APPENDIX H-3: UNFUNDED CONNECTUS RESULTS

Overview of Changes

Unfunded AM: Page 59 replaces 1635
Unfunded+Project AM: Page 100 replaces 1676
Unfunded PM: Page 141 replaces 1717
Unfunded+Project PM: Page 182 replaces 1758

APPENDIX E TRANSPORTATION AND TRAFFIC

CONNECTUS ACTION PLAN UNFUNDED PROJECT ANALYSIS

The following sections describe the transportation network changes that are considered for future scenarios with the implementation all projects identified in the ConnectUS Action Plan that are within the study area of this project. This would include projects with secured funding (funded projects), described in Section 3, and projects without secured funding (unfunded projects). There are several ConnectUS Action Plan projects that are not funded, but are located outside the study area, so are not expected to affect traffic operations in the study area, and the resulting conclusions about the potential for project impacts. The unfunded ConnectUS projects included in this scenario are:

- New cycletrack on Broadway, north of Cesar E. Chavez Avenue to the northern edge of the study area. The design of the bikeway has not been finalized, but it is expected to reduce the number of general travel lanes from two to one in each direction. In addition, eastbound left-turn lanes will be reduced from two to one on Cesar E. Chavez Avenue at Broadway.
- New biking and walking Esplanade on Alameda Street from Cesar Chavez Avenue to the northern edge of the study area. The design of the esplanade has not been finalized, but it is not expected to reduce the number of general travel lanes.
- New biking and walking Esplanade on Vignes Street from Cesar Chavez Avenue to Main Street. The design of the esplanade has not been finalized, but it is not expected to reduce the number of general travel lanes.

These projects have been incorporated into the Future without Project (including Unfunded ConnectUS) 2029 scenario. All projects and network changes that are part of the Funded Connect US projects future roadway network, described Section 3, are also part of the Unfunded Connect US projects roadway network.

The impact analysis presented in this EIR uses a 2029 horizon year to analyze the potential for project traffic impacts on surrounding street system. This is the anticipated opening year for the California High Speed Rail and the Link US projects at LAUS. While the project is expected to be constructed earlier, these two projects represent the most substantial planned changes to traffic conditions in the study area; and so the use of 2029 as an analysis year for the project represents a "worst case" analysis of the potential for project impacts.

Future without Project (Including Unfunded ConnectUS) 2029 Scenario

To evaluate the potential impacts of the proposed project on future (Year 2029) conditions, it was necessary to develop estimates of future traffic conditions in the area both without and with the project. Traffic estimates for the Unfunded Connect US projects roadway network are the same as those volumes used for the Funded roadway network, described in Section 3.

Future without Project Simulation Model Run

Future without Project weekday AM and PM peak hour traffic volumes were developed with the application of ambient growth and cumulative development project volumes. These represent the baseline traffic volumes for analyzing the potential for project-related traffic impacts, and are the same volumes used for the Future without Project Simulation Model Run for the Funded roadway network described in Section 3. Future without Project traffic volumes, intersection geometric changes, and other transportation network changes were input into the simulation model, which was run to calculate Future without Project transportation performance metrics, and is used as the baseline to assess the potential for project impacts in the Unfunded roadway network scenarios. This appendix includes an illustration of the intersection geometries with the inclusion of the Unfunded ConnectUS projects in the study area. These geometric changes are the only differences between the inputs to the simulation model between this scenario, and the Future with Project (2029) scenario detailed in Section 3.

Future with Project (Including Unfunded ConnectUS) 2029 Scenario

Proposed Project Transportation Network and Vehicle Volume Changes

The project includes the same transportation network changes and vehicle volume shifts as described in Section 3.

Future with Project (2029) Simulation Model Run

The project-related network changes and traffic volumes were used to modify the Future without Project model, and rerun to assess the transportation performance of the Future with Project Scenario.

Future (2029) Percent Demand Served

The addition of traffic volumes from ambient growth and cumulative development projects, and the repurposing of vehicle capacity associated with both the Future unfunded baseline network changes and the project network changes, will increase traffic congestion in the network and decrease the percent demand served. In the AM peak hour, Future without Project (2029) scenario, 13 intersections are able to serve over 95% of demand, 16 are able to serve between 90-95% of demand, and 12 serve less than 90% of demand. In the AM Future with Project (2029) scenario, these numbers become five, 13, and 23, respectively. In the PM peak hour Future without Project (2029) scenario, four intersections are able to serve over 95% of demand, 19 are able to serve between 90-95% of demand, and 18 serve less than 90% of demand. With the addition of the project in the PM peak hour, the numbers change to four, 19, and 18, respectively.

The decrease in percent demand served indicates that future demand for vehicle travel in the network will exceed the available capacity to a greater extent than existing demand exceeds network capacity today. This indicates that periods of congestion could be longer in the

future, or due to travel time changes motorists may choose to switch to other modes, such as transit, or shift discretionary travel to other times of day.

As the percent demand served at many intersections is below 95%, the delay values and LOS at these intersections may not represent the full delay if all vehicles were able to access the intersection. The tables at the end of this appendix contains information on percent demand served by intersection for the Future without Project and Future with Project scenarios.

Impact Analysis

This section assesses potential impacts associated with the proposed project and, if necessary, identifies mitigation measures to eliminate or reduce impacts. The methodology implemented in this assessment consists of evaluating whether the proposed project would have significant transportation and traffic impacts according to the above-stated thresholds. Impacts are primarily assessed by considering the project objectives and proposed uses in light of the regulatory setting as well as the existing and surrounding uses described above.

Impact 3.6.1: Will the project result in a substantial disruption to traffic during construction, which could include temporary street closures; temporary loss of regular vehicular or pedestrian access to existing land uses; temporary loss of an existing bus stop or rerouting of bus lines; or creation of traffic hazards?

Impact Analysis

Construction of the project would continue under the same schedule and assumptions as outlined in Section 3. There would be no changes to the project's construction under the Unfunded ConnectUs roadway network. Therefore, as stated in Section 3, no significant impact would occur under Impact Criteria 3.6.1.

Mitigation Measures

No mitigation measures are required.

Impact 3.6.2: Would the proposed project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths and mass transit?

The following section details the impact analysis for the transportation modes identified in the above impact criteria:

Intersections & Streets

Future without Project (Including Unfunded ConnectUS) 2029 Intersection Levels of Service

Table 1 presents the average delay and LOS for each of the analyzed intersections in the AM and PM peak hours under the Future without Project (including Unfunded ConnectUS) 2029 scenario. As shown, 25 of the 41 study intersections, as compared to 26 in the Funded ConnectUS roadway network scenario described in Section 3, are estimated to operate at LOS D or better during both the AM and PM peak hours. The following 16 intersections are estimated to operate at LOS E or F, during one or both of the analyzed peak hours:

4. Alameda Street & Alpine Street
7. North Vignes Street & Cesar E. Chavez Avenue
8. Lyon Street & Cesar E. Chavez Avenue
9. Mission Road & Cesar E. Chavez Avenue
14. Broadway & Cesar E. Chavez Avenue
18. Union Station Driveway & Cesar E. Chavez Avenue
24. Alameda Street & Arcadia Street
25. North Vignes Street & Ramirez Street
26. Broadway & Aliso Street
30. Alameda Street & Aliso Street
32. Broadway & West Temple Street
33. Spring Street & Temple Street
34. North Main Street & Temple Street
35. North Los Angeles & East Temple Street
37. Alameda Street & Temple Street
38. North Los Angeles & East 1st Street

Future with Project (Including Unfunded ConnectUS) 2029 Intersection Levels of Service

Table 1 also presents the average delay and LOS for each of the analyzed intersections in the AM and PM peak hours under the Future with Project (including Unfunded ConnectUS) 2029 scenario. As shown, 23 of the 41 study intersections, as compared to 22 in the Funded ConnectUS roadway network scenario described in Section 3, are estimated to operate at LOS D or better during both the AM and PM peak hours. The following 18 intersections are estimated to operate at LOS E or F, during one or both of the analyzed peak hours:

4. Alameda Street & Alpine Street
5. North Main Street & Alpine Street
8. Lyon Street & Cesar E. Chavez Avenue
9. Mission Road & Cesar E. Chavez Avenue
10. Alameda Street & Alhambra Avenue
14. Broadway & Cesar E. Chavez Avenue
18. Union Station Driveway & Cesar E. Chavez Avenue
19. Alameda Street & North Los Angeles Street

24. Alameda Street & Arcadia Street
25. North Vignes Street & Ramirez Street
26. Broadway & Aliso Street
29. North Los Angeles & Aliso Street
30. Alameda Street & Aliso Street
32. Broadway & West Temple Street
34. North Main Street & Temple Street
35. North Los Angeles & East Temple Street
37. Alameda Street & Temple Street
38. North Los Angeles & East 1st Street

Impact Analysis

As shown Table 1, applying the criteria for determination of significant impacts used by LADOT, the proposed project would create significant traffic impacts at 15 intersections, as compared to 17 in the Funded ConnectUS roadway network scenarios described in Section 3, under the Future with Project (2029) scenario:

4. Alameda Street & Alpine Street (AM Peak Hour)
5. North Main Street & Alpine Street (AM Peak Hour)
10. Alameda Street & Alhambra Avenue (AM Peak Hour)
13. North Main Street & Alameda Street (AM Peak Hour)
17. Alameda Street & Cesar E. Chavez Avenue (Both Peak Hours)
19. Alameda Street & North Los Angeles Street (Both Peak Hours)
23. North Los Angeles Street & Arcadia Street (PM Peak Hour)
24. Alameda Street & Arcadia Street (Both Peak Hours)
29. North Los Angles Street & Aliso Street (PM Peak Hour)
30. Alameda Street & Aliso Street (AM only)
32. North Broadway & Temple Street (PM Peak Hour)
34. North Main Street & Temple Street (PM Peak Hour)
35. North Los Angeles Street & Temple Street (PM Peak Hour)
36. Judge John Aiso & Temple Street (PM Peak Hour)
38. Los Angeles Street & Temple Street (PM Peak Hour)

The location of these significantly impact intersections are illustrated in Figures 1 and 2 for the AM and PM peak hours respectively.

There is one fewer impact in both the AM and PM peak hours compared with the impacts discussed in Section 3. In the AM peak hour, an impact at Broadway & Ord Street is removed. The repurposing of travel lanes on Broadway to accommodate a bike facility results in increased congestion and a reduced percent demand served at intersections on Broadway. Therefore, the effect of the project on the already congested portion of the network is minimized compared to the Funded ConnectUS network. In the PM peak hour, an impact at Spring Street & Temple Street is removed. The amount of delay at the intersection with the project is similar in both the Funded and Unfunded ConnectUS scenarios, however delay is much higher in the Unfunded

ConnectUS scenario without the project. This increase in delay without the project in the Unfunded ConnectUS scenario is caused by increased congestion on Broadway from the repurposed lanes, which spill back south of Cesar E. Chavez Avenue and increases delay on Temple Street.

Mitigation Measures

As the impacts under the Unfunded ConnectUS scenario are the same as those described in Section 3, the potential mitigations would also be the same. Due to the context of the study area and the project objectives, which include improving the safety and comfort for pedestrians and cyclists near LAUS, physical traffic capacity measures, such as widening intersections, are considered infeasible because they are inconsistent with this project objective, because roadway widening to accommodate additional turn lanes, through lanes, etc. increase pedestrian crossing distances and exposure to vehicle turning movements. Therefore no feasible physical mitigation is identified.

Signal timing modifications could partially mitigate project impacts in concert with other operational enhancements. Two alternatives, discussed in Chapter 5, reduce vehicle impacts by eliminating certain movements at the intersection of Los Angeles Street & Alameda Street, and providing signal timing operational enhancements. These alternatives and the relevant conclusions are applicable whether or not the Unfunded ConnectUS projects are also implemented. These alternatives are consistent with project objectives. While the project alternatives reduce the number of significant traffic impacts, they do not fully reduce all significant impacts, so regardless of whether the project or alternatives are selected, significant and unavoidable traffic impacts will remain at between nine and 17 intersections, depending on whether the project or one of the two project alternatives are selected, as the LOS and the number of impacted intersections is similar between the Funded Connect US roadway scenarios discussed in Section 3 and the Unfunded Connect US roadway scenario discussed in this Appendix.

Table 1 Future with Project (Including Unfunded ConnectUS) 2029 LOS & Impact Analysis

#	N/S Street	E/W Street	Future Year 2029				Future Year 2029 plus Project							
			AM		PM		AM		PM		AM		PM	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delta	Impact?	Delta	Impact?
1	North Hill Street	Alpine Street	17	B	18	B	17	B	18	B	0	NO	0	NO
2	North Broadway	Alpine Street	52	D	34	C	51	D	33	C	-1	NO	-1	NO
3	North Spring Street	Alpine Street	35	C	16	B	32	C	16	B	-3	NO	0	NO
4	Alameda Street	Alpine Street	81	F	15	B	120+	F	15	B	39+	YES	0	NO
5	North Main Street	Alpine Street/Vignes Street	28	C	31	C	97	F	31	C	69	YES	0	NO
6	Vignes Street	Bauchet Street	10	B	13	B	10	B	14	B	0	NO	1	NO
7	Vignes Street	Cesar E. Chavez Avenue	34	C	58	E	29	C	54	D	-5	NO	-4	NO
8	Lyon Street	Cesar E. Chavez Avenue	109	F	120+	F	51	D	120+	F	-58	NO	0	NO
9	Mission Road	Cesar E. Chavez Avenue	120+	F	120+	F	120+	F	120+	F	0	NO	0	NO
10	Alameda Street	Alhambra Avenue	9	A	13	B	114	F	13	B	105	YES	0	NO
11	North Hill Street	Ord Street	13	B	13	B	12	B	13	B	-1	NO	0	NO
12	North Broadway	Ord Street	50	D	45	D	50	D	47	D	0	NO	2	NO
13	Alameda Street	Main Street/Bauchet Street	16	B	21	C	28	C	24	C	12	YES	3	NO
14	North Broadway	Cesar E. Chavez Avenue	32	C	101	F	30	C	101	F	-2	NO	0	NO
15	North Spring Street/New	Cesar E. Chavez Avenue	41	D	41	D	39	D	40	D	-2	NO	-1	NO
16	North Main Street	Cesar E. Chavez Avenue	17	B	41	D	17	B	31	C	0	NO	-10	NO
17	Alameda Street	Cesar E. Chavez Avenue	34	C	41	D	39	D	50	D	5	YES	9	YES
18	Union Station Driveway	Cesar E. Chavez Avenue	99	F	120+	F	75	E	115	F	-24	NO	-5	NO
19	Alameda Street	Los Angeles Street	23	C	31	C	59	E	46	D	36	YES	15	YES
20	North Broadway	Arcadia Street	13	B	30	C	11	B	26	C	-2	NO	-4	NO
21	North Spring Street	Arcadia Street	47	D	47	D	29	C	25	C	-18	NO	-22	NO

#	N/S Street	E/W Street	Future Year 2029				Future Year 2029 plus Project							
			AM		PM		AM		PM		AM		PM	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delta	Impact?	Delta	Impact?
22	North Main Street	Arcadia Street	33	C	27	C	19	B	16	B	-14	NO	-11	NO
23	North Los Angeles Street	Arcadia Street	43	D	31	C	32	C	36	D	-11	NO	5	YES
24	Alameda Street	Arcadia Street/US 101 Off-Ramps	103	F	45	D	120+	F	74	E	17+	YES	29	YES
25	Vignes Street	Ramirez Street/Patsaouras Transit Plaza/US 101 Off-Ramps	43	D	108	F	40	D	98	F	-3	NO	-10	NO
26	North Broadway	Aliso Street/US 101 Off-Ramps	12	B	94	F	12	B	78	E	0	NO	-16	NO
27	North Spring Street	Aliso Street	17	B	18	B	12	B	11	B	-5	NO	-7	NO
28	North Main Street	Aliso Street	13	B	50	D	13	B	34	C	0	NO	-16	NO
29	North Los Angeles Street	Aliso Street	19	B	50	D	19	B	74	E	0	NO	24	YES
30	Alameda Street	Aliso Street/Commercial Street	73	E	69	E	81	F	45	D	8	YES	-24	NO
31	Garey Street/US 101 Off-Ramps	Commercial Street	24	C	47	D	24	C	45	D	0	NO	-2	NO
32	North Broadway	Temple Street	14	B	120+	F	14	B	120+	F	0	NO	0	YES
33	North Spring Street	Temple Street	30	C	63	E	22	C	51	D	-8	NO	-12	NO
34	North Main Street	Temple Street	25	C	120+	F	23	C	120+	F	-2	NO	0	YES
35	North Los Angeles Street	Temple Street	31	C	71	E	28	C	106	F	-3	NO	35	YES
36	Judge John Aiso Street	Temple Street	15	B	35	D	13	B	50	D	-2	NO	15	YES
37	Alameda Street	Temple Street	65	E	42	D	67	E	43	D	2	NO	1	NO
38	Los Angeles Street	1st Street	16	B	70	E	15	B	120+	F	-1	NO	50+	YES
39	San Pedro Street	1st Street	18	B	31	C	17	B	27	C	-1	NO	-4	NO
40	Central Ave	1st Street	15	B	38	D	14	B	32	C	-1	NO	-6	NO
41	Alameda Street	1st Street	51	D	21	C	52	D	20	B	1	NO	-1	NO

Source: Fehr & Peers, 2017

Figure 1 Future with Project (Including Unfunded ConnectUS) 2029 Scenario Significant Impacts AM Peak Hour

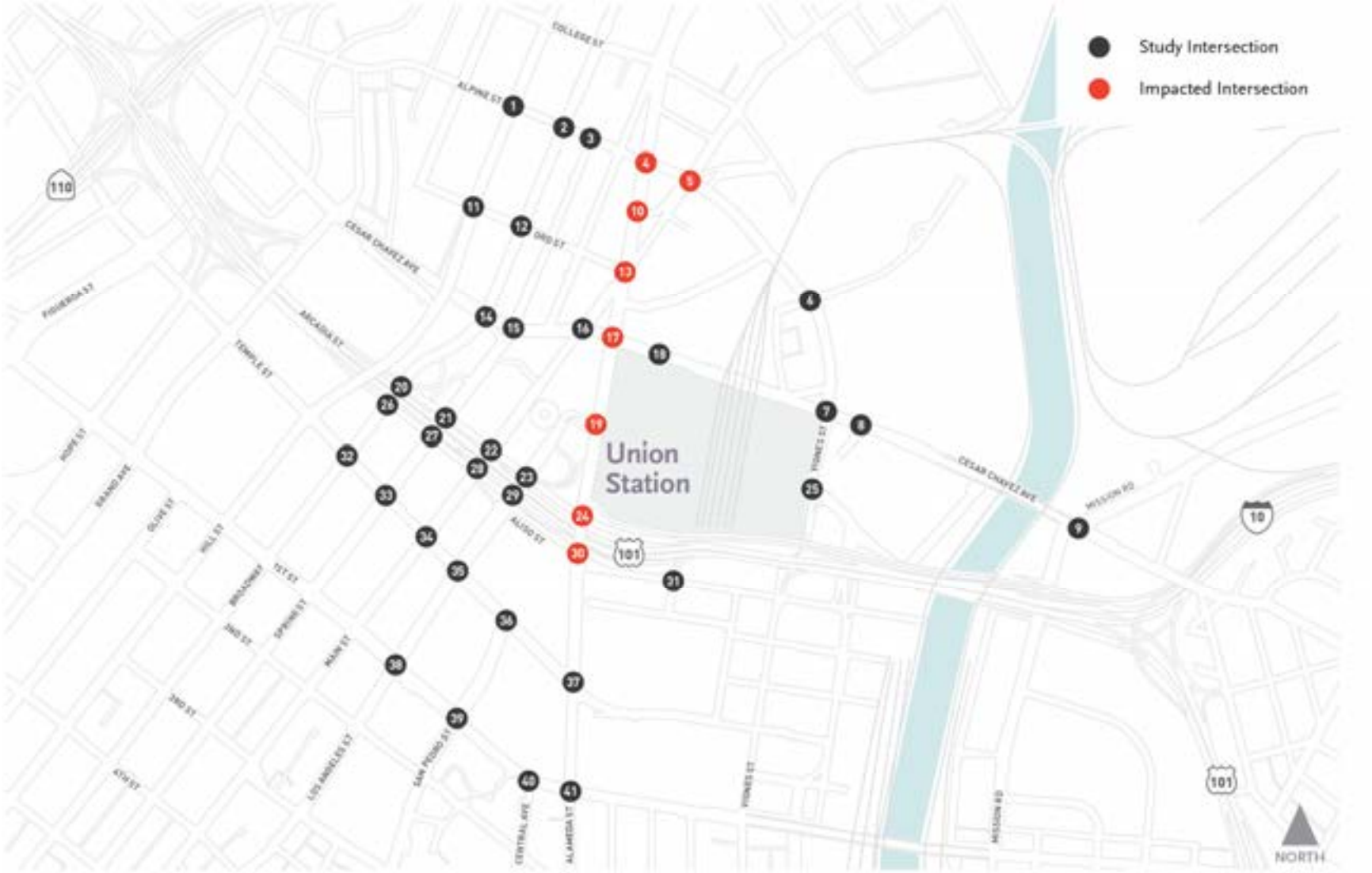
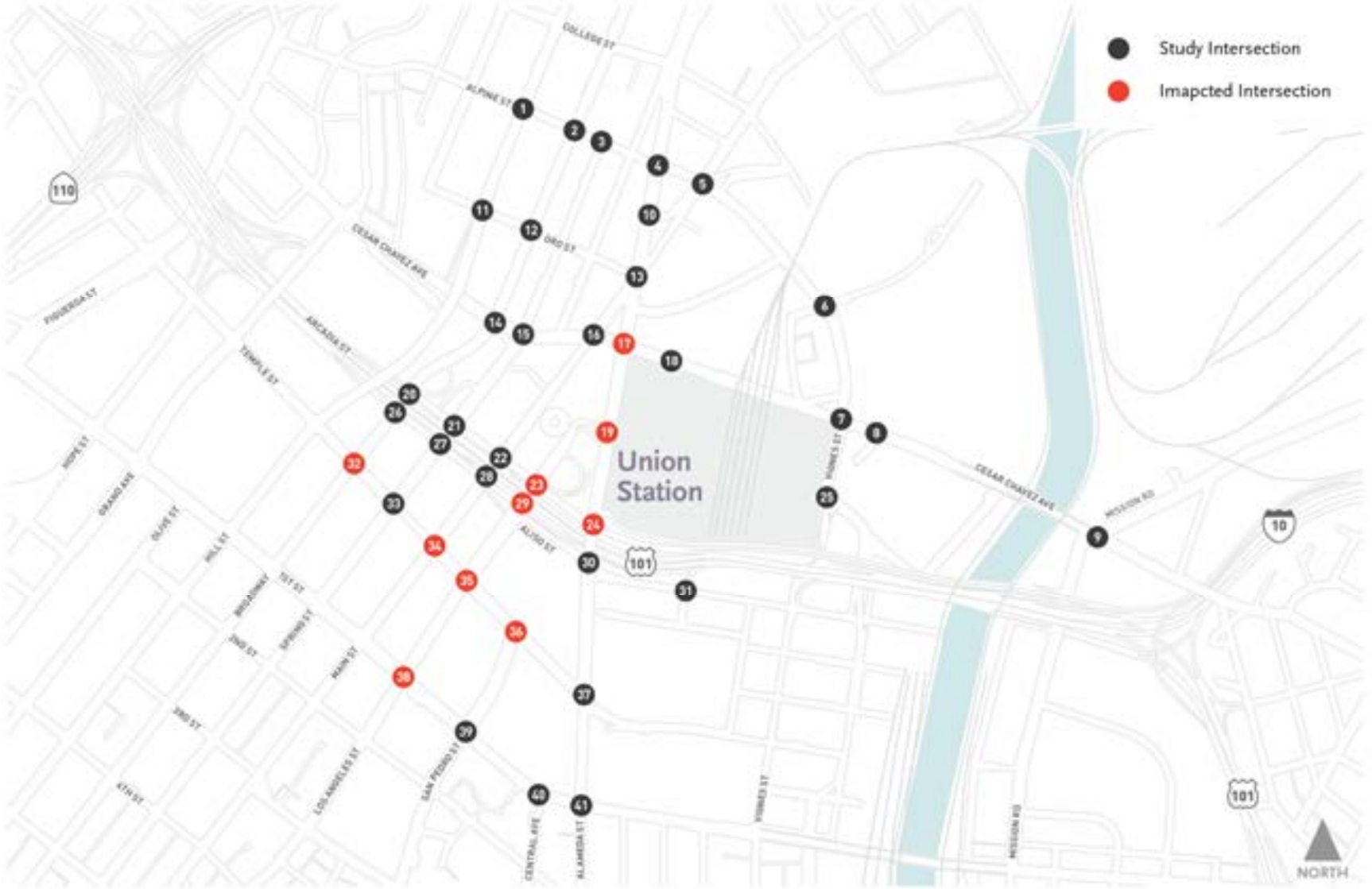


Figure 2 Future with Project (Including Unfunded ConnectUS) 2029 Scenario Significant Impacts PM Peak Hour



Freeway Analysis

As stated above, the roadway network changes compared to the roadway described in Section 3 are not expected to alter queuing on freeway ramps. Freeway ramp queuing is expected to follow similar patterns as described in Section 3. Queuing at the US-101 Northbound Ramp/Arcadia Street & Alameda Street are expected to exceed the storage length in some scenarios, as described in Section 3, which would constitute a significant impact.

Mitigation Measures

As the impacts under the Unfunded ConnectUS scenarios are the same as those described in Section 3, the potential mitigations would also be the same. Mitigation measures to address off-ramp queue exceedances typically include the following potential strategies:

- Off-ramp widening to provide additional queue storage
- Increase green time for the off-ramp to flush the queue more quickly on to city streets

The impacted off-ramp is physically constrained by the existing bus stop island immediately to the north of the ramp, and by a step grade down to the US-101 southbound lanes south of the ramp. Additionally, widening the off-ramp, which is currently four lanes wide, is considered infeasible because it would be inconsistent with the project's objective to enhance pedestrian and bicycle facilities. Roadway widening to accommodate a fifth off-ramp lane would increase pedestrian crossing distances and exposure to vehicle turning movements. Therefore no feasible physical mitigation is identified to mitigate this impact.

Increasing green time at this location for the off-ramp would worsen arterial intersection impacts on Alameda Street and connecting streets, because it would take green time away from Alameda Street. Due to the closely spaced arterial intersections, this further exacerbation of arterial queuing would worsen overall transportation network performance, and is therefore considered infeasible. Therefore, the significant impact is considered significant and unavoidable.

Pedestrian & Bicycle Paths

Impact Analysis

The project will enhance pedestrian and bicycle facilities in the study area by implementing an enhanced crossing across Alameda Street from the station to El Pueblo that will be raised and highly visible, while providing a dedicated crossing area for both pedestrians and cyclists.

The Alameda Esplanade will provide a wide multi-use path along the station's Alameda frontage to facilitate pedestrian and bicycle circulation.

These project features will substantially enhance pedestrian and bicycle facilities in the study area, and so will have a positive effect on these modes. Therefore, no significant impact is expected.

Mitigation Measures

No mitigation measures are required.

