CRYSTAL VIEW TERRACE/GREEN ORCHARD PLACE/OVERLOOK PARKWAY PROJECT TIA

RIVERSIDE, CALIFORNIA

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1.0 INTRODUCTION

This Traffic Impact Analysis (TIA) summarizes the results of the traffic analyses for the proposed Crystal View/Green Orchard/Overlook Project (Project). The project area is generally located in the southeastern portion of the city and is bounded by John F Kennedy Drive and Hermosa Drive to the south, Adams Street to the West, Arlington Avenue and SR 91 to the north, and Alessandro Boulevard and Trautwein Road to the east. Crystal View Terrace and Green Orchard Place are generally north-south roadways that tie to Overlook Parkway. Overlook Parkway currently runs east-west from Alessandro Boulevard to Washington Street, however part of the roadway has not been constructed between Brittanee Delk Court and Sandtrack Road and the arroyo east of Crystal View Terrace. Currently, a direct connection to I-91 does not exist from Overlook Parkway.

The project involves the evaluation of four circulation scenarios associated with Overlook Parkway. As a result of the approval of two separate tract maps, gates at Crystal View Terrace and Green Orchard Place were installed to address cut-through traffic until Overlook Parkway was completed across the Alessandro Arroyo. The current analysis is being undertaken to determine whether the mitigation measures in the prior CEQA documents for the two tracts are still necessary or can be modified to remove the gates prior to the completion of Overlook Parkway.

The four circulation scenarios are as follows:

- **Scenario 1** - Gates closed to through traffic, no connection of Overlook Parkway: Under Scenario 1, both Crystal View Terrace and Green Orchard Place gates would remain in place and be closed unless and until Overlook Parkway is connected to the east across the Alessandro Arroyo and to Alessandro Boulevard.
- **Scenario 2 - Gates removed, no connection of Overlook Parkway:** Under Scenario 2, the gates at both Crystal View Terrace and Green Orchard Place would be permanently removed, and there would be no connection of Overlook Parkway across the Alessandro Arroyo, or easterly to Alessandro Boulevard. The City of Riverside (City) would be required to approve an amendment to Policy CCM-4.4 in the City General Plan 2025 (General Plan 2025), along with project conditions related to the gates for two projects.
- **Scenario 3 - Gates removed, Overlook Parkway connected:** Under Scenario 3, the gates at Crystal View Terrace and Green Orchard Place would be removed, and Overlook Parkway would be connected between Via Vista Drive and approximately 500 feet west of Sandtrack Road and over the Alessandro Arroyo, allowing for a through connection to Alessandro Boulevard, as identified in the General Plan.

- **Scenario 4 - Gates removed, Overlook Parkway connected, and the Proposed C Street constructed west of Washington Street:** Under Scenario 4, both Crystal View Terrace and Green Orchard Place gates would be permanently removed, and Overlook Parkway would be connected between Via Vista Drive and approximately 500 feet west of Sandtrack Road and over the Alessandro Arroyo. In addition, new road, Called Proposed C Street would be constructed to provide a more direct connection from western Riverside and to SR 91. The Proposed C Street would be located within the Arlington Heights Greenbelt and would extend approximately one mile from Washington Street north and west ending at the intersection of Madison Street and Victoria Avenue. As a result of this new roadway, other project components are required, including: a cul-de-sac and vacated road along Washington Street from Engle Drive to just north of the existing Overlook Parkway and Washington Street intersection; a cul-de-sac and vacated road along Dufferin Avenue west of the new Proposed C Street alignment; the realignment of Lenox Avenue/Graylock Avenue to provide a connection to the new Proposed C Street and existing Washington Street; and the vacation of a portion of Madison Avenue and a realignment and intersection with the Proposed C Street. The City would vacate the existing right-of-way in select sections where cul-de-sacs and other improvements are proposed.

Scenarios 1 and 2 involve the resolution of vehicular circulation issues for the gates at Crystal View Terrace and Green Orchard Place. Scenario 1 would close the gates, as required by the General Plan 2025 and approved tract maps. Scenario 2 involves the permanent removal of the gates.

For Scenarios 3 and 4, in addition to permanently removing the gates, two areas of Overlook Parkway are proposed to be connected through construction of a fill crossing and bridge. The first connection would be the missing section of roadway east of the Alessandro Arroyo (approximately 465 linear feet) between Brittanee Delk Court and Sandtrack Road. The improvements would include a continuation of the existing 62 feet-wide two lane arterial roadway, consisting of a median, parkways, sidewalks, and curbs. The second connection requires the construction of two 33½-foot wide bridges separated by a 31-foot-wide gap a bridge along Overlook Parkway from Crystal View Terrace to the existing portion near Via Vista Drive. As part of the improvements, the existing median on Overlook Parkway would be extended and the new sections would be paved and striped to match the existing road surface.

In Scenario 4 only, a roadway called Proposed C Street would be extended approximately one mile from Washington Street north and west ending at the intersection of Madison Street and Victoria Avenue. The proposed alignment would accommodate four travel lanes within a 100-foot right-of-way.

At the time of preparation of the environmental Notice of Preparation (NOP), gates were in place on both Green Orchard Place and Crystal View Terrace. The gates are regularly opened and closed by local residents at undetermined intervals. The gates are required to be closed by General Plan 2025 policy and as project conditions for two tract map projects. Therefore,

primarily for traffic conditions, it is necessary to establish two environmental baselines for the project, and both baselines have been used in this report for impact determination:

- Gates Closed (also referred to as the "legal" condition) – The legal condition refers to existing mitigation measures and General Plan 2025 policies that require the gates to remain in place until such time that Overlook Parkway is connected.
- Gates Open (also referred to as the "existing" condition) – On the NOP release date, the gates were open.

Based on the NOP released in February 2011 for the proposed project, the evaluation of a new roadway located west of Washington Street under Scenario 4 was intended to be a program-level study of the area west of Washington Street. Potential roadway alternatives previously identified in two memorandums prepared by Boyle Engineering Corporation (2004) and Meyer Mohaddes Associates (2004) are summarized below:

- Alternative A: – Extend Proposed C Street from Washington Street northward to Victoria Avenue at Madison Street. This alternative includes creating a cul-de-sac on Washington Street and on Dufferin Avenue.
- Alternative B: – Extend Proposed C Street from the intersection of Overlook Parkway and Washington Avenue to Madison Street at Victoria Avenue, providing access at Dufferin Avenue. This roadway follows the existing Madison Street alignment south of Victoria Avenue
- Alternative C: – Extend Proposed C Street from Washington Street northward to a one-way road to be located north of and parallel to Victoria Avenue to connect to both Madison and Washington. As no intersection with Victoria Avenue is proposed, an underpass or similar feature would be required at Victoria.
- Alternative D: – Widen Washington and provide improvements to existing streets.

During the course of conducting preliminary traffic modeling, one alternative route (Alternative A) was selected for further study to allow an equal level of study for all scenarios. Of key importance to the decision to select one alternative was traffic flow at the intersection of Victoria Avenue and Washington Street combined with feasible roadway engineering and cost. In November 2011, the NOP was amended and released for public review. The project now includes a project-level study for a new roadway located west of Washington Street, which is the focus of Scenario 4 in this report.

The analysis portion of this report is generally organized as follows:

- Existing Conditions
  - Gates Closed Baseline
    - Scenario 1 Analysis
      - Intersections
      - Roadway Links
    - Scenario 2 Analysis
      - Intersections
      - Roadway Links
    - Scenario 3 Analysis
      - Intersections
      - Roadway Links
    - Scenario 4 Analysis
      - Intersections
      - Roadway Links
  - Gates Open Baseline
    - Scenario 1 Analysis
      - Intersections
      - Roadway Links
    - Scenario 2 Analysis
      - Intersections
      - Roadway Links
    - Scenario 3 Analysis
      - Intersections
      - Roadway Links
    - Scenario 4 Analysis
      - Intersections
      - Roadway Links

Buildout Conditions follows the same format.

Mitigation measures follow after all the analyses.

1.1 Traffic Impact Analysis Study Area

City of Riverside staff identified 28 intersections and 39 roadway link locations within project vicinity for analysis. These locations were determined by the City to be those most likely to be affected by changes due to the proposed project:

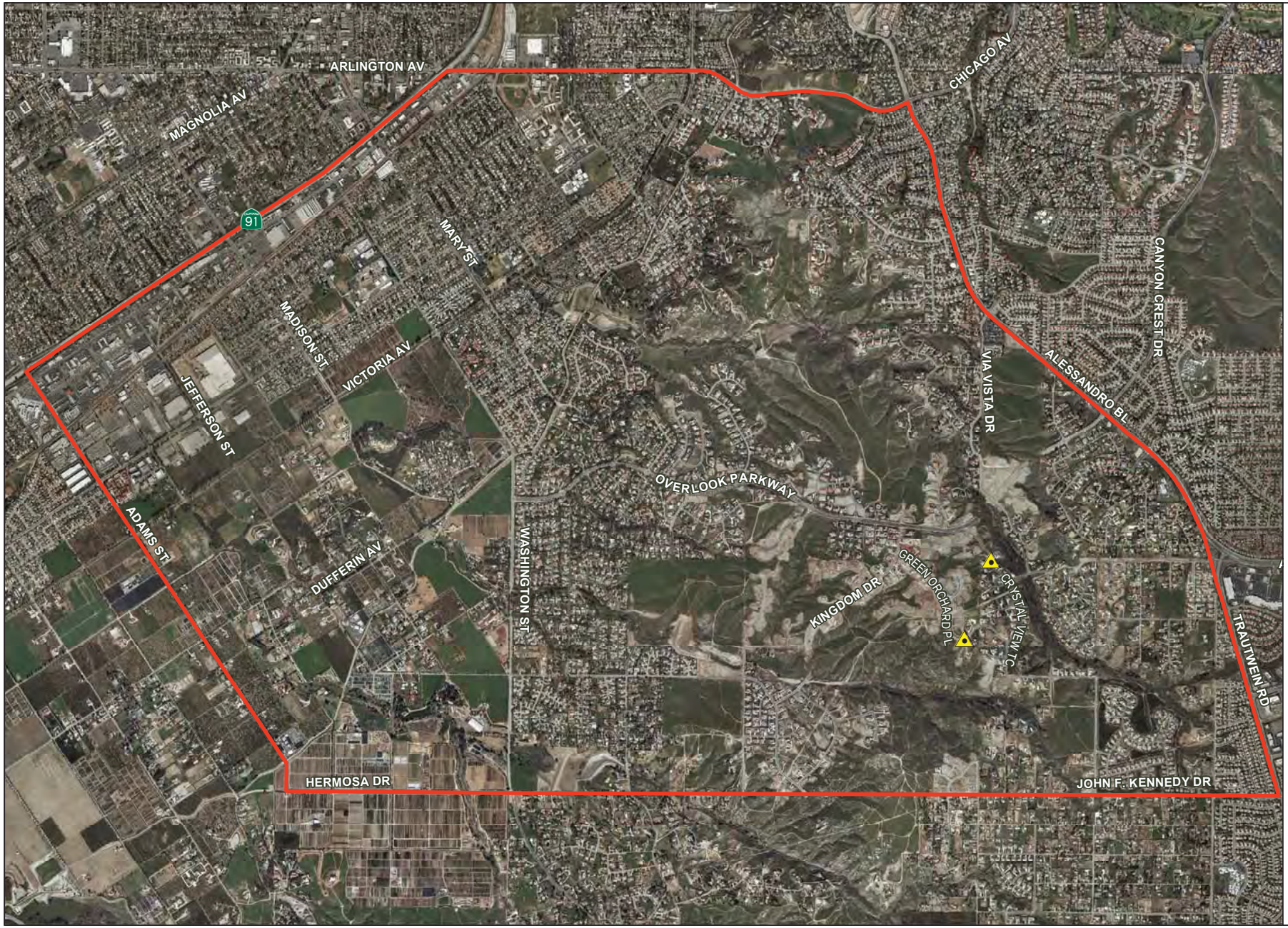
Intersections:

1	Madison Street & SR-91 WB Ramps (signalized)
2	Madison Street & SR-91 EB Ramps (signalized)
3	Madison Street & Indiana Avenue (signalized)
4	Madison Street & Lincoln Avenue (signalized)
5A	Madison Street & Victoria Avenue North (unsignalized)
5B	Madison Street & Victoria Avenue South (unsignalized)
6	Washington Street & Indiana Avenue (signalized)
7	Washington Street & Lincoln Avenue (unsignalized)
8A	Washington St & Victoria Ave North (unsignalized)
8B	Washington St & Victoria Ave South (unsignalized)
9	Washington St & Overlook Pkwy (signalized)
10	Riverside Ave-SR-91 WB Ramps & Arlington Ave (signalized)
11	Indiana Ave-SR-91 EB Ramps & Arlington Ave (signalized)
12	Victoria Ave & Arlington Ave (signalized)
13	Alessandro Blvd & Arlington Ave (signalized)
14	Alessandro Blvd & Overlook Pkwy (signalized)
15	Alessandro Blvd & Trautwein Rd (signalized)
16	Crystal View Ter & Overlook Pkwy (unsignalized)
17	Kingdom Dr & Overlook Pkwy (unsignalized)
18	Kingdom Dr & Green Orchard Pl (unsignalized)
19	Trautwein Rd & John F. Kennedy Dr (signalized)
20	Washington St & Bradley St (signalized)
21	Alessandro Blvd & Via Vista Dr (signalized)
22A	Mary St & Victoria Ave North (unsignalized)
22B	Mary St & Victoria Ave South (unsignalized)
23	Mary St & Hawarden Ct (unsignalized)
24	Hawarden Dr & Overlook Pkwy (unsignalized)
25	Crystal View Ter & Berry Rd (unsignalized)
26	Corinthian Wy & Berry Rd (unsignalized)
27	Madison St & Dufferin Ave (unsignalized)
28	Orozco Dr & Overlook Pkwy (unsignalized)

Roadway Links:

1	Victoria Avenue	East of Washington Street
2	Overlook Parkway	East of Washington Street
3	Bradley Street	East of Washington Street
4	Van Buren Boulevard	East of Washington Street
5	Arlington Avenue	West of Alessandro Boulevard
6	Berry Road	West of Trautwein Road
7	Van Buren Boulevard	West of Trautwein Road
8	Alessandro Boulevard	West of Sycamore Canyon Road
9	Van Buren Boulevard	West of Plummer Street
10	Washington Street	South of Victoria Avenue
11	Alessandro Boulevard	South of Arlington Avenue
12	Washington Street	North of Valle Vista Way
13	Golden Star Avenue	North of Valle Vista Way
14	Dauchy Avenue	North of John F Kennedy Drive
15	Trautwein Road	North of John F Kennedy Drive
16	Washington Street	North of Van Buren Boulevard
17	Wood Drive	North of Van Buren Boulevard
18	Trautwein Road	North of Van Buren Boulevard
19	Mission Grove Parkway	South of Alessandro Boulevard
20	Alessandro Boulevard	South of Canyon Crest Drive
21	Overlook Parkway	West of Kingdom Drive
22	Kingdom Drive	South of Overlook Parkway
23	Crystal View Drive	South of Overlook Parkway
24	Cactus Avenue	East of Crystal View Terrace
25	Mary Street	North of Victoria Avenue
26	Mary Street	North of Lincoln Avenue
27	Proposed “C” Street	South of Victoria Avenue
28	Madison Street	North of Victoria Avenue
29	Madison Street	North of Lincoln Avenue
30	Victoria Avenue	East of Mary Street
31	Victoria Avenue	East of Madison Street
32	Victoria Avenue	West of Madison Street
33	Victoria Avenue	East of Adams Street
34	Dufferin Avenue	West of Washington Street
35	Dufferin Avenue	East of Adams Street
36	Dufferin Avenue	East of Van Buren Boulevard
37	Dufferin Avenue	East of McAllister Street
38	Bradley Street	West of Washington Street
39	Lincoln Avenue	East of Madison Street

Figure 1-1 shows the project area. The locations of the study intersections are shown in **Figure 1-2** and roadway links are shown in **Figure 1-3**.



