, bicycle, and storage Amtrak Baggage. The site plan includes an extra large bus platform to accommodate all buses on a single platform, eliminating the need of pedestrians transferring from one bus to another from either entering a vehicle right-of-way or utilizing the vertical circulation. If the Central Corridor LRT is constructed, with a station in front of the head house on Fourth Street, the RCRRRA will explore the possibility of gaining pedestrian access through the Head house. This will likely be in the form of an easement. If pedestrian access is gained through the Head house, there would be likely impacts to historic resources and modifications to provide an ADA accessible route from the LRT platform on Fourth Street through the head house and Concourse to the Waiting Room. However, access through the head house is not required for the multi-modal facility. Pedestrians will be able make the connection via the sidewalk along Sibley Street.

The narrow sidewalk along Kellogg Boulevard is not wide enough for the increased pedestrian traffic that will be generated by the Build Alternative. To accommodate the demand and enhance the pedestrian environment, a pedestrian and bicycle way would be constructed along the south side of Kellogg Boulevard. To create the necessary space for the pedestrian and bicycle way, the deck of the track level along the south side of Kellogg Boulevard would be removed from Sibley Street to approximately Wacouta Street back to the second set of support pillars, creating an additional 20 feet of right-of-way for pedestrians and bicyclists. At approximately Wacouta



Street, the pedestrian and bicycle way would go under the track level to Broadway Street. East of Broadway Street pedestrians would travel parallel to Kellogg Boulevard on the existing sidewalk until it connects with the shared-use path on the Kellogg Bridge.

Lighting would be added to the underside of the track level over the sidewalk and under the tracks along Sibley Street. The result of these improvements would be to extend the existing pedestrian-friendly environment found in most parts of downtown Saint Paul east along Kellogg Boulevard to Broadway Street and south along Sibley Street, reestablishing a natural link between the Mississippi River and downtown. The on-going maintenance of the sidewalks and pedestrian and bicycle way on the Union Depot property would be the responsibility of the property owner (RCRRA).

The traffic signal timing at the intersections at Sibley Street and Kellogg Boulevard and Broadway Street and Kellogg Boulevard would be adjusted as necessary to ensure that pedestrians have adequate time to cross.

Neither of the sites that are being vacated in the build alternative, the Midway Amtrak or the Greyhound Bus Station, are located in a pedestrian-friendly environment. The likely reuse of the Amtrak Station would be for an industrial purpose, which would not require a pedestrian environment.

Mitigation Measures

The pedestrian circulation in the area around the Union Depot, in the build alternative, would be improved as a result of the proposed action. To ensure compliance with ADA requirements, the build alternative includes:

- Curb ramps at all crosswalks,
- An ADA-compliant ramp along Sibley Street from the corner of Sibley Street and Kellogg Boulevard to the track level,
- A sidewalk adjacent to the vehicular access ramp opposite Broadway Street to the track level, and
- All vertical circulation from the under track level, track level, and concourse will include stairs, escalators and elevators.

If a pedestrian access is through the head house is acquired, there maybe a need to modify the Head house to create an accessible route, mitigation of any impacts to the head house will be created through the Programmatic Agreement.

4.2.5 Bicycles

Existing Conditions

The attractiveness of downtown Saint Paul for bicycling varies greatly from one block to the next, resulting in a somewhat frustrating area for cyclists to ride. Several of the streets in downtown Saint Paul have bicycle lanes, and other bicycle facilities, although they have limited connectivity. Three prime examples of this are in close proximity to the Union Depot. The first is the bicycle lane along Sibley Street. The bicycle lane connects the Sam Morgan Regional Trail

with downtown Saint Paul. Designed to create a link between the regional trail and downtown Saint Paul, it does not really accomplish this because the bike lane is only one block long. After that block, bicyclists share the road with motor vehicles. The bicycle lane goes up a fairly steep hill with a traffic signal part way up the hill. In addition, the one-way bicycle lane on Sibley Street does not have a complimentary one-way bicycle lane on a parallel street. The Sam Morgan Regional Trail is part of the Mississippi River Trail, a program designed to build a connected bicycle way along the Mississippi River from Lake Itasca to the Gulf of Mexico.