Mass Transit

Impact Analysis

The project will have similar effects on mass transit as those described in Section 3. The project will not affect bus stop locations, or any other transit stop facilities. Transit travel time is expected to be modestly affected by the project on most corridors within the study area, but these effects are not expected to materially affect impact transit schedule adherence or variability beyond typical levels. However, based on the increases to queuing on Los Angeles Street, transit travel times are expected to increase for bus routes that use Los Angeles Street. Transit travel time changes during the AM peak hour are expected to be minor, but during the PM peak hour, travel times will increase considerably due to queuing as a result of the project. The following routes could potentially be affected:

- Big Blue Bus Rapid 10
- LADOT DASH Downtown B
- LADOT Commuter Express 534
- Metro 442

Mitigation Measures

Reroute transit routes that operate on Los Angeles Street to avoid potential future queueing. Potential options could include rerouting from Los Angeles Street to Alameda Street via Aliso Street (northbound buses) or Arcadia Street (southbound buses). Under the project alternatives detailed in Section 5.6, similar rerouting will be required due to traffic movement changes at the Los Angeles Street & Alameda Street intersection. This rerouting would increase the route distance by approximately 500 feet from existing routing that uses Los Angeles Street, which is expected to have minor effects on transit run time, which could be addressed via periodic transit schedule updates. No bus stop locations would be affected by this rerouting. After mitigation, this impact would be less than significant.

Impact 3.6.3: Would the proposed project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Impact Analysis

This section presents an analysis of potential impacts on the regional transportation system. This analysis was conducted in accordance with the procedures outlined in *Congestion Management Program for Los Angeles County* (CMP) (Metro, 2010). The CMP requires that, when an environmental impact report is prepared for a project, traffic and transit impact

analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities.

Regional Traffic Impact Analysis

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM peak hours.

The closest CMP arterial monitoring station to the project site is at Alameda Street & Washington Boulevard located approximately three miles south of the project. Because the project is not expected to generate any trips, no further CMP arterial analysis is required.

Regional access to the project site is provided by US-101 immediately south of the project, I-5 approximately 1.5 miles to the east, and SR-110 approximately one mile to the north and west. The CMP freeway monitoring stations closest to the project site on US-101 is north of Vignes Street, on I-5 is at Stadium Way and on I-10 at the eastern City of Los Angeles limits. Because the project is not expected to generate any trips, no further CMP freeway analysis is required

Regional Transit Impact Analysis

Potential increases in transit person trips generated by a project are typically estimated using the methodology outlined in Appendix D of the 2010 CMP, which recommends estimating the number of transit trips expected to result from a proposed project based on the projected number of vehicle trips and an average vehicle ridership (AVR), and then provides guidance regarding the percentage of person trips assigned to public transit depending on the land use type and the proximity to transit services. As this project will not generate new vehicle trips, under the methodology outlined in the CMP it will also not generate new transit trips, and so would not have an impact on transit. The project would also not materially affect transit travel time in the study area.

Based on the impact criteria above, the project is not expected to have any significant impacts.

Mitigation Measures

No mitigation measures are required.

Impact 3.6.3: Would the proposed project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Impact Analysis

The project will have no effect on air traffic patterns.

Mitigation Measures

No mitigation measures are required.

Impact 3.6.4 Would the proposed project substantially increase hazards to a design feature or incompatible uses?

Impact Analysis

The project will enhance safety by widening sidewalks to accommodate pedestrians and cyclists, narrow pedestrian crossings, improving pedestrian and cyclist visibility in a high-visibility raised crosswalk, and will slow vehicle travel speeds via the lane repurposing on Alameda Street. Therefore, the project will enhance safety as a result of the project's design features.

Mitigation Measures

No mitigation measures are required.

Impact 3.6.5: Would the proposed project result in inadequate emergency access?

Impact Analysis

The project will retain access to the station on Alameda Street, and will not affect any other access locations, so is not expected to impact emergency access to the station site.

The Los Angeles Fire Department (LAFD) in collaboration with LADOT has developed a Fire Preemption System (FPS), a system that automatically turns traffic lights to green for emergency vehicles traveling on designated streets in the City. The City of Los Angeles has over 205 miles of routes equipped with FPS.

While the project would impact intersection level of service in the study area, there is not a direct relationship between predicted travel delay and response times as California state law does require drivers to yield the right-of-way to emergency vehicles and even permits emergency vehicles to use opposing lane of travel, the center turn lanes, or bus-only lanes. Emergency responders also routinely use the center left-turn lanes, or even travel in opposing travel lanes if needed. Generally, multi-lane roadways allow the emergency vehicles to travel at higher speeds and permit other traffic to maneuver out of the path of the emergency vehicle.

Mitigation Measures

No mitigation measures are required.

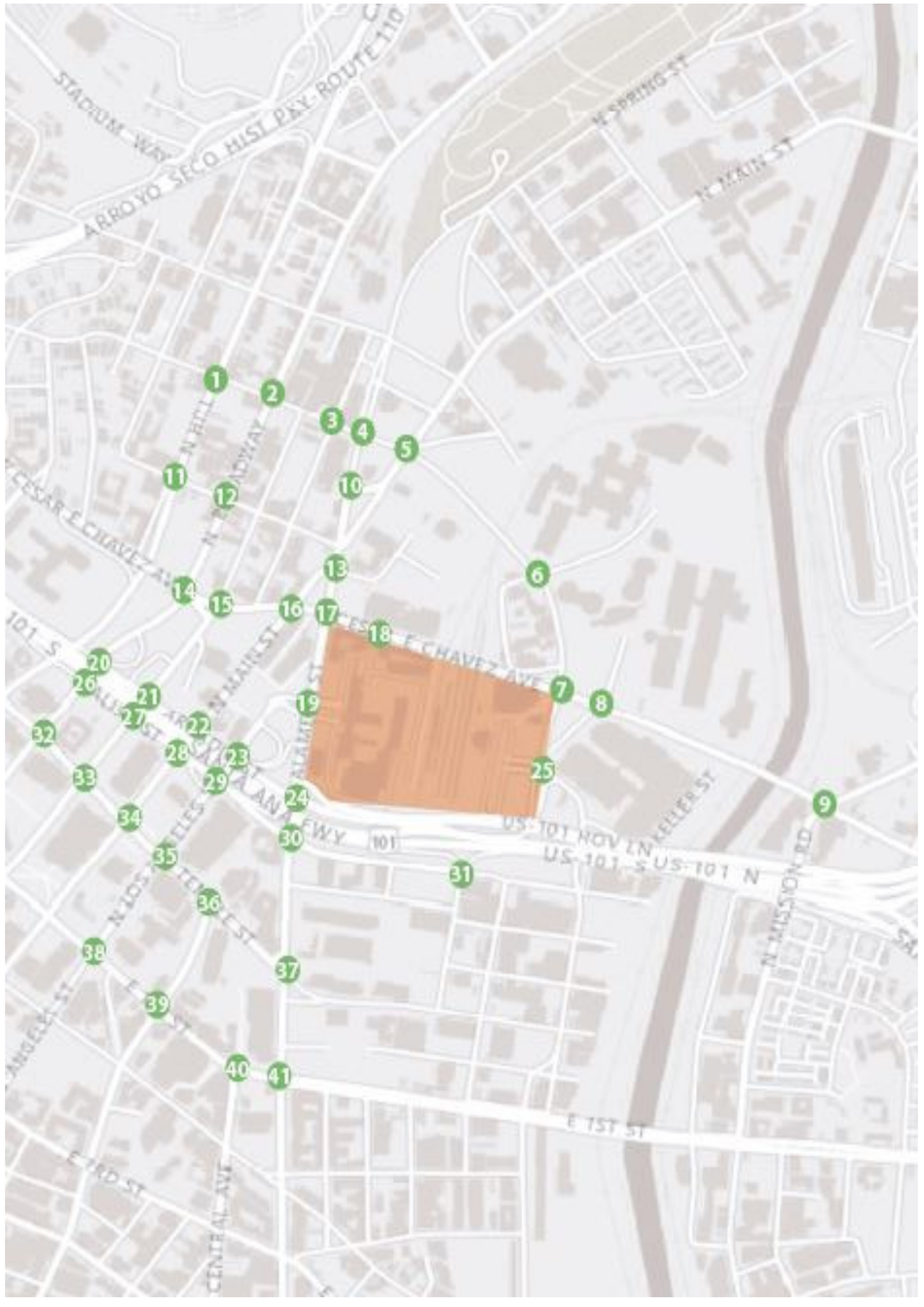
Impact 3.6.6: Would the proposed project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

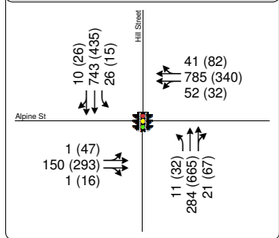
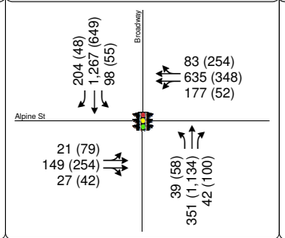
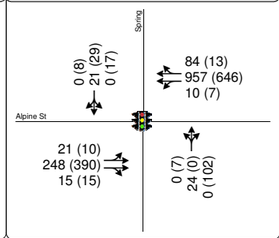
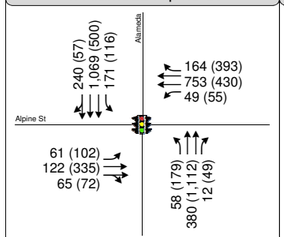
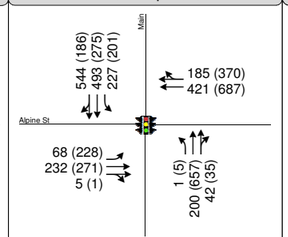
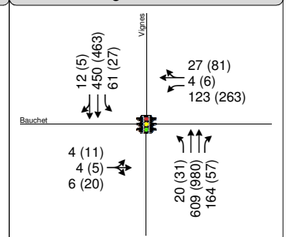
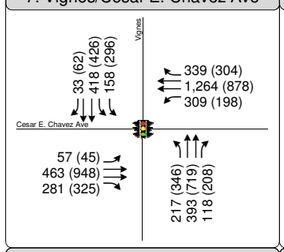
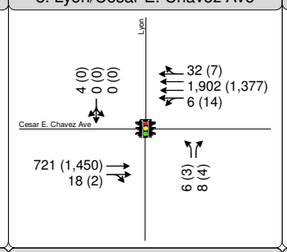
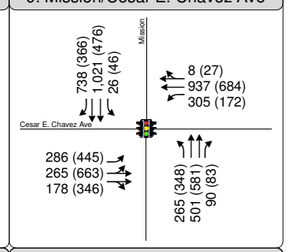
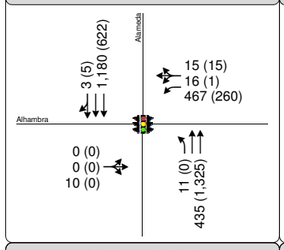
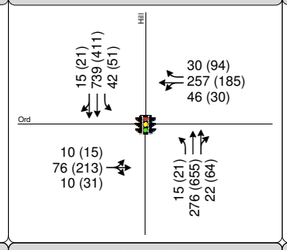
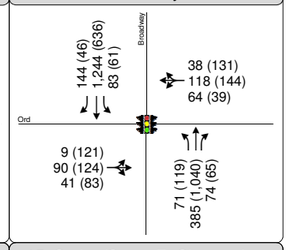
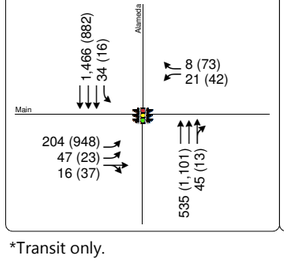
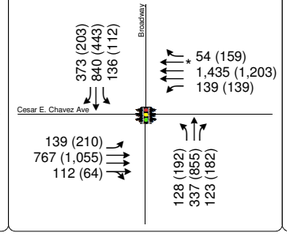
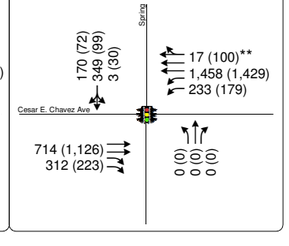
Impact Analysis

The proposed project is consistent with the Mobility Plan 2035 network, and other non-adopted but relevant plans, like the ConnectUS Action Plan, and the USMP. The proposed project will substantially enhance the safety and capacity of bicycle and pedestrian facilities around the station, and is therefore expected to have a positive impact on these facilities. The existing buffered bike lane on southbound Los Angeles Street would be retained, and a bicycle crossing would be added to provide direct bike access from the station to that facility.

Mitigation Measures

No mitigation measures are required.



1. Hill Street/Alpine St	2. Broadway/Alpine St	3. Spring/Alpine St
		
4. Alameda/Alpine St	5. Main/Alpine St	6. Vignes/Bauchet
		
7. Vignes/Cesar E. Chavez Ave	8. Lyon/Cesar E. Chavez Ave	9. Mission/Cesar E. Chavez Ave
		
10. Alameda/Alhambra	11. Hill/Ord	12. Broadway/Ord
		
13. Alameda/Main	14. Broadway/Cesar E. Chavez Ave	15. Spring/Cesar E. Chavez Ave
		

*Transit only.

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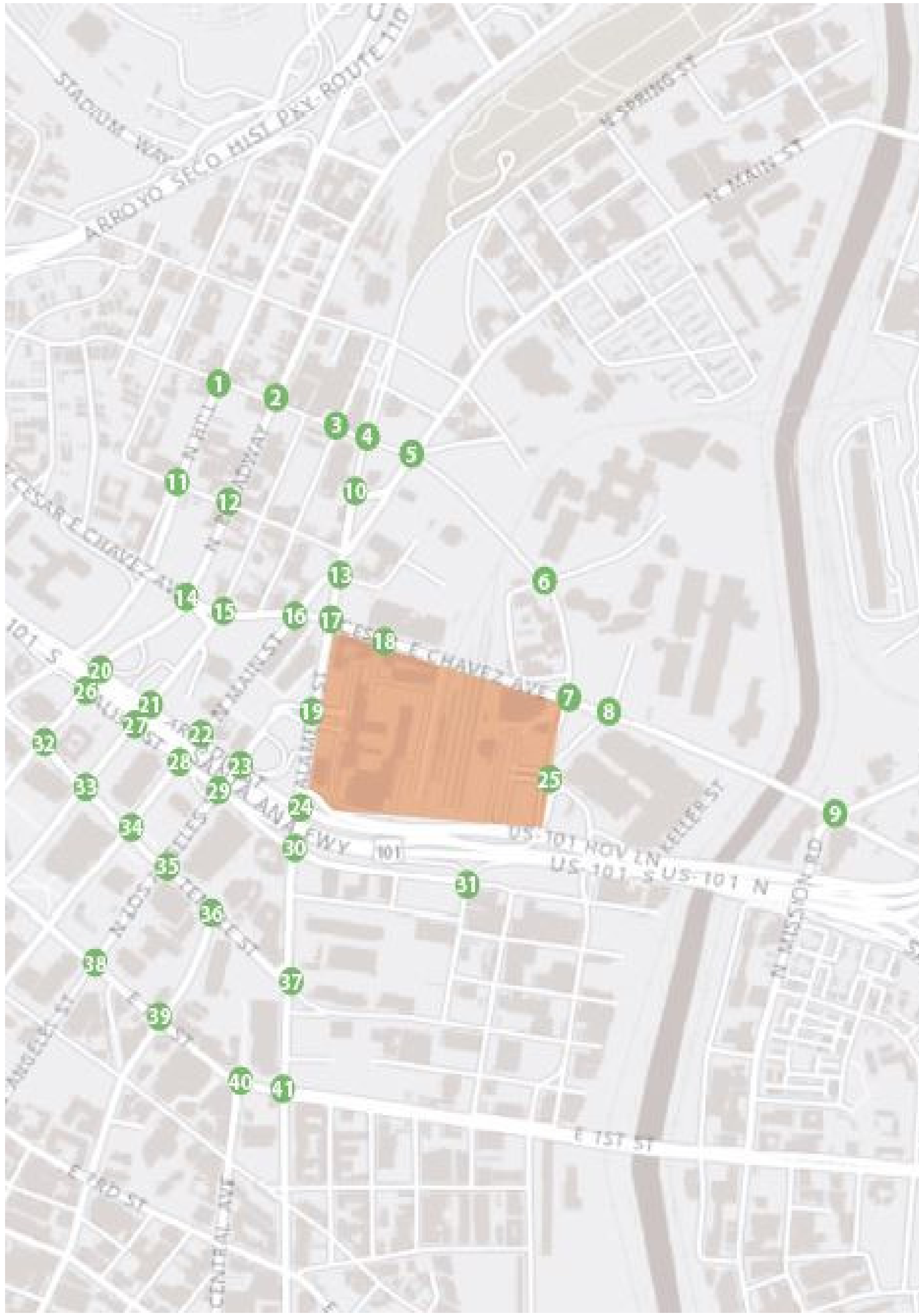

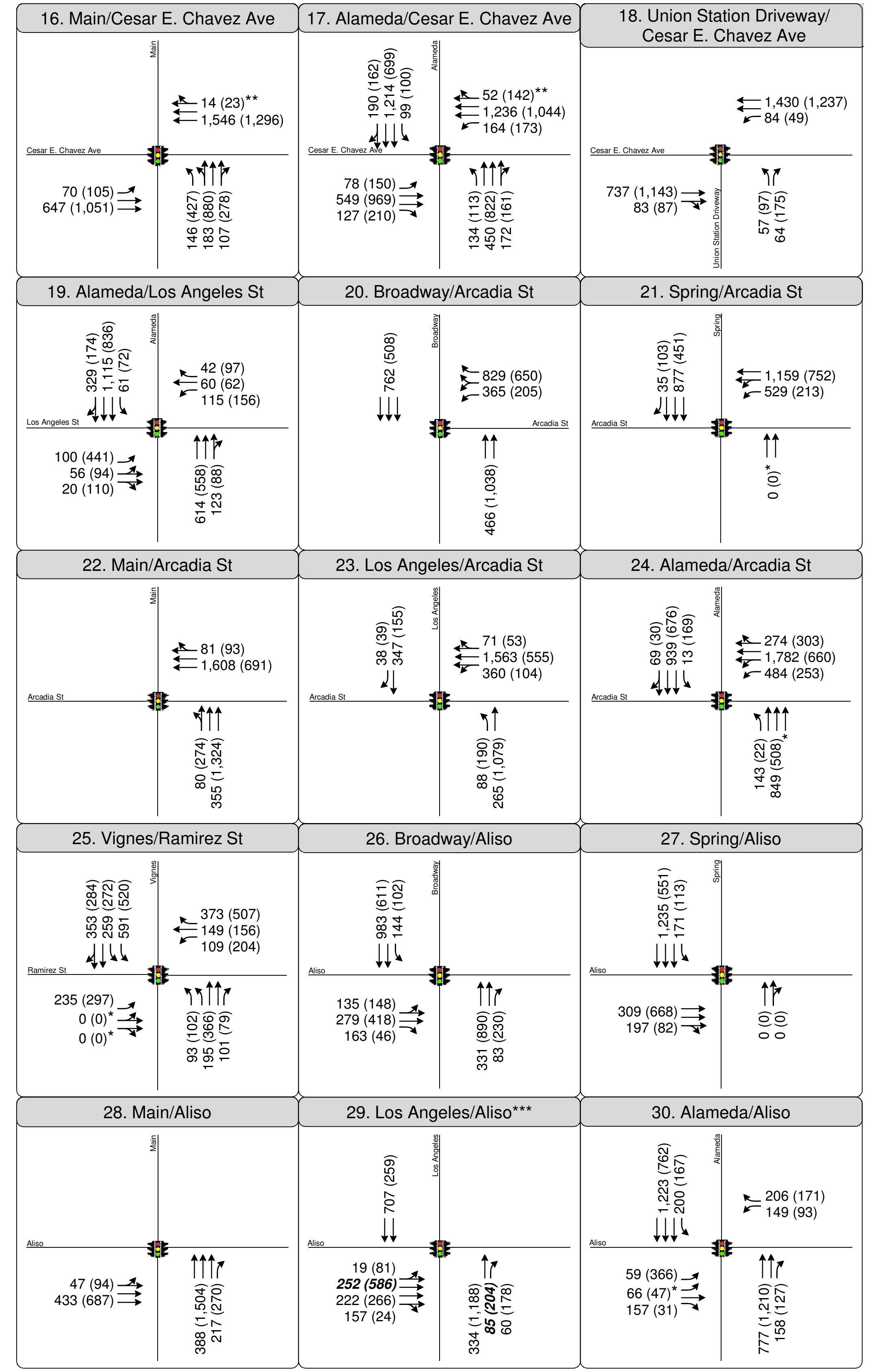

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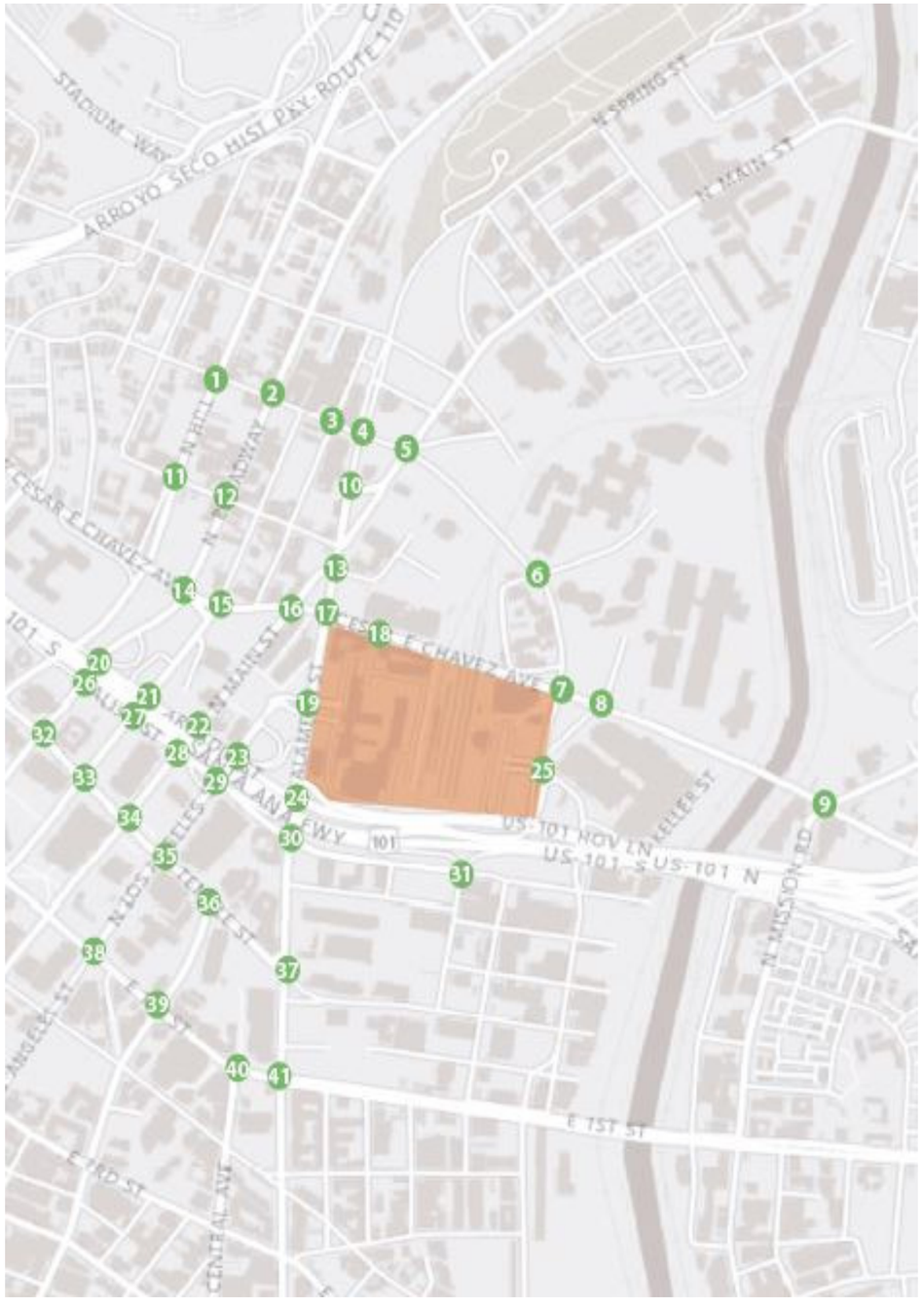
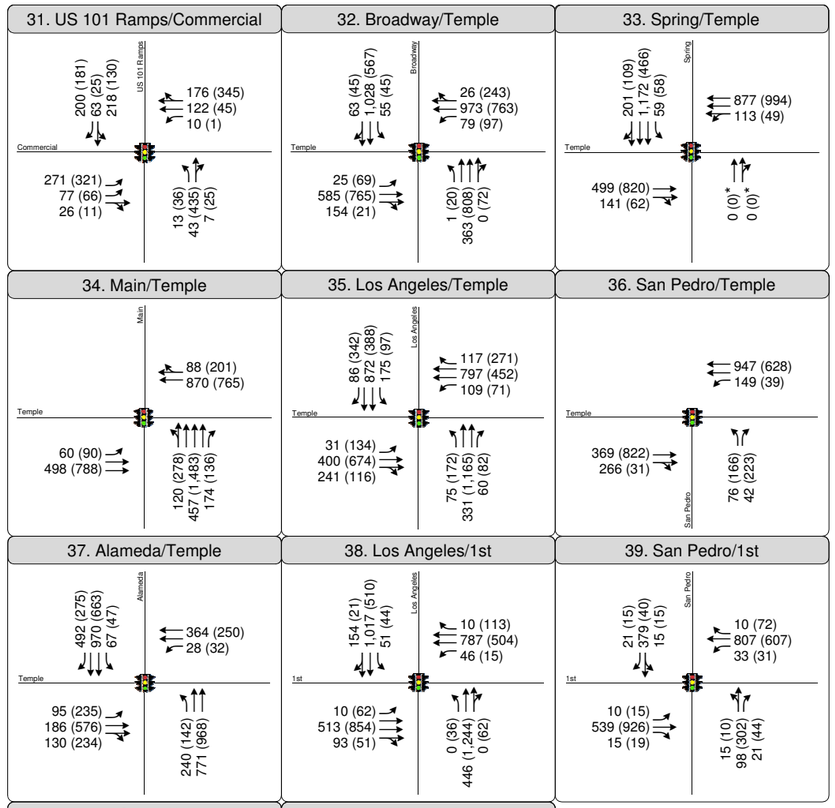
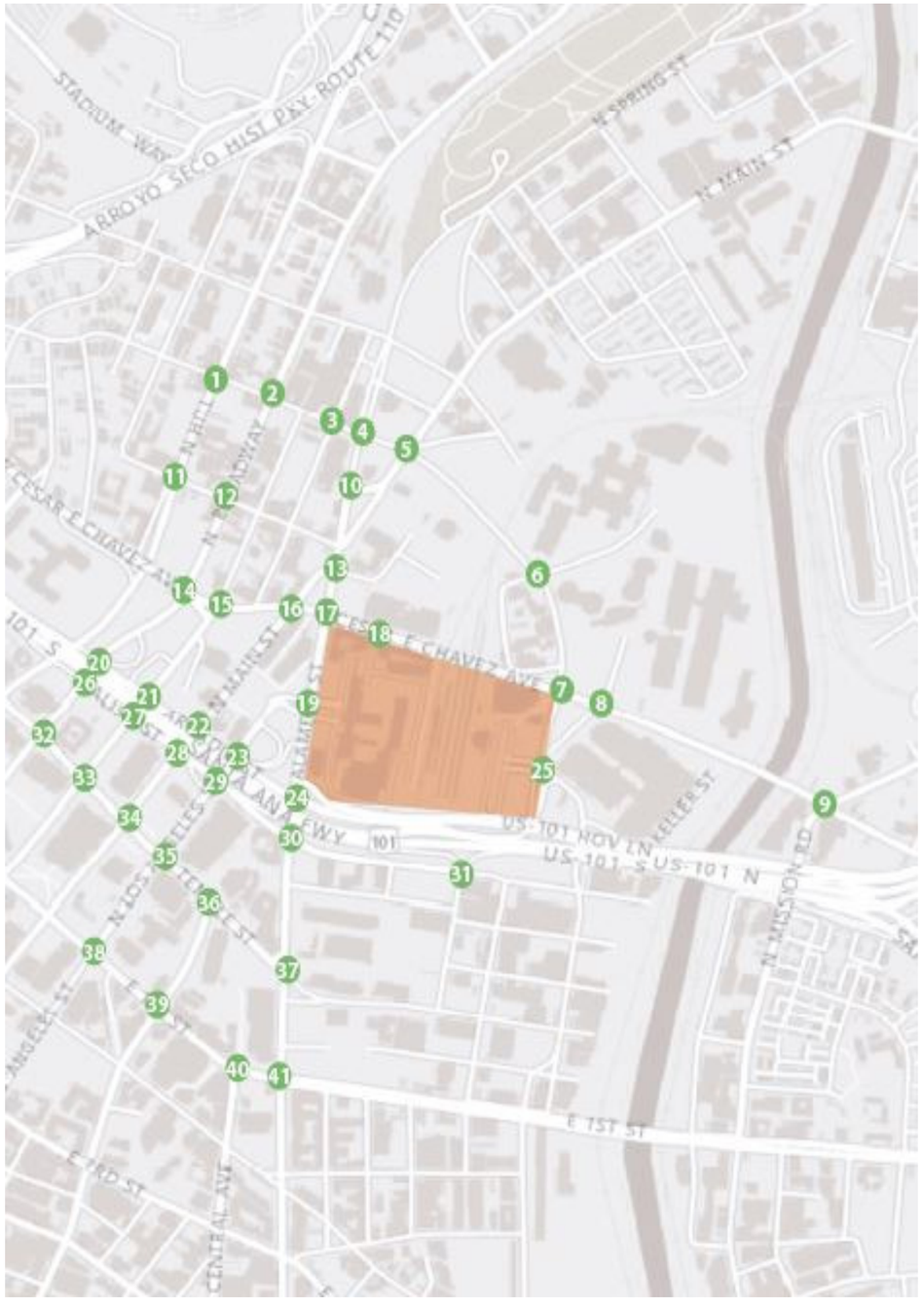
Peak Hour Volumes and Lane Configurations - Future Year 2029

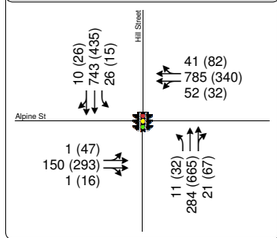




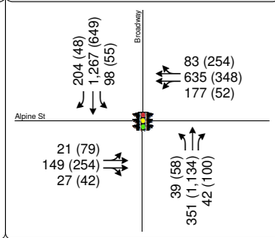
*Transit only.