Project Vicinity

Gates

0 1,000 2,000

Feet

NORTH

Figure 1-1
Project Area Map

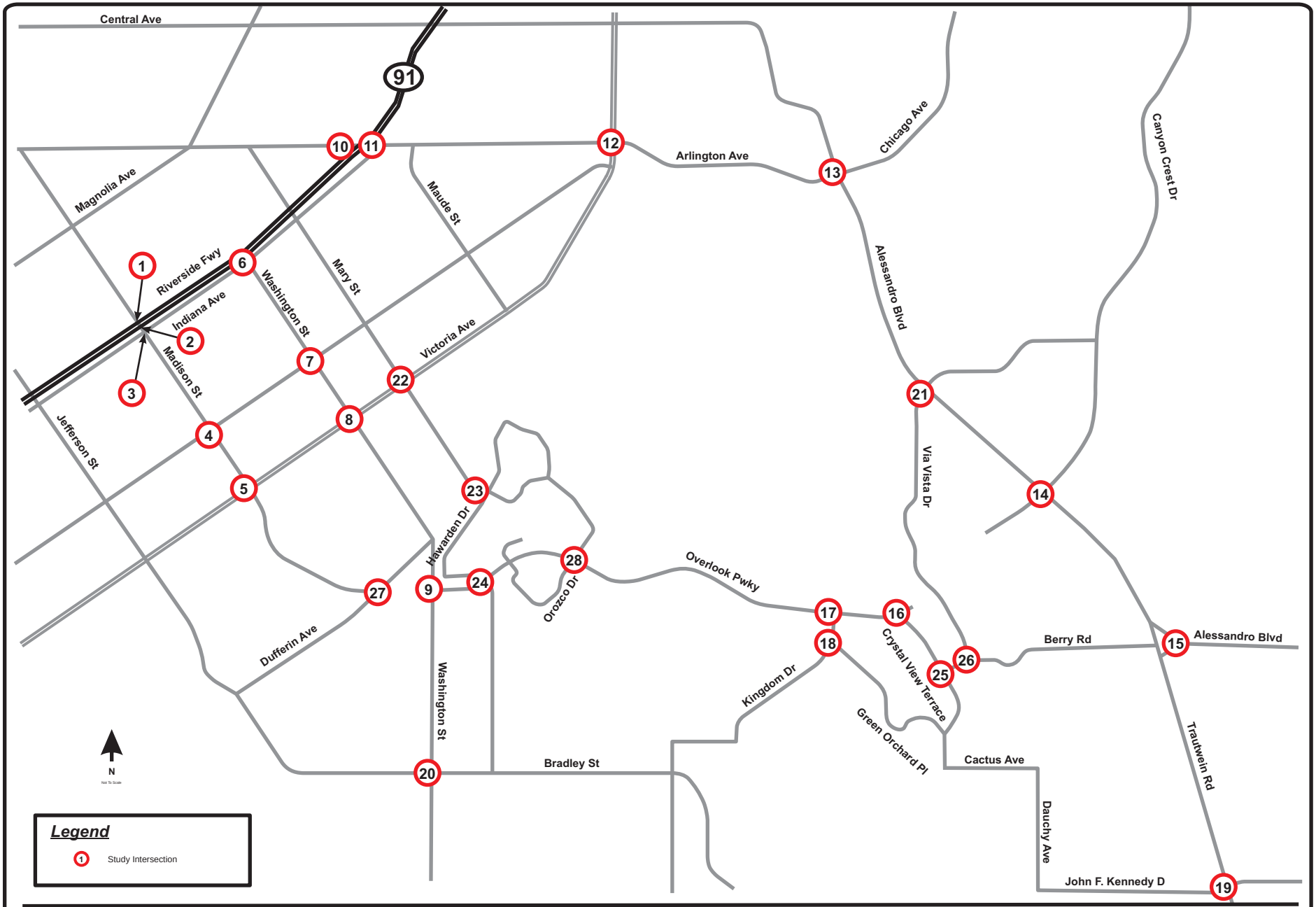


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Figure 1-2

Project Study Intersections

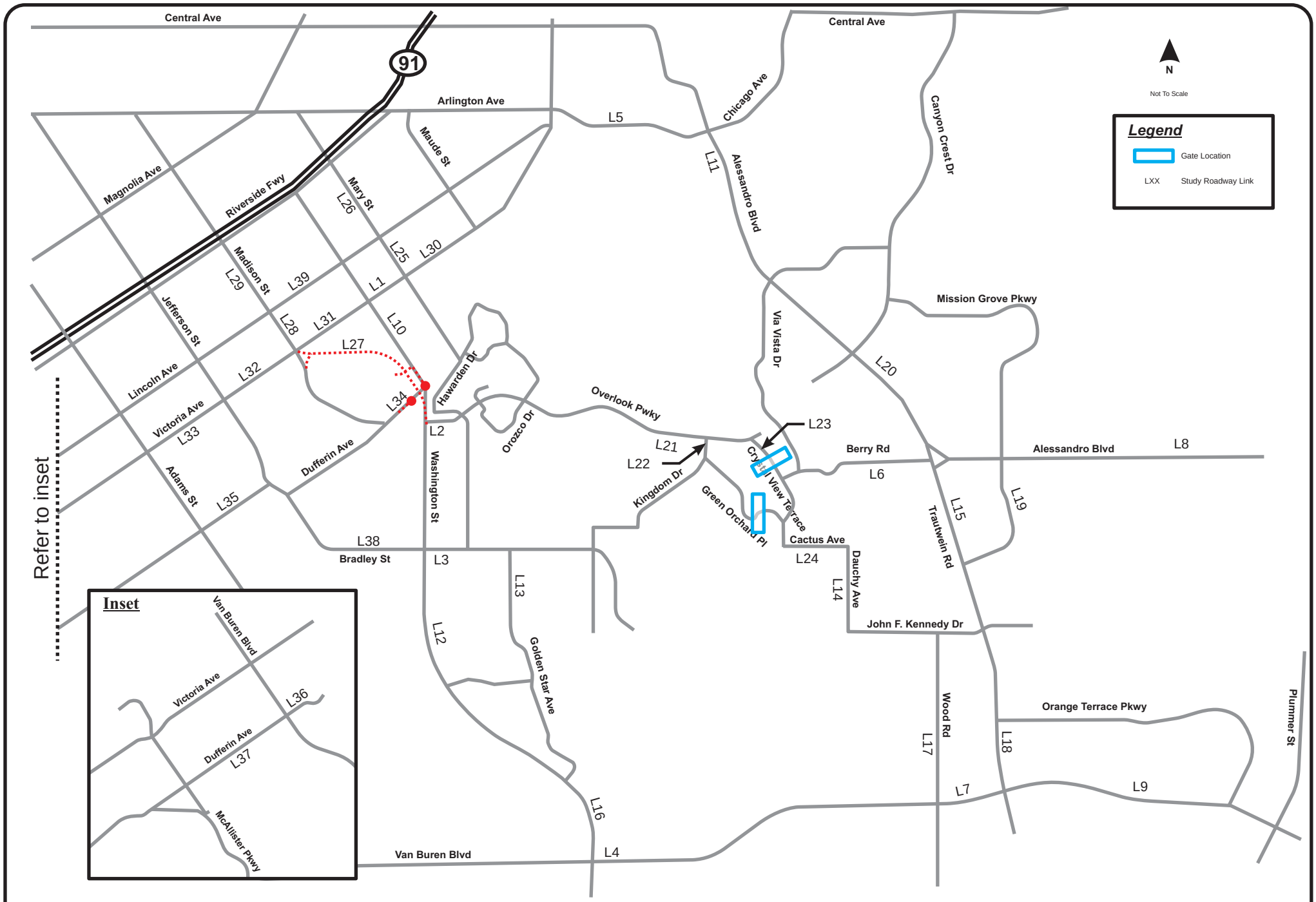

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Figure 1-3
Project Study Roadway Links

2.0 ANALYSIS METHODOLOGY

This section describes the methodology used to generate projected traffic volumes as well as the methods used to analyze the traffic volumes in order to assess Level of Service.

2.1 TRAVEL DEMAND MODEL

A computer-generated subarea traffic model was developed for the City of Riverside specifically for the purpose of assessing the area surrounding Overlook Parkway, and it is based on the Riverside Countywide model (RivTAM); which in turn is based upon the Southern California Association of Governments (SCAG) travel demand model. These regional computer travel models always serve as the "parent" models for City level or sub-area level models because they contain the official growth forecasts for the County of Riverside and the southern California region. The future forecast year of the regional models is 2035. All travel demand models contain an "existing" scenario which replicates current conditions, and a future year scenario that is used for planning the future transportation system.

To make the County model useful at the local level and for the project analysis contained within this report, refinements were made to the existing (base year) and 2035 models, including the addition of local and collector roadways, adjusting model travel speeds, and updates to land uses within the City. These are made to better reflect existing operating conditions, so a model validation procedure can be performed. The model is validated for the base year to determine its predictive ability to replicate observed (existing) traffic counts using the trip rates, speeds, roadway capacities, and other variables. If the model cannot produce traffic volumes similar to what is observed in the base year, then appropriate adjustments are made until the model is able to reasonably replicate current travel conditions in the area. A model that replicates existing conditions accurately is then assumed to be well able to assess future conditions.

The development of the City of Riverside focused travel demand model is based on the Year 2008 Riverside Traffic Analysis Model (RivTAM) in TransCAD platform. The purpose for the development of this focused and detailed model is for use in traffic forecasting of changes in volumes due to the completion of Overlook Parkway as well as a westerly connection. The model roadway network within the Project vicinity was expanded to include roadways classified as Collector and above, as shown in the City of Riverside Master Plan of Roadways.

The structure of this new model is consistent with the RivTAM model to ensure the compatibility between the two models. Building on RivTAM also minimizes the time and effort needed to maintain and update the new model as new elements of the RivTAM model are put into the model job stream. Specifically, the model consists of the traditional four step modeling process including trip generation, trip distribution, mode split, and traffic assignment. Given the updated zone structure, corresponding modifications regarding the input data tables and matrices in the four steps were conducted for the model scenarios. The validation for base year 2011 was followed to ensure the results match with both the RivTAM model and traffic counts.

Two separate models were created, one for the Gates Closed baseline, where the Crystal View Terrace and Green Orchard Place gates would remain closed, and another for the Gates Open baseline, where the gates at both Crystal View Terrace and Green Orchard Place would be removed. The validation process was conducted for both Gates Closed and Gates Open, and both models were then used to project traffic volumes for the other Scenarios. The validated models were then used to forecast volumes for the different scenarios. Peak hour turning model volumes were developed for study intersections using National Cooperative Highway Research Program (NCHRP) methodology.

A full description of the model development process is included in **Appendix A**.

2.2 LEVEL OF SERVICE

The efficiency of traffic operations at a location is measured in terms of Level of Service (LOS). LOS is a description of traffic performance at intersections. The LOS concept is a measure of average operating conditions at intersections during an hour. It is based on a volume-to-capacity (V/C) ratio for signalized intersections and the average delay per vehicle for unsignalized locations. Levels range from 'A' to 'F', with 'A' representing excellent (free-flow) conditions and 'F' representing extreme congestion. The 2000 Highway Capacity Manual (HCM) analysis methodology for signalized and unsignalized intersections is utilized in this analysis to determine the operating LOS of the study intersections.

Table 2-1 below describes the level of service concept and operating conditions expected under each level of service for signalized and unsignalized intersections, respectively. The City of Riverside performance criteria for intersections and roadways is discussed below.

TABLE 2-1: LEVEL OF SERVICE DEFINITIONS

LOS	Interpretation	Signalized Intersection Delay (seconds)	Stop-Controlled Intersection Average Stop Delay (seconds)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easy and nearly all drivers find freedom of operation.	≤10	≤10
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	>10 and ≤20	>10 and ≤15
C	Good operation. Occasionally backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	>20 and ≤35	>15 and ≤25
D	Fair operation. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.	>35 and ≤55	>25 and ≤35
E	Poor operation. Some long-standing vehicular queues develop on critical approaches.	>55 and ≤80	>35 and ≤50
F	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop-and-go type traffic flow.	>80	>50

Source: Highway Capacity Manual 2000

2.2.1 *CITY OF RIVERSIDE PERFORMANCE CRITERIA*

The City of Riverside Circulation and Community Mobility Element describes the performance criteria for transportation facilities. Per the Circulation and Community Mobility Element, the City will strive to maintain LOS D or better on arterial streets wherever possible. At some key locations, such as City arterial roadways which are used as a freeway bypass by regional through traffic and at heavily traveled freeway interchanges, LOS E may be acceptable as determined on a case-by-case basis. Locations that may warrant the LOS E standard include portions of Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard throughout the City, portions of La Sierra Avenue and selected freeway interchanges. A higher standard, such as LOS C or better, may be adopted for Local and Collector streets in residential areas.

The City recognizes that along key freeway-feeder roadways during peak commute hours, LOS F may be expected due to regional travel patterns.

2.2.2 *City of Riverside Thresholds of Significance*

The City of Riverside Public Works Department produces a Traffic Impact Analysis Preparation Guide. The Guide states the following level of service standards:

> **Level of Service Standards**
>
> "City of Riverside allows Level of Service (LOS) D to be used as the maximum acceptable threshold for the study intersections and roadways of Collector or higher classification. LOS C is to be maintained on all street intersections. For projects in conformance with the General Plan, a significant impact occurs at a study intersection when the peak hour LOS falls below C, or D per CCM-2.3 as noted below.
>
> For projects that propose uses or intensities above that contained in the General Plan, a significant impact at a study intersection is when the addition of project related trips causes either peak hour LOS to degrade from acceptable (LOS A thru D) to unacceptable levels (E or F) or the peak hour delay to increase as follows:
>
> LOS A/B = By 10.0 seconds
> LOS C = By 8.0 seconds
> LOS D = By 5.0 seconds
> LOS E = By 2.0 seconds
> LOS F = By 1.0 seconds
>
> Policy CCM-2.3:
> Maintain LOS D or better on Arterial Streets wherever possible. At key locations, such as City Arterials that are used by regional freeway bypass traffic and at heavily traveled freeway interchanges, allow LOS E at peak hours as the acceptable standard on a case-by-case basis.

The proposed Project does not create new project related trips (as noted in the second paragraph above) which is unlike a new land use such as a shopping center or housing development. The Project merely redistributes traffic in the area. Therefore the level of service standards will follow General Plan 2025 Policy CCM-2.3. The thresholds of significance apply to the operational trips of the project.

<u>Intersections</u>

The Circulation and Community Mobility Element of the City of Riverside General Plan 2025 policies identify the maximum LOS allowed for intersections, which is LOS D for roadways classified as Collector or higher. LOS C is the standard for local streets. The General Plan 2025

also notes locations where LOS E is acceptable (see pages CCM-11 through CCM-15), and are generally located along regional corridors and freeway interchanges. The General Plan 2025 Environmental Impact Report lists the roadways in detail. Therefore, for this study, maximum LOS allowed for each intersection is listed below:

#	Intersection	Max.LOS
1	Madison St & SR-91 WB Ramps	E
2	Madison St & SR-91 EB Ramps	E
3	Madison St & Indiana Ave	D
4	Madison St & Lincoln Ave	D
5A	Madison St & Victoria Ave (North)	D
5B	Madison St & Victoria Ave (South)	D
6	Washington St & Indiana Ave	D
7	Washington St & Lincoln Ave	D
8A	Washington St & Victoria Ave (North)	D
8B	Washington St & Victoria Ave (South)	D
9	Washington St & Overlook Pkwy	D
10	Riverside Ave-SR-91 WB Ramps & Arlington Ave	E
11	Indiana Ave-SR-91 EB Ramps & Arlington Ave	E
12	Victoria Ave & Arlington Ave	E
13	Alessandro Blvd & Arlington Ave	E
14	Alessandro Blvd & Overlook Pkwy	E
15	Alessandro Blvd & Trautwein Rd	E
16	Crystal View Ter & Overlook Pkwy	D
17	Kingdom Dr & Overlook Pkwy	D
18	Kingdom Dr & Green Orchard Pl	C
19	Trautwein Rd & John F. Kennedy Dr	D
20	Washington St & Bradley St	D
21	Alessandro Blvd & Via Vista Dr	E
22A	Mary St & Victoria Ave (North)	D
22B	Mary St & Victoria Ave (South)	D
23	Mary St & Hawarden Ct	C
24	Hawarden Dr & Overlook Pkwy	D
25	Crystal View Ter & Berry Rd	C
26	Corinthian Wy & Berry Rd	C
27	Madison St & Dufferin Ave	C
28	Orozco Dr & Overlook Pkwy	D

General Plan 2025 Policy CCM-2.3 identifies maximum LOS allowed for intersections, but does not identify impact criteria. Impact determination assumptions have been developed with City guidance. Therefore, the project would be considered to cause a significant impact at a study

intersection when the addition of project trips cause either peak hour LOS to exceed the LOS standard noted above, and the peak hour delay increases by more than the following:

LOS C	=	By 8.0 seconds
LOS D	=	By 5.0 seconds
LOS E	=	By 2.0 seconds
LOS F	=	By 1.0 seconds

Roadway Links

Similar to the intersection standards listed above, the General Plan 2025 has generally defined LOS D as the minimum adequate service level on roadway links, except for those locations identified in Policy CCM-2.3. The General Plan 2025 does list locations where a lower LOS is acceptable, such as roadways used by regional traffic and at heavily traveled interchanges (see pages CCM-11 through CCM-18 of the Circulation and Community Mobility Element of the City of Riverside General Plan 2025), and a more detailed listing is contained in the General Plan 2025 EIR. Thus, roadway links are considered to operate over-capacity when the future forecast daily traffic volume exceeds the daily capacity values, unless specifically noted in the General Plan 2025. The maximum LOS per the City of Riverside General Plan 2025 and EIR is defined as locations projected to be at LOS E or F upon buildout of the General Plan land uses; the maximum LOS for study area roadway links are shown in the following table:

#	Roadway Link	Location	Max. LOS
1	Victoria Avenue	East of Washington Street	D
2	Overlook Parkway	East of Washington Street	E/F
3	Bradley Street	East of Washington Street	D
4	Van Buren Boulevard	East of Washington Street	D
5	Arlington Avenue	West of Alessandro Boulevard	E/F
6	Berry Road	West of Trautwein Road	D
7	Van Buren Boulevard	West of Trautwein Road	E/F
8	Alessandro Boulevard	West of Sycamore Canyon Road	E/F
9	Van Buren Boulevard	West of Plummer Street	E/F
10	Washington Street	South of Victoria Avenue	D
11	Alessandro Boulevard	South of Arlington Avenue	E/F
12	Washington Street	North of Valle Vista Way	D
13	Golden Star Avenue	North of Valle Vista Way	D
14	Dauchy Avenue	North of John F Kennedy Drive	D
15	Trautwein Road	North of John F Kennedy Drive	E/F
16	Washington Street	North of Van Buren Boulevard	D
17	Wood Drive	North of Van Buren Boulevard	D
18	Trautwein Road	North of Van Buren Boulevard	E/F
19	Mission Grove Parkway	South of Alessandro Boulevard	D
20	Alessandro Boulevard	South of Canyon Crest Drive	E/F
21	Overlook Parkway	West of Kingdom Drive	D
22	Kingdom Drive	South of Overlook Parkway	D

#	Roadway Link	Location	Max. LOS
23	Crystal View Drive	South of Overlook Parkway	C
24	Cactus Avenue	East of Crystal View Terrace	D
25	Mary Street	North of Victoria Avenue	D
26	Mary Street	North of Lincoln Avenue	D
27	Proposed "C" Street	South of Victoria Avenue	D
28	Madison Street	North of Victoria Avenue	D
29	Madison Street	North of Lincoln Avenue	D
30	Victoria Avenue	East of Mary Street	D
31	Victoria Avenue	East of Madison Street	D
32	Victoria Avenue	West of Madison Street	D
33	Victoria Avenue	East of Adams Street	D
34	Dufferin Avenue	West of Washington Street	D
35	Dufferin Avenue	East of Adams Street	D
36	Dufferin Avenue	East of Van Buren Boulevard	D
37	Dufferin Avenue	East of McAllister Street	D
38	Bradley Street	West of Washington Street	D
39	Lincoln Avenue	East of Madison Street	D

General Plan 2025 Policy CCM-2.3 identifies maximum LOS allowed for roadway links, but does not identify impact criteria. Impact determination assumptions have been developed with City guidance and are based upon information provided in the Traffic Impact Analysis Preparation Guide which states that the roadway link analysis shall be performed by comparing the Average Daily Traffic (ADT) on a link with the "City of Riverside Roadway Capacity" table which is shown below. Therefore for this study, the project would be considered to cause a significant impact if:

- The project causes a LOS A, B, C or D roadway to fall to LOS E/F
- The project adds trips to a roadway link projected to operate at LOS E/F.

The daily capacity values, which are given in average daily traffic (ADT), are as follows:

TABLE 2-2: CITY OF RIVERSIDE ROADWAY CAPACITY

Roadway Classification	Number of Lanes	Two-Way Traffic Volume (ADT) (1)		
		Service Level C	Service Level D	Service Level E
Local	2	2,500-2,799	2,800-3,099	3,100+
Collector (66' or 80')	2	9,900-11,199	11,200-12,499	12,500+
Arterial (2)	2	14,400-16,199	16,200-17,999	18,000+
Arterial (88')	4	16,800-19,399	19,400-21,199	22,000+
Arterial (100')	4	26,200-29,599	29,600-32,999	33,000+
Arterial (120')	6	38,700-44,099	44,100-49,499	49,500+
Arterial (144')	8	50,600-57,799	57,800-64,999	65,000+

Notes:
(1) Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables
(2) Two-lane roadways designated as future arterials that conform to arterial design standards for vertical and horizontal alignments area analyzed as arterials

So for a 100' arterial, a daily volume of 33,000 vehicles or more operates at LOS E or greater (LOS E/F).