The Bruce Vento Trail is a regional trail that provides access to downtown Saint Paul. It enters the downtown area at Fifth Street and Broadway Street. A north-bound bicycle lane along Broadway connects Kellogg Boulevard to the trail, creating a wonderful connection. However, cyclists riding into downtown reach Broadway Street where it is a one-way north-bound. Half a block north they must cross entrance and exit ramps to I-94. The third bicycle facility in proximity to the Union Depot is a shared-use trail along the south side of the Kellogg Boulevard Bridge. These three facilities end within five blocks of each other, however there is no clear way to get from one to another.

Downtown Saint Paul also lacks bicycle-supportive facilities that make bicycling to work a realistic choice for many commuters. These include items such as secure bicycle storage, shower and locker room facilities. Despite the lack of bicycle facilities and bicycle-supportive facilities, an estimated 250-300 cyclists commuted by bicycle in downtown Saint Paul in 2000, or 0.59 percent of the downtown workforce. In comparison, 2.58 percent of the downtown workforce of Minneapolis, where a system of bicycle facilities has been installed, commuted by bicycle.

There are no on- or off-street bicycle facilities in the area around either the Amtrak Station on Transfer Road or the Bus Station on University Avenue. Bicyclists who wish to access either of these stations must share the road with motor vehicles.

Impacts

No Build Alternative

Under the No Build Alternative there would be no impact to the bicycle infrastructure of Saint Paul.

Build Alternative

As part of the Build Alternative, a bicycle station would be built on the under-track level to meet the goal of enhancing bicycle circulation. This bicycle station will be designed primarily to benefit bicycle commuting in downtown Saint Paul; however, due to its location in proximity to the Sam Morgan and Bruce Vento Regional Trails, it would also enhance recreation and tourist cycling in Saint Paul. The bicycle station is proposed to include shower, locker room facilities, and enclosed parking for 200 bicycles.

To have a successful bicycle station, cyclists must have a safe, convenient way to access the station. To accomplish this, a pedestrian and bicycle way will be constructed on the south side of Kellogg Boulevard from Sibley Street to Broadway Street. The route would have two five-foot demarcated bicycle areas, one for each direction. The pedestrian and bicycle way would



serve as a necessary connection in the bicycle network by connecting the bicycle lane on Sibley Street with the bicycle lane on Broadway street. By connecting these two bicycle lanes, the bicycle way will link over 200 miles of connected regional bicycle facilities in the Twin Cities area. Figure 4.2.4-1 is a map of existing and proposed bicycle facilities in the vicinity of the Union Depot. The property owner (RCRRA) will maintain the newly created pedestrian and bicycle way along Kellogg Boulevard.

Mitigation Measures

The bicycle circulation in the area around the Union Depot will be improved as a result of the proposed action. No mitigation is proposed.

4.2.6 Aeronautics

The project site is located within the Saint Paul Downtown Airports Influence Area due to the proximity of the site to the airport.

Legal and Regulatory Requirements

The Federal Aviation Administration (FAA) is responsible for administering Title 14 of the Code of Federal Regulations (CFR) Part 77, which requires any person/organization who intends to sponsor any of the following construction, or alterations must notify the Administrator of the FAA:

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

While the FAA requires notification for any potential obstruction above a 100:1 slope from the runway the obstruction criteria depends on the particular runway. For Runway 14-32 the obstruction criteria is a slope of 50:1 and for Runway 13-31 it is 34:1. The prescribed height adjustment for railroads tracks is 23 ft., in order to allow for necessary clearance for rail traffic to pass under aircraft coming into or taking off from the airport.

Minnesota Statute Chapter 360 and Minnesota Rules Section 8800.1200-8800.2400 identify that Mn/DOT Office of Aeronautics will review all Mn/DOT projects with an Airport Influence

Area. The RCRRA will need to acquire a construction permit from the Mn/DOT Office of Aeronautics.