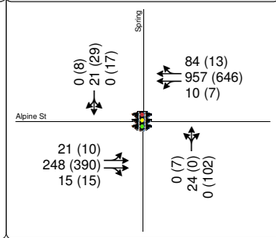
1. Hill Street/Alpine St



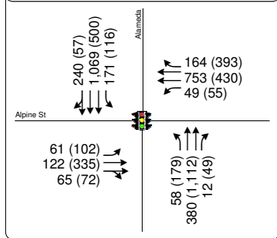
2. Broadway/Alpine St



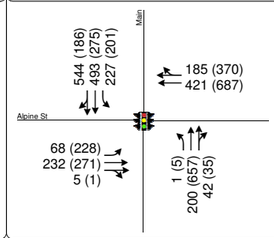
3. Spring/Alpine St



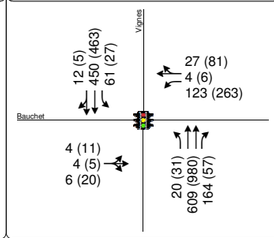
4. Alameda/Alpine St



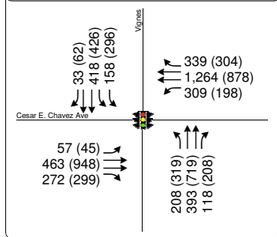
5. Main/Alpine St



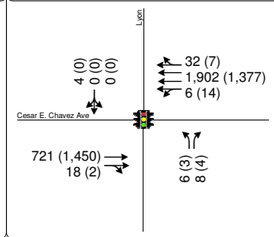
6. Vignes/Bauchet



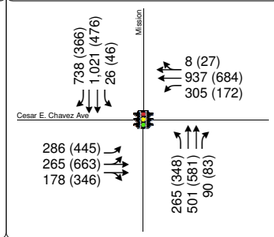
7. Vignes/Cesar E. Chavez Ave



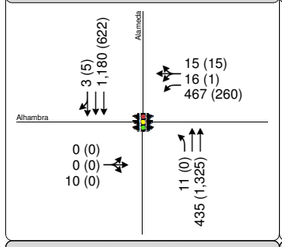
8. Lyon/Cesar E. Chavez Ave



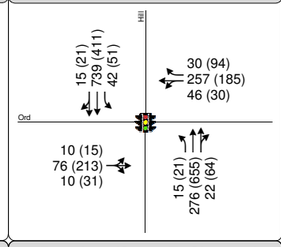
9. Mission/Cesar E. Chavez Ave



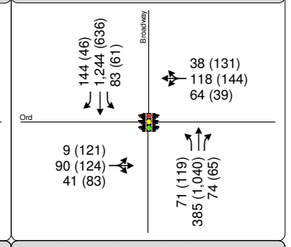
10. Alameda/Alhambra



11. Hill/Ord



12. Broadway/Ord



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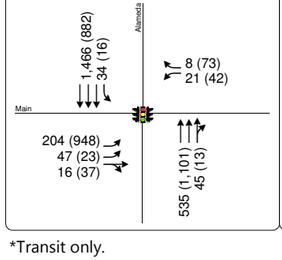
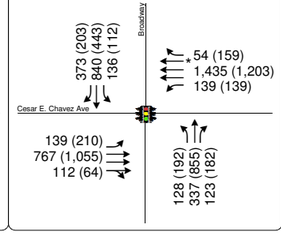
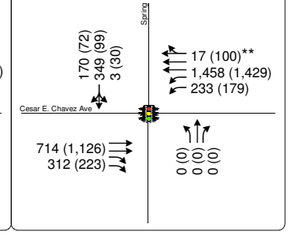


14. Broadway/Cesar E. Chavez Ave



15. Spring/Cesar E. Chavez Ave



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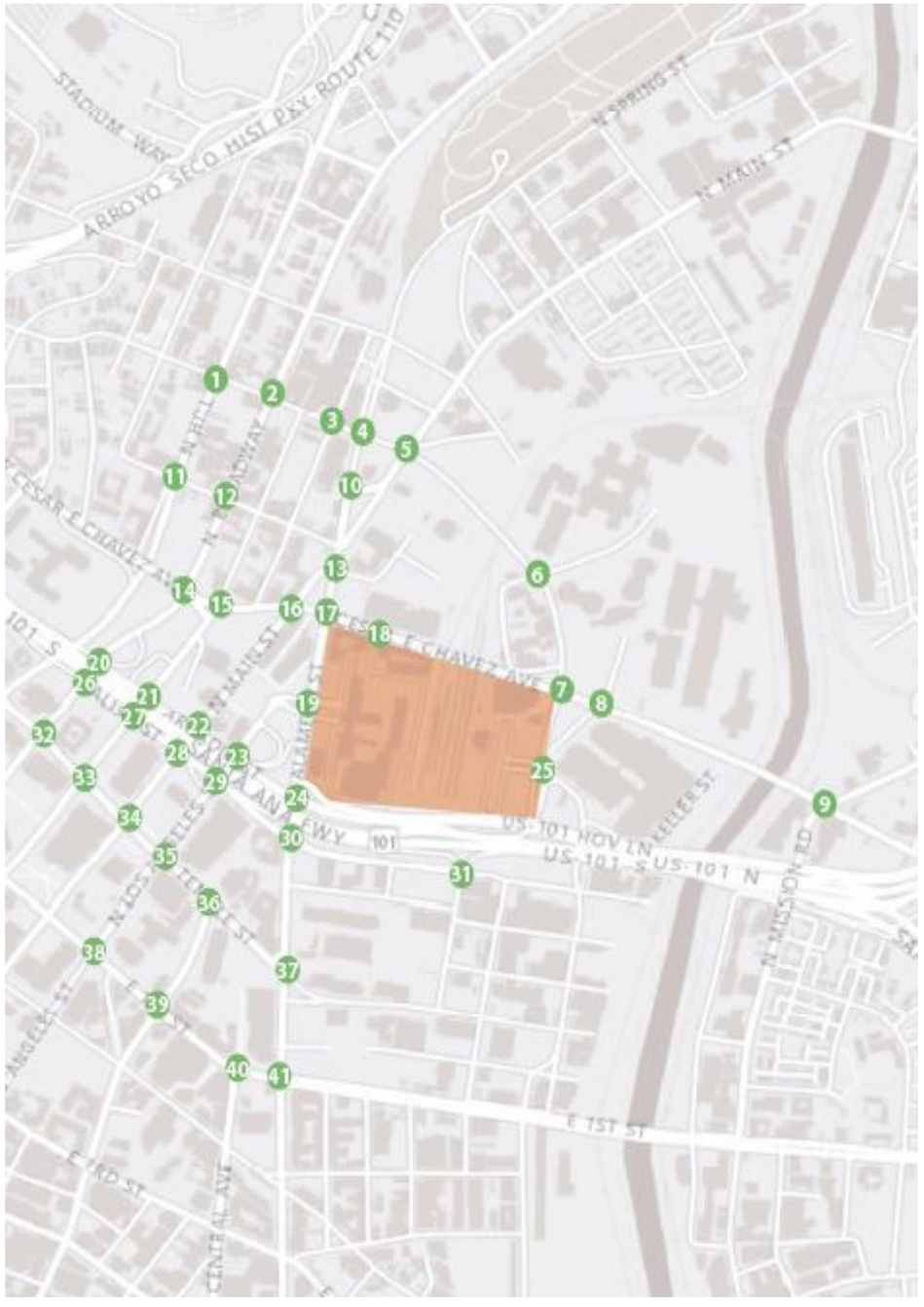

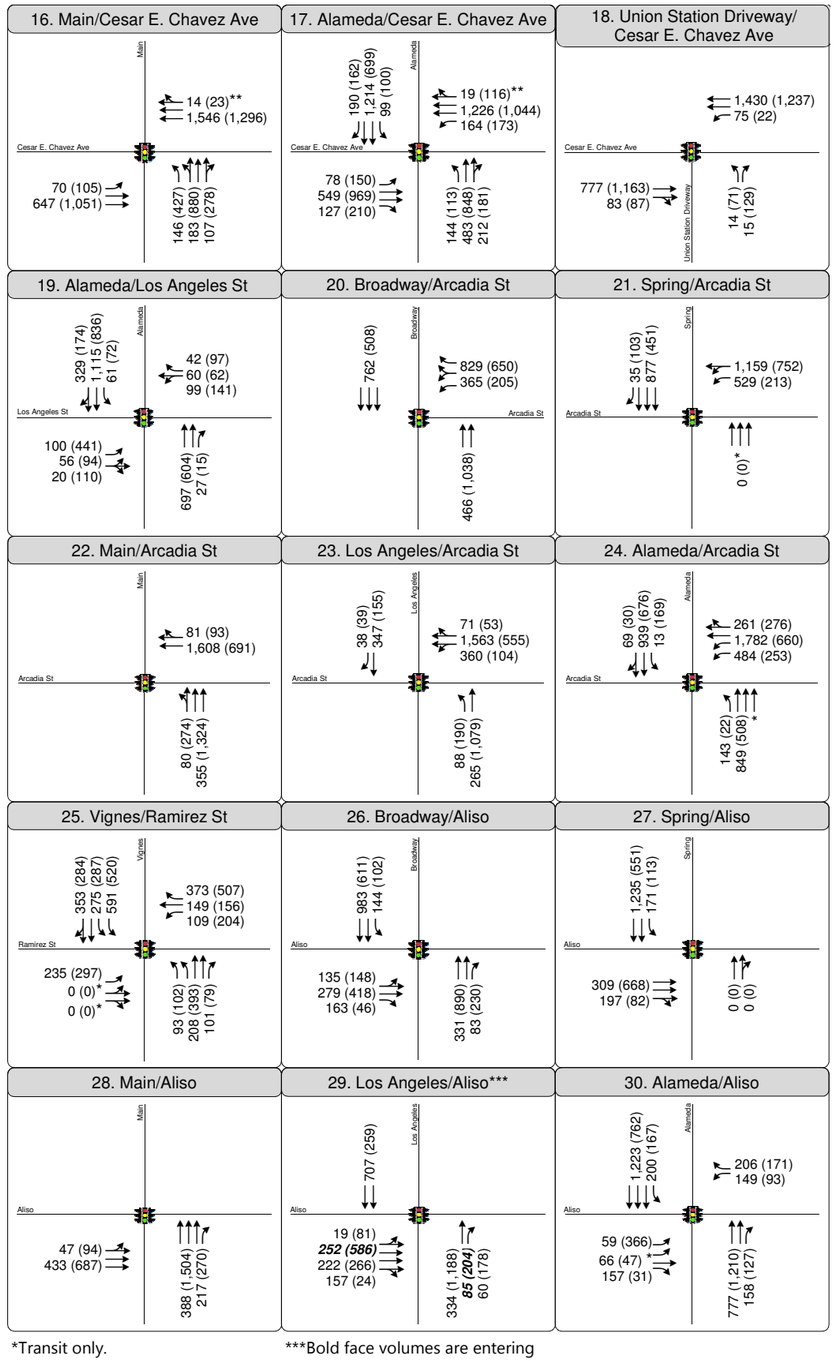

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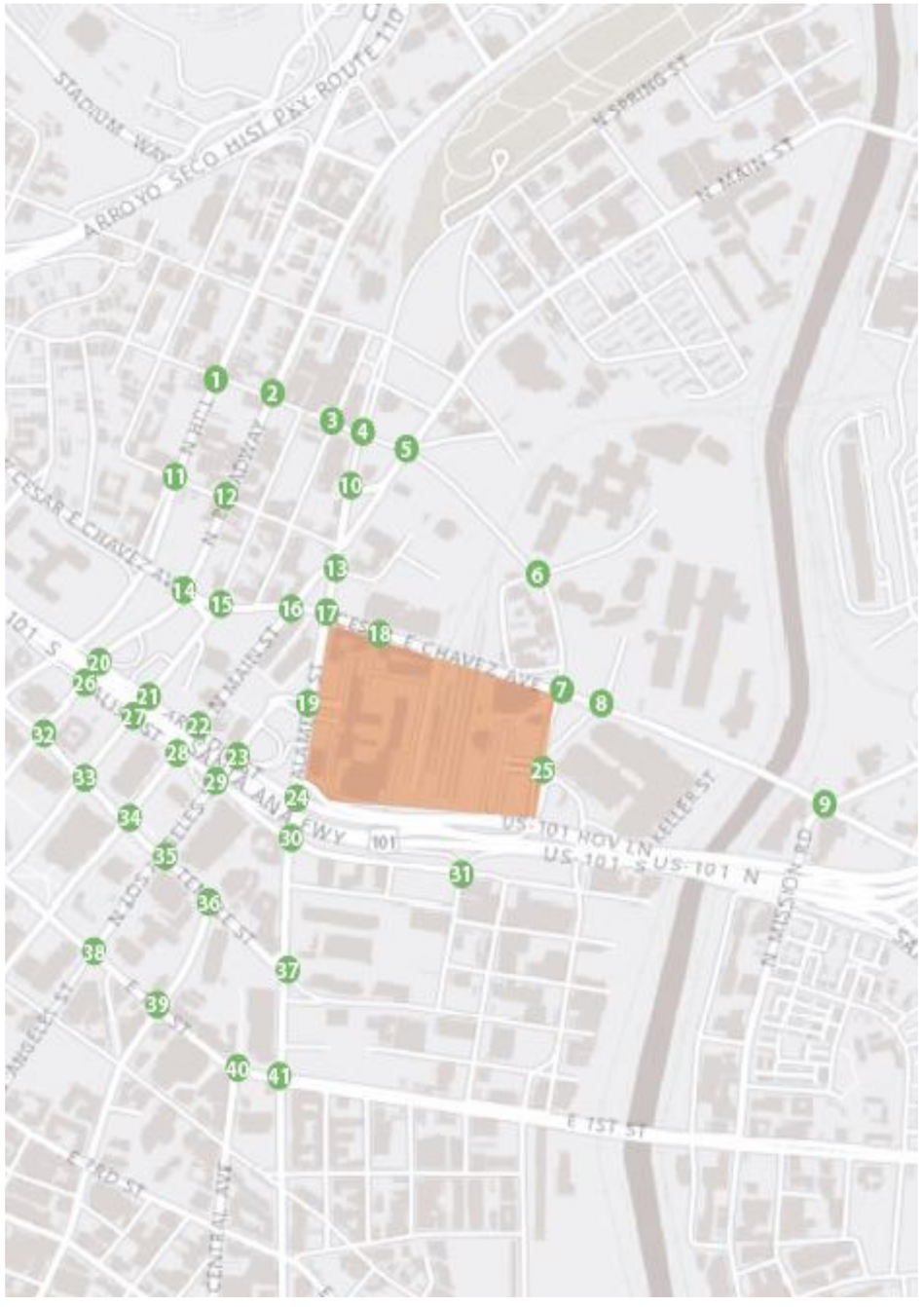

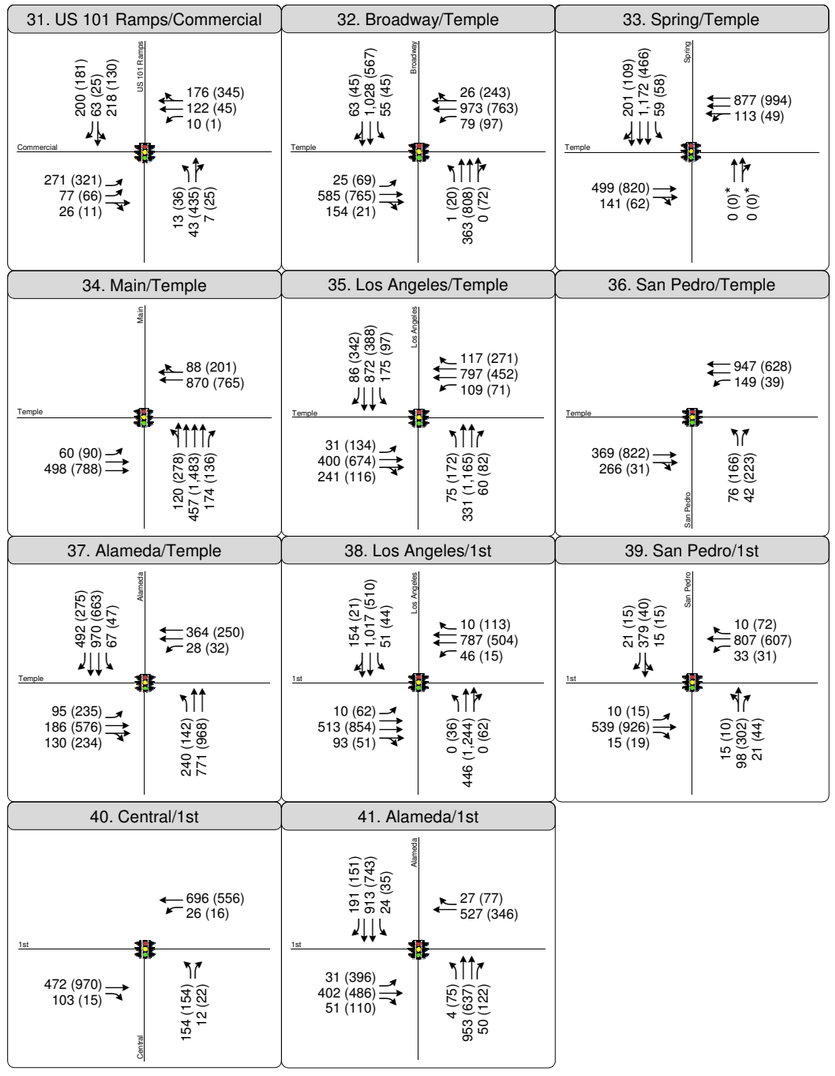

*Transit only.

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 1 **Hill/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	11	99.1%	6.5	6.1	A
	Through	284	296	104.3%	6.2	1.5	A
	Right Turn	21	21	100.5%	4.4	2.7	A
	Subtotal	316	328	103.9%	6.1	1.2	A
SB	Left Turn	26	26	98.8%	9.4	5.3	A
	Through	743	769	103.4%	9.4	1.0	A
	Right Turn	10	10	97.0%	4.5	5.2	A
	Subtotal	779	804	103.2%	9.4	0.8	A
EB	Left Turn	1	1	80.0%	4.1	12.6	A
	Through	150	153	101.9%	24.8	4.2	C
	Right Turn	1	2	150.0%	4.9	13.8	A
	Subtotal	152	155	102.1%	24.7	4.3	C
WB	Left Turn	52	39	75.4%	29.2	2.8	C
	Through	785	584	74.4%	28.6	1.1	C
	Right Turn	41	29	70.5%	24.3	4.8	C
	Subtotal	878	652	74.2%	28.4	0.8	C
Total		2,125	1,939	91.3%	16.6	0.7	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 2 **Broadway/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	34	86.4%	12.4	5.6	B
	Through	351	326	92.8%	8.2	0.9	A
	Right Turn	42	52	122.9%	7.2	1.4	A
	Subtotal	432	411	95.1%	8.3	0.8	A
SB	Left Turn	98	45	45.8%	69.2	15.5	E
	Through	1,267	623	49.2%	86.6	11.7	F
	Right Turn	204	89	43.4%	65.9	8.1	E
	Subtotal	1,569	757	48.2%	83.2	11.0	F
EB	Left Turn	21	21	101.9%	51.5	12.1	D
	Through	149	154	103.1%	33.6	5.2	C
	Right Turn	27	23	86.7%	46.1	10.4	D
	Subtotal	197	198	100.7%	37.1	6.1	D
WB	Left Turn	177	152	85.6%	69.1	20.0	E
	Through	635	529	83.3%	47.5	4.8	D
	Right Turn	83	67	80.4%	37.1	10.5	D
	Subtotal	895	747	83.5%	51.8	8.3	D
Total		3,093	2,113	68.3%	52.3	5.5	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 3 **Spring/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	24	18	74.6%	53.1	13.8	D
	Subtotal	24	18	74.6%	53.1	13.8	D
SB	Left Turn Through Right Turn	21	20	96.7%	42.9	10.3	D
	Subtotal	21	20	96.7%	42.9	10.3	D
EB	Left Turn	21	18	86.2%	43.8	18.2	D
	Through	248	214	86.3%	25.0	5.2	C
	Right Turn	15	12	77.3%	31.0	22.4	C
	Subtotal	284	244	85.8%	26.8	6.6	C
WB	Left Turn	10	10	96.0%	19.1	14.7	B
	Through	957	796	83.2%	37.8	8.7	D
	Right Turn	84	70	83.3%	25.6	6.4	C
	Subtotal	1,051	876	83.3%	36.6	8.2	D
Total		1,380	1,158	83.9%	34.6	5.9	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 4 **Alameda/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	54	93.4%	35.8	11.3	D
	Through	380	379	99.6%	5.8	1.4	A
	Right Turn	12	11	92.5%	1.7	1.3	A
	Subtotal	450	444	98.6%	9.4	2.4	A
SB	Left Turn	171	161	93.9%	46.2	17.5	D
	Through	1,069	983	92.0%	58.1	21.9	E
	Right Turn	240	109	45.5%	1363.3	510.9	F
	Subtotal	1,480	1,253	84.6%	268.2	382.5	F
EB	Left Turn	61	60	98.5%	37.9	9.1	D
	Through	122	103	84.2%	6.1	1.7	A
	Right Turn	65	52	79.5%	2.7	0.9	A
	Subtotal	248	215	86.5%	14.2	4.0	B
WB	Left Turn	49	46	93.5%	57.5	13.6	E
	Through	753	720	95.6%	61.0	23.9	E
	Right Turn	164	154	94.0%	22.4	14.4	C
	Subtotal	966	920	95.2%	54.3	21.4	D
Total		3,144	2,831	90.0%	84.2	14.7	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 5 **Main/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	1	60.0%	14.4	30.2	B
	Through	200	156	78.2%	14.9	5.3	B
	Right Turn	42	31	74.3%	11.9	6.8	B
	Subtotal	243	188	77.4%	14.5	5.3	B
SB	Left Turn	227	227	99.9%	19.3	9.6	B
	Through	493	488	99.1%	22.1	19.4	C
	Right Turn	544	538	98.9%	31.8	34.4	C
	Subtotal	1,264	1,253	99.1%	25.5	23.0	C
EB	Left Turn	68	61	89.7%	47.6	10.3	D
	Through	232	209	90.2%	25.8	5.5	C
	Right Turn	5	5	92.0%	15.2	15.8	B
	Subtotal	305	275	90.1%	30.7	5.0	C
WB	Left Turn						
	Through	421	391	92.8%	42.0	16.1	D
	Right Turn	185	179	96.8%	32.2	12.4	C
	Subtotal	606	570	94.0%	39.2	14.3	D
Total		2,418	2,286	94.5%	28.3	15.5	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 6 **Vignes/Bauchet** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	20	97.5%	8.3	6.1	A
	Through	609	561	92.1%	8.6	1.4	A
	Right Turn	164	150	91.5%	5.6	1.6	A
	Subtotal	793	731	92.1%	8.0	1.1	A
SB	Left Turn	61	59	97.0%	13.8	3.5	B
	Through	450	416	92.4%	9.5	1.9	A
	Right Turn	12	12	95.8%	7.1	4.8	A
	Subtotal	523	487	93.0%	9.9	1.8	A
EB	Left Turn	4	4	90.0%	18.4	10.6	B
	Through	4	4	90.0%	5.6	8.8	A
	Right Turn	6	7	110.0%	4.1	2.4	A
	Subtotal	14	14	98.6%	12.9	7.0	B
WB	Left Turn	123	124	101.1%	22.9	3.0	C
	Through	4	4	105.0%	17.8	19.4	B
	Right Turn	27	28	104.1%	4.8	1.4	A
	Subtotal	154	157	101.8%	19.4	2.6	B
Total		1,484	1,388	93.5%	10.1	0.8	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 7 **Vignes/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	217	225	103.5%	83.6	40.4	F
	Through	393	415	105.6%	27.8	3.6	C
	Right Turn	118	125	105.5%	5.8	0.8	A
	Subtotal	728	764	104.9%	40.9	13.3	D
SB	Left Turn	158	141	89.3%	46.3	5.5	D
	Through	418	376	89.8%	29.6	4.6	C
	Right Turn	33	31	92.4%	19.3	10.3	B
	Subtotal	609	547	89.8%	33.4	2.9	C
EB	Left Turn	57	54	95.3%	31.7	4.3	C
	Through	463	456	98.4%	28.7	2.4	C
	Right Turn	281	287	102.1%	16.2	2.6	B
	Subtotal	801	797	99.5%	24.4	2.1	C
WB	Left Turn	309	278	90.0%	27.5	9.5	C
	Through	1,264	1,097	86.8%	45.8	4.7	D
	Right Turn	339	292	86.0%	6.6	1.3	A
	Subtotal	1,912	1,667	87.2%	36.3	3.5	D
Total		4,050	3,775	93.2%	34.2	3.6	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 8 **Lyon/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	8	136.7%	59.5	34.6	E
	Through						
	Right Turn	8	8	93.8%	6.2	2.6	A
	Subtotal	14	16	112.1%	32.7	15.8	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	721	702	97.4%	1.6	0.3	A
	Right Turn	18	19	105.6%	3.8	3.1	A
	Subtotal	739	721	97.6%	1.6	0.3	A
WB	Left Turn	6	5	90.0%	70.4	59.6	E
	Through	1,902	1,641	86.3%	159.7	29.6	F
	Right Turn	32	25	79.4%	128.9	24.5	F
	Subtotal	1,940	1,672	86.2%	159.0	29.4	F
Total		2,693	2,409	89.5%	109.4	19.6	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 9 **Mission/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	265	245	92.5%	154.9	141.2	F
	Through	501	507	101.1%	22.7	1.6	C
	Right Turn	90	91	100.9%	3.2	0.9	A
	Subtotal	856	843	98.4%	59.1	38.0	E
SB	Left Turn	26	22	86.2%	143.2	27.2	F
	Through	1,021	845	82.7%	149.9	14.1	F
	Right Turn	738	623	84.5%	358.2	68.0	F
	Subtotal	1,785	1,490	83.5%	242.3	37.5	F
EB	Left Turn	286	290	101.4%	56.5	7.9	E
	Through	265	258	97.2%	56.7	11.6	E
	Right Turn	178	160	90.1%	33.7	12.2	C
	Subtotal	729	708	97.1%	51.2	9.9	D
WB	Left Turn	305	276	90.4%	264.2	61.5	F
	Through	937	847	90.4%	280.0	55.4	F
	Right Turn	8	7	87.5%	274.8	54.7	F
	Subtotal	1,250	1,130	90.4%	275.8	56.3	F
Total		4,620	4,171	90.3%	176.5	15.8	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 10 **Alameda/Alhambra** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	10	93.6%	23.6	13.6	C
	Through	435	430	98.9%	7.7	1.3	A
	Right Turn						
	Subtotal	446	440	98.7%	8.2	1.4	A
SB	Left Turn						
	Through	1,180	1,091	92.5%	3.2	3.9	A
	Right Turn	3	3	100.0%	1.5	2.9	A
	Subtotal	1,183	1,094	92.5%	3.2	3.9	A
EB	Left Turn						
	Through						
	Right Turn	10	11	107.0%	6.0	2.8	A
	Subtotal	10	11	107.0%	6.0	2.8	A
WB	Left Turn	467	464	99.4%	23.0	3.5	C
	Through	16	15	92.5%	27.7	11.2	C
	Right Turn	15	14	94.0%	19.0	7.3	B
	Subtotal	498	493	99.0%	23.0	3.6	C
Total		2,137	2,038	95.4%	9.3	2.8	A