2.3 ANALYSIS SCENARIOS

At the time of preparation of the NOP, gates were in place on both Green Orchard Place and Crystal View Terrace. The gates are regularly opened and closed by local residents at undetermined intervals. The gates are required to be closed by General Plan 2025 policy, consistent with the project conditions for two tract map projects. Therefore, primarily for traffic conditions, it is necessary to establish two environmental baselines for the project, and both baselines are used for impact determination within this report:

- Gates Closed (also referred to as the "legal" condition) – The legal condition refers to existing mitigation measures and General Plan 2025 policies that require the gates to remain in place until such time that Overlook Parkway is connected.
- Gates Open (also referred to as the "existing" condition) – On the NOP release date, the gates were open.

The four project scenarios are compared to each baseline for analysis. However, the Gates Closed baseline is the same as Scenario 1, and the Gates Open baseline is the same as Scenario 2. In response to the recent case of *Sunnyvale West Neighborhood Association v. City of Sunnyvale City Council* (2010), the project level analysis of Scenarios 1 and 2 was conducted using the traffic counts collected while the gates were closed (Scenario 1) and when the gates were open (Scenario 2). Scenarios 3 and 4 analysis was conducted using the existing conditions model (described above) with Scenarios 3 and 4 added to the roadway network. The travel demand model output was used to calculate the intersection and link volumes for analysis.

The Buildout (2035) analyses were conducted using the 2035 model as described above, and the model output was used to calculate the intersection and link volumes for analysis.

Both existing and buildout conditions were compared to both Gates Closed and Gates Open baseline conditions for project-related and cumulative impact determination, respectively.

3.0 SETTING

3.1 REGIONAL FREEWAY ACCESS

The City of Riverside can be accessed regionally via the Riverside Freeway (SR-91), Pomona Freeway (SR-60) and Moreno Valley Freeway (SR-60 and I-215).

3.2 LOCAL STREET SYSTEM

The characteristics of the existing roadway system in the vicinity of the project area are described below:

Alessandro Boulevard is a north-south street between Fairview Avenue and Trautwein Road, and an east-west street between Trautwein Road and east City boundary. It has two to three travel lanes in each direction. Within the study area, it is classified as a 120 foot Scenic Boulevard arterial between Arlington Avenue and Trautwein Road and a 110—foot Scenic Boulevard arterial between Trautwein Road and John F. Kennedy Drive. As noted earlier, Alessandro Boulevard — from the intersection of Central Avenue, Arlington Avenue, and Chicago Avenue to the I-215 is listed on the CMP. It is also used by RTA for bus service and provides a Class II bike lane.

Canyon Crest Drive is a north-south street which runs between Alessandro Boulevard and Martin Luther King Boulevard. It has one to two travel lanes in each direction. It is classified as a 110-foot Scenic Boulevard/Parkway arterial in the Circulation and Community Mobility Element. The portion of this street between Country Club Drive and Via Vista Drive is listed on the Five Year Transportation Improvement Program (TIP) of the TUMF Program to widen two to four lanes; however it has been delayed due to lack of funding with no new schedule. It is not used by RTA for bus service and provides a Class II bike lane.

Madison Street is a north-south street which runs between Arlington Avenue and Dufferin Avenue. The portion of Madison Street within the Project vicinity is between Indiana Avenue and Dufferin Avenue. It has one to two travel lanes in each direction. Between Victoria Avenue and Indiana Avenue, it is classified as an 88-foot arterial. South of Victoria Avenue it is a 66-foot local street. It is not used by RTA for bus service and does not provide a bike lane.
Mary Street is a north-south street which runs between Arlington Avenue and Hawarden Drive. The portion of Mary Street within the Project vicinity is between Indiana Avenue and Hawarden Drive. It has one to two travel lanes in each direction. It is classified as an 88-foot arterial north of Victoria Avenue, and a local street south of Victoria Avenue. It is not used by RTA for bus service; however it is planned for a Class III bike lane between Arlington Avenue and Victoria Avenue.

Trautwein Road is a north-south road between Alessandro Boulevard and Van Buren Boulevard. Trautwein Road becomes Cole Avenue south of Van Buren Boulevard. Trautwein Road has two travel lanes in each direction. Cole Avenue has one to two travel lanes in each direction. Trautwein Road is classified as a 110-foot Scenic arterial. The Road is used by RTA for bus service and it provides a Class II bike lane.

Washington Street is a north-south street which runs between Magnolia Avenue and Diana Avenue and between Indiana Avenue and south City boundary into Riverside County. It has one travel lane in each direction between Magnolia Avenue and Diana Avenue, and one to two travel lanes in each direction between Indiana Avenue and south City boundary. It is classified as an 80—foot collector between Magnolia Avenue and Diana Avenue and 110 foot arterial between Indiana Avenue and Van Buren Boulevard in the County. South of Van Buren Boulevard it is classified as an 88—foot arterial. It is classified as a Parkway between Overlook Parkway and Indiana Avenue. It is not used by RTA for bus service and is planned for a Class II bike lane between Victoria Avenue and Van Buren Boulevard in the County.

Arlington Avenue is an east-west street which runs between west City boundary and Alessandro Boulevard. Arlington Avenue becomes Chicago Avenue east of Alessandro Boulevard. It has one to two travel lanes in each direction. It is classified as a 120-foot arterial between Grand Avenue and Alessandro Boulevard and Scenic parkway the whole length. As noted earlier, Arlington Avenue — from California Avenue to the intersection of Central Avenue, Alessandro Boulevard, and Chicago Avenue is listed on the CMP. It is also used by RTA for bus service and is proposed of r a Class II bike lane between Adams Street and Streeter Street, it provides a Class II bike lane between Streeter Street and Magnolia Avenue, it is proposed for a Class III bike lane between Magnolia Avenue and Riverside Avenue and it provides a Class II bike lane between Riverside Avenue and Alessandro Boulevard.

Indiana Avenue is an east-west street which runs between west City boundary and Arlington Avenue. It has one to two travel lanes in each direction. It is classified as an 88 foot arterial. It is used by RTA for bus service and it is not planned a bike lane between Adams Street and Arlington Avenue.

John F. Kennedy Drive is an east-west street which runs between Dauchy Avenue and Faircrest Road. It has one travel lane in each direction. It is classified as an 88-foot arterial. It is not used by RTA for bus service and it provides for a Class II bike lane.

Lincoln Avenue is an east-west street which runs between Harrison Street and Victoria Avenue. It has one to two travel lanes in each direction. It is classified as a 66-foot collector between Victoria Avenue and Madison Street, an 88-foot arterial between Madison Street and Van Buren Boulevard and 66—foot local street between Van Buren Boulevard and Harrison Street. It is used by RTA for bus service and it is planned for a Class II bike lane between Victoria Avenue and Mary Street and for a Class III bike lane between Mary Street and Jefferson Street. Between Jefferson Street and Adams Street it provides a Class II bike lane.

Overlook Parkway is an east-west street which runs between Washington Street and Crystal View Terrace, and between Sandtrack Road and Alessandro Boulevard. Overlook Parkway becomes Canyon Crest Drive east of Alessandro Boulevard. It has one to two travel lanes in each direction. It is classified as a 110-foot Scenic Parkway arterial. It is not used by RTA for bus service and it provides a Class II bike lane between Washington Street and Crystal View Terrace and is planned for a Class II bike lane between Crystal View Terrace and Alessandro Boulevard.

Victoria Avenue is an east-west street between Rockwood Drive and Arlington Avenue, and a north-south street north of Arlington Avenue. It has one travel lane in the westbound/ southbound direction and one to two travel lanes in the westbound/northbound direction. It is classified as a Scenic, Special Parkway arterial. It is used by RTA for bus service north of Central Avenue only and provides a bike path and lane its whole length.

Green Orchard Place (formerly Proposed "B" Drive) is shown on the Master Plan of Roadways (Figure CCM-4) as "B" Drive, but is now known as Green Orchard Place. Green Orchard Place is a north-south street between Kingdom Drive and Crystal View Terrace. It has one travel lane in each direction. It is classified as an 80-foot collector. To prevent cut-through traffic, a gate is installed on Green Orchard Place approximately 1,200 feet west of the intersection of Green Orchard Place and Crystal View Terrace. RTA does not provide bus service along this street but it is developed with a Trail.

Crystal View Terrace is a north-south street which runs between Overlook Parkway and Cactus Avenue. It is a local street. Similar to Green Orchard Place, a gate is located approximately 950 feet south of the intersection of Crystal View Terrace and Overlook Parkway to prevent cut-through traffic. RTA does not provide bus service along this street and is proposed to provide a Class III bike lane between Overlook Parkway and Cactus Avenue. As well, it is developed with a Trail.

When the gates at Green Orchard Place and Crystal View Terrace are closed to traffic, vehicles wishing to go north of Overlook Parkway must take a circuitous route through the use of Bradley Street, Berry Road, and/or John F. Kennedy Drive. The gates are designed to be unlocked and accessible to emergency vehicles and City personnel; however, when closed, the gates limit additional access points into the local neighborhoods for commuters.

3.3 EXISTING TRANSIT FACILITIES

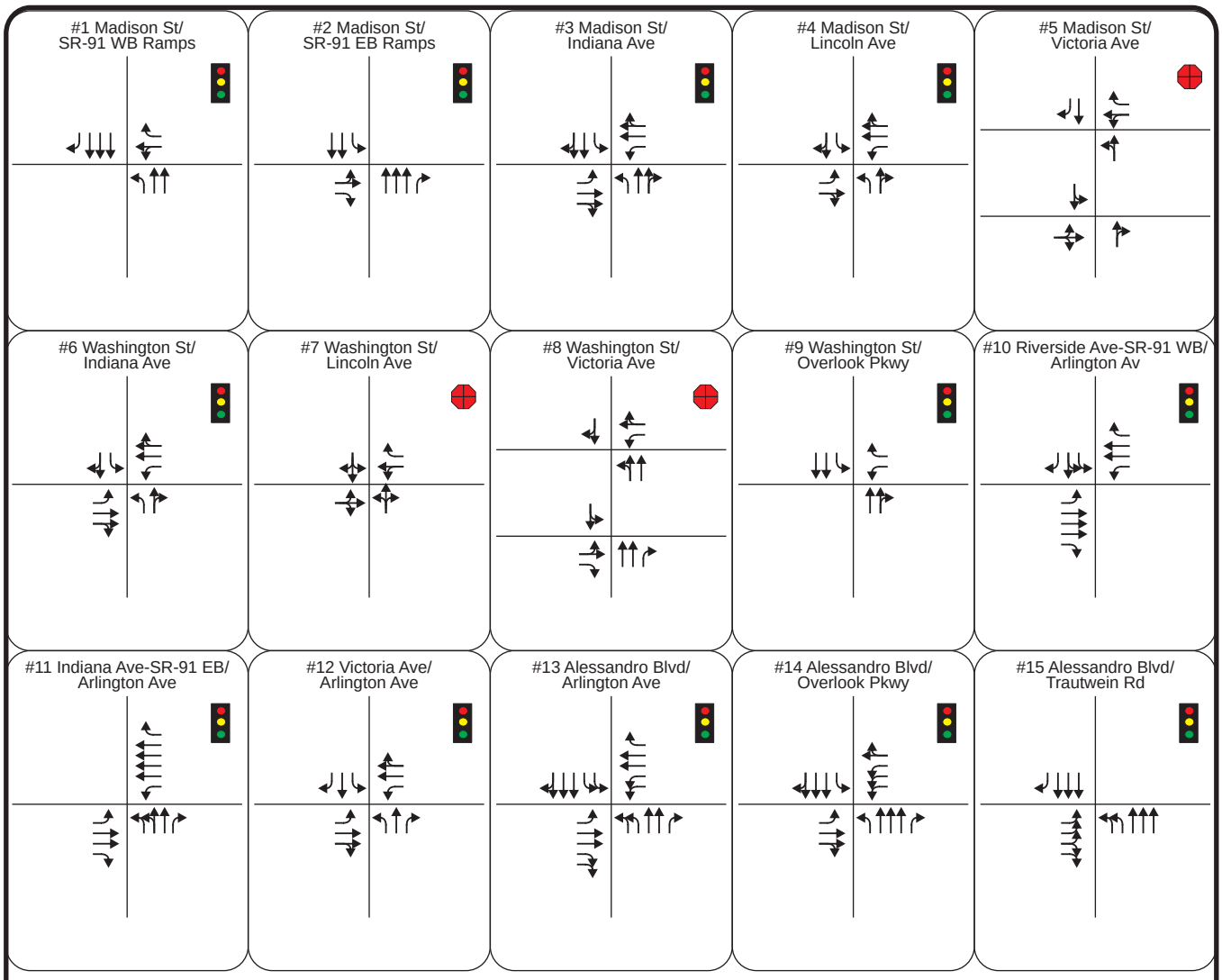
The proposed Project area is served by the RTA which offers 45 RTA bus routes within the City. The RTA also offers additional services including CommuterLink and Dial-A-Ride. CommuterLink provides services to major transit centers and Metrolink stations in Riverside, San Diego, and San Bernardino counties. Dial-A-Ride service is available for ADA-certified and senior passengers.

4.0 EXISTING CONDITIONS

This section describes the existing intersection level of service (LOS) based on existing traffic volume counts and the methodologies described previously. Traffic flow is measured and analyzed on a daily basis for roadway links, and during peak hours for intersections. For roadway links, traffic flow is measured on roadways at mid-block locations to determine the overall level of travel demand and LOS. Average Daily Traffic (ADT) values are developed that represent the typical daily traffic flow on each key roadway in the City. During peak hours, intersection traffic volume is counted to determine the operating conditions during the peak hours of travel demand. Typically, intersection traffic demand is measured for the peak morning and afternoon commute peak periods (7 to 9 AM, and 4 to 6 PM). Then the single highest hour in the morning and in the afternoon is determined and used to develop intersection LOS estimates. Each study intersection was field reviewed to determine the geometric characteristics including the number of lanes on each intersection approach by type (through lanes, left turn lanes, right turn lanes and shared lanes), type of traffic control and other relevant information. The existing intersection geometries are illustrated in **Figure 4-1**.

Gates are installed on both Green Orchard Place and Crystal View Terrace. The gate on Green Orchard Place is located approximately 1,200 feet west of the intersection of Green Orchard Place and Crystal View Terrace. The gate on Crystal View Terrace is located approximately 950 feet south of the intersection of Crystal View Terrace and Overlook Parkway. Crystal View gate are required to be closed by General Plan 2025 policy (see Policy CCM-4.4), and the Green Orchard Place is closed as is consistent with the project conditions for its tract map; however, the gates are regularly opened and closed by local residents at undetermined intervals without the knowledge or permission of the City. Therefore, primarily for traffic conditions, it is necessary to establish two environmental baselines for the project and provide analysis for both Gates Closed (the legal condition that require the gates to remain in place until such time that Overlook Parkway is connected) and Gates Open (the existing condition at the time the NOP was released). To capture both conditions, intersection and roadway link counts were taken on two separate occasions to measure the effects of the two gate closures at Green Orchard Place and Crystal View Terrace. Separate analyses were conducted for the with- and without gate closure baselines. It should be noted that the Gates Closed baseline closely represents the project under Scenario 1, and the Gates Open baseline closely represents the project under Scenario 2; however, Scenario 2 calls for an amendment to the General Plan 2025 policies which require the connection of Overlook Parkway prior to removing the gates.

Note that traffic counts will fluctuate on a day-to-day basis. Since motorists do not necessarily take the same trip on the same route or at the same time each day, it is not unusual to observe at least five to ten percent variations in volumes, both in the peak hours and on a daily basis.



Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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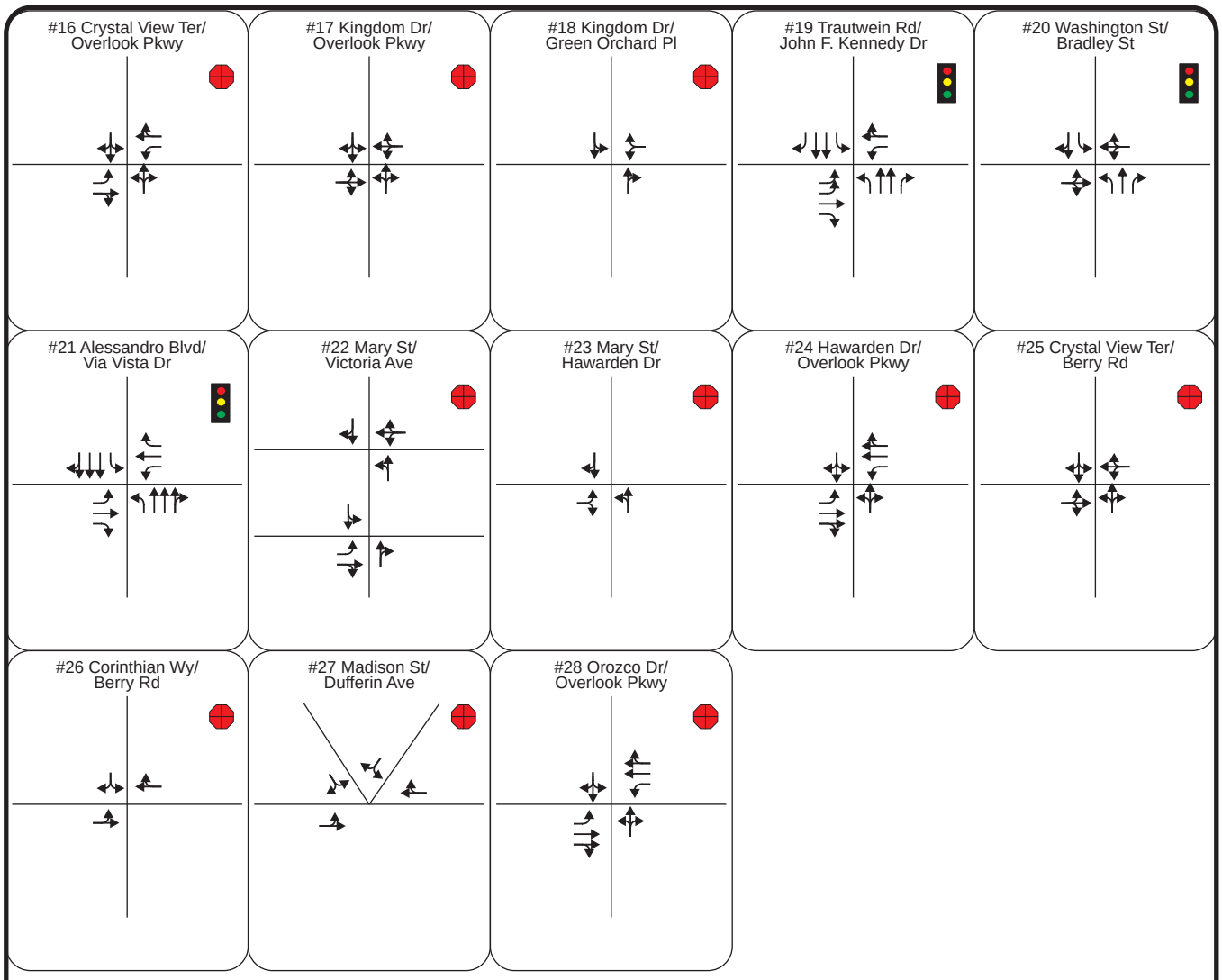
Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 4-1A

Existing Intersection Geometry & Traffic Control



Note: North/south streets are listed first under intersection name.