Existing Condition

The project site is located just over 4,500 ft. from the end of Runway 13-31. The eastern edge of the project site is located approximately 3,750 ft. from the end of Runway 14-32. The elevation of the runway ranges from 702-704 ft. above sea level. The elevation of the elevated train deck varies from 717-727 ft. above sea level. Generally, the western portion of the elevated train deck is higher than the eastern portion.

The existing Lafayette Bridge is located along the flight path for Runway 13-31 in between the airport and the project site, approximately 3,750 ft from the end of the runway. The Lafayette Bridge is over 760 ft. above sea level as a result the bridge is the controlling obstruction for air traffic utilizing Runway 13-31.

Impacts

No Build Alternative

The No Build Alternative would not require any construction or modifications to the project site. Therefore, there would be no impacts to the downtown Saint Paul airport's approach surface or horizontal surface.

Build Alternative

As a result, of the grade change between the airport runways and the project site, coordination with the FAA will be required. However, it is not anticipated that the obstruction criteria for either of the runways will be met either in construction or in operation of the Union Depot.

Mitigation Measures

The RCRRA will obtain a construction permit from the Mn/DOT Office Aeronautics. The RCRRA will work with the Mn/DOT and FAA, to develop a construction plan to minimize any impacts of flight patterns into and out of the downtown Saint Paul airport.

4.2.7 Freight Rail

Existing Condition

The area around the Union Depot has been a focal point for rail activity in the Twin Cities for over a hundred years. The geography in the area made it ideal for this purpose. Originally, tracks were built along the banks of the Mississippi River. Just to the east of the project site Phalen Creek created a natural valley through the river bluffs creating an ideal place for the railroads to continue north away from the river. Tracks from three different directions converged on this location, creating a railroad wye, (Figure 4.2.7-1). Currently, three different railroads own tracks that run through the wye: BNSF, Canadian Pacific (CP) Railroad, and Union Pacific Railroad. Combined, these tracks carry between 40-70 trains per day. The BNSF track, the busiest in the region, comes along the river from the south (downstream) and through the wye taking a northern route to Minneapolis. The CP Railroad follows the Mississippi and branches to the valley. The Union Pacific Railroad has two sets of tracks coming from the south, one travels along the river (from upstream) the other follows the base of the bluffs along the south side of



the river before crossing the river under the Robert Street Bridge. The Union Pacific tracks than travel north through the valley before turning northeast.

Amtrak trains do not currently stop at the Union Depot. Amtrak passes the site on the East/West running CP mainline just south of Union Depot.

Impacts

No Build Alternative

The No Build Alternative will have no impact on freight rail operations.

Build Alternative

In order to provide access and egress for Amtrak trains to the Union Depot, five sidetracks⁴ will be added along the southern portion of the site, north of the existing freight rail tracks. These tracks will tie into existing freight tracks via terminal throats. The eastern terminal throat will connect to the UP Saint Paul Union Depot (SPUD) line west of the railroad wye, while the western terminal throat will connect to the UP SPUD line where it joins the CP mainline tracks (Figure 3.3.2-4). Powered switches will be used to divert Amtrak trains off the SPUD line and onto the sidetracks at Union Depot. The addition of four sidetracks and a storage track, will allow for various train movements and storage with minimal disruption to the activity on the adjacent freight rail tracks.

In order to route Amtrak trains into the new sidetracks it will be necessary for Amtrak to run on the UP SPUD line adjacent to the site. There are several options for switching Amtrak off of the CP mainline and over to the UP SPUD line and the option with the least impact to freight operations should be used.

Mitigation Measures

The RCRRA will coordinate with the railroads to minimize impacts on rail operations both during the construction and operation phases of the Union Depot. It will be necessary to modify some existing railroad interlockings and signal systems in order to accommodate the new Amtrak routing without disrupting existing freight operations. The assumption is that the currently unsignalized UP SPUD line would be upgraded to Centralized Traffic Control (CTC) signal control and that the interlockings at Robert Street and Division Street would be modified to incorporate the addition of the powered switches into the Union Depot.

⁴ These consist of four through tracks and one track for train storage.