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 11 **Hill/Ord** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	15	96.7%	8.4	6.0	A
	Through	276	295	107.0%	8.2	2.0	A
	Right Turn	22	22	99.5%	7.2	3.4	A
	Subtotal	313	332	106.0%	8.2	1.9	A
SB	Left Turn	42	46	109.0%	10.8	5.4	B
	Through	739	751	101.6%	9.0	2.6	A
	Right Turn	15	14	94.7%	10.7	11.0	B
	Subtotal	796	811	101.8%	9.2	2.6	A
EB	Left Turn	10	9	91.0%	21.4	15.2	C
	Through	76	76	99.6%	26.2	7.5	C
	Right Turn	10	11	105.0%	24.4	17.7	C
	Subtotal	96	95	99.3%	26.0	6.0	C
WB	Left Turn	46	36	78.3%	27.4	6.7	C
	Through	257	194	75.6%	25.3	4.9	C
	Right Turn	30	25	82.7%	6.9	3.1	A
	Subtotal	333	255	76.6%	23.6	3.7	C
Total		1,538	1,493	97.1%	12.6	1.8	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 12 **Broadway/Ord** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	71	67	94.4%	23.6	9.4	C
	Through	385	357	92.8%	9.6	2.8	A
	Right Turn	74	68	92.2%	10.7	2.6	B
	Subtotal	530	492	92.9%	11.7	2.0	B
SB	Left Turn	83	61	73.7%	66.5	7.5	E
	Through	1,244	662	53.2%	79.0	8.6	E
	Right Turn	144	76	52.9%	66.9	10.8	E
	Subtotal	1,471	799	54.3%	77.0	8.7	E
EB	Left Turn	9	9	102.2%	48.3	23.5	D
	Through	90	92	101.7%	38.2	7.3	D
	Right Turn	41	42	103.2%	37.0	11.0	D
	Subtotal	140	143	102.1%	38.7	6.9	D
WB	Left Turn	64	49	75.9%	57.5	12.0	E
	Through	118	92	78.1%	51.7	5.4	D
	Right Turn	38	40	104.2%	38.2	7.5	D
	Subtotal	220	180	82.0%	50.2	5.3	D
Total		2,361	1,615	68.4%	50.1	3.9	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 13 **Alameda/Main** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	535	485	90.7%	2.5	0.8	A
	Right Turn	45	38	84.9%	1.9	0.9	A
	Subtotal	580	523	90.2%	2.4	0.8	A
SB	Left Turn	34	31	91.5%	7.9	4.4	A
	Through	1,466	1,383	94.3%	18.6	4.2	B
	Right Turn						
	Subtotal	1,500	1,414	94.3%	18.3	4.1	B
EB	Left Turn	204	195	95.5%	29.7	2.3	C
	Through	47	44	93.4%	21.0	2.7	C
	Right Turn	16	18	111.3%	24.6	9.7	C
	Subtotal	267	257	96.1%	27.8	2.1	C
WB	Left Turn	21	20	97.1%	46.2	8.6	D
	Through						
	Right Turn	8	8	95.0%	5.0	2.0	A
	Subtotal	29	28	96.6%	36.2	8.6	D
Total		2,376	2,222	93.5%	16.0	2.7	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 14 **Broadway/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	128	124	97.0%	30.0	4.5	C
	Through	337	314	93.1%	26.7	4.4	C
	Right Turn	123	117	95.1%	16.1	4.7	B
	Subtotal	588	555	94.4%	25.0	3.2	C
SB	Left Turn	136	80	59.0%	84.0	8.3	F
	Through	840	460	54.8%	79.5	7.4	E
	Right Turn	373	212	56.9%	64.3	9.2	E
	Subtotal	1,349	753	55.8%	75.6	7.4	E
EB	Left Turn	139	138	99.1%	61.2	20.1	E
	Through	767	471	61.4%	22.9	1.9	C
	Right Turn	112	109	97.1%	15.6	3.4	B
	Subtotal	1,018	718	70.5%	29.4	4.7	C
WB	Left Turn	139	126	90.8%	11.2	4.0	B
	Through	1,435	1,251	87.2%	12.4	0.6	B
	Right Turn	54	41	75.9%	5.0	2.9	A
	Subtotal	1,628	1,418	87.1%	12.1	0.5	B
Total		4,583	3,443	75.1%	31.8	1.0	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 15 **Spring/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	3	3	96.7%	19.1	41.3	B
	Through	349	314	90.0%	79.5	33.0	E
	Right Turn	170	143	84.2%	72.9	32.7	E
	Subtotal	522	460	88.2%	77.5	32.7	E
EB	Left Turn						
	Through	714	668	93.5%	9.0	0.9	A
	Right Turn	312	326	104.4%	6.3	2.6	A
	Subtotal	1,026	993	96.8%	8.1	1.1	A
WB	Left Turn	233	239	102.5%	52.1	4.3	D
	Through	1,458	1,235	84.7%	49.7	2.7	D
	Right Turn	17	13	77.6%	17.2	5.8	B
	Subtotal	1,708	1,487	87.1%	49.8	2.6	D
Total		3,256	2,941	90.3%	40.5	6.3	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 16 **Main/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	146	135	92.7%	37.3	5.0	D
	Through	183	176	96.3%	33.2	3.2	C
	Right Turn	107	109	102.2%	19.4	6.7	B
	Subtotal	436	421	96.6%	30.8	3.0	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	70	66	93.6%	26.6	7.7	C
	Through	647	628	97.1%	3.3	0.7	A
	Right Turn						
	Subtotal	717	694	96.8%	5.5	1.3	A
WB	Left Turn						
	Through	1,546	1,324	85.7%	18.7	2.9	B
	Right Turn	14	15	105.7%	3.8	4.7	A
	Subtotal	1,560	1,339	85.8%	18.5	2.8	B
Total		2,713	2,454	90.5%	16.9	2.0	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 17 **Alameda/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	134	129	96.0%	100.8	61.6	F
	Through	450	412	91.5%	29.9	3.1	C
	Right Turn	172	163	95.0%	23.8	4.5	C
	Subtotal	756	704	93.1%	42.9	13.4	D
SB	Left Turn	99	99	99.9%	13.7	4.0	B
	Through	1,214	1,136	93.6%	27.3	5.7	C
	Right Turn	190	185	97.3%	29.5	7.4	C
	Subtotal	1,503	1,420	94.5%	26.6	5.5	C
EB	Left Turn	78	69	88.1%	12.0	8.0	B
	Through	549	556	101.2%	8.1	1.1	A
	Right Turn	127	122	96.2%	3.9	3.2	A
	Subtotal	754	746	99.0%	7.7	1.0	A
WB	Left Turn	164	142	86.5%	28.5	5.5	C
	Through	1,236	1,054	85.3%	57.6	6.0	E
	Right Turn	52	43	81.9%	41.8	10.3	D
	Subtotal	1,452	1,239	85.3%	53.9	5.3	D
Total		4,465	4,109	92.0%	34.2	3.9	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 18 **Union Station Driveway/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	57	55	96.8%	50.4	8.2	D
	Through						
	Right Turn	64	56	87.8%	16.4	1.9	B
	Subtotal	121	111	92.1%	33.6	7.4	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	737	738	100.1%	3.2	0.9	A
	Right Turn	83	80	96.5%	3.0	1.5	A
	Subtotal	820	818	99.7%	3.1	0.9	A
WB	Left Turn	84	67	79.5%	131.8	22.1	F
	Through	1,430	1,228	85.9%	169.2	19.3	F
	Right Turn						
	Subtotal	1,514	1,295	85.5%	167.4	19.2	F
Total		2,455	2,224	90.6%	99.4	7.7	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 19 **Alameda/Los Angeles** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	614	552	89.9%	13.4	3.2	B
	Right Turn	123	105	85.7%	7.9	3.8	A
	Subtotal	737	658	89.2%	12.6	3.1	B
SB	Left Turn	61	66	107.5%	17.4	4.9	B
	Through	1,115	1,033	92.6%	28.4	25.5	C
	Right Turn	329	300	91.2%	22.8	16.4	C
	Subtotal	1,505	1,399	92.9%	26.8	22.3	C
EB	Left Turn	100	110	109.8%	28.7	1.9	C
	Through	56	52	93.6%	30.1	7.1	C
	Right Turn	20	20	99.0%	16.9	13.1	B
	Subtotal	176	182	103.4%	28.1	3.0	C
WB	Left Turn	115	104	90.0%	39.9	21.9	D
	Through	60	55	90.8%	28.8	7.1	C
	Right Turn	42	46	108.6%	6.2	1.1	A
	Subtotal	217	204	93.8%	30.2	12.6	C
Total		2,635	2,442	92.7%	23.2	14.0	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 20 **Broadway/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	466	497	106.7%	13.7	1.7	B
	Right Turn						
	Subtotal	466	497	106.7%	13.7	1.7	B
SB	Left Turn						
	Through	762	484	63.5%	13.7	1.8	B
	Right Turn						
	Subtotal	762	484	63.5%	13.7	1.8	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	365	306	83.9%	19.8	4.0	B
	Through						
	Right Turn	829	693	83.6%	9.6	2.2	A
	Subtotal	1,194	1,000	83.7%	12.8	2.3	B
Total		2,422	1,981	81.8%	13.3	1.7	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 21 **Spring/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	877	704	80.3%	48.6	11.2	D
	Right Turn	35	31	89.4%	20.1	9.6	C
	Subtotal	912	735	80.6%	47.5	11.2	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	529	488	92.2%	69.9	23.3	E
	Through	1,159	966	83.3%	34.4	7.3	C
	Right Turn						
	Subtotal	1,688	1,454	86.1%	46.7	12.6	D
Total		2,600	2,189	84.2%	46.8	10.4	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 22 **Main/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	80	80	99.9%	22.6	15.0	C
	Through	355	355	100.0%	5.1	1.4	A
	Right Turn						
	Subtotal	435	435	100.0%	8.5	3.8	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,608	1,369	85.1%	41.2	13.0	D
	Right Turn	81	67	83.2%	30.5	7.7	C
	Subtotal	1,689	1,436	85.0%	40.7	12.7	D
Total		2,124	1,871	88.1%	32.7	9.4	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 23 **Los Angeles/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	88	87	99.3%	19.8	8.2	B
	Through	265	278	104.8%	6.1	1.6	A
	Right Turn						
	Subtotal	353	365	103.5%	9.4	3.1	A
SB	Left Turn						
	Through	347	317	91.4%	20.6	9.6	C
	Right Turn	38	33	87.9%	23.4	10.7	C
	Subtotal	385	351	91.1%	20.8	9.6	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	360	284	78.8%	53.6	14.5	D
	Through	1,563	1,323	84.6%	58.0	17.5	E
	Right Turn	71	56	79.3%	51.5	20.7	D
	Subtotal	1,994	1,663	83.4%	57.0	16.8	E
Total		2,732	2,378	87.1%	43.2	10.9	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 24 **Alameda/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	143	132	92.6%	95.4	35.3	F
	Through	849	777	91.5%	31.7	2.3	C
	Right Turn	50	83	165.4%	27.5	6.1	C
	Subtotal	1,042	992	95.2%	40.0	6.2	D
SB	Left Turn	13	32	244.6%	52.4	17.3	D
	Through	939	828	88.2%	86.3	28.9	F
	Right Turn	69	67	96.5%	87.3	38.7	F
	Subtotal	1,021	927	90.8%	85.3	28.9	F
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	484	382	78.9%	145.7	32.9	F
	Through	1,782	1,460	82.0%	142.9	34.2	F
	Right Turn	274	224	81.6%	141.1	28.3	F
	Subtotal	2,540	2,066	81.3%	143.3	33.0	F
Total		4,603	3,985	86.6%	102.6	19.5	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 25 **Vignes/Ramirez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	93	92	98.6%	43.9	2.4	D
	Through	195	195	100.2%	26.6	3.5	C
	Right Turn	101	103	102.1%	6.7	1.7	A
	Subtotal	389	390	100.3%	25.3	2.2	C
SB	Left Turn	523	527	100.8%	58.6	5.7	E
	Through	189	242	128.3%	33.4	5.1	C
	Right Turn	353	258	73.0%	38.6	6.0	D
	Subtotal	1,065	1,027	96.4%	47.8	5.0	D
EB	Left Turn	235	273	116.0%	59.6	10.1	E
	Through	68	6	8.5%	11.1	6.8	B
	Right Turn	70	15	20.7%	19.2	6.8	B
	Subtotal	373	293	78.5%	57.0	9.8	E
WB	Left Turn	109	110	100.8%	36.6	3.2	D
	Through	149	175	117.7%	84.3	28.1	F
	Right Turn	373	376	100.8%	14.8	7.4	B
	Subtotal	631	661	104.8%	37.4	10.4	D
Total		2,458	2,371	96.5%	42.6	4.7	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 26 **Broadway/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	331	367	111.0%	10.1	1.5	B
	Right Turn	83	88	106.5%	3.4	0.6	A
	Subtotal	414	456	110.1%	8.7	1.2	A
SB	Left Turn	144	101	70.1%	12.7	4.5	B
	Through	983	686	69.8%	8.7	0.9	A
	Right Turn						
	Subtotal	1,127	787	69.8%	9.2	1.2	A
EB	Left Turn	135	134	99.0%	27.1	4.5	C
	Through	279	280	100.3%	21.3	2.2	C
	Right Turn	163	172	105.7%	8.6	1.4	A
	Subtotal	577	586	101.5%	19.0	1.8	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,118	1,829	86.3%	12.3	1.2	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 27 **Spring/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	171	150	88.0%	2.4	1.6	A
	Through	1,235	1,190	96.3%	20.5	2.8	C
	Right Turn						
	Subtotal	1,406	1,340	95.3%	18.4	2.4	B
EB	Left Turn						
	Through	309	288	93.1%	17.9	2.4	B
	Right Turn	197	180	91.2%	8.6	1.2	A
	Subtotal	506	467	92.4%	14.2	1.8	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,912	1,807	94.5%	17.3	1.9	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 28 **Main/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	388	392	101.1%	8.8	2.9	A
	Right Turn	217	216	99.4%	17.7	14.8	B
	Subtotal	605	608	100.5%	12.1	7.4	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	42	90.2%	9.3	3.8	A
	Through	433	428	98.8%	15.4	7.6	B
	Right Turn						
	Subtotal	480	470	98.0%	14.8	7.0	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,085	1,078	99.4%	13.3	7.2	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 29 **Los Angeles/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	334	346	103.7%	16.0	1.8	B
	Right Turn	85	144	169.4%	16.9	3.5	B
	Subtotal	479	490	102.4%	16.3	1.6	B
SB	Left Turn						
	Through	707	600	84.9%	12.7	1.3	B
	Right Turn						
	Subtotal	707	600	84.9%	12.7	1.3	B
EB	Left Turn	252	256	101.6%	17.2	2.5	B
	Through	222	243	109.5%	30.5	3.8	C
	Right Turn	157	147	93.3%	32.4	5.1	C
	Subtotal	650	646	99.3%	25.9	2.2	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,836	1,737	94.6%	18.8	1.4	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 30 **Alameda/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	777	710	91.3%	198.2	47.3	F
	Right Turn	158	154	97.3%	85.3	28.9	F
	Subtotal	935	863	92.3%	178.7	44.0	F
SB	Left Turn	200	171	85.7%	45.5	13.3	D
	Through	1,223	1,042	85.2%	15.4	1.8	B
	Right Turn						
	Subtotal	1,423	1,214	85.3%	19.7	2.8	B
EB	Left Turn	59	87	148.0%	38.9	8.9	D
	Through	66	68	102.9%	27.6	5.4	C
	Right Turn	157	150	95.8%	10.0	1.4	B
	Subtotal	282	306	108.4%	22.5	3.4	C
WB	Left Turn	149	141	94.3%	19.4	4.4	B
	Through						
	Right Turn	206	195	94.8%	39.8	18.0	D
	Subtotal	355	336	94.6%	31.3	9.8	C
Total		2,995	2,718	90.8%	72.6	12.6	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 31 **US 101 Ramps/Commercial** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	13	100.8%	32.3	10.3	C
	Through	43	42	96.7%	32.3	7.7	C
	Right Turn	7	8	108.6%	9.1	5.0	A
	Subtotal	63	62	98.9%	28.6	6.3	C
SB	Left Turn	218	231	106.1%	34.8	9.0	C
	Through	63	65	103.7%	33.5	7.5	C
	Right Turn	200	194	96.8%	5.0	1.0	A
	Subtotal	481	490	101.9%	23.2	5.6	C
EB	Left Turn	271	249	91.8%	26.4	1.6	C
	Through	77	78	101.0%	20.0	4.2	C
	Right Turn	26	24	90.4%	8.8	3.5	A
	Subtotal	374	350	93.6%	23.7	1.7	C
WB	Left Turn	10	9	94.0%	18.5	11.3	B
	Through	122	108	88.7%	34.2	5.0	C
	Right Turn	176	168	95.7%	18.9	1.8	B
	Subtotal	308	286	92.9%	24.8	2.8	C
Total		1,226	1,189	96.9%	24.2	2.8	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 32 **Broadway/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	1	140.0%	16.7	23.0	B
	Through	363	404	111.4%	8.5	0.6	A
	Right Turn						
	Subtotal	364	406	111.5%	8.7	0.7	A
SB	Left Turn	55	40	72.5%	6.9	1.2	A
	Through	1,028	766	74.5%	7.1	0.6	A
	Right Turn	63	57	89.8%	9.7	1.6	A
	Subtotal	1,146	862	75.2%	7.2	0.6	A
EB	Left Turn	25	26	105.2%	31.5	4.8	C
	Through	585	611	104.4%	19.2	1.8	B
	Right Turn	154	149	96.7%	14.9	1.6	B
	Subtotal	764	786	102.8%	18.9	1.6	B
WB	Left Turn	79	64	80.4%	23.3	4.2	C
	Through	973	918	94.3%	16.3	1.3	B
	Right Turn	26	24	91.2%	15.6	3.0	B
	Subtotal	1,078	1,005	93.2%	16.8	1.2	B
Total		3,352	3,058	91.2%	13.7	0.3	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 33 **Spring/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	59	50	85.4%	48.9	8.1	D
	Through	1,172	1,131	96.5%	49.7	8.9	D
	Right Turn	201	178	88.7%	44.0	8.0	D
	Subtotal	1,432	1,359	94.9%	48.9	7.5	D
EB	Left Turn						
	Through	499	525	105.3%	18.0	2.0	B
	Right Turn	141	137	96.8%	20.1	2.9	C
	Subtotal	640	662	103.4%	18.5	1.8	B
WB	Left Turn	113	114	100.5%	9.2	1.5	A
	Through	877	856	97.6%	8.9	0.9	A
	Right Turn						
	Subtotal	990	970	98.0%	8.9	0.9	A
Total		3,062	2,991	97.7%	29.6	3.5	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 34 **Main/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	120	126	104.9%	20.8	3.6	C
	Through	457	472	103.2%	19.9	2.8	B
	Right Turn	174	179	102.9%	15.6	3.6	B
	Subtotal	751	777	103.4%	19.1	2.2	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	60	59	98.5%	14.3	1.7	B
	Through	498	512	102.9%	18.5	3.1	B
	Right Turn						
	Subtotal	558	571	102.4%	18.1	2.8	B
WB	Left Turn						
	Through	870	833	95.7%	14.6	1.5	B
	Right Turn	88	83	93.8%	13.8	3.5	B
	Subtotal	958	916	95.6%	14.5	1.4	B
Total		2,267	2,263	99.8%	17.0	1.1	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 35 **Los Angeles/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	73	97.2%	24.5	4.1	C
	Through	331	333	100.5%	12.1	1.9	B
	Right Turn	60	62	103.2%	18.1	4.1	B
	Subtotal	466	468	100.3%	14.9	2.0	B
SB	Left Turn	175	159	90.6%	26.1	3.4	C
	Through	872	779	89.3%	17.8	1.6	B
	Right Turn	86	88	102.6%	25.4	4.8	C
	Subtotal	1,133	1,026	90.5%	19.8	1.9	B
EB	Left Turn	31	45	146.1%	68.8	20.2	E
	Through	400	419	104.7%	24.9	3.5	C
	Right Turn	241	224	93.0%	29.5	6.2	C
	Subtotal	672	688	102.4%	29.1	4.6	C
WB	Left Turn	109	100	91.3%	41.0	4.4	D
	Through	797	754	94.6%	55.1	12.6	E
	Right Turn	117	112	95.3%	46.6	17.2	D
	Subtotal	1,023	965	94.3%	52.6	12.0	D
Total		3,294	3,147	95.5%	31.4	4.0	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 36 **San Pedro/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	76	79	104.1%	26.1	7.7	C
	Through						
	Right Turn	42	58	138.8%	22.4	5.2	C
	Subtotal	118	137	116.4%	24.8	3.7	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	369	377	102.2%	10.4	2.8	B
	Right Turn	266	260	97.7%	15.4	4.0	B
	Subtotal	635	637	100.3%	12.3	2.3	B
WB	Left Turn	149	155	104.1%	19.5	4.1	B
	Through	947	886	93.6%	13.9	5.7	B
	Right Turn						
	Subtotal	1,096	1,041	95.0%	14.7	4.8	B
Total		1,849	1,816	98.2%	14.8	3.2	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 37 **Alameda/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	240	225	93.7%	80.1	26.0	F
	Through	771	714	92.6%	145.8	52.2	F
	Right Turn						
	Subtotal	1,011	939	92.8%	130.0	46.6	F
SB	Left Turn	67	57	85.1%	47.5	9.7	D
	Through	970	846	87.2%	33.4	3.7	C
	Right Turn	492	432	87.8%	12.9	2.6	B
	Subtotal	1,529	1,335	87.3%	27.6	2.5	C
EB	Left Turn	95	103	107.9%	45.0	14.9	D
	Through	186	205	109.9%	23.2	2.1	C
	Right Turn	130	125	96.4%	39.6	4.8	D
	Subtotal	411	432	105.2%	33.3	5.8	C
WB	Left Turn	28	26	94.3%	68.1	15.1	E
	Through	364	389	106.7%	75.2	10.4	E
	Right Turn	69	73	105.2%	97.8	17.7	F
	Subtotal	461	488	105.7%	78.2	9.8	E
Total		3,412	3,193	93.6%	65.2	12.9	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 38 **Los Angeles/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	446	443	99.2%	16.1	1.9	B
	Subtotal	446	443	99.2%	16.1	1.9	B
SB	Left Turn	51	46	89.6%	21.5	5.4	C
	Through	1,017	916	90.1%	18.7	1.7	B
	Right Turn	154	142	91.9%	8.9	1.1	A
	Subtotal	1,222	1,104	90.3%	17.6	1.6	B
EB	Left Turn	10	12	123.0%	25.4	16.6	C
	Through	513	534	104.0%	15.0	1.1	B
	Right Turn	93	94	101.2%	7.7	0.8	A
	Subtotal	616	640	103.9%	14.1	1.0	B
WB	Left Turn	46	37	81.1%	21.2	5.5	C
	Through	787	787	99.9%	14.8	4.0	B
	Right Turn	10	9	91.0%	2.8	2.6	A
	Subtotal	843	833	98.8%	15.0	3.6	B
Total		3,127	3,019	96.5%	15.9	1.1	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 39 **San Pedro/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	23	151.3%	33.8	8.1	C
	Through	98	102	103.9%	20.9	7.0	C
	Right Turn	21	20	94.3%	7.3	3.0	A
	Subtotal	134	144	107.7%	21.4	5.9	C
SB	Left Turn	15	13	85.3%	32.3	13.2	C
	Through	379	366	96.5%	23.5	3.8	C
	Right Turn	21	37	175.2%	34.8	7.3	C
	Subtotal	415	415	100.0%	24.6	3.9	C
EB	Left Turn	10	27	274.0%	34.7	6.4	C
	Through	539	536	99.5%	6.9	0.6	A
	Right Turn	15	16	108.0%	4.6	4.7	A
	Subtotal	564	580	102.8%	8.1	0.5	A
WB	Left Turn	33	32	97.3%	25.0	8.5	C
	Through	807	786	97.4%	20.3	7.3	C
	Right Turn	10	9	89.0%	11.5	7.5	B
	Subtotal	850	827	97.3%	20.5	7.2	C
Total		1,963	1,966	100.2%	17.9	3.3	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 40 **Central/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	154	153	99.2%	22.9	4.0	C
	Through						
	Right Turn	12	12	100.0%	5.7	4.4	A
	Subtotal	166	165	99.2%	21.9	3.6	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	472	490	103.8%	18.7	1.8	B
	Right Turn	103	101	97.8%	13.2	2.2	B
	Subtotal	575	591	102.7%	17.8	1.7	B
WB	Left Turn	26	22	85.0%	12.2	5.9	B
	Through	696	692	99.5%	10.0	3.5	B
	Right Turn						
	Subtotal	722	714	98.9%	10.1	3.3	B
Total		1,463	1,470	100.5%	14.6	2.4	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 41 **Alameda/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	4	107.5%	82.9	85.2	F
	Through	953	904	94.9%	126.3	60.9	F
	Right Turn	50	50	99.8%	77.8	44.8	E
	Subtotal	1,007	958	95.2%	123.8	59.8	F
SB	Left Turn	24	20	81.7%	39.8	14.0	D
	Through	913	810	88.7%	15.3	1.6	B
	Right Turn	191	166	87.1%	15.0	4.8	B
	Subtotal	1,128	996	88.3%	15.9	1.7	B
EB	Left Turn	31	30	97.7%	20.5	7.7	C
	Through	402	422	104.9%	12.9	1.8	B
	Right Turn	51	52	101.4%	12.4	2.9	B
	Subtotal	484	504	104.0%	13.4	1.4	B
WB	Left Turn						
	Through	527	541	102.6%	26.5	7.9	C
	Right Turn	27	28	103.0%	31.5	18.3	C
	Subtotal	554	569	102.6%	26.7	7.8	C
Total		3,173	3,026	95.4%	50.6	18.6	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 1 **Hill/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	11	98.2%	8.0	10.4	A
	Through	284	295	103.9%	6.5	1.4	A
	Right Turn	21	21	100.0%	4.9	4.0	A
	Subtotal	316	327	103.4%	6.4	1.4	A
SB	Left Turn	26	26	98.5%	12.7	4.6	B
	Through	743	769	103.5%	9.6	1.6	A
	Right Turn	10	10	97.0%	9.6	5.9	A
	Subtotal	779	804	103.2%	9.7	1.6	A
EB	Left Turn	1	1	80.0%	5.3	16.7	A
	Through	150	153	101.9%	23.8	3.7	C
	Right Turn	1	2	150.0%	7.5	10.5	A
	Subtotal	152	155	102.1%	23.8	3.5	C
WB	Left Turn	52	39	74.4%	28.7	5.5	C
	Through	785	583	74.2%	28.7	1.1	C
	Right Turn	41	29	70.7%	25.2	3.5	C
	Subtotal	878	651	74.1%	28.5	1.2	C
Total		2,125	1,937	91.1%	16.8	1.3	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 2 **Broadway/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	39	32	81.5%	9.1	2.8	A
	Through	351	298	84.8%	7.5	1.2	A
	Right Turn	42	48	115.2%	3.3	1.3	A
	Subtotal	432	378	87.5%	7.3	1.1	A
SB	Left Turn	98	47	48.2%	69.4	10.8	E
	Through	1,267	647	51.0%	78.9	7.2	E
	Right Turn	204	91	44.7%	62.3	7.0	E
	Subtotal	1,569	785	50.0%	76.4	7.2	E
EB	Left Turn	21	21	101.9%	44.6	8.9	D
	Through	149	154	103.1%	31.5	2.4	C
	Right Turn	27	24	87.8%	41.4	12.3	D
	Subtotal	197	199	100.9%	33.9	2.9	C
WB	Left Turn	177	155	87.4%	67.1	23.6	E
	Through	635	527	83.0%	46.8	5.6	D
	Right Turn	83	66	79.9%	35.5	10.5	D
	Subtotal	895	748	83.6%	50.1	7.5	D
Total		3,093	2,110	68.2%	51.0	4.4	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 3 **Spring/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	24	15	60.4%	57.5	18.0	E
	Subtotal	24	15	60.4%	57.5	18.0	E
SB	Left Turn Through Right Turn	21	19	89.0%	37.2	18.1	D
	Subtotal	21	19	89.0%	37.2	18.1	D
EB	Left Turn	21	18	86.2%	41.2	12.4	D
	Through	248	212	85.4%	23.4	3.3	C
	Right Turn	15	11	74.7%	24.0	12.8	C
	Subtotal	284	241	84.9%	25.1	4.4	C
WB	Left Turn	10	9	90.0%	31.1	18.6	C
	Through	957	790	82.5%	34.4	6.2	C
	Right Turn	84	69	82.5%	19.1	8.1	B
	Subtotal	1,051	868	82.6%	33.2	6.3	C
Total		1,380	1,142	82.8%	31.8	4.6	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 4 **Alameda/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	51	87.1%	24.7	9.6	C
	Through	392	353	90.2%	10.0	2.1	A
	Right Turn	12	10	86.7%	2.3	1.0	A
	Subtotal	462	414	89.7%	11.3	2.2	B
SB	Left Turn	171	152	88.9%	128.2	58.9	F
	Through	1,069	940	87.9%	168.6	75.1	F
	Right Turn	240	184	76.7%	596.3	339.8	F
	Subtotal	1,480	1,276	86.2%	232.3	73.6	F
EB	Left Turn	61	60	97.5%	21.3	6.6	C
	Through	122	101	83.0%	7.4	3.1	A
	Right Turn	65	51	78.3%	33.7	35.5	C
	Subtotal	248	212	85.4%	17.2	8.1	B
WB	Left Turn	49	40	82.0%	76.9	24.7	E
	Through	753	636	84.4%	33.6	18.9	C
	Right Turn	164	137	83.2%	9.7	9.5	A
	Subtotal	966	812	84.1%	31.5	16.3	C
Total		3,156	2,715	86.0%	121.5	25.7	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 5 **Main/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	1	60.0%	0.9	2.8	A
	Through	217	144	66.3%	13.2	3.6	B
	Right Turn	42	28	65.7%	7.9	5.9	A
	Subtotal	260	172	66.2%	12.3	3.9	B
SB	Left Turn	227	174	76.6%	122.4	53.4	F
	Through	493	364	73.8%	233.2	102.4	F
	Right Turn	544	411	75.6%	194.9	79.1	F
	Subtotal	1,264	949	75.0%	197.3	82.7	F
EB	Left Turn	68	59	86.3%	43.3	6.7	D
	Through	232	201	86.8%	24.3	4.0	C
	Right Turn	5	4	88.0%	68.1	99.2	E
	Subtotal	305	264	86.7%	29.7	3.5	C
WB	Left Turn						
	Through	421	399	94.8%	36.9	8.5	D
	Right Turn	185	181	98.0%	26.2	6.4	C
	Subtotal	606	580	95.8%	33.7	7.9	C
Total		2,435	1,965	80.7%	96.8	30.7	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 6 **Vignes/Bauchet** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	20	99.0%	9.1	5.6	A
	Through	609	573	94.1%	10.2	0.9	B
	Right Turn	164	152	92.7%	5.7	1.3	A
	Subtotal	793	745	93.9%	9.3	0.8	A
SB	Left Turn	61	53	86.2%	11.5	3.9	B
	Through	450	363	80.6%	9.0	0.6	A
	Right Turn	12	10	82.5%	4.8	5.3	A
	Subtotal	523	425	81.3%	9.2	0.8	A
EB	Left Turn	4	4	90.0%	7.0	9.1	A
	Through	4	4	90.0%	10.9	15.1	B
	Right Turn	6	7	110.0%	5.4	3.2	A
	Subtotal	14	14	98.6%	10.4	4.5	B
WB	Left Turn	123	124	101.1%	21.0	4.3	C
	Through	4	4	105.0%	5.3	8.0	A
	Right Turn	27	28	104.1%	5.0	1.8	A
	Subtotal	154	157	101.8%	18.1	4.3	B
Total		1,484	1,341	90.3%	10.4	0.8	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 7 **Vignes/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	217	218	100.5%	64.0	39.8	E
	Through	393	412	104.9%	25.5	2.6	C
	Right Turn	118	123	104.5%	6.3	1.4	A
	Subtotal	728	754	103.5%	33.7	12.0	C
SB	Left Turn	158	128	80.9%	48.9	6.4	D
	Through	418	338	80.8%	26.7	6.1	C
	Right Turn	33	28	86.1%	16.9	8.8	B
	Subtotal	609	494	81.1%	31.6	5.1	C
EB	Left Turn	57	50	87.9%	28.0	3.7	C
	Through	463	429	92.7%	31.0	2.6	C
	Right Turn	281	261	93.0%	15.6	2.6	B
	Subtotal	801	740	92.4%	25.4	2.5	C
WB	Left Turn	309	301	97.5%	25.7	4.1	C
	Through	1,264	1,197	94.7%	34.3	5.8	C
	Right Turn	339	313	92.4%	6.0	1.6	A
	Subtotal	1,912	1,811	94.7%	28.3	3.7	C
Total		4,050	3,800	93.8%	29.2	4.0	C