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Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 4-1B

Existing Intersection Geometry & Traffic Control

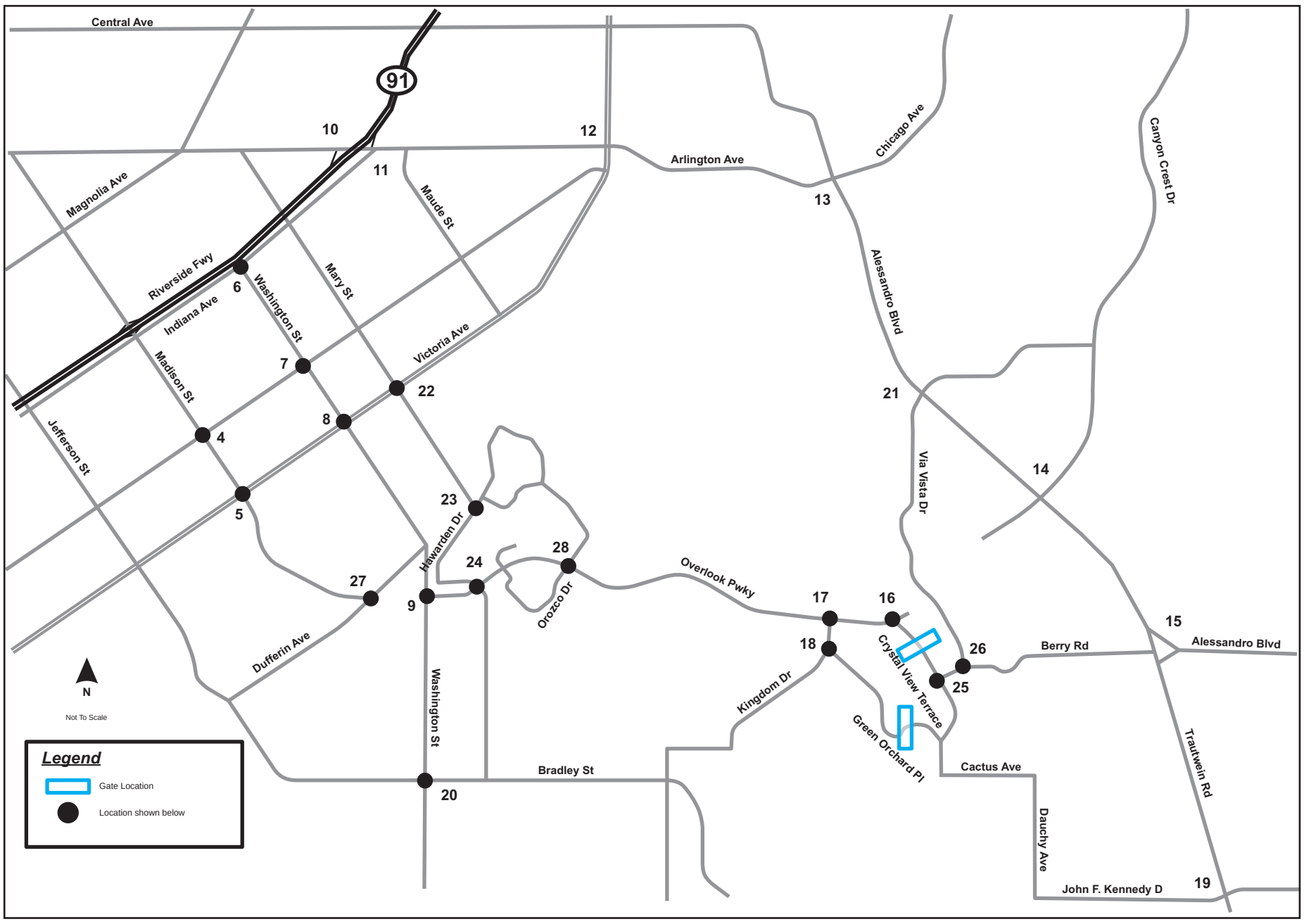
4.1 TRAFFIC COUNTS

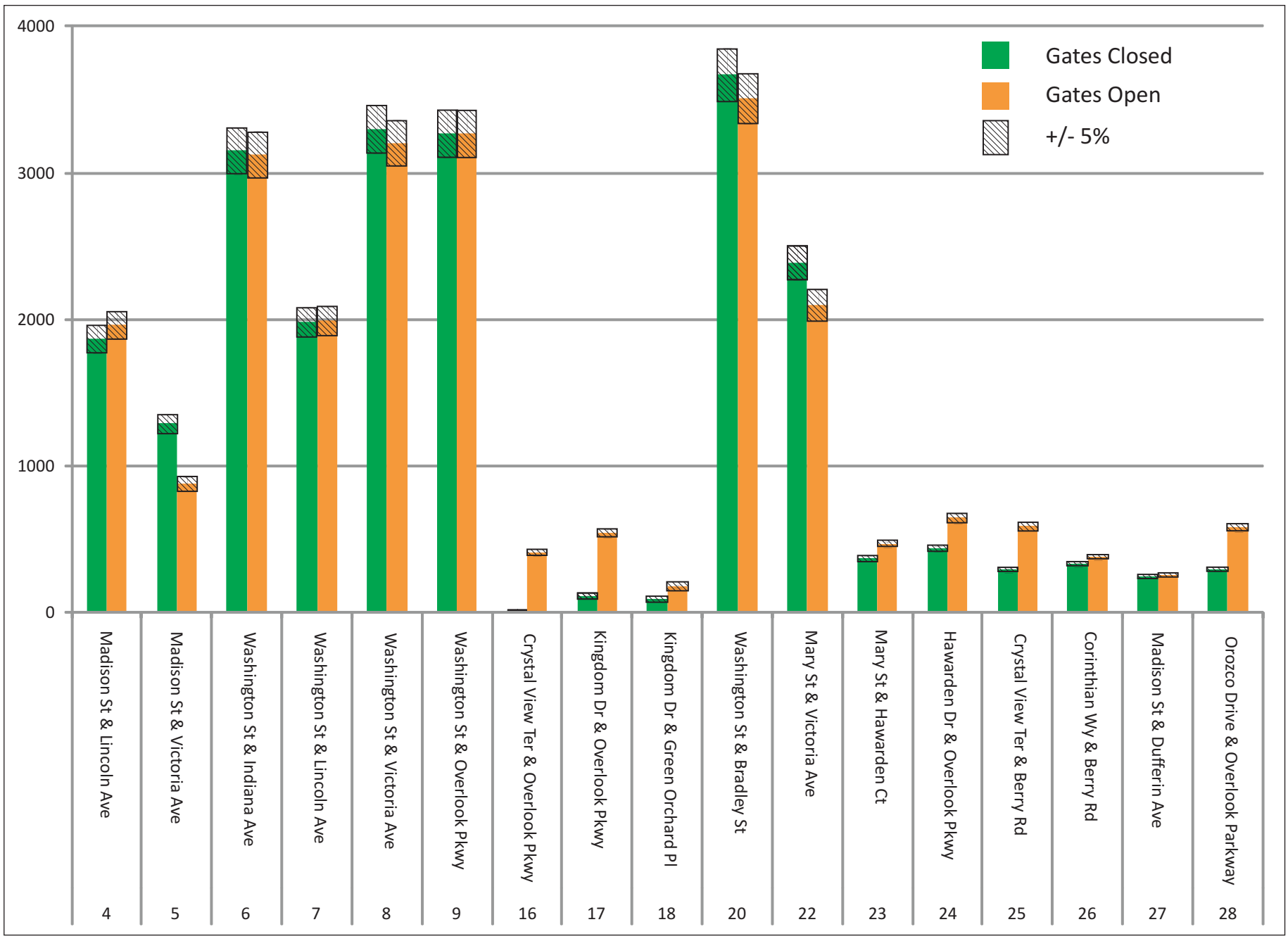
Peak hour turning movement traffic counts were collected at the study intersections twice, once when the gates were open, and a second time when the gates were closed. As expected, there are variations in traffic at intersections directly affected by traffic being able to access to and from Overlook Parkway. Graphics were prepared that illustrate the changes in volumes due to the gates either being open or closed. **Figures 4-2** and **4-3** shows the total AM and PM peak hour volumes entering intersections in the vicinity of the gates, and a band shows a five percent variation, which can be considered a conservative normal day-to-day traffic variation.

The figures show that volumes are higher at certain intersections when the gates are open, as expected. These include intersections along Overlook Parkway. The further away from the gate locations, there is minimal differences in the volumes, generally less than the five to ten percent difference.

Similar results were shown for Average Daily Traffic (ADT) counts, higher volumes are shown in the vicinity of the area of the gates, when the gates were open. Note that additional roadway link counts were taken subsequent to the initial Gates Closed and Gates Open traffic counts. These locations, 25-39, were only counted once. They are distanced far enough away from the gates area that no difference in counts would be expected if they had been counted under both Gates Closed and Gates Open baseline conditions.

It should be noted that the changes in volumes that were seen between when the gates were closed and when the gates were open generally cause little change to how the local intersections or roadway links operate. This is because there is adequate capacity for the traffic volumes for either baseline scenario.





Total Intersection Volume

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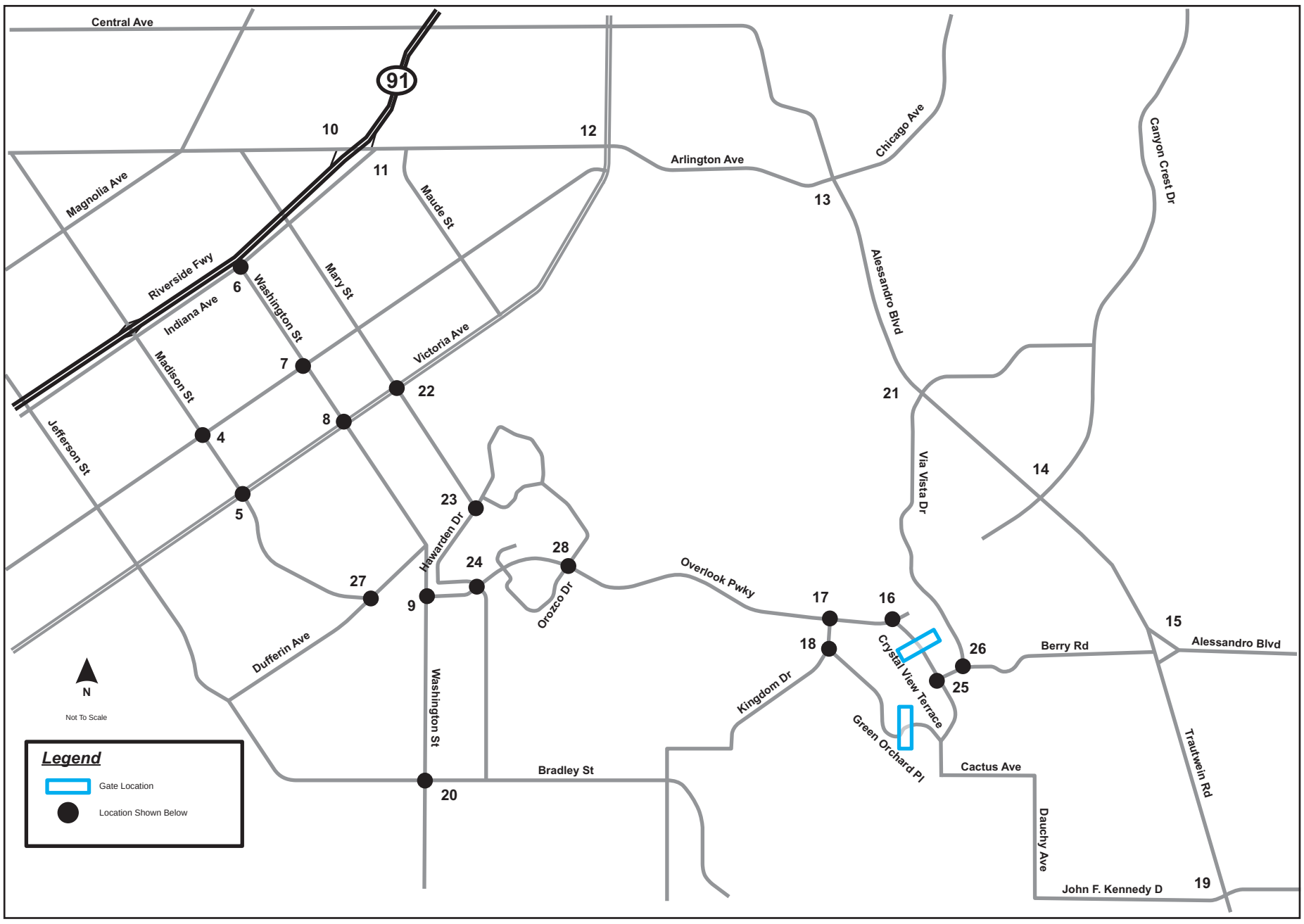
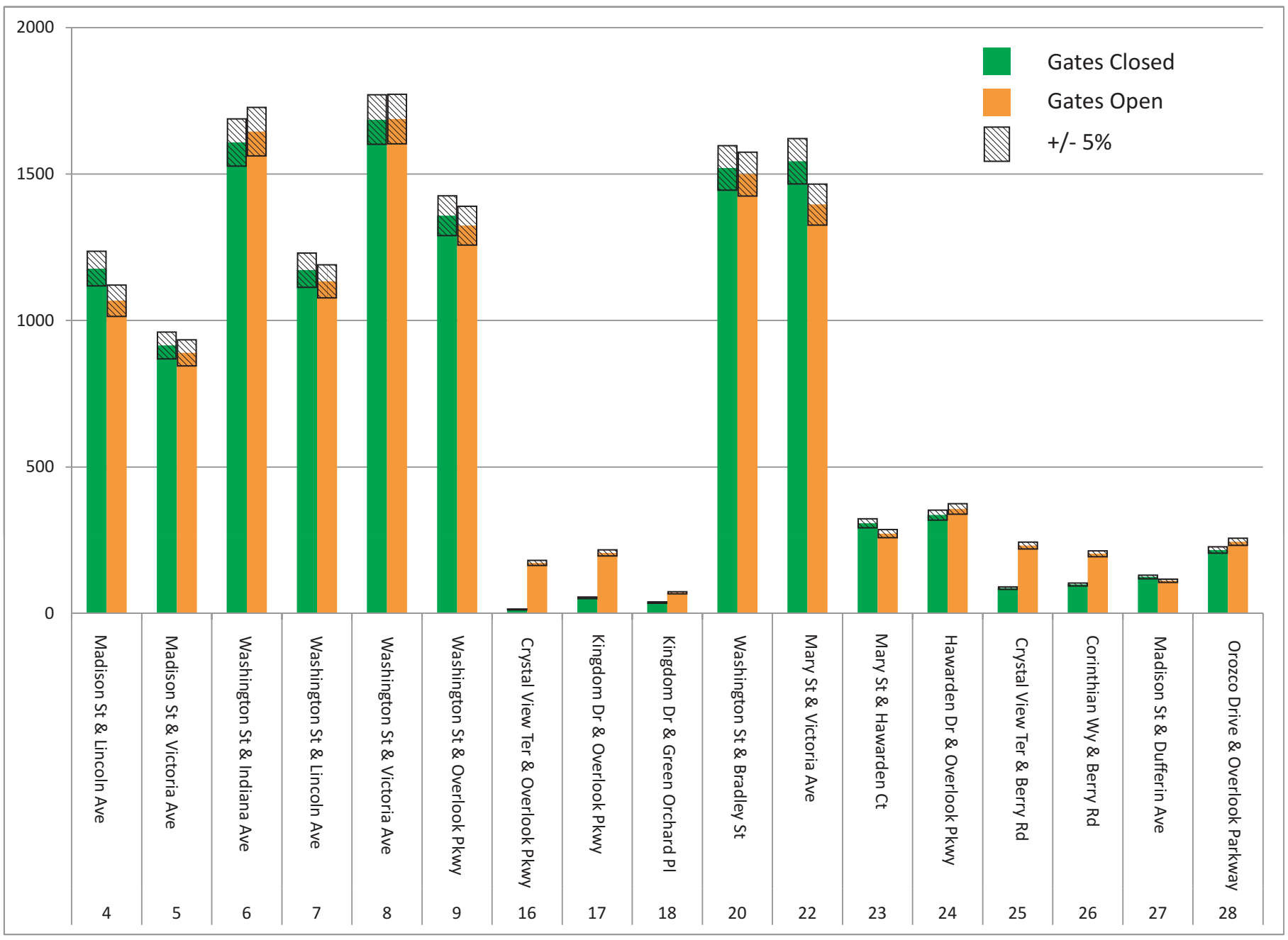
Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA
Figure 4-2
Difference In Traffic Counts (AM Peak Hour)





Total Intersection Volume

ITERIS

Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA
Figure 4-3
Difference In Traffic Counts (PM Peak Hour)

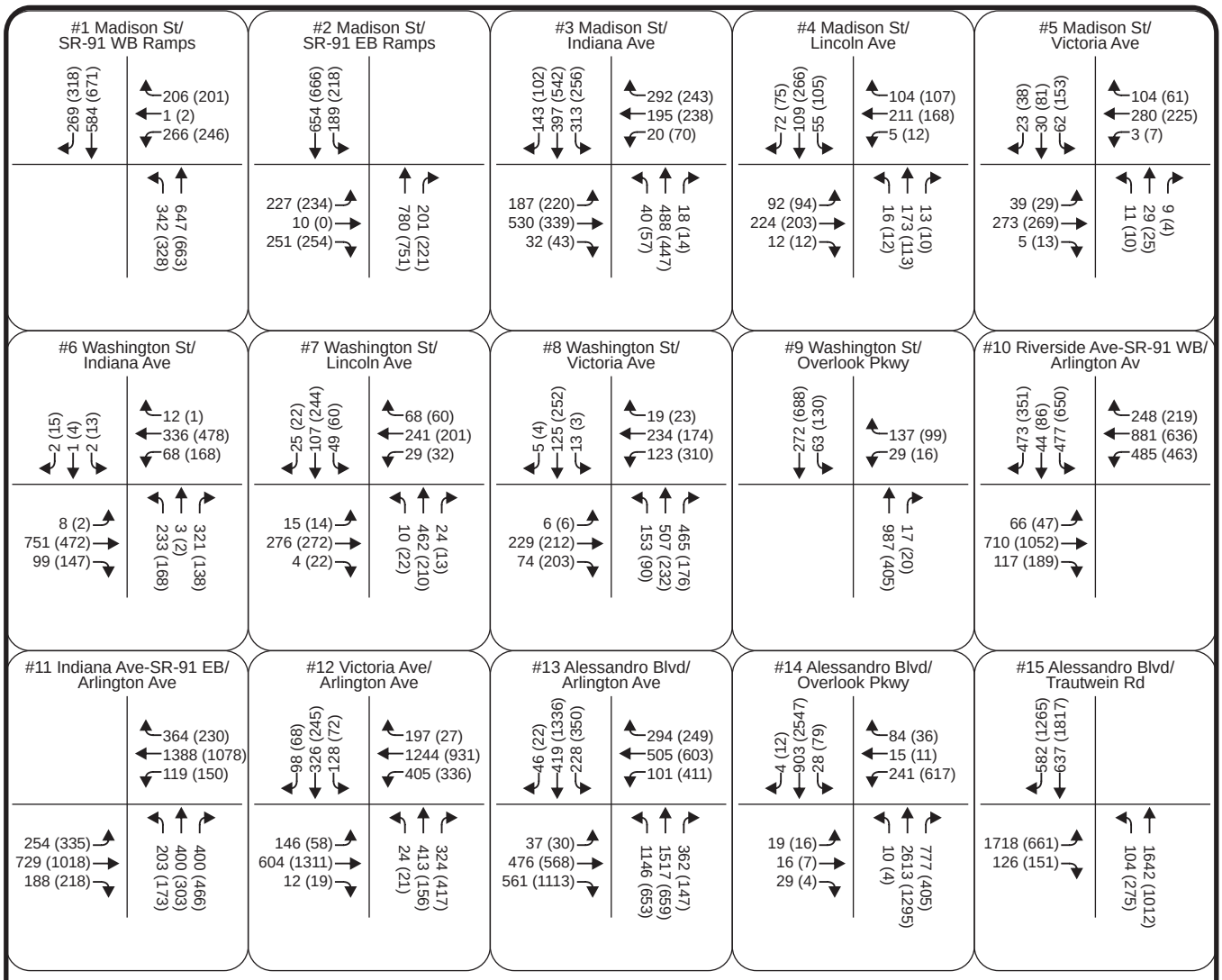
4.2 GATES CLOSED BASELINE

4.2.1 *INTERSECTIONS*

Under Gates Closed, which for this analysis is the same as the Scenario 1, peak period intersection turning movement counts were conducted when the two gates at Green Orchard Place and Crystal View Terrace were closed. All the 28 intersection counts were conducted on weekdays in March 2011. AM peak period counts were conducted between 7 to 9 AM, and PM peak period counts were conducted between 4 to 6 PM. **Figure 4-4** shows the existing peak hour turning movement volumes under Gates Closed. Traffic count sheets are provided in **Appendix A**.