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 8 **Lyon/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	6	8	136.7%	46.3	23.7	D
	Through						
	Right Turn	8	8	93.8%	5.7	2.1	A
	Subtotal	14	16	112.1%	26.7	14.2	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	721	663	91.9%	1.5	0.2	A
	Right Turn	18	18	97.2%	5.4	4.3	A
	Subtotal	739	680	92.0%	1.6	0.2	A
WB	Left Turn	6	6	95.0%	31.2	40.7	C
	Through	1,902	1,786	93.9%	70.5	53.6	E
	Right Turn	32	27	84.1%	49.0	44.9	D
	Subtotal	1,940	1,819	93.8%	70.2	53.5	E
Total		2,693	2,515	93.4%	50.9	37.9	D

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 9 **Mission/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	265	252	95.1%	55.6	27.9	E
	Through	501	507	101.1%	22.5	1.8	C
	Right Turn	90	91	100.9%	2.9	0.8	A
	Subtotal	856	850	99.3%	29.4	6.8	C
SB	Left Turn	26	24	90.8%	151.1	31.8	F
	Through	1,021	924	90.5%	155.7	22.9	F
	Right Turn	738	698	94.6%	237.4	33.4	F
	Subtotal	1,785	1,646	92.2%	191.6	14.6	F
EB	Left Turn	286	277	96.7%	51.8	4.7	D
	Through	265	241	90.9%	55.7	10.3	E
	Right Turn	178	150	84.2%	30.3	8.5	C
	Subtotal	729	667	91.6%	48.2	7.3	D
WB	Left Turn	305	289	94.7%	211.6	69.9	F
	Through	937	888	94.7%	208.8	65.6	F
	Right Turn	8	7	88.8%	208.6	76.0	F
	Subtotal	1,250	1,184	94.7%	209.4	66.6	F
Total		4,620	4,346	94.1%	142.9	19.9	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 10 **Alameda/Alhambra** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	10	91.8%	17.0	15.9	B
	Through	447	403	90.2%	6.7	1.1	A
	Right Turn						
	Subtotal	458	413	90.3%	7.0	1.0	A
SB	Left Turn						
	Through	1,180	1,012	85.7%	98.4	45.4	F
	Right Turn	3	3	113.3%	26.7	35.2	C
	Subtotal	1,183	1,015	85.8%	98.3	45.4	F
EB	Left Turn						
	Through						
	Right Turn	10	11	107.0%	18.5	10.9	B
	Subtotal	10	11	107.0%	18.5	10.9	B
WB	Left Turn	467	329	70.4%	333.8	134.4	F
	Through	16	10	61.9%	320.8	121.5	F
	Right Turn	15	11	72.0%	273.5	174.3	F
	Subtotal	498	350	70.2%	332.8	134.0	F
Total		2,149	1,789	83.2%	114.0	41.0	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 11 **Hill/Ord** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	15	96.7%	9.7	7.5	A
	Through	276	295	107.0%	8.7	2.3	A
	Right Turn	22	22	99.5%	6.9	2.7	A
	Subtotal	313	332	106.0%	8.7	2.2	A
SB	Left Turn	42	46	109.0%	10.3	4.7	B
	Through	739	750	101.5%	8.9	3.5	A
	Right Turn	15	14	94.7%	11.1	10.6	B
	Subtotal	796	810	101.7%	9.1	3.5	A
EB	Left Turn	10	9	91.0%	20.5	15.0	C
	Through	76	76	99.7%	24.5	9.2	C
	Right Turn	10	11	105.0%	23.9	16.9	C
	Subtotal	96	95	99.4%	24.6	6.8	C
WB	Left Turn	46	33	71.5%	27.2	7.5	C
	Through	257	181	70.3%	24.9	4.5	C
	Right Turn	30	23	77.7%	6.9	2.2	A
	Subtotal	333	237	71.1%	23.2	4.0	C
Total		1,538	1,474	95.8%	12.5	2.3	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 12 **Broadway/Ord** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	71	60	84.6%	15.1	5.1	B
	Through	385	328	85.3%	7.5	1.3	A
	Right Turn	74	61	81.9%	8.4	2.8	A
	Subtotal	530	449	84.7%	8.7	1.6	A
SB	Left Turn	83	68	81.8%	64.1	7.5	E
	Through	1,244	679	54.6%	74.3	8.0	E
	Right Turn	144	78	53.8%	59.9	7.7	E
	Subtotal	1,471	825	56.1%	72.3	7.2	E
EB	Left Turn	9	9	102.2%	29.8	26.4	C
	Through	90	91	100.8%	42.0	8.8	D
	Right Turn	41	42	102.0%	41.8	11.3	D
	Subtotal	140	142	101.2%	41.5	8.8	D
WB	Left Turn	64	41	64.5%	57.3	11.8	E
	Through	118	78	66.3%	59.6	37.0	E
	Right Turn	38	34	89.5%	47.0	31.2	D
	Subtotal	220	154	69.8%	57.6	31.1	E
Total		2,361	1,569	66.5%	50.4	4.6	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 13 **Alameda/Main** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	564	446	79.0%	6.9	1.5	A
	Right Turn	45	35	78.7%	3.6	2.4	A
	Subtotal	609	481	79.0%	6.7	1.4	A
SB	Left Turn	34	26	77.6%	11.9	5.7	B
	Through	1,466	1,169	79.7%	38.3	7.2	D
	Right Turn						
	Subtotal	1,500	1,195	79.7%	37.8	7.1	D
EB	Left Turn	204	187	91.7%	29.0	2.6	C
	Through	47	42	88.3%	22.8	4.6	C
	Right Turn	16	19	119.4%	39.3	18.5	D
	Subtotal	267	248	92.7%	28.8	2.8	C
WB	Left Turn	21	20	97.1%	55.3	16.0	E
	Through						
	Right Turn	8	8	95.0%	4.9	1.9	A
	Subtotal	29	28	96.6%	43.0	12.8	D
Total		2,405	1,952	81.1%	28.5	3.8	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 14 **Broadway/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	128	108	84.0%	30.5	5.3	C
	Through	337	271	80.5%	23.4	2.6	C
	Right Turn	123	101	82.0%	12.4	2.5	B
	Subtotal	588	480	81.6%	22.9	2.2	C
SB	Left Turn	136	81	59.6%	85.7	11.8	F
	Through	840	466	55.4%	77.6	5.4	E
	Right Turn	373	214	57.3%	63.3	4.2	E
	Subtotal	1,349	760	56.4%	74.3	5.2	E
EB	Left Turn	139	137	98.4%	51.4	8.6	D
	Through	767	472	61.5%	21.2	3.1	C
	Right Turn	112	109	97.2%	13.4	4.9	B
	Subtotal	1,018	718	70.5%	26.2	3.6	C
WB	Left Turn	139	126	90.9%	14.1	6.0	B
	Through	1,435	1,247	86.9%	11.7	0.6	B
	Right Turn	54	41	76.5%	4.5	2.7	A
	Subtotal	1,628	1,415	86.9%	11.7	0.9	B
Total		4,583	3,372	73.6%	30.4	1.2	C

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 15 **Spring/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	3	3	96.7%	27.4	43.9	C
	Through	349	301	86.1%	66.7	26.5	E
	Right Turn	170	137	80.3%	61.9	27.8	E
	Subtotal	522	440	84.3%	65.0	26.6	E
EB	Left Turn						
	Through	714	653	91.4%	8.2	1.2	A
	Right Turn	312	326	104.5%	4.4	1.7	A
	Subtotal	1,026	979	95.4%	6.9	1.1	A
WB	Left Turn	233	244	104.5%	53.5	3.4	D
	Through	1,458	1,247	85.6%	51.9	3.3	D
	Right Turn	17	13	78.8%	20.4	6.4	C
	Subtotal	1,708	1,504	88.1%	51.9	3.2	D
Total		3,256	2,923	89.8%	38.9	5.0	D

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 16 **Main/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	146	128	87.6%	39.0	3.1	D
	Through	183	168	91.9%	31.9	5.8	C
	Right Turn	107	105	97.9%	20.2	9.3	C
	Subtotal	436	401	91.9%	31.1	4.6	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	70	64	91.1%	32.3	11.3	C
	Through	647	615	95.1%	3.5	0.9	A
	Right Turn						
	Subtotal	717	679	94.7%	6.2	1.9	A
WB	Left Turn						
	Through	1,546	1,346	87.0%	18.0	2.7	B
	Right Turn	14	16	114.3%	8.1	3.8	A
	Subtotal	1,560	1,362	87.3%	17.9	2.7	B
Total		2,713	2,442	90.0%	16.7	1.8	B

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 17 **Alameda/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	145	123	85.0%	95.2	52.4	F
	Through	501	407	81.3%	22.3	4.7	C
	Right Turn	181	188	104.0%	23.7	5.7	C
	Subtotal	827	719	86.9%	35.6	10.5	D
SB	Left Turn	99	86	86.6%	19.2	5.7	B
	Through	1,214	963	79.3%	51.6	11.6	D
	Right Turn	190	156	82.3%	36.3	7.7	D
	Subtotal	1,503	1,205	80.2%	47.4	10.5	D
EB	Left Turn	78	68	87.2%	14.0	9.6	B
	Through	549	543	98.8%	8.4	2.2	A
	Right Turn	127	120	94.3%	6.3	2.3	A
	Subtotal	754	730	96.9%	8.6	1.9	A
WB	Left Turn	164	152	92.9%	34.1	4.8	C
	Through	1,225	1,115	91.0%	53.3	5.5	D
	Right Turn	30	19	64.0%	43.7	11.8	D
	Subtotal	1,419	1,286	90.7%	50.9	5.2	D
Total		4,503	3,940	87.5%	39.1	5.2	D

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 18 **Union Station Driveway/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	24	4	15.0%	30.2	27.8	C
	Through						
	Right Turn	55	5	8.7%	12.7	7.5	B
	Subtotal	79	8	10.6%	27.9	13.4	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	746	737	98.8%	1.0	0.2	A
	Right Turn	83	76	91.6%	1.6	0.8	A
	Subtotal	829	813	98.1%	1.1	0.2	A
WB	Left Turn	84	66	78.2%	89.7	43.2	F
	Through	1,430	1,334	93.3%	120.9	51.7	F
	Right Turn						
	Subtotal	1,514	1,399	92.4%	119.6	51.2	F
Total		2,422	2,221	91.7%	75.4	31.7	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 19 **Alameda/Los Angeles** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	697	586	84.0%	37.2	4.4	D
	Right Turn	40	19	48.5%	17.5	7.1	B
	Subtotal	737	605	82.1%	36.5	4.5	D
SB	Left Turn	61	59	97.2%	83.1	10.1	F
	Through	1,115	905	81.1%	73.7	18.0	E
	Right Turn	329	267	81.3%	77.4	17.1	E
	Subtotal	1,505	1,231	81.8%	75.0	16.9	E
EB	Left Turn	100	103	102.5%	57.0	2.7	E
	Through	56	49	87.7%	71.2	24.6	E
	Right Turn	20	18	92.0%	79.8	34.2	E
	Subtotal	176	170	96.6%	65.2	13.0	E
WB	Left Turn	111	86	77.0%	26.9	6.0	C
	Through	60	55	90.8%	21.6	4.8	C
	Right Turn	30	45	149.0%	40.4	9.2	D
	Subtotal	201	185	91.9%	28.6	3.9	C
Total		2,619	2,191	83.7%	59.3	9.9	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 20 **Broadway/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	466	497	106.6%	11.6	1.4	B
	Right Turn						
	Subtotal	466	497	106.6%	11.6	1.4	B
SB	Left Turn						
	Through	762	489	64.2%	11.0	1.5	B
	Right Turn						
	Subtotal	762	489	64.2%	11.0	1.5	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	365	227	62.3%	21.4	2.8	C
	Through						
	Right Turn	829	525	63.4%	7.1	0.7	A
	Subtotal	1,194	753	63.0%	11.4	1.3	B
Total		2,422	1,739	71.8%	11.4	0.8	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 21 **Spring/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	877	701	79.9%	25.4	2.6	C
	Right Turn	35	31	88.0%	6.6	2.8	A
	Subtotal	912	732	80.2%	24.5	2.5	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	529	386	73.0%	31.2	5.2	C
	Through	1,159	721	62.2%	31.4	3.8	C
	Right Turn						
	Subtotal	1,688	1,108	65.6%	31.3	4.2	C
Total		2,600	1,839	70.7%	28.6	2.8	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 22 **Main/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	80	79	99.3%	8.6	4.7	A
	Through	355	354	99.7%	5.3	0.8	A
	Right Turn						
	Subtotal	435	433	99.6%	5.9	1.3	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	1,608	1,021	63.5%	24.2	3.6	C
	Right Turn	81	48	59.4%	21.3	4.6	C
	Subtotal	1,689	1,069	63.3%	24.1	3.6	C
Total		2,124	1,502	70.7%	18.8	2.8	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 23 **Los Angeles/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	88	87	98.4%	13.6	5.3	B
	Through	265	275	103.8%	5.4	2.2	A
	Right Turn						
	Subtotal	353	362	102.4%	7.3	2.4	A
SB	Left Turn						
	Through	347	286	82.5%	22.9	2.2	C
	Right Turn	38	31	81.1%	25.6	7.3	C
	Subtotal	385	317	82.3%	23.2	2.6	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	360	202	56.0%	36.8	3.9	D
	Through	1,563	956	61.2%	43.1	3.5	D
	Right Turn	71	39	55.5%	46.9	18.0	D
	Subtotal	1,994	1,197	60.0%	42.2	3.5	D
Total		2,732	1,876	68.7%	32.2	2.5	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 24 **Alameda/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	143	128	89.8%	113.5	50.7	F
	Through	849	778	91.7%	31.9	2.8	C
	Right Turn	50	82	164.8%	27.5	3.9	C
	Subtotal	1,042	989	94.9%	42.9	9.0	D
SB	Left Turn	13	29	225.4%	55.4	10.3	E
	Through	939	722	76.9%	78.5	12.2	E
	Right Turn	69	56	80.4%	77.2	22.5	E
	Subtotal	1,021	807	79.0%	77.6	12.4	E
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	484	265	54.7%	180.8	20.2	F
	Through	1,782	1,010	56.7%	225.3	14.8	F
	Right Turn	274	143	52.1%	220.3	19.1	F
	Subtotal	2,540	1,417	55.8%	216.4	16.2	F
Total		4,603	3,213	69.8%	127.4	10.0	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 25 **Vignes/Ramirez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	93	93	99.5%	42.8	6.3	D
	Through	264	208	78.8%	25.5	2.7	C
	Right Turn	101	102	101.3%	6.2	1.7	A
	Subtotal	458	403	87.9%	24.4	2.1	C
SB	Left Turn	591	510	86.2%	56.6	6.6	E
	Through	302	254	84.1%	31.8	4.3	C
	Right Turn	353	251	71.0%	35.1	6.6	D
	Subtotal	1,246	1,014	81.4%	45.3	4.6	D
EB	Left Turn	235	270	114.9%	55.3	8.9	E
	Through						
	Right Turn						
	Subtotal	235	270	114.9%	55.3	8.9	E
WB	Left Turn	109	109	100.1%	35.0	6.7	C
	Through	149	174	116.8%	76.8	19.3	E
	Right Turn	373	374	100.2%	12.7	1.3	B
	Subtotal	631	657	104.1%	33.7	7.2	C
Total		2,570	2,344	91.2%	39.9	3.2	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 26 **Broadway/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	331	366	110.5%	9.5	1.5	A
	Right Turn	83	88	106.4%	3.7	0.8	A
	Subtotal	414	454	109.7%	8.4	1.3	A
SB	Left Turn	144	93	64.6%	11.5	3.4	B
	Through	983	621	63.1%	7.9	1.3	A
	Right Turn						
	Subtotal	1,127	714	63.3%	8.4	1.3	A
EB	Left Turn	135	134	99.1%	27.0	5.3	C
	Through	279	280	100.4%	22.4	2.5	C
	Right Turn	163	172	105.7%	7.3	1.3	A
	Subtotal	577	586	101.6%	19.0	1.7	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,118	1,754	82.8%	11.8	1.2	B

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 27 **Spring/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	171	150	88.0%	1.1	0.5	A
	Through	1,235	1,085	87.8%	11.7	2.3	B
	Right Turn						
	Subtotal	1,406	1,235	87.8%	10.4	2.1	B
EB	Left Turn						
	Through	309	283	91.6%	19.8	2.2	B
	Right Turn	197	176	89.5%	9.0	1.9	A
	Subtotal	506	459	90.8%	15.5	1.9	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,912	1,694	88.6%	11.7	1.7	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 28 **Main/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	388	390	100.4%	8.2	2.8	A
	Right Turn	217	218	100.3%	18.1	7.2	B
	Subtotal	605	607	100.4%	12.0	2.7	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	47	43	90.6%	8.8	4.2	A
	Through	433	422	97.5%	14.4	3.6	B
	Right Turn						
	Subtotal	480	465	96.8%	14.0	3.2	B
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,085	1,072	98.8%	12.7	2.5	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 29 **Los Angeles/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	334	343	102.7%	15.5	1.2	B
	Right Turn	85	148	173.8%	16.8	3.3	B
	Subtotal	479	491	102.4%	15.9	0.9	B
SB	Left Turn						
	Through	707	488	69.1%	11.4	1.2	B
	Right Turn						
	Subtotal	707	488	69.1%	11.4	1.2	B
EB	Left Turn	252	256	101.4%	18.4	1.9	B
	Through	222	241	108.5%	33.4	4.1	C
	Right Turn	157	145	92.5%	30.7	3.8	C
	Subtotal	650	642	98.7%	26.4	2.0	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,836	1,621	88.3%	18.8	1.1	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 30 **Alameda/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	777	700	90.0%	210.9	39.3	F
	Right Turn	158	158	100.0%	84.4	23.1	F
	Subtotal	935	858	91.7%	187.7	37.4	F
SB	Left Turn	200	142	70.8%	40.1	7.7	D
	Through	1,223	848	69.3%	15.6	1.7	B
	Right Turn						
	Subtotal	1,423	989	69.5%	19.1	2.3	B
EB	Left Turn	59	94	159.5%	39.4	7.0	D
	Through	66	67	101.5%	25.9	4.7	C
	Right Turn	157	148	94.5%	8.5	1.2	A
	Subtotal	282	309	109.7%	22.6	2.7	C
WB	Left Turn	149	139	93.6%	19.5	2.3	B
	Through						
	Right Turn	206	194	94.4%	47.7	13.2	D
	Subtotal	355	334	94.0%	35.9	9.1	D
Total		2,995	2,490	83.1%	80.8	10.6	F

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 31 **US 101 Ramps/Commercial** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	13	100.8%	33.2	9.8	C
	Through	43	42	96.7%	32.9	6.4	C
	Right Turn	7	8	108.6%	8.1	4.1	A
	Subtotal	63	62	98.9%	30.2	6.0	C
SB	Left Turn	218	232	106.2%	32.7	6.8	C
	Through	63	65	103.8%	31.3	7.6	C
	Right Turn	200	194	96.8%	5.5	1.5	A
	Subtotal	481	491	102.0%	21.8	4.4	C
EB	Left Turn	271	232	85.5%	27.3	4.3	C
	Through	77	72	93.2%	18.5	4.9	B
	Right Turn	26	23	87.3%	8.7	4.1	A
	Subtotal	374	326	87.2%	24.0	4.0	C
WB	Left Turn	10	9	93.0%	29.1	11.2	C
	Through	122	106	86.6%	35.2	5.9	D
	Right Turn	176	164	93.0%	19.9	2.7	B
	Subtotal	308	279	90.4%	26.4	3.8	C
Total		1,226	1,157	94.4%	24.1	3.1	C

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 32 **Broadway/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	1	140.0%	15.4	20.7	B
	Through	363	404	111.4%	8.4	0.6	A
	Right Turn						
	Subtotal	364	406	111.5%	8.5	0.6	A
SB	Left Turn	55	37	67.1%	7.4	2.9	A
	Through	1,028	707	68.7%	7.3	0.7	A
	Right Turn	63	53	84.8%	10.0	2.6	B
	Subtotal	1,146	797	69.5%	7.5	0.7	A
EB	Left Turn	25	26	105.2%	29.7	2.9	C
	Through	585	610	104.3%	19.3	1.4	B
	Right Turn	154	149	96.8%	14.4	2.0	B
	Subtotal	764	786	102.8%	18.8	1.2	B
WB	Left Turn	79	60	75.9%	28.6	7.5	C
	Through	973	872	89.6%	17.4	1.0	B
	Right Turn	26	22	85.8%	12.7	4.9	B
	Subtotal	1,078	954	88.5%	18.0	1.0	B
Total		3,352	2,943	87.8%	14.1	0.5	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 33 **Spring/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	59	45	75.6%	30.9	12.2	C
	Through	1,172	1,049	89.5%	30.8	13.3	C
	Right Turn	201	164	81.4%	31.4	9.5	C
	Subtotal	1,432	1,257	87.8%	30.8	12.5	C
EB	Left Turn						
	Through	499	523	104.9%	19.7	2.5	B
	Right Turn	141	136	96.4%	20.9	3.6	C
	Subtotal	640	659	103.0%	20.0	2.5	B
WB	Left Turn	113	109	96.3%	9.4	2.7	A
	Through	877	818	93.3%	9.4	1.9	A
	Right Turn						
	Subtotal	990	927	93.6%	9.5	1.7	A
Total		3,062	2,844	92.9%	21.6	5.7	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 34 **Main/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	120	126	104.9%	18.6	3.9	B
	Through	457	474	103.6%	19.0	2.3	B
	Right Turn	174	179	102.8%	16.1	5.0	B
	Subtotal	751	778	103.6%	18.2	2.1	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	60	58	97.3%	15.9	3.9	B
	Through	498	506	101.6%	20.7	5.4	C
	Right Turn						
	Subtotal	558	565	101.2%	20.1	5.2	C
WB	Left Turn						
	Through	870	790	90.8%	13.2	2.1	B
	Right Turn	88	79	90.1%	15.2	3.8	B
	Subtotal	958	870	90.8%	13.4	2.2	B
Total		2,267	2,212	97.6%	16.8	1.3	B

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 35 **Los Angeles/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	73	96.8%	23.9	7.9	C
	Through	331	338	102.1%	12.1	1.8	B
	Right Turn	60	62	102.7%	18.4	4.1	B
	Subtotal	466	472	101.3%	14.9	2.4	B
SB	Left Turn	175	142	81.0%	25.0	4.8	C
	Through	872	693	79.4%	18.5	3.9	B
	Right Turn	86	79	91.5%	24.0	6.0	C
	Subtotal	1,133	913	80.6%	20.0	3.7	C
EB	Left Turn	31	45	144.8%	54.9	17.9	D
	Through	400	416	103.9%	24.1	2.0	C
	Right Turn	241	222	91.9%	27.3	6.0	C
	Subtotal	672	682	101.5%	27.1	2.0	C
WB	Left Turn	109	94	86.2%	38.2	3.0	D
	Through	797	718	90.0%	46.3	8.6	D
	Right Turn	117	107	91.5%	36.9	12.0	D
	Subtotal	1,023	919	89.8%	44.5	8.3	D
Total		3,294	2,986	90.6%	28.4	2.9	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 36 **San Pedro/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	76	79	103.8%	22.9	6.2	C
	Through						
	Right Turn	42	52	123.8%	19.8	4.2	B
	Subtotal	118	131	110.9%	21.6	3.9	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	369	364	98.6%	9.6	2.9	A
	Right Turn	266	251	94.3%	16.2	4.7	B
	Subtotal	635	615	96.8%	12.5	3.2	B
WB	Left Turn	149	148	99.3%	19.7	4.8	B
	Through	947	837	88.3%	10.6	2.6	B
	Right Turn						
	Subtotal	1,096	985	89.8%	12.0	2.6	B
Total		1,849	1,730	93.6%	13.0	2.2	B

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 37 **Alameda/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	240	229	95.3%	83.0	28.4	F
	Through	771	727	94.3%	149.2	57.5	F
	Right Turn						
	Subtotal	1,011	956	94.5%	133.2	50.5	F
SB	Left Turn	67	48	71.5%	45.5	8.4	D
	Through	970	724	74.6%	29.0	2.9	C
	Right Turn	492	367	74.7%	11.1	2.4	B
	Subtotal	1,529	1,139	74.5%	23.9	2.1	C
EB	Left Turn	95	95	99.8%	36.4	12.7	D
	Through	186	199	106.9%	20.6	3.3	C
	Right Turn	130	120	92.2%	34.9	5.6	C
	Subtotal	411	414	100.6%	28.6	4.9	C
WB	Left Turn	28	26	94.3%	68.3	14.5	E
	Through	364	390	107.1%	74.5	10.4	E
	Right Turn	69	73	105.4%	100.7	25.7	F
	Subtotal	461	489	106.1%	78.3	10.5	E
Total		3,412	2,998	87.9%	66.9	13.5	E

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **AM Peak Hour**

Intersection 38 **Los Angeles/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	446	443	99.2%	15.3	1.5	B
	Subtotal	446	443	99.2%	15.3	1.5	B
SB	Left Turn	51	41	79.8%	21.9	7.4	C
	Through	1,017	836	82.2%	17.9	1.8	B
	Right Turn	154	131	85.3%	6.9	0.9	A
	Subtotal	1,222	1,008	82.5%	16.7	1.7	B
EB	Left Turn	10	18	177.0%	19.3	7.4	B
	Through	513	528	102.9%	14.8	1.4	B
	Right Turn	93	94	101.3%	8.1	2.3	A
	Subtotal	616	640	103.8%	14.0	1.2	B
WB	Left Turn	46	37	81.3%	24.6	9.0	C
	Through	787	765	97.2%	13.7	2.8	B
	Right Turn	10	9	88.0%	5.6	6.8	A
	Subtotal	843	811	96.2%	14.0	2.7	B
Total		3,127	2,902	92.8%	15.1	1.0	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 39 **San Pedro/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	23	151.3%	34.1	5.2	C
	Through	98	102	104.0%	20.2	5.5	C
	Right Turn	21	20	93.8%	6.2	2.4	A
	Subtotal	134	144	107.7%	20.9	4.2	C
SB	Left Turn	15	12	82.0%	25.4	14.4	C
	Through	379	349	92.1%	22.0	4.5	C
	Right Turn	21	37	173.8%	33.5	7.8	C
	Subtotal	415	398	95.9%	23.0	4.4	C
EB	Left Turn	10	21	214.0%	32.8	8.7	C
	Through	539	532	98.7%	6.7	0.7	A
	Right Turn	15	16	107.3%	4.9	4.2	A
	Subtotal	564	569	100.9%	7.5	0.6	A
WB	Left Turn	33	32	95.8%	23.3	6.7	C
	Through	807	764	94.7%	19.2	5.3	B
	Right Turn	10	9	87.0%	12.3	6.1	B
	Subtotal	850	804	94.6%	19.3	5.2	B
Total		1,963	1,916	97.6%	16.9	2.6	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 40 **Central/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	154	153	99.2%	22.1	3.5	C
	Through						
	Right Turn	12	12	100.0%	5.6	4.6	A
	Subtotal	166	165	99.2%	21.2	3.1	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	472	486	102.9%	17.9	1.8	B
	Right Turn	103	100	97.1%	11.8	2.2	B
	Subtotal	575	586	101.8%	16.8	1.7	B
WB	Left Turn	26	21	81.2%	16.6	8.0	B
	Through	696	671	96.4%	9.4	2.6	A
	Right Turn						
	Subtotal	722	692	95.8%	9.6	2.6	A
Total		1,463	1,442	98.6%	13.9	1.7	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **AM Peak Hour**