Using the Highway Capacity Manual delay-based methodology, the level of service analysis was performed using TRAFFIX software, version 7.9. The traffic impact analysis is based on the highest single hour of traffic during the AM and PM peak period at the twenty-eight study intersections. Note that throughout this report, the term OVRFL appears when the delay calculation exceeds the limits of TRAFFIX software program.

Table4-1 illustrates the current intersection LOS at each study intersection.



Legend

1 Study Intersection

XX(XX) AM (PM) Peak Hour Volumes

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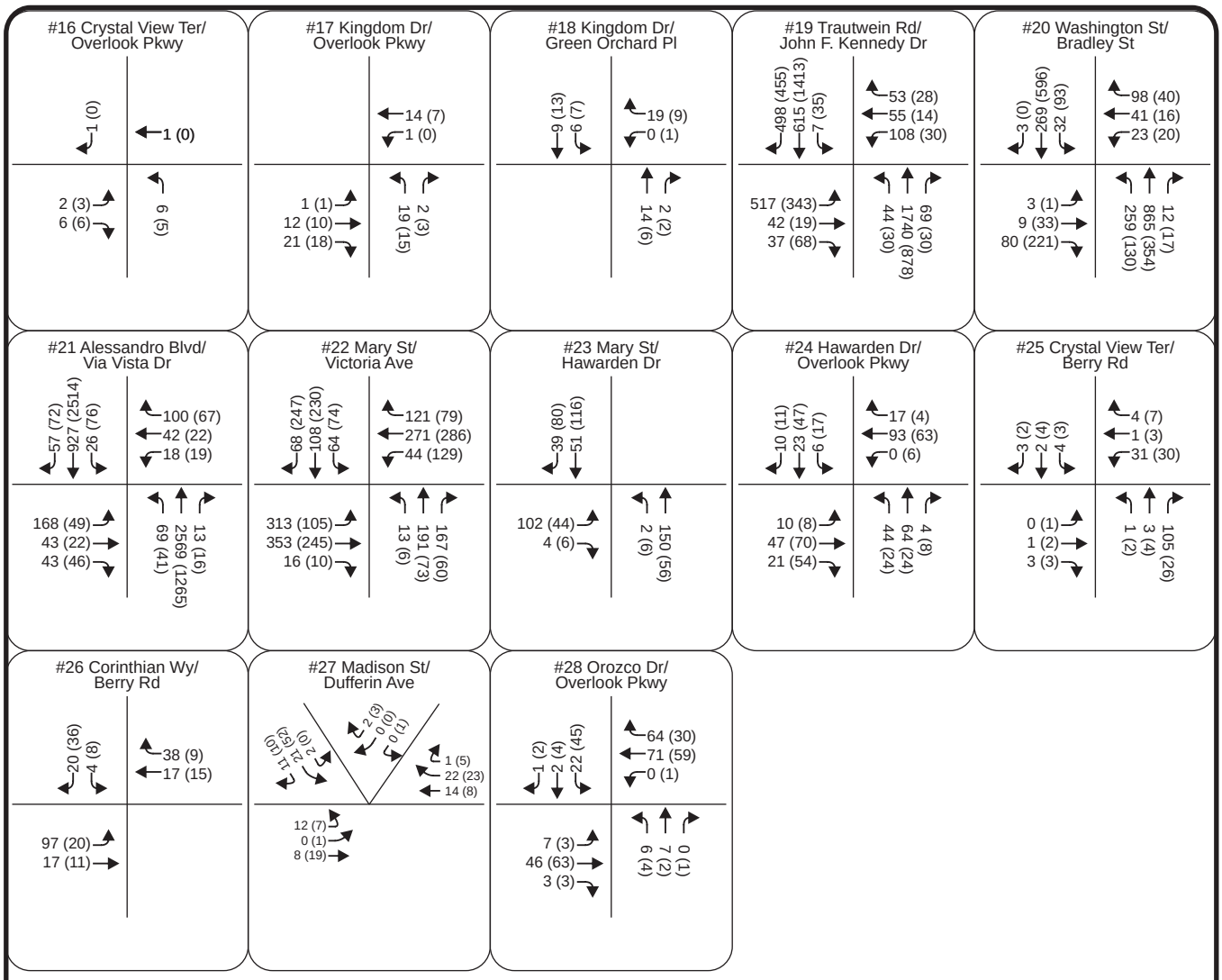
Figure 4-4A

Gates Closed Peak Hour Volumes (Existing)



Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 4-4B

Gates Closed Peak Hour Volumes (Existing)

TABLE 4-1: GATES CLOSED PEAK HOUR LOS (2011)

#	Intersection	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
1.	Madison St & SR-91 WB Ramps	C	27.4	C	26.5
2.	Madison St & SR-91 EB Ramps	C	26.9	C	27.5
3.	Madison St & Indiana Ave	D	36.0	D	35.4
4.	Madison St & Lincoln Ave	C	30.0	C	29.9
5A.	Madison St & Victoria Ave North	A	9.7	B	10.2
5B.	Madison St & Victoria Ave South	A	9.3	B	10.2
6.	Washington St & Indiana Ave	C	23.6	C	23.5
7.	Washington St & Lincoln Ave	C	24.5	C	15.3
8A.	Washington St & Victoria Ave North	B	14.5	B	14.0
8B.	Washington St & Victoria Ave South	C	15.8	D	30.5
9.	Washington St & Overlook Pkwy	B	13.4	B	11.1
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	29.7	C	31.6
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	25.8	C	27.7
12.	Victoria Ave & Arlington Ave	D	42.7	D	36.3
13.	Alessandro Blvd & Arlington Ave	C	29.9	D	41.0
14.	Alessandro Blvd & Overlook Pkwy	B	19.4	C	24.8
15.	Alessandro Blvd & Trautwein Rd	C	28.4	C	21.6
16.	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0
17.	Kingdom Dr & Overlook Pkwy	A	8.7	A	8.7
18.	Kingdom Dr & Green Orchard Pl	A	8.4	A	8.4
19.	Trautwein Rd & John F. Kennedy Dr	C	30.6	C	20.3
20.	Washington St & Bradley St	C	21.1	C	25.4
21.	Alessandro Blvd & Via Vista Dr	C	23.8	B	17.2
22A.	Mary St & Victoria Ave North	C	21.5	D	25.4
22B.	Mary St & Victoria Ave South	C	16.2	B	13.4
23.	Mary St & Hawarden Ct	A	8.0	A	7.8
24.	Hawarden Dr & Overlook Pkwy	A	7.9	A	7.8
25.	Crystal View Ter & Berry Rd	A	7.0	A	6.9
26.	Corinthian Wy & Berry Rd	A	7.4	A	6.9
27	Madison St & Dufferin Ave *	A	7.1	A	7.1
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.5
Note: * indicates intersection analysis conducted with Synchro					

The results indicate that per HCM methodology, under Gates Closed, none of the study intersections currently exceed the LOS standards shown in section 2.2.2 of this report.

4.2.2 *Roadway Links*

Under Gates Closed, ADT roadway link volumes were conducted at 38 locations in the project vicinity (one location occurs under Scenario 4 only). The Levels of service for each link was calculated using the Roadway Capacity table shown in Table 2-2. **Figure 4-5** shows the ADT roadway link volumes under Gates Closed and **Table 4-2** shows the resultant levels of service. Traffic count sheets are provided in **Appendix B**.

TABLE 4-2: GATES CLOSED ADT LOS (2011)

#	Street	Location	Street Classification	ADT	LOS
1	Victoria Avenue	East of Washington Street	Collector (66' or 80')	10,661	C
2	Overlook Parkway	East of Washington Street	Arterial (100')	2,717	A-B
3	Bradley Street	East of Washington Street	Collector (66' or 80')	2,805	A-B
4	Van Buren Boulevard	East of Washington Street	Arterial (120')	38,085	A-B
5	Arlington Avenue	West of Alessandro Boulevard	Arterial (120')	33,924	A-B
6	Berry Road	West of Trautwein Road	Local	694	A-B
7	Van Buren Boulevard	West of Trautwein Road	Arterial (120')	34,330	A-B
8	Alessandro Boulevard	West of Sycamore Canyon Road	Arterial (120')	37,516	A-B
9	Van Buren Boulevard	West of Plummer Street	Arterial (120')	28,219	A-B
10	Washington Street	South of Victoria Avenue	Arterial (100')	16,502	A-B
11	Alessandro Boulevard	South of Arlington Avenue	Arterial (120')	47,391	D
12	Washington Street	North of Valle Vista Way	Arterial (100')	15,633	A-B
13	Golden Star Avenue	North of Valle Vista Way	Collector (66' or 80')	744	A-B
14	Dauchy Avenue	North of John F Kennedy Drive	Collector (66' or 80')	1,026	A-B
15	Trautwein Road	North of John F Kennedy Drive	Arterial (100')	38,447	E-F
16	Washington Street	North of Van Buren Boulevard	Arterial (100')	16,385	A-B
17	Wood Drive	North of Van Buren Boulevard	Arterial (88')	10,014	A-B
18	Trautwein Road	North of Van Buren Boulevard	Arterial (88')	17,718	C
19	Mission Grove Parkway	South of Alessandro Boulevard	Collector (66' or 80')	9,881	A-B
20	Alessandro Boulevard	South of Canyon Crest Drive	Arterial (120')	51,445	E-F
21	Overlook Parkway	West of Kingdom Drive	Arterial	836	A-B

#	Street	Location	Street Classification	ADT	LOS
22	Kingdom Drive	South of Overlook Parkway	Collector (66' or 80')	598	A-B
23	Crystal View Drive	South of Overlook Parkway	Local	118	A-B
24	Cactus Avenue	East of Crystal View Terrace	Collector (66' or 80')	787	A-B
25	Mary Street	North of Victoria Avenue	Arterial (88')	8,674	A-B
26	Mary Street	North of Lincoln Avenue	Arterial (88')	10,670	A-B
27	Proposed "C" Street*	South of Victoria Avenue	Arterial (100')	-	N/A
28	Madison Street	North of Victoria Avenue	Arterial (88')	4,014	A-B
29	Madison Street	North of Lincoln Avenue	Arterial (88')	9,925	A-B
30	Victoria Avenue	East of Mary Street	Collector (66' or 80')	8,524	A-B
31	Victoria Avenue	East of Madison Street	Collector (66' or 80')	7,079	A-B
32	Victoria Avenue	West of Madison Street	Collector (66' or 80')	5,582	A-B
33	Victoria Avenue	East of Adams Street	Collector (66' or 80')	4,591	A-B
34	Dufferin Avenue	West of Washington Street	Collector (66' or 80')	1,071	A-B
35	Dufferin Avenue	East of Adams Street	Collector (66' or 80')	2,239	A-B
36	Dufferin Avenue	East of Van Buren Boulevard	Collector (66' or 80')	807	A-B
37	Dufferin Avenue	East of McAllister Street	Collector (66' or 80')	1,406	A-B
38	Bradley Street	West of Washington Street	Collector (66' or 80')	3,554	A-B
39	Lincoln Avenue	East of Madison Street	Collector (66' or 80')	6,535	A-B
* Future Roadway					

The results indicate that none of the roadway links currently exceed the LOS standards shown in section 2.2.2 of this report.

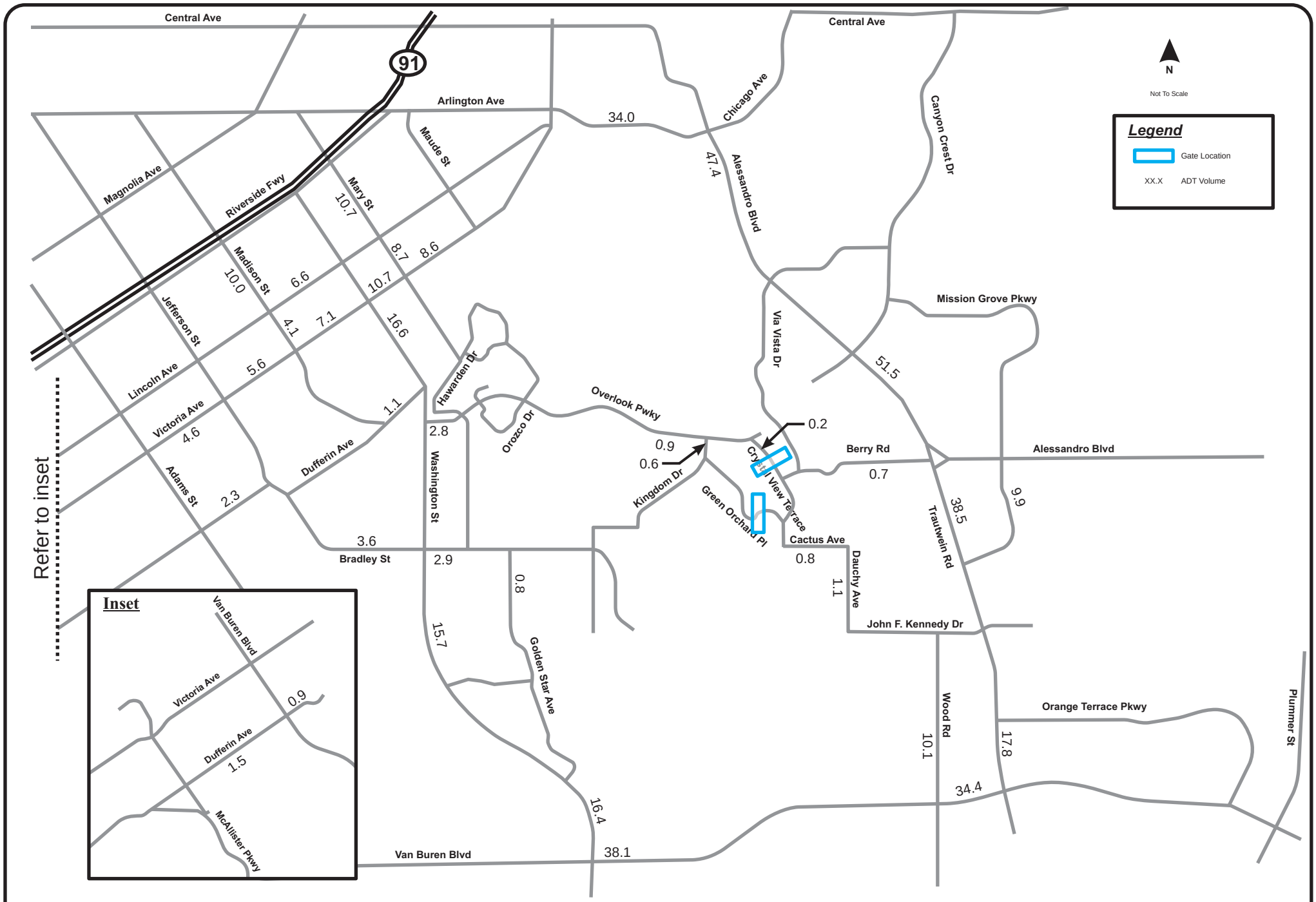


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Figure 4-5

Gates Closed ADT Volumes (Existing)

4.3 GATES OPEN BASELINE

4.3.1 *INTERSECTIONS*

Under Gates Open, which for this analysis is the same as the Scenario 2, peak period intersection turning movement counts were conducted when the two gates at Green Orchard Place and Crystal View Terrace were open. All the 28 intersection counts were conducted on weekdays in February and April 2011. AM peak period counts were conducted between 7 to 9 AM, and PM peak period counts were conducted between 4 to 6 PM. **Figure 4-6** shows the existing peak hour turning movement volumes under Gates Open. Traffic count sheets are provided in **Appendix B**.

Using the Highway Capacity Manual delay-based methodology, the level of service analysis was performed using the TRAFFIX software, version 7.9 and the Synchro software, version 7. The traffic impact analysis is based on the highest single hour of traffic during the AM and PM peak period at the twenty-eight study intersections. **Table 4-3** illustrates the current intersection LOS at each study intersection.

The results indicate that per HCM methodology, under Gates Open, one study intersection currently exceeds the LOS standards shown in section 2.2.2. The following study intersection is operating at LOS E:

- #8B Washington St & Victoria Ave South (PM LOS E)

TABLE 4-3: GATES OPEN PEAK HOUR LOS (2011)

#	Intersection	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
1.	Madison St & SR-91 WB Ramps	C	27.9	C	25.9
2.	Madison St & SR-91 EB Ramps	C	27.9	C	25.7
3.	Madison St & Indiana Ave	D	37.7	D	37.0
4.	Madison St & Lincoln Ave	C	30.2	C	29.8
5A.	Madison St & Victoria Ave North	A	9.7	A	9.7
5B.	Madison St & Victoria Ave South	A	9.5	B	10.3
6.	Washington St & Indiana Ave	C	24.2	C	23.7
7.	Washington St & Lincoln Ave	C	21.9	B	14.8
8A.	Washington St & Victoria Ave North	B	13.7	B	14.4
8B.	Washington St & Victoria Ave South	B	13.7	E	37.1
9.	Washington St & Overlook Pkwy	B	16.2	B	11.6
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	31.8	C	30.8
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	26.0	C	27.4
12.	Victoria Ave & Arlington Ave	D	45.4	C	33.7
13.	Alessandro Blvd & Arlington Ave	C	30.0	D	41.6
14.	Alessandro Blvd & Overlook Pkwy	C	21.5	C	27.9
15.	Alessandro Blvd & Trautwein Rd	C	31.3	C	20.8
16.	Crystal View Ter & Overlook Pkwy	A	7.4	A	7.4
17.	Kingdom Dr & Overlook Pkwy	A	9.6	A	9.7
18.	Kingdom Dr & Green Orchard Pl	A	8.5	A	8.5
19.	Trautwein Rd & John F. Kennedy Dr	C	32.8	B	19.3
20.	Washington St & Bradley St	C	20.8	C	24.4
21.	Alessandro Blvd & Via Vista Dr	C	24.0	C	21.1
22A.	Mary St & Victoria Ave North	C	16.3	C	16.7
22B.	Mary St & Victoria Ave South	B	12.3	B	11.7
23.	Mary St & Hawarden Ct	A	8.0	A	7.7
24.	Hawarden Dr & Overlook Pkwy	A	8.1	A	7.8
25.	Crystal View Ter & Berry Rd	A	7.5	A	7.4
26.	Corinthian Wy & Berry Rd	A	7.7	A	7.4
27	Madison St & Dufferin Ave *	A	7.2	A	7.1
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.7

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards.

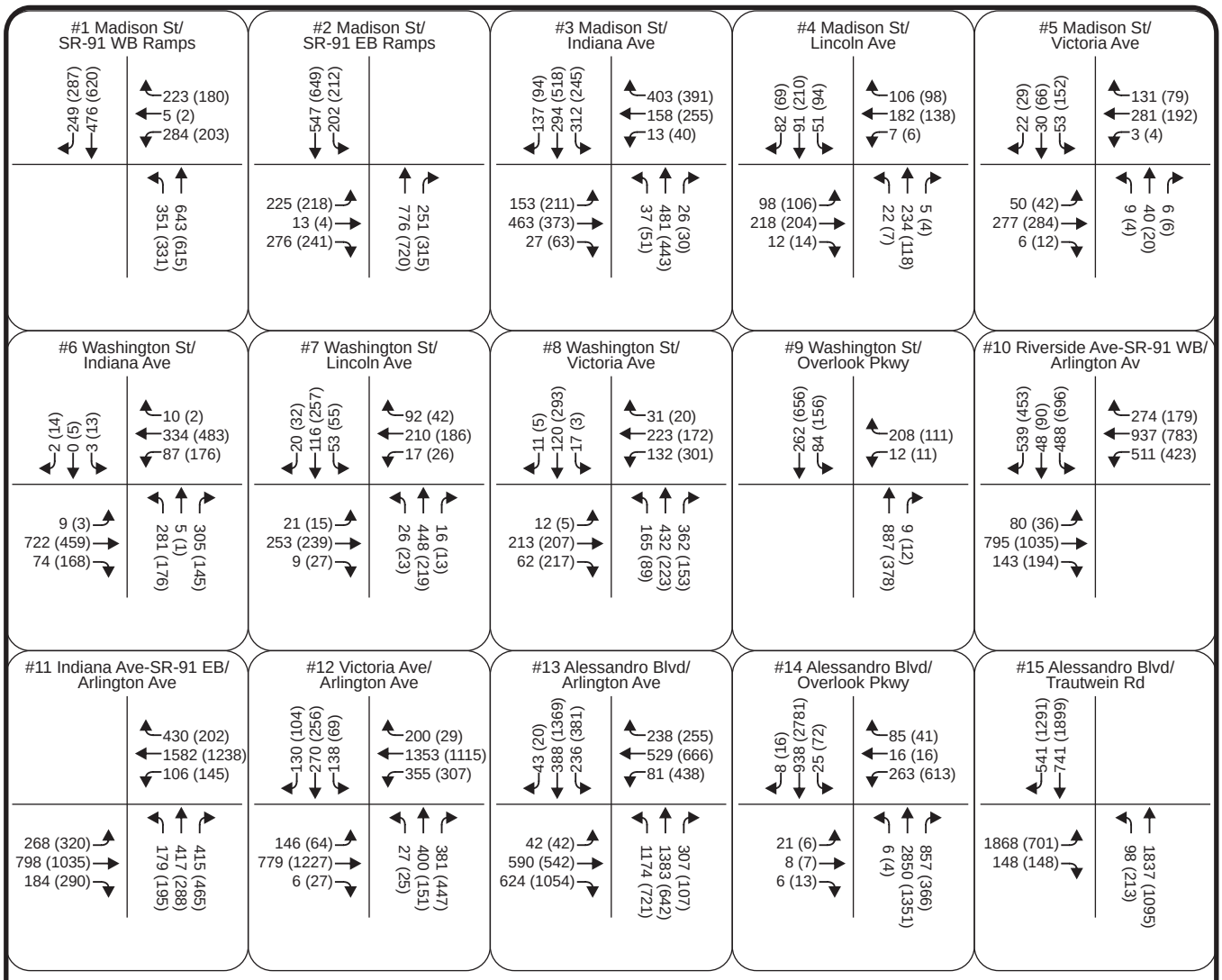

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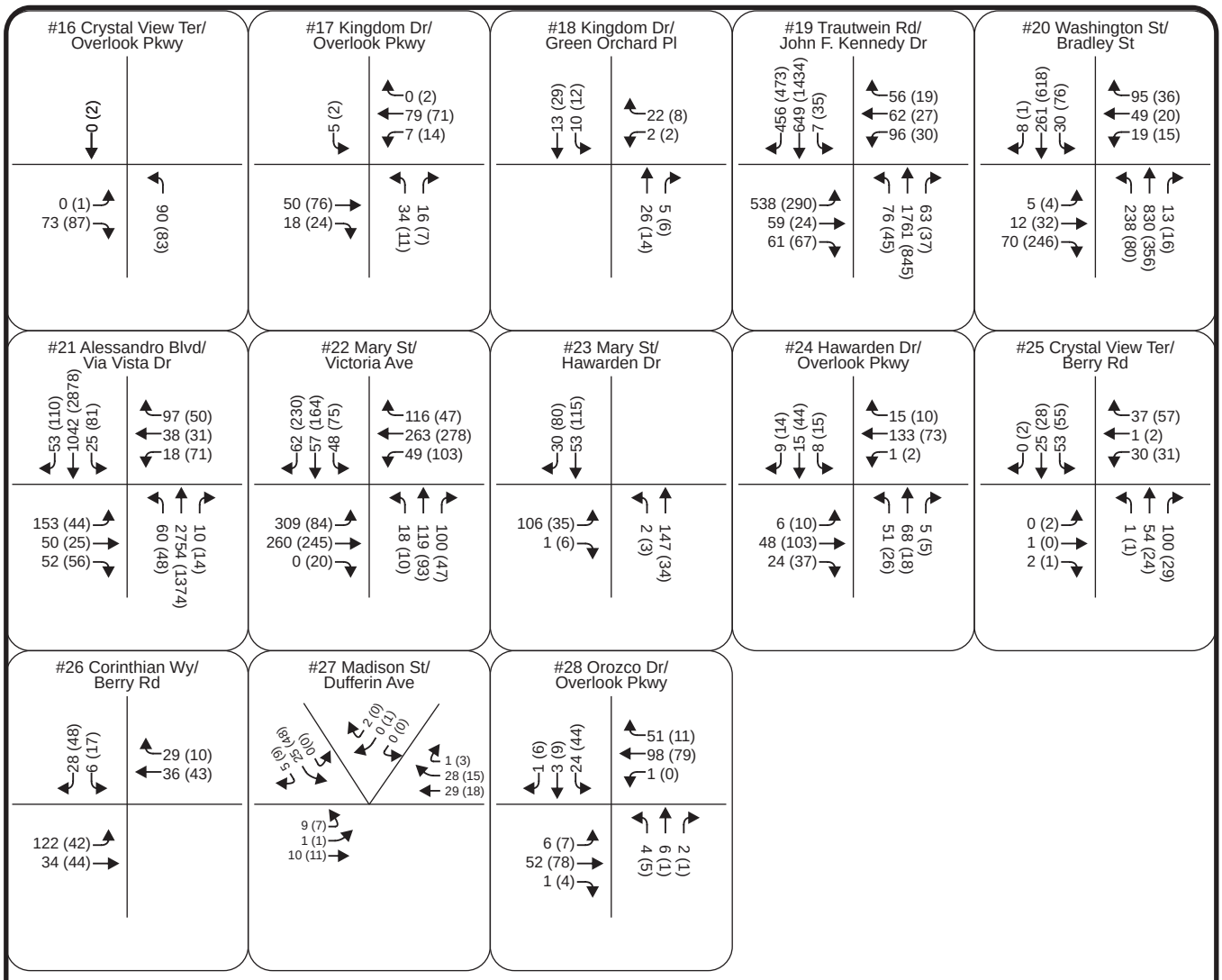
Figure 4-6A

Gates Open Peak Hour Volumes (Existing)



Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 4-6B

Gates Open Peak Hour Volumes (Existing)

4.3.2 *Roadway Links*

Under Gates Open, ADT roadway link volumes were conducted at 39 locations in the project vicinity. The Levels of service for each link was calculated using the Roadway Capacity table shown in Table 2-2. **Figure 4-7** shows the ADT roadway link volumes under Scenario 2 and **Table 4-4** shows the resultant levels of service. Traffic count sheets are provided in **Appendix A**.

TABLE 4-4: GATES OPEN ADT LOS (2011)

#	Street	Location	Street Classification	ADT	LOS
1	Victoria Avenue	East of Washington Street	Collector (66' or 80')	10,001	C
2	Overlook Parkway	East of Washington Street	Arterial (100')	3,536	A-B
3	Bradley Street	East of Washington Street	Collector (66' or 80')	2,628	A-B
4	Van Buren Boulevard	East of Washington Street	Arterial (120')	37,891	A-B
5	Arlington Avenue	West of Alessandro Boulevard	Arterial (120')	34,325	A-B
6	Berry Road	West of Trautwein Road	Local	1,016	A-B
7	Van Buren Boulevard	West of Trautwein Road	Arterial (120')	34,593	A-B
8	Alessandro Boulevard	West of Sycamore Canyon Road	Arterial (120')	37,846	A-B
9	Van Buren Boulevard	West of Plummer Street	Arterial (120')	30,407	A-B
10	Washington Street	South of Victoria Avenue	Arterial (100')	16,360	A-B
11	Alessandro Boulevard	South of Arlington Avenue	Arterial (120')	46,989	D
12	Washington Street	North of Valle Vista Way	Arterial (100')	14,865	A-B
13	Golden Star Avenue	North of Valle Vista Way	Collector (66' or 80')	660	A-B
14	Dauchy Avenue	North of John F Kennedy Drive	Collector (66' or 80')	1,505	A-B
15	Trautwein Road	North of John F Kennedy Drive	Arterial (100')	36,508	E-F
16	Washington Street	North of Van Buren Boulevard	Arterial (100')	15,516	A-B
17	Wood Drive	North of Van Buren Boulevard	Arterial (88')	9,877	A-B
18	Trautwein Road	North of Van Buren Boulevard	Arterial (88')	17,600	C
19	Mission Grove Parkway	South of Alessandro Boulevard	Collector (66' or 80')	9,464	A-B
20	Alessandro Boulevard	South of Canyon Crest Drive	Arterial (120')	51,669	E-F
21	Overlook Parkway	West of Kingdom Drive	Arterial	1,793	A-B
22	Kingdom Drive	South of Overlook Parkway	Collector (66' or 80')	763	A-B
23	Crystal View Drive	South of Overlook Parkway	Local	1,520	A-B

#	Street	Location	Street Classification	ADT	LOS
24	Cactus Avenue	East of Crystal View Terrace	Collector (66' or 80')	1,214	A-B
25	Mary Street	North of Victoria Avenue	Arterial (88')	8,674	A-B
26	Mary Street	North of Lincoln Avenue	Arterial (88')	10,670	A-B
27	Proposed "C" Street*	South of Victoria Avenue	Arterial (100')	-	N/A
28	Madison Street	North of Victoria Avenue	Arterial (88')	4,014	A-B
29	Madison Street	North of Lincoln Avenue	Arterial (88')	9,925	A-B
30	Victoria Avenue	East of Mary Street	Collector (66' or 80')	8,524	A-B
31	Victoria Avenue	East of Madison Street	Collector (66' or 80')	7,079	A-B
32	Victoria Avenue	West of Madison Street	Collector (66' or 80')	5,582	A-B
33	Victoria Avenue	East of Adams Street	Collector (66' or 80')	4,591	A-B
34	Dufferin Avenue	West of Washington Street	Collector (66' or 80')	1,071	A-B
35	Dufferin Avenue	East of Adams Street	Collector (66' or 80')	2,239	A-B
36	Dufferin Avenue	East of Van Buren Boulevard	Collector (66' or 80')	807	A-B
37	Dufferin Avenue	East of McAllister Street	Collector (66' or 80')	1,406	A-B
38	Bradley Street	West of Washington Street	Collector (66' or 80')	3,554	A-B
39	Lincoln Avenue	East of Madison Street	Collector (66' or 80')	6,535	A-B
* Future Roadway					

Similar to Gates Closed, the analysis shows that no roadway links exceed the LOS standards shown in Section 2.2.2 of this report.

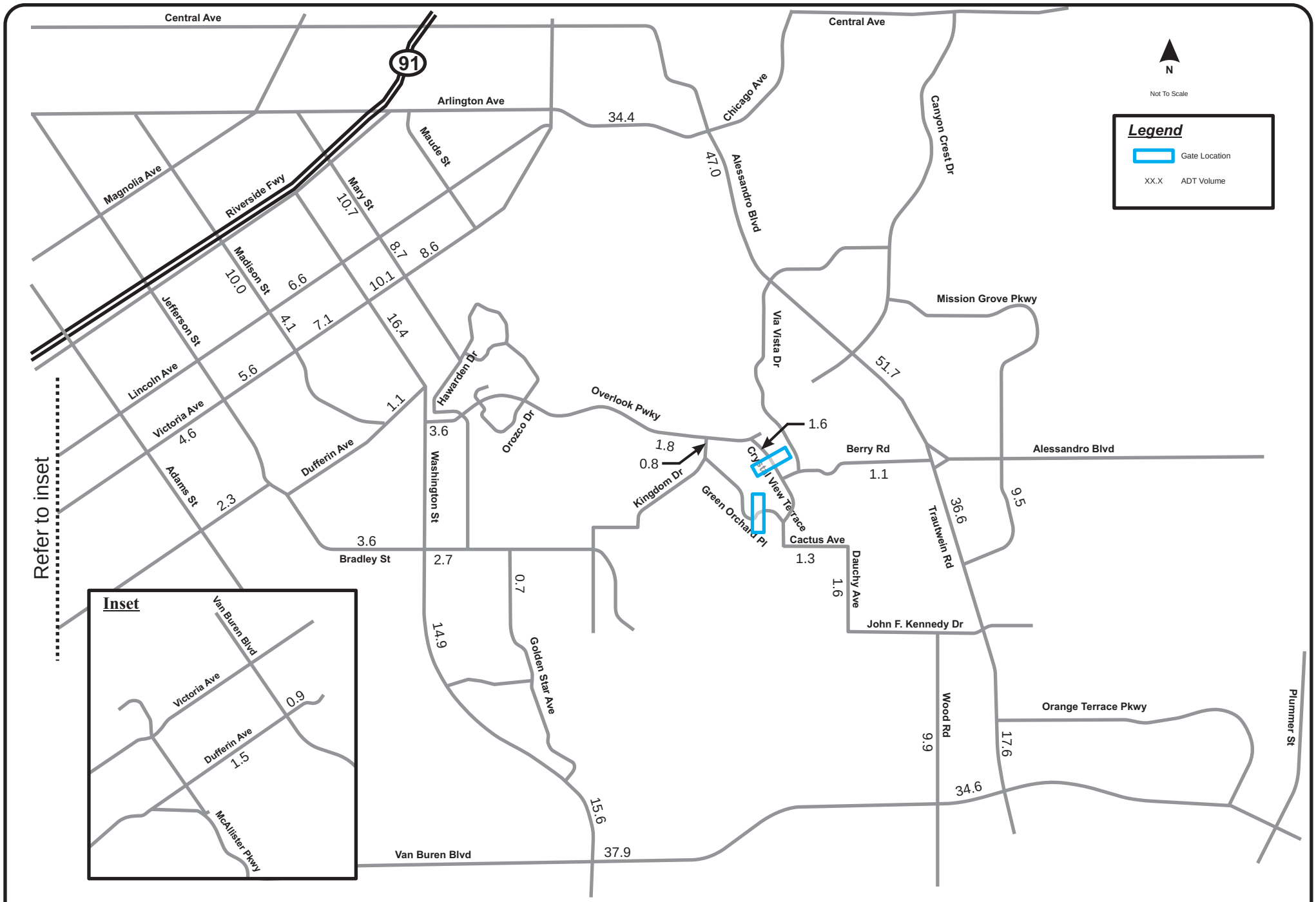


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Figure 4-7
Gates Open ADT Volumes (Existing)

5.0 YEAR 2011 PROJECT IMPACT ANALYSIS

As noted earlier, each scenario is compared to Gates Closed and Gates Open conditions in order to determine project related impacts. Project related impacts were determined by comparing the peak hour intersection and ADT levels of service (LOS) under the specific project scenarios to the Year 2011 Gates Closed and Gates Open traffic conditions.

The gates are required to be closed by General Plan 2025 policy, and consistent with project conditions for two tract map projects; however, the gates are regularly opened and closed by local residents at undetermined intervals without the knowledge or permission of the City. Therefore, primarily for traffic conditions, it is necessary to establish two environmental baselines for the project and provide analysis for both Gates Closed (the legal condition that require the gates to remain in place until such time that Overlook Parkway is connected) and Gates Open (the existing condition at the time the NOP was released). Therefore, under this analysis, two baseline conditions were used for LOS comparison:

- Gates Closed
- Gates Open

This section of the report will compare Scenario 2, Scenario 3 and Scenario 4 conditions to Gates Closed conditions and identify any project related impacts for the Gates Closed as baseline. Then the Scenario 1, Scenario 3 and Scenario 4 conditions will be compared to Gates Open conditions in order to identify any project related impacts for the Gates Open as baseline.