Intersection 41 **Alameda/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	4	110.0%	70.6	82.9	E
	Through	953	918	96.4%	129.0	66.1	F
	Right Turn	50	51	102.0%	77.5	50.2	E
	Subtotal	1,007	974	96.7%	126.5	65.5	F
SB	Left Turn	24	17	70.0%	40.2	9.8	D
	Through	913	708	77.5%	15.8	1.6	B
	Right Turn	191	145	76.1%	11.4	2.6	B
	Subtotal	1,128	870	77.1%	15.7	1.3	B
EB	Left Turn	31	30	97.1%	23.6	10.6	C
	Through	402	418	103.9%	12.3	1.7	B
	Right Turn	51	51	100.4%	11.8	2.2	B
	Subtotal	484	499	103.1%	13.1	1.6	B
WB	Left Turn						
	Through	527	540	102.4%	23.5	4.3	C
	Right Turn	27	28	103.3%	27.8	16.1	C
	Subtotal	554	568	102.4%	23.7	4.4	C
Total		3,173	2,910	91.7%	52.1	19.1	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **Hill/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	32	33	103.4%	19.0	5.4	B
	Through	665	692	104.1%	16.4	2.2	B
	Right Turn	67	67	99.7%	15.4	3.9	B
	Subtotal	764	792	103.7%	16.4	2.2	B
SB	Left Turn	15	14	94.7%	15.2	9.2	B
	Through	435	459	105.5%	8.6	1.2	A
	Right Turn	26	25	97.7%	6.0	3.7	A
	Subtotal	476	498	104.7%	8.7	1.2	A
EB	Left Turn	47	47	99.6%	22.6	6.8	C
	Through	293	298	101.6%	19.6	2.0	B
	Right Turn	16	15	92.5%	13.3	10.5	B
	Subtotal	356	359	100.9%	19.9	2.1	B
WB	Left Turn	32	28	87.2%	32.2	6.7	C
	Through	340	300	88.2%	29.8	3.4	C
	Right Turn	82	68	83.0%	22.1	2.5	C
	Subtotal	454	396	87.2%	28.8	2.7	C
Total		2,050	2,046	99.8%	17.6	1.0	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 2 **Broadway/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	45	78.1%	27.7	3.5	C
	Through	1,134	898	79.2%	24.2	1.9	C
	Right Turn	100	87	86.7%	18.4	2.7	B
	Subtotal	1,292	1,030	79.7%	24.0	2.0	C
SB	Left Turn	55	53	96.7%	71.4	13.5	E
	Through	649	672	103.5%	61.5	17.0	E
	Right Turn	48	47	98.8%	50.8	12.3	D
	Subtotal	752	772	102.7%	61.6	16.0	E
EB	Left Turn	79	80	101.3%	18.3	5.5	B
	Through	254	260	102.2%	9.9	2.1	A
	Right Turn	42	43	102.6%	14.5	10.2	B
	Subtotal	375	383	102.1%	12.5	2.2	B
WB	Left Turn	52	58	111.5%	30.6	13.0	C
	Through	348	306	87.8%	29.2	5.6	C
	Right Turn	254	232	91.3%	30.4	5.5	C
	Subtotal	654	595	91.0%	29.8	5.6	C
Total		3,073	2,780	90.5%	34.3	5.1	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 3 **Spring/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	5	67.1%	20.6	32.6	C
	Through						
	Right Turn	102	73	71.9%	18.3	1.8	B
	Subtotal	109	78	71.6%	19.1	3.0	B
SB	Left Turn	17	17	99.4%	36.8	18.0	D
	Through	29	28	96.9%	38.3	9.4	D
	Right Turn	8	7	92.5%	19.4	19.5	B
	Subtotal	54	52	97.0%	36.1	8.9	D
EB	Left Turn	10	11	113.0%	23.8	18.9	C
	Through	390	374	95.8%	18.0	1.5	B
	Right Turn	15	12	82.7%	28.3	22.3	C
	Subtotal	415	397	95.7%	18.2	1.5	B
WB	Left Turn	7	6	87.1%	22.9	21.9	C
	Through	646	578	89.5%	13.0	2.9	B
	Right Turn	13	9	68.5%	7.3	10.6	A
	Subtotal	666	593	89.1%	13.0	2.8	B
Total		1,244	1,121	90.1%	16.5	1.6	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 4 **Alameda/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	179	163	90.8%	19.4	5.3	B
	Through	1,112	1,012	91.0%	11.7	1.0	B
	Right Turn	49	46	93.9%	9.7	6.1	A
	Subtotal	1,340	1,221	91.1%	12.7	1.4	B
SB	Left Turn	116	115	99.3%	35.6	8.3	D
	Through	500	511	102.2%	13.8	1.4	B
	Right Turn	57	69	121.8%	13.7	10.2	B
	Subtotal	673	695	103.3%	17.3	2.5	B
EB	Left Turn	102	103	100.8%	15.8	5.4	B
	Through	335	315	93.9%	17.7	3.9	B
	Right Turn	72	66	91.9%	6.2	3.3	A
	Subtotal	509	484	95.0%	15.6	3.5	B
WB	Left Turn	55	48	87.8%	32.2	8.2	C
	Through	430	363	84.3%	21.3	1.7	C
	Right Turn	393	347	88.2%	10.5	1.1	B
	Subtotal	878	758	86.3%	17.1	0.9	B
Total		3,400	3,157	92.9%	15.2	1.3	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 5 **Main/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	3	58.0%	10.5	21.8	B
	Through	657	505	76.9%	20.0	2.0	B
	Right Turn	35	27	78.0%	13.0	6.6	B
	Subtotal	697	536	76.8%	19.6	2.2	B
SB	Left Turn	201	198	98.6%	36.4	18.3	D
	Through	275	271	98.4%	20.6	4.3	C
	Right Turn	186	187	100.3%	13.8	3.8	B
	Subtotal	662	655	99.0%	23.9	7.7	C
EB	Left Turn	228	219	96.2%	62.7	10.0	E
	Through	271	259	95.6%	21.9	4.6	C
	Right Turn	1	1	110.0%	0.0	0.0	A
	Subtotal	500	480	95.9%	41.6	7.0	D
WB	Left Turn						
	Through	687	568	82.6%	36.7	5.8	D
	Right Turn	370	295	79.7%	42.7	10.5	D
	Subtotal	1,057	863	81.6%	38.7	7.2	D
Total		2,916	2,533	86.9%	31.4	4.8	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 6 **Vignes/Bauchet** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	20	65.2%	16.0	9.3	B
	Through	980	769	78.5%	12.0	2.0	B
	Right Turn	57	49	85.3%	5.5	1.5	A
	Subtotal	1,068	838	78.4%	11.7	1.9	B
SB	Left Turn	27	24	88.9%	16.6	6.7	B
	Through	463	443	95.7%	10.6	1.7	B
	Right Turn	5	5	96.0%	4.6	5.7	A
	Subtotal	495	472	95.3%	10.9	1.9	B
EB	Left Turn	11	12	109.1%	17.5	10.5	B
	Through	5	5	100.0%	13.3	13.8	B
	Right Turn	20	23	114.0%	5.4	1.2	A
	Subtotal	36	40	110.6%	11.3	4.4	B
WB	Left Turn	263	253	96.3%	21.7	3.2	C
	Through	6	6	95.0%	10.6	17.0	B
	Right Turn	81	81	100.4%	6.5	1.5	A
	Subtotal	350	340	97.2%	17.9	2.9	B
Total		1,949	1,690	86.7%	12.8	1.6	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 7 **Vignes/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	346	258	74.6%	245.8	27.1	F
	Through	719	608	84.5%	64.4	19.6	E
	Right Turn	208	177	85.0%	20.7	4.2	C
	Subtotal	1,273	1,043	81.9%	100.2	9.8	F
SB	Left Turn	296	268	90.6%	42.8	4.1	D
	Through	426	390	91.6%	33.8	3.9	C
	Right Turn	62	55	88.7%	34.1	13.6	C
	Subtotal	784	713	91.0%	37.2	2.2	D
EB	Left Turn	45	38	84.9%	37.4	10.4	D
	Through	948	784	82.7%	36.3	7.3	D
	Right Turn	325	281	86.4%	17.3	6.9	B
	Subtotal	1,318	1,103	83.6%	31.5	6.3	C
WB	Left Turn	198	164	82.6%	32.2	8.3	C
	Through	878	669	76.2%	87.0	17.1	F
	Right Turn	304	222	72.9%	6.6	2.1	A
	Subtotal	1,380	1,054	76.4%	61.7	11.1	E
Total		4,755	3,913	82.3%	58.4	5.1	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 8 **Lyon/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	3	3	90.0%	27.6	38.7	C
	Through						
	Right Turn	4	5	127.5%	4.0	3.5	A
	Subtotal	7	8	111.4%	25.1	32.3	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,450	1,227	84.6%	1.8	0.5	A
	Right Turn	2	2	100.0%	1.5	2.4	A
	Subtotal	1,452	1,229	84.6%	1.8	0.5	A
WB	Left Turn	14	0	0.0%	0.0	0.0	A
	Through	1,377	1,038	75.4%	375.4	67.3	F
	Right Turn	7	0	0.0%	0.0	0.0	A
	Subtotal	1,398	1,038	74.2%	375.4	67.3	F
Total		2,857	2,275	79.6%	161.3	21.9	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 9 **Mission/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	348	193	55.3%	1386.5	247.1	F
	Through	581	395	68.0%	115.9	17.1	F
	Right Turn	83	57	69.2%	82.3	26.6	F
	Subtotal	1,012	645	63.7%	583.8	185.5	F
SB	Left Turn	46	44	96.5%	124.1	118.1	F
	Through	476	448	94.1%	118.4	95.3	F
	Right Turn	366	335	91.5%	479.1	245.7	F
	Subtotal	888	827	93.1%	266.8	169.7	F
EB	Left Turn	445	405	90.9%	43.1	5.6	D
	Through	663	546	82.4%	43.8	5.0	D
	Right Turn	346	283	81.9%	31.2	6.6	C
	Subtotal	1,454	1,234	84.9%	40.8	5.2	D
WB	Left Turn	172	149	86.5%	288.6	110.8	F
	Through	684	598	87.5%	348.4	128.5	F
	Right Turn	27	21	78.5%	350.1	138.8	F
	Subtotal	883	768	87.0%	336.1	125.0	F
Total		4,237	3,474	82.0%	217.2	71.9	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 10 **Alameda/Alhambra** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,325	1,204	90.9%	11.7	1.7	B
	Right Turn						
	Subtotal	1,325	1,204	90.9%	11.7	1.7	B
SB	Left Turn						
	Through	622	620	99.7%	2.5	0.7	A
	Right Turn	5	5	108.0%	0.1	0.2	A
	Subtotal	627	625	99.7%	2.5	0.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	260	256	98.4%	42.7	3.0	D
	Through	1	1	80.0%	16.7	22.6	B
	Right Turn	15	16	104.0%	40.9	10.4	D
	Subtotal	276	272	98.7%	42.5	3.4	D
Total		2,228	2,102	94.3%	12.9	1.4	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 11 **Hill/Ord** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	22	103.3%	15.1	5.3	B
	Through	655	682	104.1%	12.6	1.6	B
	Right Turn	64	68	106.7%	11.5	2.6	B
	Subtotal	740	772	104.3%	12.5	1.6	B
SB	Left Turn	51	55	108.6%	18.3	9.9	B
	Through	411	418	101.7%	7.5	2.4	A
	Right Turn	21	22	104.3%	9.0	5.7	A
	Subtotal	483	495	102.5%	8.7	2.3	A
EB	Left Turn	15	18	117.3%	23.4	10.9	C
	Through	213	214	100.5%	19.9	3.4	B
	Right Turn	31	33	105.8%	18.3	5.3	B
	Subtotal	259	264	102.1%	20.0	3.5	B
WB	Left Turn	30	24	80.3%	23.1	9.7	C
	Through	185	160	86.7%	19.2	4.3	B
	Right Turn	94	82	87.2%	6.7	2.1	A
	Subtotal	309	267	86.2%	16.2	3.5	B
Total		1,791	1,798	100.4%	13.1	1.1	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 12 **Broadway/Ord** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	119	87	72.9%	63.5	13.9	E
	Through	1,040	783	75.3%	46.6	5.4	D
	Right Turn	65	48	73.8%	39.2	8.4	D
	Subtotal	1,224	918	75.0%	47.8	5.8	D
SB	Left Turn	61	87	141.8%	92.0	29.4	F
	Through	636	639	100.5%	52.0	16.2	D
	Right Turn	46	43	94.3%	42.1	12.7	D
	Subtotal	743	769	103.5%	56.6	17.9	E
EB	Left Turn	121	124	102.3%	21.1	5.9	C
	Through	124	128	103.4%	22.3	5.8	C
	Right Turn	83	84	101.7%	16.5	4.8	B
	Subtotal	328	336	102.6%	20.5	5.2	C
WB	Left Turn	39	30	76.2%	33.7	11.6	C
	Through	144	108	75.3%	32.4	4.4	C
	Right Turn	131	101	76.9%	31.6	6.7	C
	Subtotal	314	239	76.1%	32.2	5.5	C
Total		2,609	2,262	86.7%	44.7	6.9	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 13 **Alameda/Main** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,101	967	87.8%	4.4	0.8	A
	Right Turn	13	12	90.0%	6.1	6.4	A
	Subtotal	1,114	978	87.8%	4.4	0.8	A
SB	Left Turn	16	16	98.8%	19.7	11.5	B
	Through	882	879	99.6%	22.7	4.8	C
	Right Turn						
	Subtotal	898	894	99.6%	22.7	4.7	C
EB	Left Turn	948	793	83.7%	36.7	0.9	D
	Through	23	19	81.3%	32.1	6.8	C
	Right Turn	37	29	79.2%	15.9	8.6	B
	Subtotal	1,008	841	83.5%	35.9	0.7	D
WB	Left Turn	42	46	108.6%	51.9	10.7	D
	Through						
	Right Turn	73	72	99.0%	6.9	1.3	A
	Subtotal	115	118	102.5%	25.1	7.5	C
Total		3,135	2,832	90.3%	20.8	1.7	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 14 **Broadway/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	192	149	77.6%	99.8	13.2	F
	Through	855	688	80.4%	117.2	16.2	F
	Right Turn	182	147	80.8%	109.5	26.3	F
	Subtotal	1,229	984	80.0%	113.6	16.3	F
SB	Left Turn	112	109	97.4%	121.8	29.9	F
	Through	443	437	98.7%	37.7	11.2	D
	Right Turn	203	200	98.6%	25.8	8.9	C
	Subtotal	758	746	98.5%	46.7	11.1	D
EB	Left Turn	210	108	51.4%	743.3	121.6	F
	Through	1,055	480	45.5%	215.5	42.2	F
	Right Turn	64	34	52.7%	94.3	26.2	F
	Subtotal	1,329	622	46.8%	305.6	60.4	F
WB	Left Turn	139	120	86.3%	28.2	8.5	C
	Through	1,203	980	81.4%	19.4	3.4	B
	Right Turn	159	124	78.0%	15.9	6.5	B
	Subtotal	1,501	1,224	81.5%	19.9	3.9	B
Total		4,817	3,576	74.2%	100.5	10.1	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 15 **Spring/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	30	26	87.0%	46.1	15.5	D
	Through	99	99	99.8%	48.3	27.1	D
	Right Turn	72	68	94.4%	37.1	13.5	D
	Subtotal	201	193	96.0%	43.9	18.5	D
EB	Left Turn						
	Through	1,126	751	66.7%	9.6	5.1	A
	Right Turn	223	142	63.5%	11.2	23.3	B
	Subtotal	1,349	893	66.2%	10.0	7.9	B
WB	Left Turn	179	171	95.3%	63.1	21.1	E
	Through	1,429	1,129	79.0%	61.5	7.8	E
	Right Turn	100	75	75.4%	24.3	5.9	C
	Subtotal	1,708	1,375	80.5%	59.5	7.8	E
Total		3,258	2,461	75.5%	40.7	7.4	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 16 **Main/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	427	355	83.2%	57.9	33.2	E
	Through	880	744	84.6%	59.3	45.5	E
	Right Turn	278	241	86.6%	37.3	29.6	D
	Subtotal	1,585	1,340	84.6%	55.3	38.3	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	105	75	71.1%	61.2	19.8	E
	Through	1,051	730	69.5%	22.7	8.2	C
	Right Turn						
	Subtotal	1,156	805	69.6%	26.4	7.3	C
WB	Left Turn						
	Through	1,296	979	75.5%	32.2	4.8	C
	Right Turn	23	18	79.1%	8.8	4.3	A
	Subtotal	1,319	997	75.6%	31.8	4.8	C
Total		4,060	3,143	77.4%	40.9	18.6	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 17 **Alameda/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	113	112	99.2%	217.2	106.5	F
	Through	822	784	95.4%	17.7	2.1	B
	Right Turn	161	171	106.1%	15.1	2.5	B
	Subtotal	1,096	1,067	97.4%	38.4	12.6	D
SB	Left Turn	100	103	102.7%	14.7	3.3	B
	Through	699	685	98.1%	26.0	11.4	C
	Right Turn	162	161	99.2%	40.5	17.5	D
	Subtotal	961	949	98.7%	27.3	10.5	C
EB	Left Turn	150	98	65.1%	23.4	17.1	C
	Through	969	742	76.6%	16.2	1.4	B
	Right Turn	210	143	68.1%	3.8	2.3	A
	Subtotal	1,329	983	74.0%	15.3	2.1	B
WB	Left Turn	173	118	68.2%	40.8	6.5	D
	Through	1,044	743	71.1%	92.8	9.0	F
	Right Turn	142	97	68.1%	59.1	9.4	E
	Subtotal	1,359	957	70.4%	82.8	8.1	F
Total		4,745	3,956	83.4%	40.6	5.4	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 18 **Union Station Driveway/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	97	89	91.6%	26.3	7.8	C
	Through						
	Right Turn	175	15	8.6%	140.6	76.6	F
	Subtotal	272	104	38.2%	46.1	22.4	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,143	888	77.7%	280.5	38.4	F
	Right Turn	87	35	40.0%	229.3	44.9	F
	Subtotal	1,230	923	75.0%	278.5	38.6	F
WB	Left Turn	49	70	142.0%	5.0	1.3	A
	Through	1,237	942	76.2%	6.4	0.6	A
	Right Turn						
	Subtotal	1,286	1,012	78.7%	6.3	0.6	A
Total		2,788	2,039	73.1%	129.8	14.4	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 19 **Alameda/Los Angeles** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	558	551	98.8%	19.0	2.3	B
	Right Turn	88	86	97.3%	9.4	3.1	A
	Subtotal	646	637	98.6%	17.7	2.1	B
SB	Left Turn	72	73	100.8%	36.8	6.9	D
	Through	836	713	85.3%	36.2	5.3	D
	Right Turn	174	161	92.8%	29.5	6.5	C
	Subtotal	1,082	947	87.5%	35.2	4.8	D
EB	Left Turn	441	421	95.4%	47.2	3.3	D
	Through	94	85	90.3%	48.6	7.6	D
	Right Turn	110	102	93.0%	22.4	5.7	C
	Subtotal	645	608	94.3%	43.1	3.6	D
WB	Left Turn	156	151	96.9%	30.9	3.6	C
	Through	62	60	96.6%	25.1	5.9	C
	Right Turn	97	100	102.8%	6.7	1.1	A
	Subtotal	315	311	98.6%	22.2	2.2	C
Total		2,688	2,502	93.1%	31.1	2.3	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 20 **Broadway/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,038	773	74.4%	28.8	10.3	C
	Right Turn						
	Subtotal	1,038	773	74.4%	28.8	10.3	C
SB	Left Turn						
	Through	508	467	92.0%	15.1	7.0	B
	Right Turn						
	Subtotal	508	467	92.0%	15.1	7.0	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	205	186	90.7%	32.5	13.4	C
	Through						
	Right Turn	650	584	89.8%	43.5	22.8	D
	Subtotal	855	770	90.0%	40.7	19.3	D
Total		2,401	2,009	83.7%	30.4	12.3	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 21 **Spring/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	451	300	66.6%	55.6	54.7	E
	Right Turn	103	77	74.9%	16.2	11.6	B
	Subtotal	554	378	68.1%	47.9	44.4	D
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	213	251	117.7%	82.1	131.5	F
	Through	752	693	92.2%	32.7	28.0	C
	Right Turn						
	Subtotal	965	944	97.8%	47.4	56.9	D
Total		1,519	1,322	87.0%	46.8	52.1	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 22 **Main/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	274	236	86.0%	47.0	51.0	D
	Through	1,324	1,112	84.0%	20.7	4.6	C
	Right Turn						
	Subtotal	1,598	1,348	84.3%	24.1	8.5	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	691	712	103.0%	32.6	48.8	C
	Right Turn	93	87	93.0%	21.1	24.6	C
	Subtotal	784	798	101.8%	31.0	45.0	C
Total		2,382	2,146	90.1%	26.9	22.3	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 23 **Los Angeles/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	190	172	90.4%	18.8	21.0	B
	Through	1,079	1,010	93.6%	7.7	1.3	A
	Right Turn						
	Subtotal	1,269	1,182	93.2%	9.4	4.2	A
SB	Left Turn						
	Through	155	152	98.1%	17.3	25.8	B
	Right Turn	39	34	86.2%	17.7	23.7	B
	Subtotal	194	186	95.7%	17.5	25.2	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	104	99	94.9%	66.8	30.0	E
	Through	555	597	107.6%	67.5	27.0	E
	Right Turn	53	54	101.1%	60.6	28.4	E
	Subtotal	712	749	105.2%	67.1	27.2	E
Total		2,175	2,117	97.3%	30.6	14.4	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 24 **Alameda/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	23	105.5%	11.4	12.7	B
	Through	508	511	100.7%	5.8	2.6	A
	Right Turn	1,217	1,110	91.2%	6.4	1.0	A
	Subtotal	1,747	1,645	94.1%	6.3	1.4	A
SB	Left Turn	169	149	87.9%	67.9	27.4	E
	Through	676	583	86.2%	10.0	3.2	A
	Right Turn	30	33	110.0%	4.1	2.2	A
	Subtotal	875	764	87.3%	22.0	9.2	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	253	250	98.8%	77.9	24.6	E
	Through	660	700	106.0%	88.3	29.3	F
	Right Turn	303	283	93.5%	201.3	57.0	F
	Subtotal	1,216	1,233	101.4%	112.4	32.6	F
Total		3,838	3,642	94.9%	45.4	11.9	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 25 **Vignes/Ramirez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	102	102	100.2%	38.2	6.3	D
	Through	366	350	95.7%	44.1	12.5	D
	Right Turn	79	82	103.8%	5.3	1.7	A
	Subtotal	547	534	97.7%	36.9	8.6	D
SB	Left Turn	520	380	73.1%	45.1	4.1	D
	Through	272	177	65.1%	21.8	3.1	C
	Right Turn	284	204	71.8%	26.4	5.9	C
	Subtotal	1,076	761	70.7%	34.6	2.3	C
EB	Left Turn	297	280	94.2%	122.7	21.6	F
	Through						
	Right Turn						
	Subtotal	297	280	94.2%	122.7	21.6	F
WB	Left Turn	204	168	82.5%	192.8	94.8	F
	Through	156	149	95.2%	217.5	79.2	F
	Right Turn	507	397	78.4%	284.6	108.3	F
	Subtotal	867	714	82.4%	250.6	100.7	F
Total		2,787	2,289	82.1%	107.8	24.9	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 26 **Broadway/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	890	629	70.6%	180.2	50.6	F
	Right Turn	230	159	69.0%	132.6	37.6	F
	Subtotal	1,120	787	70.3%	170.5	48.3	F
SB	Left Turn	102	90	88.1%	78.1	39.0	E
	Through	611	562	92.0%	9.4	2.2	A
	Right Turn						
	Subtotal	713	652	91.5%	19.7	7.1	B
EB	Left Turn	148	146	98.5%	125.2	104.7	F
	Through	418	413	98.7%	65.0	72.1	E
	Right Turn	46	52	113.5%	23.2	42.7	C
	Subtotal	612	611	99.8%	76.5	76.1	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,445	2,050	83.8%	94.0	31.8	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 27 **Spring/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	113	81	71.5%	5.5	4.0	A
	Through	551	549	99.6%	32.3	28.8	C
	Right Turn						
	Subtotal	664	630	94.8%	29.5	26.1	C
EB	Left Turn						
	Through	668	589	88.2%	7.8	2.8	A
	Right Turn	82	72	87.3%	6.2	3.2	A
	Subtotal	750	661	88.1%	7.6	2.8	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,414	1,291	91.3%	17.5	11.1	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 28 **Main/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,504	1,267	84.2%	61.3	44.8	E
	Right Turn	270	228	84.6%	38.9	44.4	D
	Subtotal	1,774	1,495	84.3%	57.7	41.1	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	94	80	84.7%	38.7	41.2	D
	Through	687	620	90.2%	36.4	34.6	D
	Right Turn						
	Subtotal	781	700	89.6%	36.7	35.0	D
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,555	2,195	85.9%	49.8	34.1	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 29 **Los Angeles/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,188	1,112	93.6%	49.4	19.6	D
	Right Turn	204	356	174.7%	47.0	14.2	D
	Subtotal	1,570	1,468	93.5%	48.8	18.1	D
SB	Left Turn						
	Through	259	249	96.2%	17.5	22.6	B
	Right Turn						
	Subtotal	259	249	96.2%	17.5	22.6	B
EB	Left Turn	586	562	95.9%	65.5	24.1	E
	Through	266	265	99.5%	47.9	16.4	D
	Right Turn	24	19	77.5%	59.7	52.5	E
	Subtotal	957	846	88.4%	59.9	20.2	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,786	2,563	92.0%	49.6	16.1	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 30 **Alameda/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,210	1,128	93.2%	51.6	22.5	D
	Right Turn	127	124	97.3%	23.5	15.8	C
	Subtotal	1,337	1,252	93.6%	48.8	21.9	D
SB	Left Turn	167	149	89.4%	102.5	63.9	F
	Through	762	683	89.6%	8.3	1.0	A
	Right Turn						
	Subtotal	929	832	89.6%	25.9	12.0	C
EB	Left Turn	366	361	98.7%	67.4	42.8	E
	Through	47	46	97.2%	23.3	7.3	C
	Right Turn	31	28	90.0%	5.5	1.9	A
	Subtotal	444	435	98.0%	59.3	36.3	E
WB	Left Turn	93	82	88.0%	188.5	238.6	F
	Through						
	Right Turn	171	156	91.0%	386.4	307.2	F
	Subtotal	264	237	89.9%	314.2	279.2	F
Total		2,974	2,756	92.7%	68.7	30.3	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 31 **US 101 Ramps/Commercial** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	36	99.7%	50.5	35.6	D
	Through	435	426	98.0%	41.0	15.1	D
	Right Turn	25	25	101.6%	79.2	99.6	E
	Subtotal	496	487	98.3%	44.4	22.5	D
SB	Left Turn	130	137	105.2%	148.3	160.9	F
	Through	25	25	99.6%	101.8	119.2	F
	Right Turn	181	173	95.7%	11.1	12.5	B
	Subtotal	336	335	99.7%	66.8	61.1	E
EB	Left Turn	321	301	93.9%	34.1	3.8	C
	Through	66	62	93.8%	99.4	130.0	F
	Right Turn	11	9	79.1%	15.9	28.5	B
	Subtotal	398	372	93.4%	45.9	22.5	D
WB	Left Turn	1	1	130.0%	45.5	90.6	D
	Through	45	39	85.6%	61.8	23.0	E
	Right Turn	345	301	87.1%	31.7	9.9	C
	Subtotal	391	340	87.0%	35.3	10.3	D
Total		1,621	1,535	94.7%	47.3	24.5	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 32 **Broadway/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	14	67.5%	307.6	149.7	F
	Through	808	522	64.6%	656.3	155.7	F
	Right Turn	72	38	53.2%	1012.6	305.9	F
	Subtotal	900	574	63.8%	679.0	174.6	F
SB	Left Turn	45	43	95.3%	10.3	6.7	B
	Through	567	520	91.7%	4.9	1.6	A
	Right Turn	45	51	112.9%	9.9	5.5	A
	Subtotal	657	614	93.4%	5.7	1.6	A
EB	Left Turn	69	70	101.3%	122.9	49.9	F
	Through	765	775	101.3%	47.9	37.7	D
	Right Turn	21	19	90.5%	37.0	28.5	D
	Subtotal	855	864	101.1%	54.6	37.0	D
WB	Left Turn	97	80	82.9%	69.6	19.0	E
	Through	763	675	88.5%	40.9	5.7	D
	Right Turn	243	204	84.1%	147.4	37.7	F
	Subtotal	1,103	960	87.0%	67.4	11.0	E
Total		3,515	3,011	85.7%	160.8	15.0	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 33 **Spring/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	58	50	85.3%	105.6	51.4	F
	Through	466	479	102.8%	70.6	23.2	E
	Right Turn	109	78	71.4%	338.2	236.7	F
	Subtotal	633	606	95.8%	108.0	53.4	F
EB	Left Turn						
	Through	820	801	97.7%	36.5	30.3	D
	Right Turn	62	58	94.0%	37.6	20.1	D
	Subtotal	882	859	97.4%	36.5	29.5	D
WB	Left Turn	49	52	105.3%	21.5	8.4	C
	Through	994	891	89.6%	59.9	28.7	E
	Right Turn						
	Subtotal	1,043	942	90.3%	57.7	27.4	E
Total		2,558	2,408	94.1%	62.6	21.7	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 34 **Main/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	278	235	84.4%	274.1	58.8	F
	Through	1,483	1,214	81.9%	310.7	61.7	F
	Right Turn	136	116	85.5%	290.4	38.7	F
	Subtotal	1,897	1,565	82.5%	303.7	58.8	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	90	85	94.3%	44.1	9.3	D
	Through	788	759	96.3%	74.2	25.8	E
	Right Turn						
	Subtotal	878	844	96.1%	71.4	23.8	E
WB	Left Turn						
	Through	765	719	94.0%	37.8	18.5	D
	Right Turn	201	187	93.2%	38.4	10.7	D
	Subtotal	966	906	93.8%	37.8	15.9	D
Total		3,741	3,315	88.6%	164.8	19.6	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 35 **Los Angeles/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	172	169	98.1%	114.5	72.1	F
	Through	1,165	1,083	93.0%	79.7	33.8	E
	Right Turn	82	79	96.5%	64.3	22.6	E
	Subtotal	1,419	1,331	93.8%	83.8	37.9	F
SB	Left Turn	97	90	92.9%	87.5	37.1	F
	Through	388	370	95.4%	44.5	41.6	D
	Right Turn	342	324	94.7%	109.5	94.4	F
	Subtotal	827	784	94.8%	77.7	62.4	E
EB	Left Turn	134	139	103.7%	143.2	52.2	F
	Through	674	631	93.5%	30.8	1.3	C
	Right Turn	116	106	91.0%	30.0	3.3	C
	Subtotal	924	875	94.7%	49.3	9.9	D
WB	Left Turn	71	66	93.0%	59.9	33.9	E
	Through	452	420	92.8%	79.1	55.1	E
	Right Turn	271	254	93.6%	76.0	55.2	E
	Subtotal	794	739	93.1%	76.2	52.2	E
Total		3,964	3,729	94.1%	71.1	31.3	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 36 **San Pedro/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	166	157	94.3%	71.8	54.1	E
	Through						
	Right Turn	223	245	110.0%	62.1	59.1	E
	Subtotal	389	402	103.3%	65.5	55.3	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	822	771	93.8%	21.9	2.3	C
	Right Turn	31	26	84.2%	19.9	6.4	B
	Subtotal	853	797	93.5%	21.9	2.3	C
WB	Left Turn	39	51	129.7%	21.3	14.3	C
	Through	628	594	94.5%	36.0	67.2	D
	Right Turn						
	Subtotal	667	644	96.6%	34.6	62.0	C
Total		1,909	1,843	96.6%	35.1	24.4	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 37 **Alameda/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	142	137	96.7%	24.1	2.8	C
	Through	968	884	91.3%	32.9	7.3	C
	Right Turn						
	Subtotal	1,110	1,021	92.0%	31.6	6.4	C
SB	Left Turn	47	37	78.9%	36.0	10.9	D
	Through	663	540	81.4%	29.3	1.7	C
	Right Turn	275	216	78.7%	10.1	6.3	B
	Subtotal	985	793	80.5%	24.6	1.8	C
EB	Left Turn	235	235	100.0%	39.5	14.6	D
	Through	576	564	97.9%	40.4	19.5	D
	Right Turn	234	211	90.3%	116.0	56.4	F
	Subtotal	1,045	1,010	96.7%	56.6	26.8	E
WB	Left Turn	32	32	100.6%	88.5	30.5	F
	Through	250	270	107.8%	60.4	6.5	E
	Right Turn	134	137	101.9%	68.8	10.4	E
	Subtotal	416	438	105.3%	65.1	8.9	E
Total		3,556	3,263	91.8%	42.1	7.6	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 38 **Los Angeles/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	34	93.1%	93.3	56.1	F
	Through	1,244	1,202	96.6%	104.2	62.1	F
	Right Turn	62	59	95.8%	103.6	60.7	F
	Subtotal	1,342	1,295	96.5%	103.8	61.7	F
SB	Left Turn	44	40	90.2%	33.7	7.8	C
	Through	510	484	94.9%	17.1	1.6	B
	Right Turn	21	18	83.3%	5.3	3.5	A
	Subtotal	575	541	94.1%	17.9	1.6	B
EB	Left Turn	62	32	52.1%	51.6	8.9	D
	Through	854	682	79.9%	96.8	5.7	F
	Right Turn	51	35	69.4%	62.9	7.2	E
	Subtotal	967	750	77.5%	92.9	4.9	F
WB	Left Turn	15	14	92.0%	46.2	20.6	D
	Through	504	508	100.8%	21.2	2.5	C
	Right Turn	113	106	94.0%	12.9	3.6	B
	Subtotal	632	628	99.4%	20.3	2.4	C
Total		3,516	3,214	91.4%	69.8	24.3	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 39 **San Pedro/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	20	200.0%	28.9	6.0	C
	Through	302	305	101.1%	32.2	6.9	C
	Right Turn	44	44	99.5%	30.2	5.6	C
	Subtotal	356	369	103.7%	31.7	5.5	C
SB	Left Turn	15	14	92.7%	40.3	11.0	D
	Through	40	33	82.5%	20.5	8.5	C
	Right Turn	15	30	198.7%	47.5	17.7	D
	Subtotal	70	77	109.6%	33.8	10.1	C
EB	Left Turn	15	32	210.0%	26.3	16.3	C
	Through	926	758	81.8%	47.5	6.8	D
	Right Turn	19	14	75.8%	2.0	2.0	A
	Subtotal	960	804	83.7%	46.0	6.7	D
WB	Left Turn	31	29	93.5%	19.0	8.3	B
	Through	607	581	95.8%	13.7	2.9	B
	Right Turn	72	70	97.6%	9.7	2.7	A
	Subtotal	710	681	95.9%	13.5	2.7	B
Total		2,096	1,930	92.1%	31.0	3.3	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 40 **Central/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	154	149	97.0%	34.2	5.4	C
	Through						
	Right Turn	22	24	110.0%	16.1	6.6	B
	Subtotal	176	174	98.6%	31.6	4.8	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	970	818	84.3%	59.4	3.7	E
	Right Turn	15	12	80.0%	52.2	9.0	D
	Subtotal	985	830	84.3%	59.3	3.7	E
WB	Left Turn	16	14	88.1%	18.4	10.2	B
	Through	556	547	98.4%	7.4	1.1	A
	Right Turn						
	Subtotal	572	561	98.1%	7.7	1.2	A
Total		1,733	1,565	90.3%	37.5	2.5	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 41 **Alameda/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	73	96.9%	35.2	6.3	D
	Through	637	628	98.6%	26.2	2.5	C
	Right Turn	122	120	98.1%	10.8	2.9	B
	Subtotal	834	821	98.4%	24.8	2.0	C
SB	Left Turn	35	33	94.3%	29.9	8.6	C
	Through	743	685	92.2%	22.6	1.8	C
	Right Turn	151	135	89.5%	10.4	1.8	B
	Subtotal	929	853	91.8%	20.8	1.7	C
EB	Left Turn	396	324	81.7%	26.4	3.5	C
	Through	486	432	88.9%	14.7	1.2	B
	Right Turn	110	87	79.1%	14.4	2.2	B
	Subtotal	992	843	84.9%	19.0	1.9	B
WB	Left Turn						
	Through	346	353	102.1%	17.4	5.8	B
	Right Turn	77	75	97.9%	13.5	1.8	B
	Subtotal	423	429	101.3%	16.7	5.0	B
Total		3,178	2,945	92.7%	20.8	1.3	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **Hill/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	32	32	100.0%	15.9	5.4	B
	Through	665	671	100.9%	16.5	2.7	B
	Right Turn	67	68	101.8%	15.3	3.5	B
	Subtotal	764	771	101.0%	16.4	2.6	B
SB	Left Turn	15	14	90.7%	14.2	17.9	B
	Through	435	456	104.8%	9.2	1.2	A
	Right Turn	26	25	94.2%	8.4	2.6	A
	Subtotal	476	494	103.8%	9.2	1.3	A
EB	Left Turn	47	44	92.6%	22.1	5.9	C
	Through	293	294	100.3%	19.5	2.6	B
	Right Turn	16	16	100.0%	12.9	9.8	B
	Subtotal	356	353	99.2%	19.5	2.6	B
WB	Left Turn	32	28	86.6%	37.1	9.9	D
	Through	340	303	89.0%	30.7	3.3	C
	Right Turn	82	70	85.6%	21.5	4.6	C
	Subtotal	454	401	88.2%	29.3	3.3	C
Total		2,050	2,019	98.5%	17.8	1.1	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 2 **Broadway/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	58	41	70.7%	26.5	4.8	C
	Through	1,134	891	78.6%	25.4	3.0	C
	Right Turn	100	88	88.1%	20.3	3.5	C
	Subtotal	1,292	1,020	79.0%	25.0	3.1	C
SB	Left Turn	55	51	93.3%	69.5	18.0	E
	Through	649	663	102.2%	55.4	20.1	E
	Right Turn	48	46	96.5%	42.5	19.9	D
	Subtotal	752	761	101.2%	55.6	19.8	E
EB	Left Turn	79	82	103.4%	17.7	5.4	B
	Through	254	257	101.2%	12.6	2.4	B
	Right Turn	42	40	96.0%	16.3	10.9	B
	Subtotal	375	379	101.1%	14.1	2.4	B
WB	Left Turn	52	58	111.5%	29.7	7.2	C
	Through	348	315	90.6%	29.0	5.4	C
	Right Turn	254	226	89.0%	29.7	7.7	C
	Subtotal	654	599	91.7%	29.5	5.7	C
Total		3,073	2,760	89.8%	32.7	6.6	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 3 **Spring/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	5	65.7%	28.5	27.9	C
	Through						
	Right Turn	102	73	71.8%	30.2	31.5	C
	Subtotal	109	78	71.4%	30.7	30.5	C
SB	Left Turn	17	16	94.7%	38.3	21.0	D
	Through	29	26	89.7%	34.2	8.1	C
	Right Turn	8	8	102.5%	16.2	18.0	B
	Subtotal	54	50	93.1%	33.2	8.4	C
EB	Left Turn	10	11	110.0%	26.5	17.7	C
	Through	390	373	95.5%	18.7	3.1	B
	Right Turn	15	12	81.3%	19.2	16.8	B
	Subtotal	415	396	95.3%	19.0	3.0	B
WB	Left Turn	7	6	90.0%	12.0	13.6	B
	Through	646	581	90.0%	11.6	2.4	B
	Right Turn	13	11	83.1%	5.9	4.8	A
	Subtotal	666	598	89.8%	11.4	2.2	B
Total		1,244	1,122	90.2%	16.5	3.1	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 4 **Alameda/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	179	149	83.4%	15.9	2.0	B
	Through	1,102	896	81.3%	12.8	2.0	B
	Right Turn	49	42	84.9%	10.0	7.1	A
	Subtotal	1,330	1,087	81.7%	13.1	1.9	B
SB	Left Turn	116	114	98.5%	33.0	9.9	C
	Through	500	520	104.0%	14.3	1.7	B
	Right Turn	57	69	121.1%	9.8	3.5	A
	Subtotal	673	704	104.5%	17.2	2.5	B
EB	Left Turn	102	98	96.2%	17.0	4.4	B
	Through	335	315	94.1%	17.4	4.5	B
	Right Turn	72	69	95.7%	7.4	4.0	A
	Subtotal	509	482	94.7%	16.0	3.6	B
WB	Left Turn	55	49	88.2%	27.3	9.1	C
	Through	430	381	88.5%	20.4	1.4	C
	Right Turn	393	352	89.6%	10.8	1.5	B
	Subtotal	878	781	89.0%	16.5	1.3	B
Total		3,390	3,054	90.1%	15.4	1.6	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 5 **Main/Alpine** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	2	40.0%	10.4	22.2	B
	Through	657	449	68.4%	22.0	1.4	C
	Right Turn	35	26	73.1%	19.8	10.0	B
	Subtotal	697	477	68.4%	21.9	1.3	C
SB	Left Turn	201	196	97.5%	32.7	10.8	C
	Through	275	269	97.9%	21.8	1.6	C
	Right Turn	186	183	98.2%	14.0	3.6	B
	Subtotal	662	648	97.8%	23.4	4.6	C
EB	Left Turn	228	217	95.3%	65.6	13.1	E
	Through	271	254	93.9%	22.7	7.3	C
	Right Turn	1	1	90.0%	5.0	9.4	A
	Subtotal	500	473	94.5%	42.8	9.5	D
WB	Left Turn						
	Through	687	595	86.7%	32.4	6.1	C
	Right Turn	370	316	85.4%	37.6	11.4	D
	Subtotal	1,057	911	86.2%	34.2	7.8	C
Total		2,916	2,508	86.0%	30.8	4.0	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 6 **Vignes/Bauchet** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	31	22	71.3%	15.7	7.7	B
	Through	980	821	83.8%	12.2	2.3	B
	Right Turn	57	50	87.4%	5.6	1.5	A
	Subtotal	1,068	893	83.6%	11.9	2.3	B
SB	Left Turn	27	25	92.2%	20.1	7.0	C
	Through	463	435	93.9%	11.4	2.2	B
	Right Turn	5	5	92.0%	5.5	5.2	A
	Subtotal	495	464	93.8%	11.9	2.2	B
EB	Left Turn	11	13	119.1%	17.8	9.1	B
	Through	5	5	106.0%	17.4	15.8	B
	Right Turn	20	20	98.0%	5.5	2.2	A
	Subtotal	36	38	105.6%	12.3	4.7	B
WB	Left Turn	263	263	100.0%	23.8	4.6	C
	Through	6	7	108.3%	11.1	12.8	B
	Right Turn	81	80	99.1%	6.0	1.0	A
	Subtotal	350	350	99.9%	19.7	3.9	B
Total		1,949	1,745	89.5%	13.6	1.2	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 7 **Vignes/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	346	277	80.1%	212.3	81.5	F
	Through	719	638	88.7%	59.4	10.8	E
	Right Turn	208	185	88.8%	19.9	2.9	B
	Subtotal	1,273	1,100	86.4%	89.9	14.8	F
SB	Left Turn	296	269	91.0%	40.7	3.4	D
	Through	426	388	91.0%	32.6	2.2	C
	Right Turn	62	54	86.3%	25.2	16.0	C
	Subtotal	784	711	90.6%	35.1	2.2	D
EB	Left Turn	45	37	82.2%	31.2	7.9	C
	Through	948	726	76.5%	32.9	6.3	C
	Right Turn	325	266	81.8%	16.6	6.0	B
	Subtotal	1,318	1,029	78.0%	28.5	5.2	C
WB	Left Turn	198	184	92.9%	34.8	8.5	C
	Through	878	731	83.2%	78.2	23.2	E
	Right Turn	304	246	80.8%	7.5	1.0	A
	Subtotal	1,380	1,160	84.1%	56.8	16.0	E
Total		4,755	3,999	84.1%	53.7	5.1	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 8 **Lyon/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	3	3	110.0%	33.6	41.7	C
	Through						
	Right Turn	4	4	92.5%	3.5	3.8	A
	Subtotal	7	7	100.0%	26.5	28.9	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,450	1,180	81.4%	1.8	0.4	A
	Right Turn	2	2	75.0%	2.6	4.1	A
	Subtotal	1,452	1,182	81.4%	1.8	0.4	A
WB	Left Turn	14	0	0.0%	0.0	0.0	A
	Through	1,377	1,148	83.3%	322.5	123.8	F
	Right Turn	7	0	0.0%	0.0	0.0	A
	Subtotal	1,398	1,148	82.1%	322.5	123.8	F
Total		2,857	2,336	81.8%	148.2	32.1	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 9 **Mission/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	348	218	62.8%	1090.1	299.2	F
	Through	581	452	77.8%	104.2	26.5	F
	Right Turn	83	67	81.2%	62.2	24.3	E
	Subtotal	1,012	738	72.9%	425.7	186.0	F
SB	Left Turn	46	49	106.3%	43.4	11.1	D
	Through	476	460	96.7%	48.4	4.1	D
	Right Turn	366	368	100.4%	188.2	171.1	F
	Subtotal	888	877	98.7%	97.3	54.4	F
EB	Left Turn	445	386	86.7%	40.9	5.6	D
	Through	663	529	79.7%	39.4	3.0	D
	Right Turn	346	265	76.4%	29.9	3.9	C
	Subtotal	1,454	1,179	81.1%	37.9	2.7	D
WB	Left Turn	172	162	94.1%	129.4	67.2	F
	Through	684	646	94.4%	176.5	99.1	F
	Right Turn	27	24	89.6%	178.0	105.7	F
	Subtotal	883	832	94.2%	166.5	90.1	F
Total		4,237	3,625	85.6%	129.7	38.5	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 10 **Alameda/Alhambra** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,315	1,071	81.5%	11.1	1.4	B
	Right Turn						
	Subtotal	1,315	1,071	81.5%	11.1	1.4	B
SB	Left Turn						
	Through	622	632	101.6%	2.8	0.7	A
	Right Turn	5	5	102.0%	0.2	0.6	A
	Subtotal	627	637	101.6%	2.8	0.7	A
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	260	255	98.0%	43.6	2.8	D
	Through	1	1	110.0%	8.9	19.6	A
	Right Turn	15	15	97.3%	39.3	15.4	D
	Subtotal	276	271	98.0%	43.4	3.1	D
Total		2,218	1,978	89.2%	13.1	1.4	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 11 **Hill/Ord** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	21	23	107.1%	13.4	3.8	B
	Through	655	670	102.4%	12.9	1.7	B
	Right Turn	64	63	98.9%	12.0	2.5	B
	Subtotal	740	756	102.2%	12.8	1.6	B
SB	Left Turn	51	52	102.2%	18.8	7.4	B
	Through	411	420	102.3%	8.5	2.0	A
	Right Turn	21	21	100.5%	8.3	4.6	A
	Subtotal	483	494	102.2%	9.5	1.8	A
EB	Left Turn	15	16	107.3%	24.1	11.2	C
	Through	213	214	100.6%	19.1	4.0	B
	Right Turn	31	32	101.9%	17.4	3.8	B
	Subtotal	259	262	101.1%	19.0	3.7	B
WB	Left Turn	30	25	84.0%	24.4	8.2	C
	Through	185	157	84.8%	16.6	4.8	B
	Right Turn	94	77	82.0%	6.4	2.7	A
	Subtotal	309	259	83.9%	14.8	4.2	B
Total		1,791	1,771	98.9%	13.1	1.0	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 12 **Broadway/Ord** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	119	88	74.3%	69.6	17.1	E
	Through	1,040	780	75.0%	46.5	6.5	D
	Right Turn	65	50	76.9%	38.1	6.6	D
	Subtotal	1,224	918	75.0%	48.3	6.3	D
SB	Left Turn	61	84	137.4%	94.8	28.0	F
	Through	636	632	99.4%	53.6	18.1	D
	Right Turn	46	43	94.3%	46.3	11.8	D
	Subtotal	743	759	102.2%	58.1	17.8	E
EB	Left Turn	121	118	97.8%	19.7	3.3	B
	Through	124	124	99.6%	22.9	5.9	C
	Right Turn	83	87	104.5%	18.2	6.6	B
	Subtotal	328	329	100.2%	20.6	4.7	C
WB	Left Turn	39	29	73.6%	39.9	14.1	D
	Through	144	101	70.2%	43.1	22.2	D
	Right Turn	131	96	73.2%	39.5	17.7	D
	Subtotal	314	226	71.9%	40.7	16.6	D
Total		2,609	2,232	85.5%	46.8	8.0	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 13 **Alameda/Main** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,091	858	78.7%	4.1	0.7	A
	Right Turn	13	10	73.8%	3.8	4.2	A
	Subtotal	1,104	868	78.6%	4.1	0.7	A
SB	Left Turn	16	17	107.5%	25.6	14.2	C
	Through	882	877	99.5%	33.5	12.5	C
	Right Turn						
	Subtotal	898	895	99.6%	33.4	12.2	C
EB	Left Turn	948	698	73.6%	36.9	1.7	D
	Through	23	19	80.4%	49.9	29.9	D
	Right Turn	37	31	82.4%	53.8	55.3	D
	Subtotal	1,008	747	74.1%	38.3	3.9	D
WB	Left Turn	42	43	101.4%	54.3	15.5	D
	Through						
	Right Turn	73	74	101.2%	6.9	0.5	A
	Subtotal	115	117	101.3%	25.7	7.5	C
Total		3,125	2,626	84.0%	24.4	5.6	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 14 **Broadway/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	192	154	80.4%	104.8	19.7	F
	Through	855	691	80.9%	114.7	21.9	F
	Right Turn	182	149	81.8%	102.2	22.2	F
	Subtotal	1,229	995	80.9%	111.4	21.1	F
SB	Left Turn	112	109	97.3%	138.7	57.5	F
	Through	443	436	98.5%	47.1	13.6	D
	Right Turn	203	194	95.6%	36.1	11.7	D
	Subtotal	758	739	97.5%	58.6	17.6	E
EB	Left Turn	210	105	49.8%	751.1	133.3	F
	Through	1,055	458	43.4%	234.0	55.8	F
	Right Turn	64	34	53.3%	112.3	28.1	F
	Subtotal	1,329	596	44.9%	316.0	70.4	F
WB	Left Turn	139	116	83.4%	28.9	8.0	C
	Through	1,203	989	82.2%	18.2	1.9	B
	Right Turn	159	123	77.5%	14.8	5.4	B
	Subtotal	1,501	1,228	81.8%	18.9	1.9	B
Total		4,817	3,558	73.9%	100.5	7.2	F