The proposed project involves the analysis of four scenarios as follows:

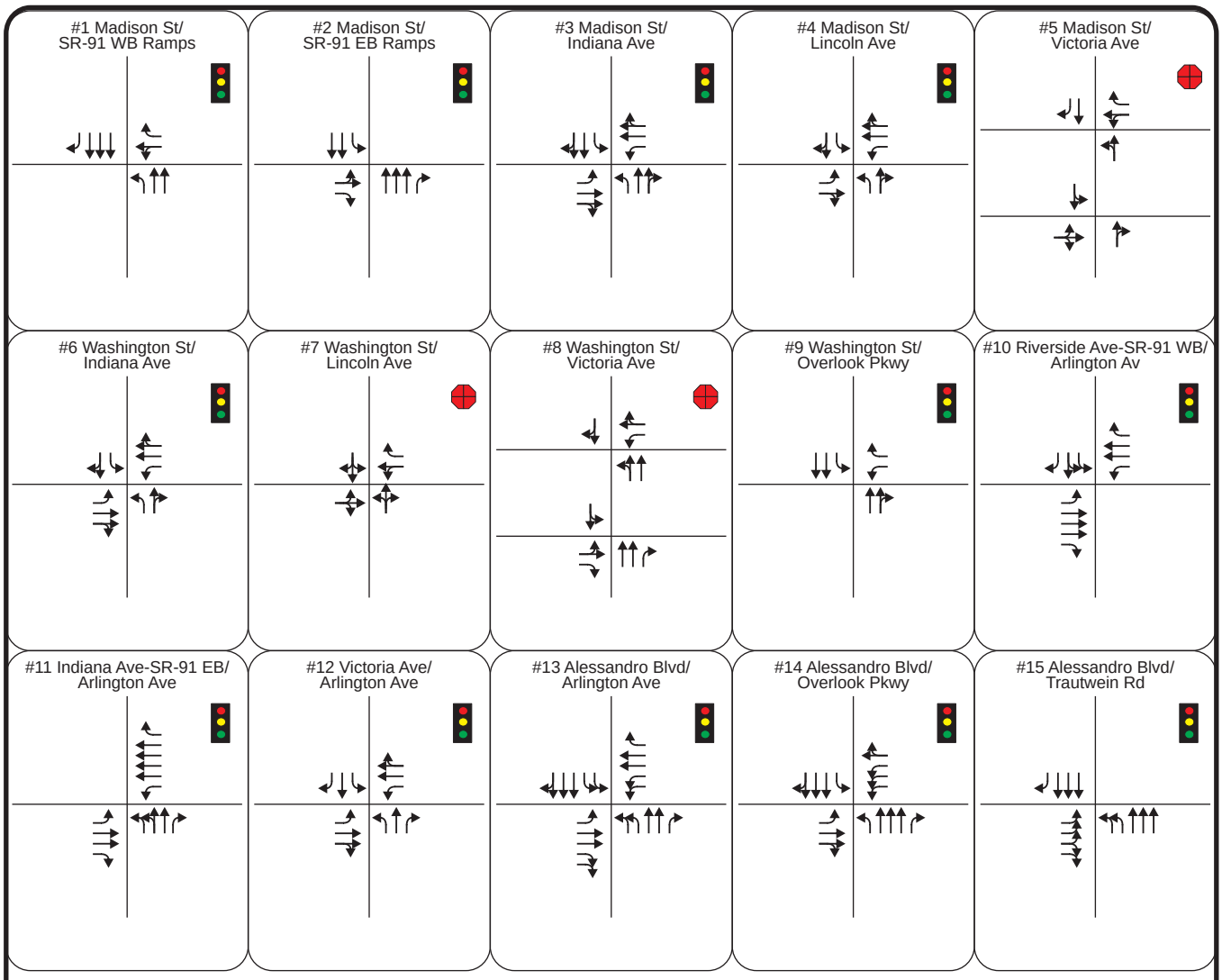
Scenario 1 - Gates closed to through traffic, no connection of Overlook Parkway: Under Scenario 1, both Crystal View Terrace and Green Orchard Place gates would remain in place and be closed unless and until Overlook Parkway is connected to the east across the Alessandro Arroyo and to Alessandro Boulevard, and a connection westerly of Washington Street is built to get the traffic to SR 91. For analysis purposes, this is the same as the Gates Closed Baseline conditions.

Scenario 2 - Gates removed, no connection of Overlook Parkway: Under Scenario 2, the gates at both Crystal View Terrace and Green Orchard Place would be permanently removed, and there would be no connection of Overlook Parkway across the Alessandro Arroyo, easterly to Alessandro Boulevard or a connection westerly of Washington Street to get the traffic to SR 91. However, Overlook Parkway connection would remain on the Master Plan of Roadways of the General Plan 2025 for future consideration. The City of Riverside (City) would be required to approve an amendment to Policy CCM-4.4 in the City General Plan 2025 (General Plan 2025), along with project conditions related to the gates for two projects.. For analysis purposes, this is the same as the Gates Open Baseline conditions.

Scenario 3 - Gates removed, Overlook Parkway connected: Under Scenario 3, the gates at Crystal View Terrace and Green Orchard Place would be removed, and Overlook Parkway would be connected between Via Vista Drive and Sandtrack Road with the construction of a fill crossing and over the Alessandro Arroyo with a bridge crossing, allowing for a through connection to Alessandro Boulevard. Along Overlook Parkway, left turn pockets will be provided where they do not currently exist and no changes to stop signs or signal operations are assumed to occur. **Figure 5-1** illustrates intersection geometric conditions and **Figure 5-2** illustrates the peak hour turning movement volumes under Scenario 3, and **Figure 5-3** illustrates the ADT volumes.

Scenario 4 - Gates removed, Overlook Parkway connected, and a Parkway would be extended westerly: Under Scenario 4, both Crystal View Terrace and Green Orchard Place gates would be permanently removed, and Overlook Parkway would be connected between Via Vista Drive and approximately 500 feet west of Sandtrack Road and over the Alessandro Arroyo. In addition, new road, Proposed C Street, would be constructed to provide a more direct connection from western Riverside and to SR 91. The Proposed C Street would be located within the Arlington Heights Greenbelt and would extend approximately one mile from Washington Street north and west ending at the intersection of Madison Street and Victoria Avenue. As a result of this new roadway, other project components are required, including: a cul-de-sac and vacated road along Washington Street from Engle Drive to just north of the existing Overlook Parkway and Washington Street intersection; a cul-de-sac and vacated road along Dufferin Avenue west of the new Proposed C Street alignment; the realignment of Lenox Avenue/Graylock Avenue to provide a connection to the new Proposed C Street and existing Washington Street; and the vacation of a portion of Madison Avenue and a realignment and intersection with the Proposed C Street. The City would vacate the existing right-of-way in select sections where cul-de-sacs and other improvements are proposed. The proposed alignment would consist of a four-lane arterial with a 100' Right-of-Way. **Figure 5-4** illustrates the intersection geometric conditions, **Figure 5-5** illustrates the peak hour turning movement volumes under Scenario 4, and **Figure 5-6** illustrates the ADT volumes under Scenario 4.

A summary of impacted locations is shown in Chapter 7 of this report.



Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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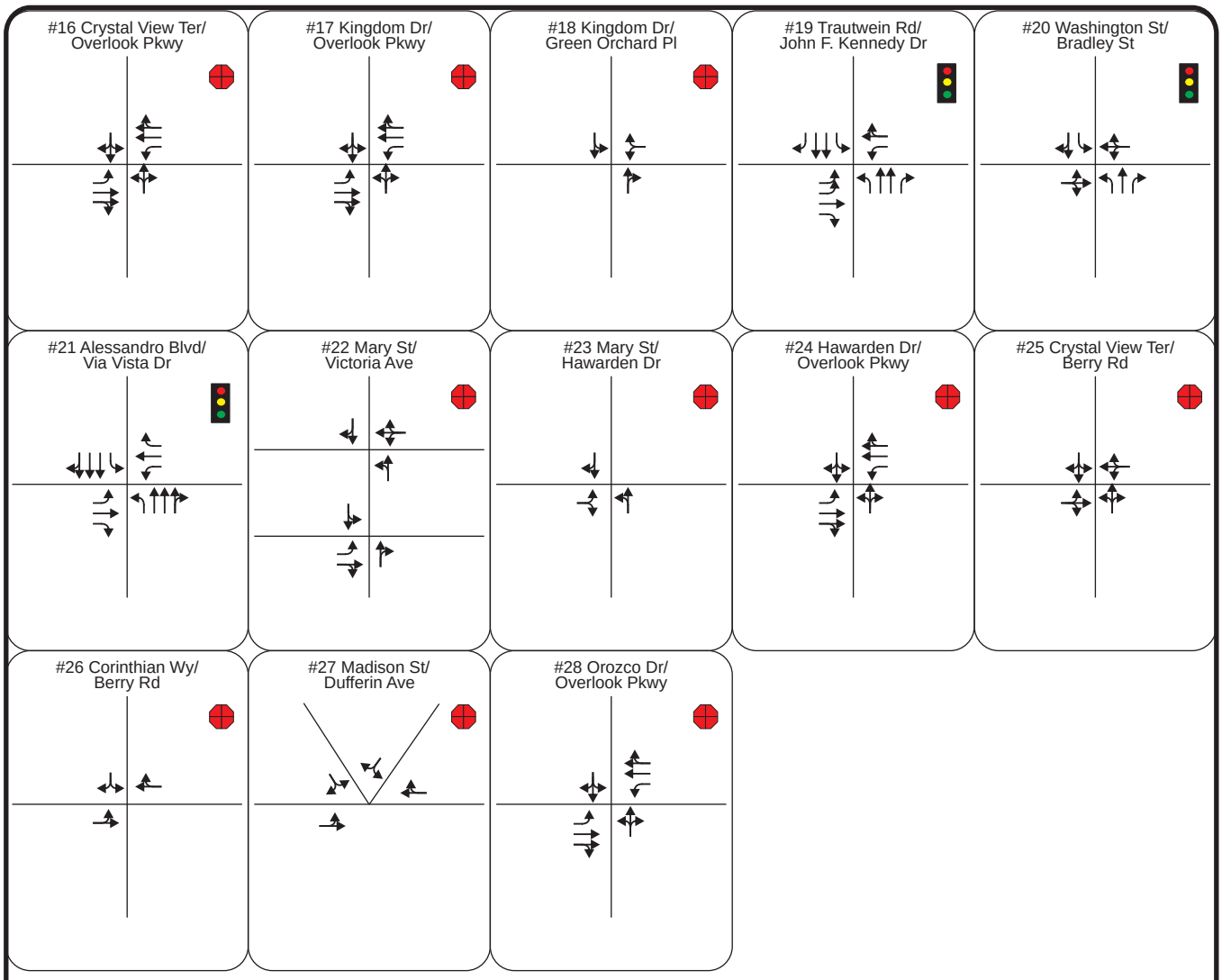
Figure 5-1A

Scenario 3 Lane Configuration (Existing)



Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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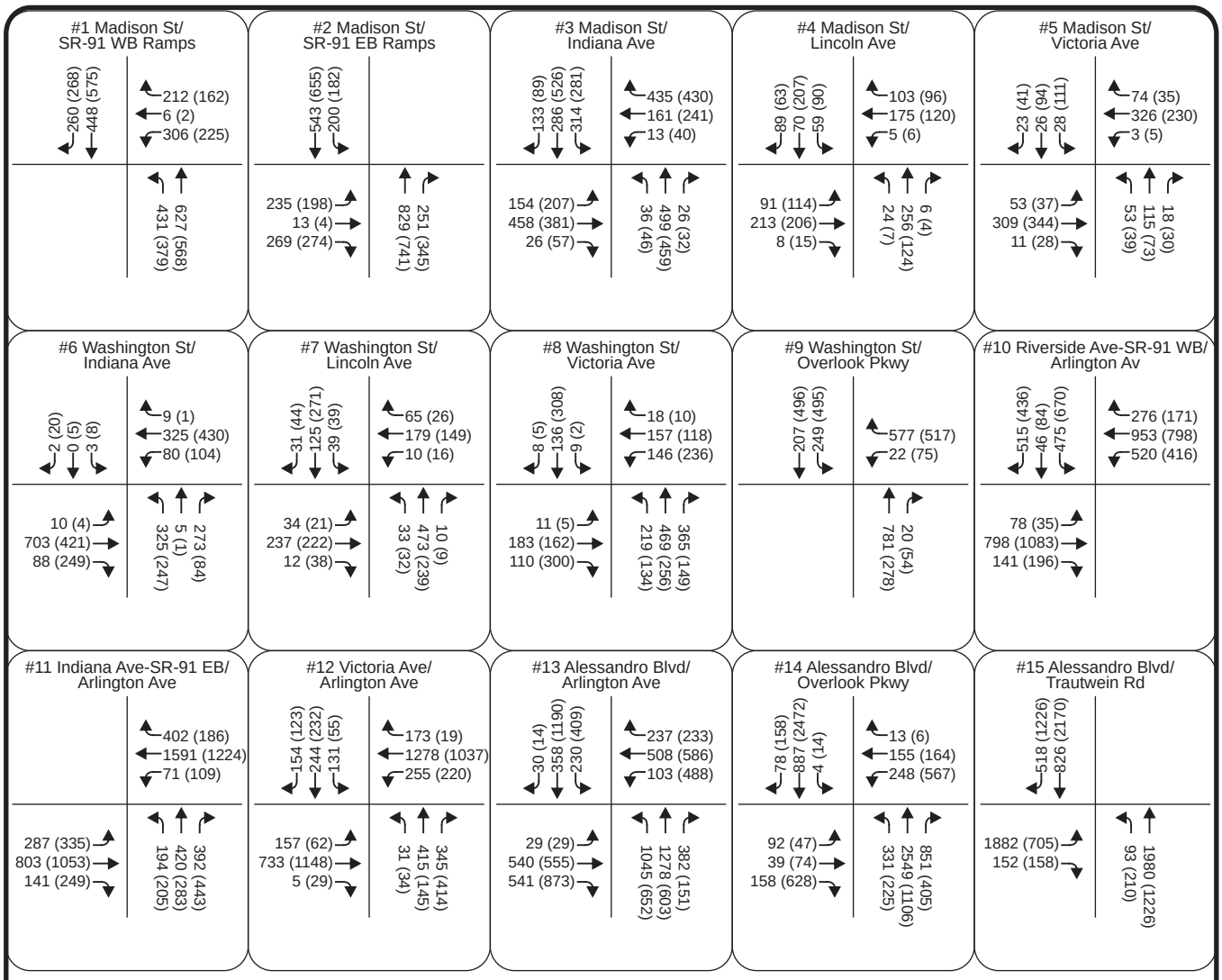
Figure 5-1B

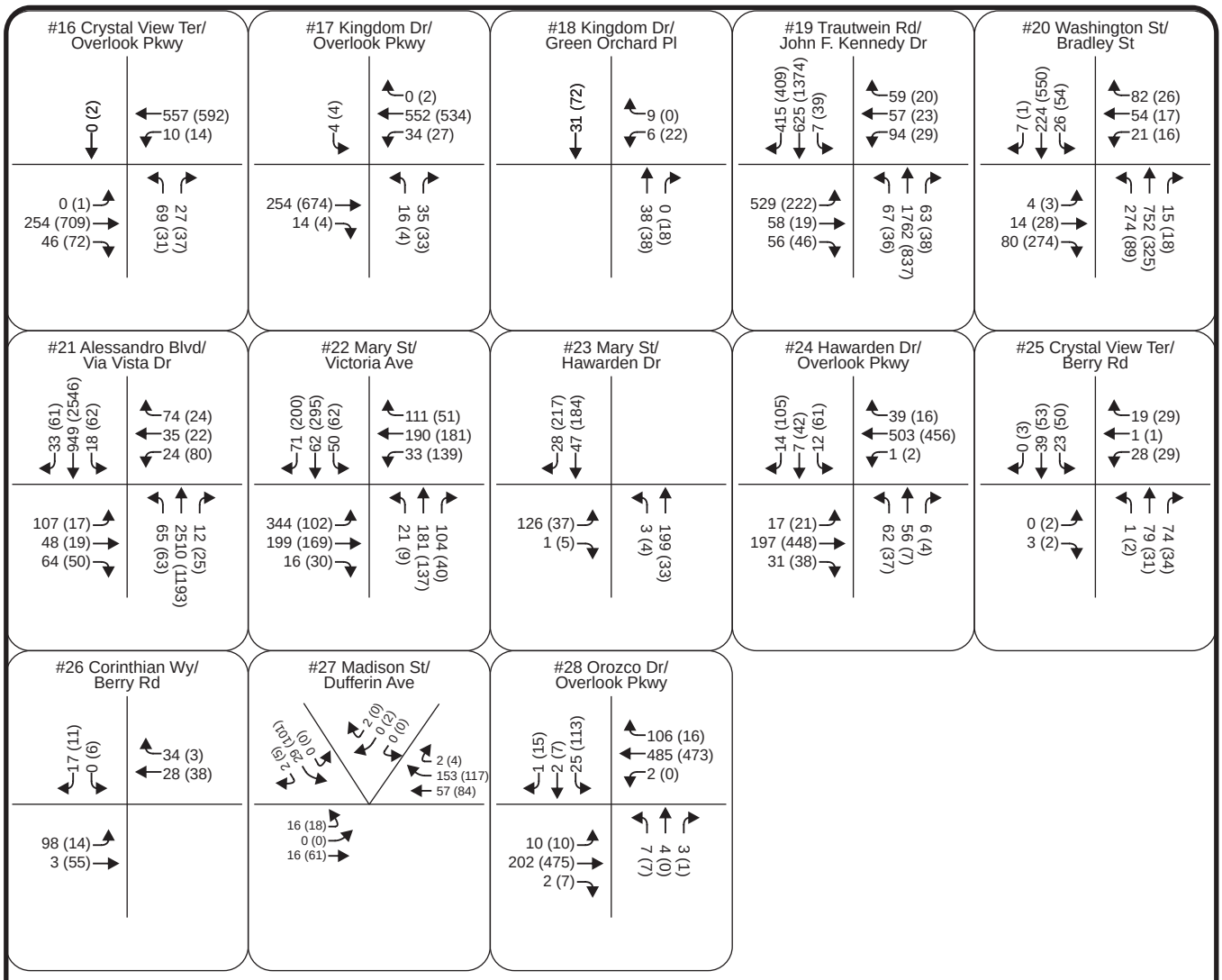
Scenario 3 Lane Configuration (Existing)



Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 5-2A

Scenario 3 Peak Hour Volumes (Existing)



Legend

1 Study Intersection

XX(XX) AM (PM) Peak Hour Volumes

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Figure 5-2B

Scenario 3 Peak Hour Volumes (Existing)