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 15 **Spring/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	30	26	88.0%	38.7	9.1	D
	Through	99	96	96.7%	42.8	12.4	D
	Right Turn	72	65	90.7%	32.0	5.9	C
	Subtotal	201	187	93.2%	38.3	6.7	D
EB	Left Turn						
	Through	1,126	731	64.9%	9.1	1.3	A
	Right Turn	223	140	62.7%	5.0	2.1	A
	Subtotal	1,349	871	64.5%	8.4	1.2	A
WB	Left Turn	179	178	99.2%	52.6	6.5	D
	Through	1,429	1,138	79.7%	61.1	8.2	E
	Right Turn	100	75	74.9%	24.0	4.6	C
	Subtotal	1,708	1,391	81.4%	57.9	7.1	E
Total		3,258	2,449	75.2%	39.8	4.7	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 16 **Main/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	427	336	78.7%	43.0	18.7	D
	Through	880	654	74.3%	31.2	18.3	C
	Right Turn	278	217	78.2%	22.3	7.9	C
	Subtotal	1,585	1,207	76.2%	32.7	14.8	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	105	72	68.2%	61.6	26.0	E
	Through	1,051	714	68.0%	21.3	5.9	C
	Right Turn						
	Subtotal	1,156	786	68.0%	25.0	7.2	C
WB	Left Turn						
	Through	1,296	1,014	78.2%	33.3	5.5	C
	Right Turn	23	20	88.7%	13.0	10.6	B
	Subtotal	1,319	1,034	78.4%	32.9	5.4	C
Total		4,060	3,027	74.6%	30.8	7.2	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 17 **Alameda/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	126	111	88.3%	165.5	104.7	F
	Through	832	688	82.7%	46.8	11.1	D
	Right Turn	144	128	88.7%	45.4	15.2	D
	Subtotal	1,102	927	84.1%	62.4	15.4	E
SB	Left Turn	100	99	98.9%	24.5	8.4	C
	Through	699	686	98.1%	52.4	21.3	D
	Right Turn	162	160	98.5%	28.6	12.8	C
	Subtotal	961	944	98.2%	45.8	18.5	D
EB	Left Turn	150	96	63.7%	38.9	17.5	D
	Through	969	707	73.0%	16.5	2.3	B
	Right Turn	210	140	66.6%	3.9	1.4	A
	Subtotal	1,329	943	70.9%	16.7	2.8	B
WB	Left Turn	173	125	72.0%	37.5	3.8	D
	Through	1,031	783	75.9%	79.8	9.7	E
	Right Turn	122	85	69.5%	60.1	11.6	E
	Subtotal	1,326	992	74.8%	72.3	8.2	E
Total		4,718	3,806	80.7%	49.9	6.1	D

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 18 **Union Station Driveway/Cesar Chavez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	64	1	2.2%	2.3	7.1	A
	Through						
	Right Turn	152	0	0.1%	0.0	0.0	A
	Subtotal	216	2	0.7%	2.3	7.1	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	1,166	963	82.6%	252.9	83.4	F
	Right Turn	47	38	81.5%	187.9	76.6	F
	Subtotal	1,213	1,001	82.5%	250.2	82.6	F
WB	Left Turn	49	32	64.3%	2.7	1.6	A
	Through	1,237	900	72.7%	3.7	1.7	A
	Right Turn						
	Subtotal	1,286	931	72.4%	3.7	1.7	A
Total		2,715	1,934	71.2%	115.5	21.6	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 19 **Alameda/Los Angeles** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	631	606	96.0%	29.6	6.4	C
	Right Turn	15	11	71.3%	16.5	13.5	B
	Subtotal	646	617	95.4%	29.4	6.3	C
SB	Left Turn	72	71	98.3%	66.0	13.4	E
	Through	836	718	85.9%	23.6	3.5	C
	Right Turn	174	160	91.8%	37.5	11.0	D
	Subtotal	1,082	948	87.7%	29.6	5.8	C
EB	Left Turn	441	290	65.6%	102.1	5.0	F
	Through	94	59	62.9%	131.0	13.1	F
	Right Turn	110	72	65.5%	127.7	11.7	F
	Subtotal	645	421	65.2%	110.3	5.2	F
WB	Left Turn	122	112	91.5%	23.1	3.3	C
	Through	32	31	95.6%	24.3	6.5	C
	Right Turn	30	33	108.7%	42.1	8.4	D
	Subtotal	184	175	95.0%	27.2	2.1	C
Total		2,557	2,160	84.5%	45.5	3.3	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 20 **Broadway/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn Through Right Turn	1,038	832	80.2%	27.1	10.2	C
	Subtotal	1,038	832	80.2%	27.1	10.2	C
SB	Left Turn Through Right Turn	508	462	91.0%	11.9	3.2	B
	Subtotal	508	462	91.0%	11.9	3.2	B
EB	Left Turn Through Right Turn						
	Subtotal						
WB	Left Turn	205	168	82.0%	25.3	10.1	C
	Through						
	Right Turn	650	534	82.1%	35.5	26.1	D
	Subtotal	855	702	82.1%	32.9	21.6	C
Total		2,401	1,996	83.1%	25.6	12.4	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 21 **Spring/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through	451	304	67.3%	24.9	6.9	C
	Right Turn	103	77	75.1%	4.4	2.7	A
	Subtotal	554	381	68.8%	20.7	5.5	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	213	225	105.7%	22.8	14.8	C
	Through	752	626	83.3%	28.5	17.7	C
	Right Turn						
	Subtotal	965	852	88.2%	26.9	16.6	C
Total		1,519	1,233	81.1%	24.8	11.3	C

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 22 **Main/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	274	208	76.1%	23.8	20.6	C
	Through	1,324	988	74.6%	17.9	5.0	B
	Right Turn						
	Subtotal	1,598	1,196	74.8%	19.0	7.1	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through	691	644	93.3%	11.0	14.2	B
	Right Turn	93	76	81.6%	12.1	17.4	B
	Subtotal	784	720	91.9%	11.1	14.5	B
Total		2,382	1,916	80.5%	16.1	9.1	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 23 **Los Angeles/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	190	120	63.2%	11.5	3.1	B
	Through	1,079	684	63.4%	21.4	6.2	C
	Right Turn						
	Subtotal	1,269	804	63.4%	19.9	5.3	B
SB	Left Turn						
	Through	155	148	95.7%	14.8	2.8	B
	Right Turn	39	32	81.3%	19.3	6.0	B
	Subtotal	194	180	92.8%	15.6	2.4	B
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	104	99	95.1%	57.8	12.8	E
	Through	555	568	102.3%	59.0	10.7	E
	Right Turn	53	49	92.6%	66.3	17.6	E
	Subtotal	712	716	100.5%	59.3	11.3	E
Total		2,175	1,700	78.2%	36.0	4.0	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 24 **Alameda/Arcadia** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	22	23	105.0%	8.6	6.4	A
	Through	508	494	97.2%	4.3	0.7	A
	Right Turn	1,217	1,067	87.7%	6.0	0.5	A
	Subtotal	1,747	1,584	90.7%	5.5	0.5	A
SB	Left Turn	169	145	85.6%	33.6	16.6	C
	Through	676	547	81.0%	17.1	2.8	B
	Right Turn	30	36	118.3%	13.2	10.2	B
	Subtotal	875	727	83.1%	20.2	4.8	C
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn	253	235	92.7%	148.6	24.8	F
	Through	660	656	99.3%	193.9	18.8	F
	Right Turn	303	278	91.7%	236.8	21.4	F
	Subtotal	1,216	1,168	96.1%	195.2	18.7	F
Total		3,838	3,480	90.7%	73.6	6.3	E

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 25 **Vignes/Ramirez** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	102	102	99.7%	44.4	8.7	D
	Through	491	480	97.7%	51.0	37.8	D
	Right Turn	79	78	99.2%	6.0	6.1	A
	Subtotal	672	660	98.2%	45.0	30.6	D
SB	Left Turn	520	292	56.1%	45.1	4.7	D
	Through	471	261	55.5%	25.6	4.6	C
	Right Turn	284	207	73.0%	28.7	5.9	C
	Subtotal	1,275	760	59.6%	33.9	2.9	C
EB	Left Turn	297	285	96.0%	101.1	30.8	F
	Through						
	Right Turn						
	Subtotal	297	285	96.0%	101.1	30.8	F
WB	Left Turn	204	173	84.6%	192.6	106.8	F
	Through	156	157	100.8%	236.8	125.8	F
	Right Turn	507	392	77.3%	323.0	255.5	F
	Subtotal	867	722	83.3%	271.4	183.1	F
Total		3,111	2,427	78.0%	97.9	31.4	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 26 **Broadway/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	890	689	77.4%	158.2	63.0	F
	Right Turn	230	169	73.5%	112.1	43.9	F
	Subtotal	1,120	858	76.6%	149.4	59.5	F
SB	Left Turn	102	90	88.3%	64.6	19.3	E
	Through	611	539	88.3%	8.0	1.3	A
	Right Turn						
	Subtotal	713	629	88.3%	15.6	3.4	B
EB	Left Turn	148	146	98.9%	88.5	87.1	F
	Through	418	426	101.8%	48.7	54.2	D
	Right Turn	46	54	118.0%	17.8	35.0	B
	Subtotal	612	626	102.3%	55.2	60.2	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,445	2,114	86.5%	77.7	29.7	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 27 **Spring/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	113	81	71.5%	9.3	19.7	A
	Through	551	527	95.6%	15.9	4.6	B
	Right Turn						
	Subtotal	664	608	91.5%	15.0	6.4	B
EB	Left Turn						
	Through	668	612	91.6%	8.1	6.2	A
	Right Turn	82	72	87.9%	4.4	4.4	A
	Subtotal	750	684	91.2%	7.7	6.0	A
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		1,414	1,292	91.4%	11.2	5.8	B

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 28 **Main/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,504	1,106	73.6%	40.0	24.2	D
	Right Turn	270	199	73.8%	21.1	10.4	C
	Subtotal	1,774	1,306	73.6%	37.5	21.5	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	94	86	91.2%	30.0	38.6	C
	Through	687	642	93.5%	26.8	29.7	C
	Right Turn						
	Subtotal	781	728	93.2%	27.3	31.0	C
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,555	2,034	79.6%	34.1	22.5	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 29 **Los Angeles/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,188	735	61.9%	112.6	33.5	F
	Right Turn	204	235	115.2%	79.4	10.6	E
	Subtotal	1,570	970	61.8%	104.5	27.4	F
SB	Left Turn						
	Through	259	247	95.4%	8.0	1.1	A
	Right Turn						
	Subtotal	259	247	95.4%	8.0	1.1	A
EB	Left Turn	586	558	95.3%	70.0	21.8	E
	Through	266	266	99.8%	34.8	11.4	C
	Right Turn	24	19	78.8%	35.7	13.6	D
	Subtotal	957	843	88.1%	58.5	17.1	E
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total		2,786	2,060	73.9%	73.5	12.6	E

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 30 **Alameda/Aliso** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	1,210	1,106	91.4%	35.3	8.0	D
	Right Turn	127	121	95.4%	11.4	5.2	B
	Subtotal	1,337	1,227	91.8%	32.9	7.7	C
SB	Left Turn	167	149	89.0%	72.8	23.3	E
	Through	762	635	83.3%	12.2	5.5	B
	Right Turn						
	Subtotal	929	784	84.4%	25.0	5.1	C
EB	Left Turn	366	313	85.6%	43.3	22.9	D
	Through	47	39	82.1%	13.4	4.1	B
	Right Turn	31	22	71.0%	9.9	13.2	A
	Subtotal	444	374	84.2%	38.6	19.7	D
WB	Left Turn	93	86	92.8%	84.6	128.3	F
	Through						
	Right Turn	171	165	96.3%	209.1	201.5	F
	Subtotal	264	251	95.0%	166.1	177.8	F
Total		2,974	2,636	88.6%	44.7	21.5	D

Vissim Post-Processor | **Union Station Master Plan**
Average Results from 10 Runs | **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement | **PM Peak Hour**

Intersection 31 **US 101 Ramps/Commercial** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	37	101.7%	34.3	8.0	C
	Through	435	433	99.5%	45.8	31.4	D
	Right Turn	25	24	94.4%	29.3	34.1	C
	Subtotal	496	493	99.4%	45.2	30.7	D
SB	Left Turn	130	135	103.5%	132.8	214.8	F
	Through	25	21	85.6%	135.2	236.3	F
	Right Turn	181	180	99.3%	14.3	27.1	B
	Subtotal	336	336	99.9%	73.6	122.3	E
EB	Left Turn	321	295	92.0%	34.8	2.8	C
	Through	66	60	91.2%	78.6	112.0	E
	Right Turn	11	10	86.4%	5.4	10.3	A
	Subtotal	398	365	91.7%	39.8	13.0	D
WB	Left Turn	1	1	90.0%	4.1	13.0	A
	Through	45	38	84.4%	50.6	11.4	D
	Right Turn	345	290	83.9%	26.9	3.7	C
	Subtotal	391	329	84.0%	29.9	4.3	C
Total		1,621	1,522	93.9%	45.2	34.1	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 32 **Broadway/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	16	80.5%	336.5	121.7	F
	Through	808	623	77.1%	538.9	196.9	F
	Right Turn	72	48	67.2%	829.7	301.6	F
	Subtotal	900	688	76.4%	555.1	202.1	F
SB	Left Turn	45	40	88.2%	51.3	27.9	D
	Through	567	504	88.8%	4.8	1.3	A
	Right Turn	45	49	108.4%	6.7	2.3	A
	Subtotal	657	592	90.1%	8.1	1.6	A
EB	Left Turn	69	62	90.3%	251.3	91.6	F
	Through	765	648	84.6%	241.6	142.9	F
	Right Turn	21	14	64.8%	210.5	120.5	F
	Subtotal	855	723	84.6%	242.3	137.1	F
WB	Left Turn	97	75	77.5%	42.0	15.6	D
	Through	763	647	84.8%	22.5	10.4	C
	Right Turn	243	191	78.6%	67.6	50.9	E
	Subtotal	1,103	913	82.8%	33.9	18.3	C
Total		3,515	2,916	83.0%	189.3	57.2	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 33 **Spring/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	58	46	78.8%	104.4	30.6	F
	Through	466	470	100.9%	48.3	2.6	D
	Right Turn	109	84	76.8%	52.9	59.0	D
	Subtotal	633	600	94.7%	52.9	7.8	D
EB	Left Turn						
	Through	820	674	82.2%	107.7	48.9	F
	Right Turn	62	52	84.5%	85.7	51.2	F
	Subtotal	882	726	82.3%	105.9	48.1	F
WB	Left Turn	49	46	93.7%	9.7	4.0	A
	Through	994	837	84.2%	14.1	13.8	B
	Right Turn						
	Subtotal	1,043	883	84.7%	13.8	13.1	B
Total		2,558	2,209	86.4%	51.4	9.2	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 34 **Main/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	278	203	72.8%	290.2	77.8	F
	Through	1,483	1,051	70.9%	368.1	112.5	F
	Right Turn	136	98	71.7%	385.8	131.3	F
	Subtotal	1,897	1,351	71.2%	358.7	109.1	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	90	72	80.3%	72.4	26.1	E
	Through	788	644	81.7%	117.3	30.3	F
	Right Turn						
	Subtotal	878	716	81.5%	113.0	29.4	F
WB	Left Turn						
	Through	765	681	89.0%	18.3	6.1	B
	Right Turn	201	158	78.6%	28.4	5.1	C
	Subtotal	966	839	86.9%	20.2	5.9	C
Total		3,741	2,906	77.7%	196.8	42.3	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 35 **Los Angeles/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	172	91	52.8%	216.3	65.2	F
	Through	1,165	610	52.3%	252.2	77.1	F
	Right Turn	82	46	55.6%	186.0	67.1	F
	Subtotal	1,419	746	52.6%	244.5	75.0	F
SB	Left Turn	97	93	96.2%	37.0	13.6	D
	Through	388	379	97.7%	32.5	20.9	C
	Right Turn	342	338	98.8%	38.1	15.4	D
	Subtotal	827	811	98.0%	35.5	17.4	D
EB	Left Turn	134	112	83.8%	276.2	98.2	F
	Through	674	538	79.8%	28.9	2.1	C
	Right Turn	116	90	77.5%	27.8	3.0	C
	Subtotal	924	740	80.1%	65.4	13.3	E
WB	Left Turn	71	64	90.4%	56.9	20.1	E
	Through	452	412	91.2%	65.1	36.2	E
	Right Turn	271	249	91.8%	147.0	73.6	F
	Subtotal	794	725	91.3%	92.7	44.5	F
Total		3,964	3,022	76.2%	105.5	24.8	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 36 **San Pedro/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	166	157	94.6%	73.6	43.0	E
	Through						
	Right Turn	223	242	108.7%	46.7	23.0	D
	Subtotal	389	400	102.7%	57.3	30.4	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	822	654	79.6%	20.4	3.3	C
	Right Turn	31	22	71.3%	18.4	6.4	B
	Subtotal	853	676	79.3%	20.4	3.3	C
WB	Left Turn	39	49	126.7%	28.8	24.8	C
	Through	628	575	91.5%	77.9	85.0	E
	Right Turn						
	Subtotal	667	624	93.6%	74.4	80.5	E
Total		1,909	1,700	89.1%	49.6	37.9	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 37 **Alameda/Temple** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	142	133	93.6%	27.8	12.7	C
	Through	968	886	91.5%	29.9	2.0	C
	Right Turn						
	Subtotal	1,110	1,019	91.8%	29.8	1.9	C
SB	Left Turn	47	34	71.3%	51.3	42.5	D
	Through	663	493	74.4%	41.4	32.2	D
	Right Turn	275	205	74.7%	83.0	164.4	F
	Subtotal	985	732	74.3%	55.0	70.5	D
EB	Left Turn	235	207	88.0%	29.0	4.5	C
	Through	576	503	87.3%	26.3	5.9	C
	Right Turn	234	188	80.3%	70.4	27.6	E
	Subtotal	1,045	898	85.9%	36.2	9.3	D
WB	Left Turn	32	32	98.8%	67.9	17.1	E
	Through	250	272	108.7%	68.2	26.1	E
	Right Turn	134	133	99.4%	68.2	17.2	E
	Subtotal	416	437	104.9%	68.6	21.9	E
Total		3,556	3,085	86.8%	43.1	20.2	D

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 38 **Los Angeles/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	19	52.5%	315.8	97.2	F
	Through	1,244	618	49.7%	431.2	82.8	F
	Right Turn	62	32	50.8%	391.7	87.9	F
	Subtotal	1,342	668	49.8%	426.2	81.5	F
SB	Left Turn	44	38	86.1%	23.6	11.7	C
	Through	510	476	93.4%	17.7	1.4	B
	Right Turn	21	19	89.0%	4.4	1.5	A
	Subtotal	575	533	92.7%	17.8	1.6	B
EB	Left Turn	62	35	55.8%	65.4	16.5	E
	Through	854	692	81.0%	97.5	8.5	F
	Right Turn	51	39	76.9%	52.6	6.3	D
	Subtotal	967	765	79.2%	93.8	8.9	F
WB	Left Turn	15	13	86.0%	34.5	24.1	C
	Through	504	500	99.1%	35.5	17.7	D
	Right Turn	113	104	92.2%	42.6	17.9	D
	Subtotal	632	617	97.6%	36.9	16.1	D
Total		3,516	2,583	73.5%	143.7	15.6	F

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 39 **San Pedro/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	19	190.0%	36.4	39.8	D
	Through	302	300	99.2%	45.1	31.8	D
	Right Turn	44	46	103.6%	34.1	39.0	C
	Subtotal	356	364	102.3%	43.5	32.9	D
SB	Left Turn	15	11	75.3%	43.3	20.3	D
	Through	40	31	78.3%	22.5	10.3	C
	Right Turn	15	29	194.0%	45.5	9.4	D
	Subtotal	70	72	102.4%	35.3	7.5	D
EB	Left Turn	15	30	199.3%	15.5	5.4	B
	Through	926	744	80.3%	27.2	19.3	C
	Right Turn	19	12	63.7%	3.8	5.1	A
	Subtotal	960	786	81.8%	26.5	18.4	C
WB	Left Turn	31	29	92.9%	29.9	14.8	C
	Through	607	576	94.8%	17.7	11.4	B
	Right Turn	72	73	100.7%	13.7	8.2	B
	Subtotal	710	677	95.3%	17.7	10.6	B
Total		2,096	1,898	90.6%	27.4	11.7	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 40 **Central/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	154	150	97.1%	32.6	5.6	C
	Through						
	Right Turn	22	22	98.6%	22.7	11.2	C
	Subtotal	176	171	97.3%	31.4	6.0	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	970	806	83.1%	47.5	13.2	D
	Right Turn	15	11	74.0%	38.3	15.4	D
	Subtotal	985	817	83.0%	47.4	13.1	D
WB	Left Turn	16	15	94.4%	21.5	8.4	C
	Through	556	543	97.6%	8.4	1.3	A
	Right Turn						
	Subtotal	572	558	97.6%	8.7	1.4	A
Total		1,733	1,547	89.2%	31.5	7.3	C

Vissim Post-Processor **Union Station Master Plan**
Average Results from 10 Runs **Future + Project Unfunded ConnectUS**
Volume and Delay by Movement **PM Peak Hour**

Intersection 41 **Alameda/1st** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	75	74	98.0%	35.5	6.5	D
	Through	637	625	98.1%	24.9	1.7	C
	Right Turn	122	120	98.4%	10.3	1.4	B
	Subtotal	834	818	98.1%	23.7	1.0	C
SB	Left Turn	35	29	83.4%	28.2	8.7	C
	Through	743	632	85.0%	22.1	2.6	C
	Right Turn	151	125	82.5%	11.3	2.8	B
	Subtotal	929	785	84.5%	20.7	2.2	C
EB	Left Turn	396	323	81.6%	24.0	4.0	C
	Through	486	416	85.6%	14.0	2.6	B
	Right Turn	110	89	81.3%	12.2	1.4	B
	Subtotal	992	828	83.5%	17.9	2.7	B
WB	Left Turn						
	Through	346	360	104.0%	15.6	2.8	B
	Right Turn	77	75	97.7%	13.4	3.9	B
	Subtotal	423	435	102.9%	15.2	2.8	B
Total		3,178	2,867	90.2%	19.9	1.6	B