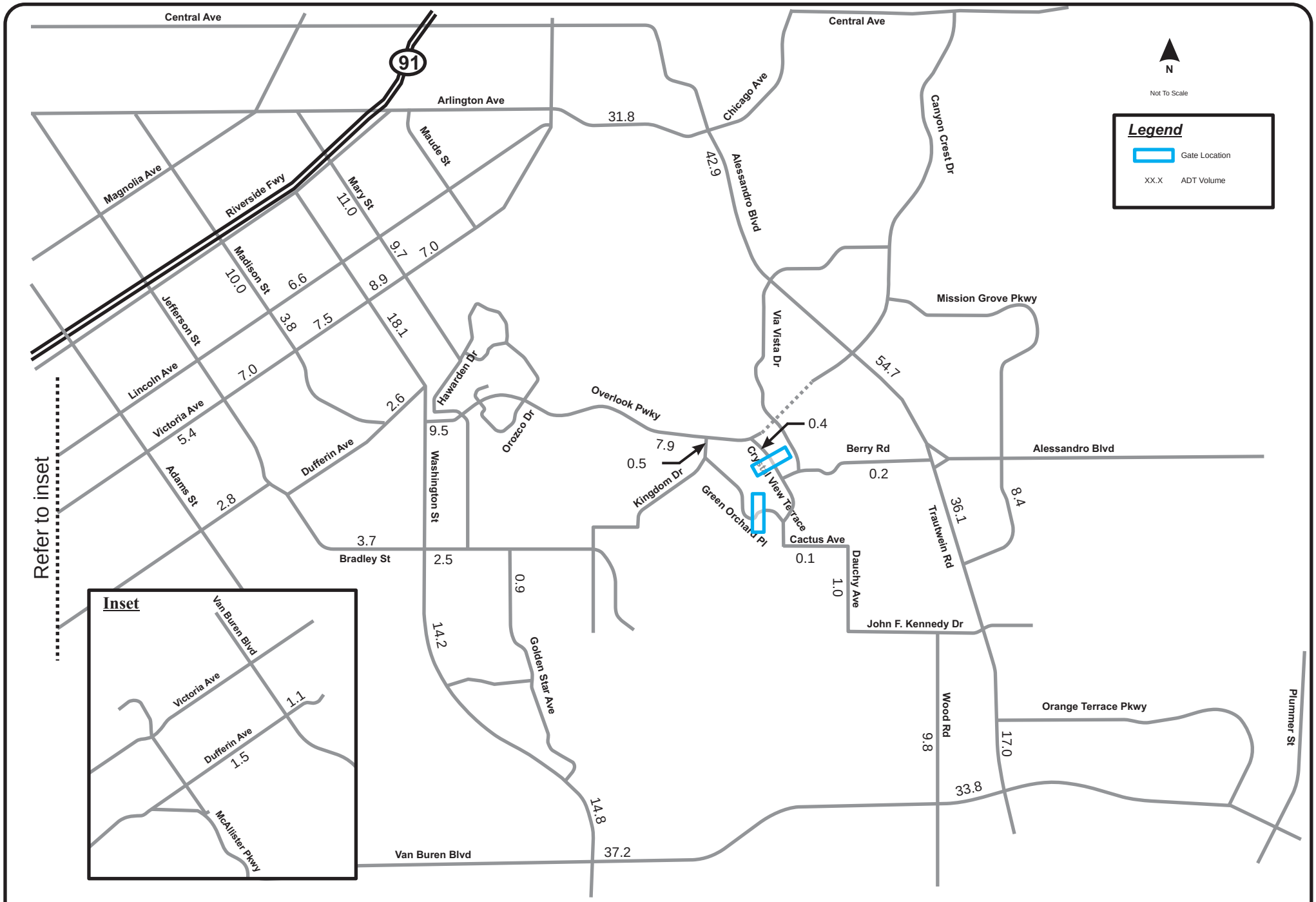

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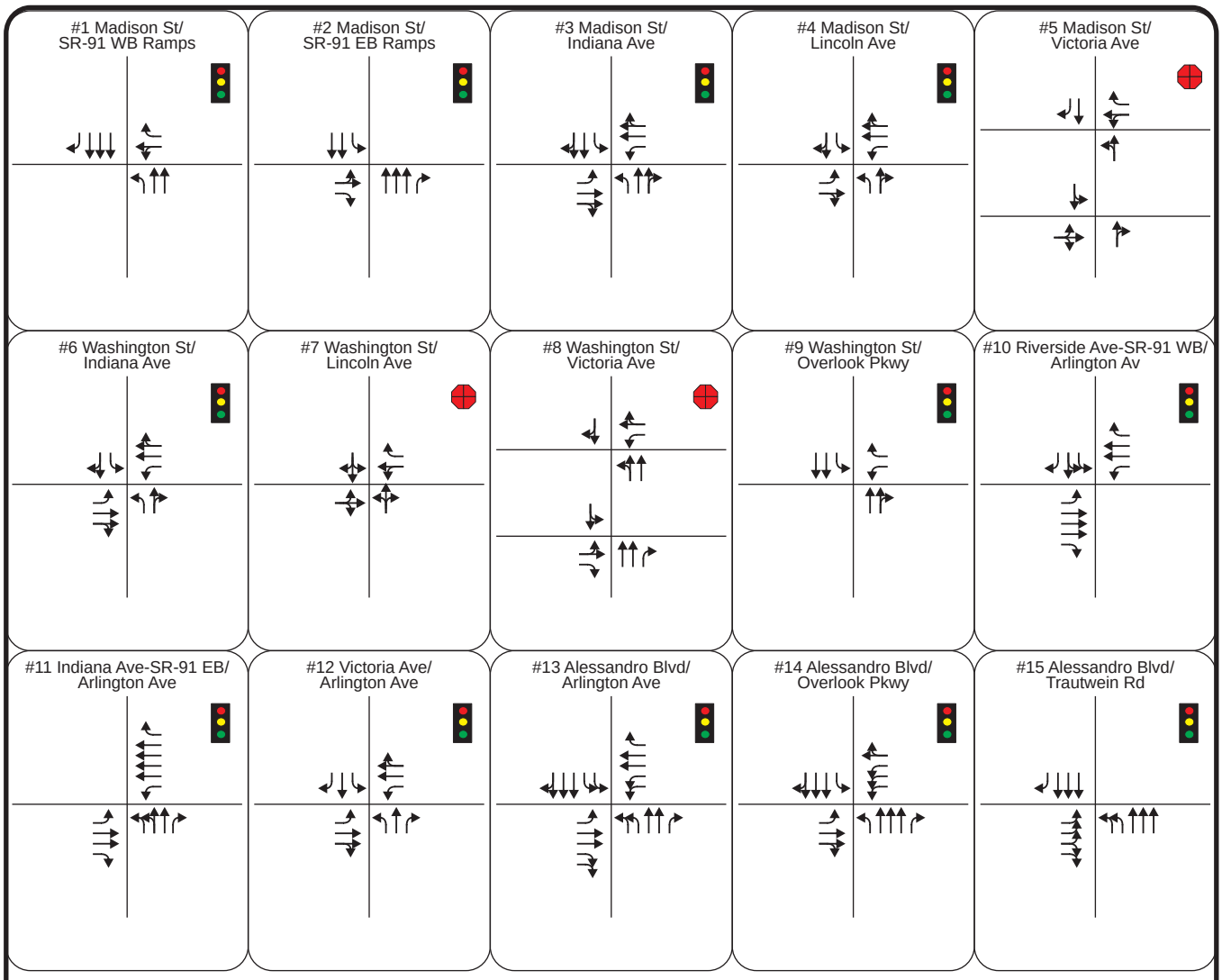
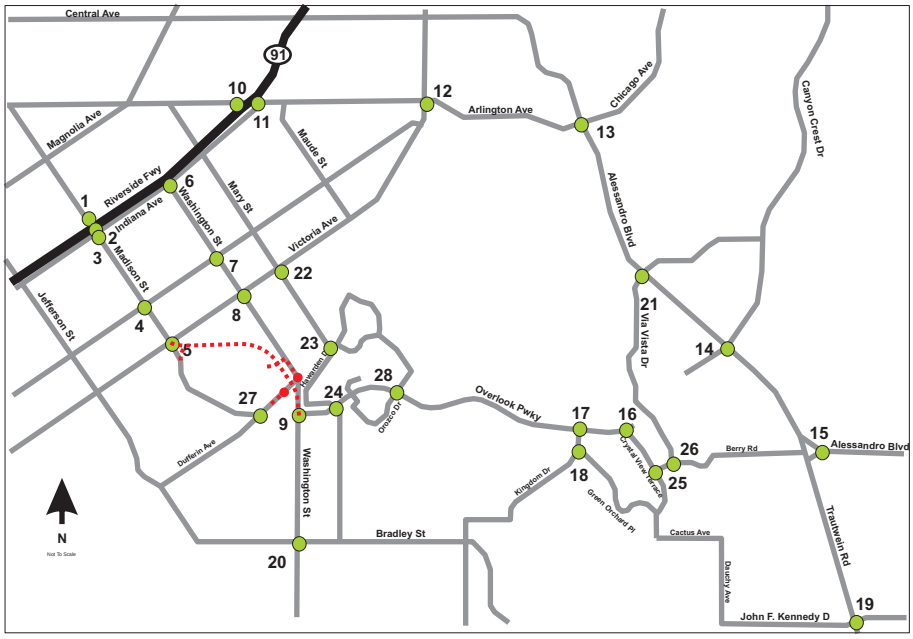
Figure 5-3
Scenario 3 ADT Volumes (Existing)





Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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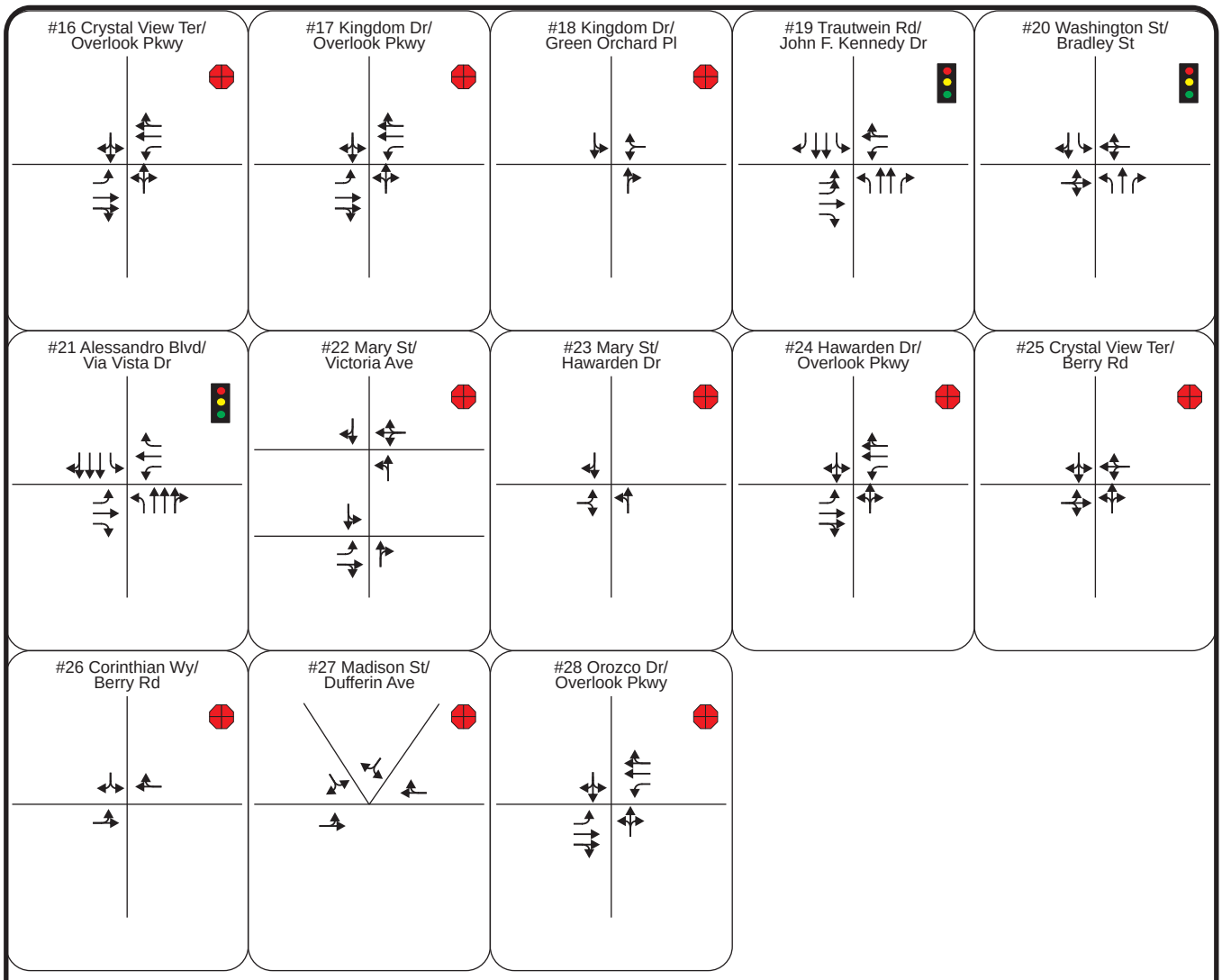
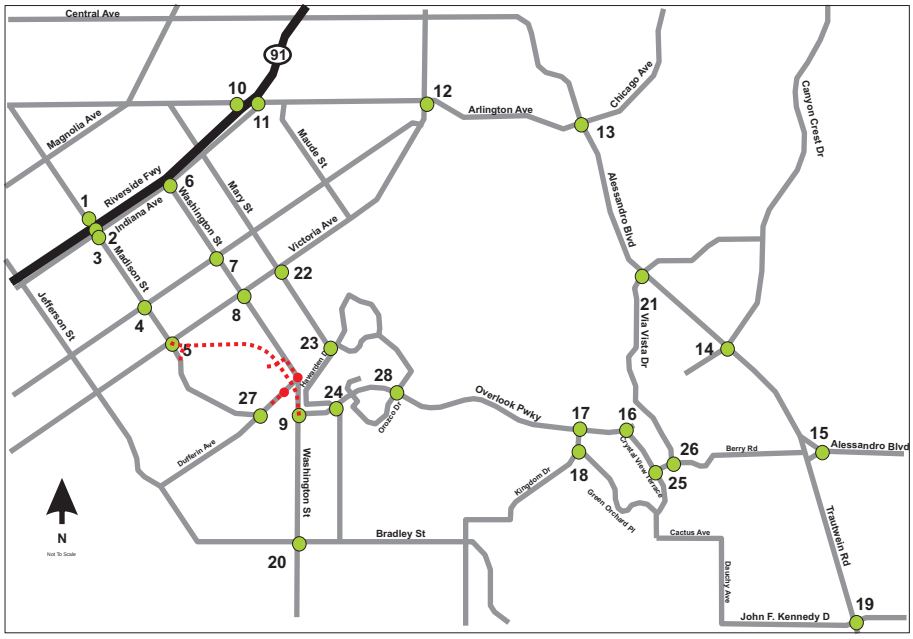
Figure 5-4A

Scenario 4 Lane Configuration (Existing)





Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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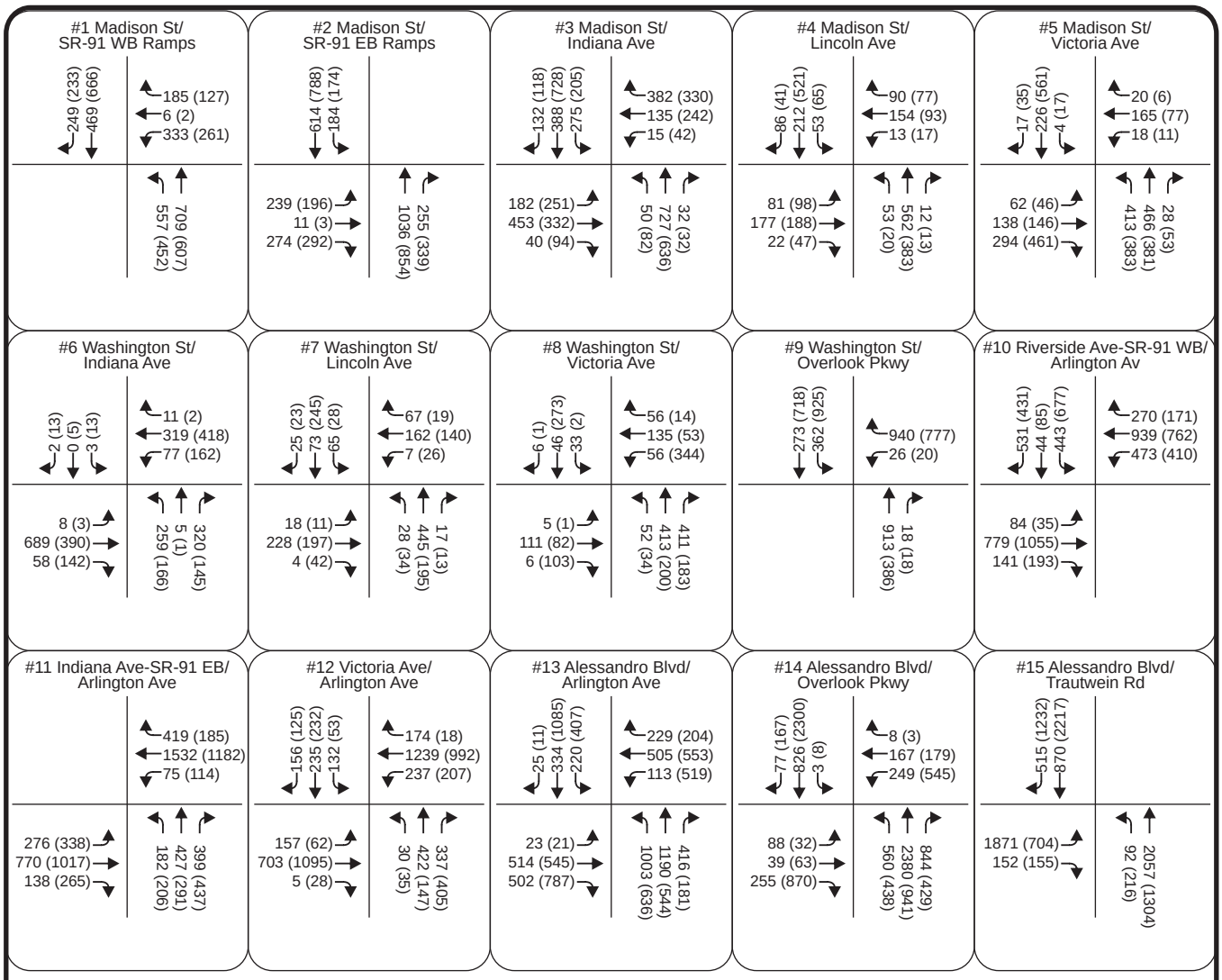
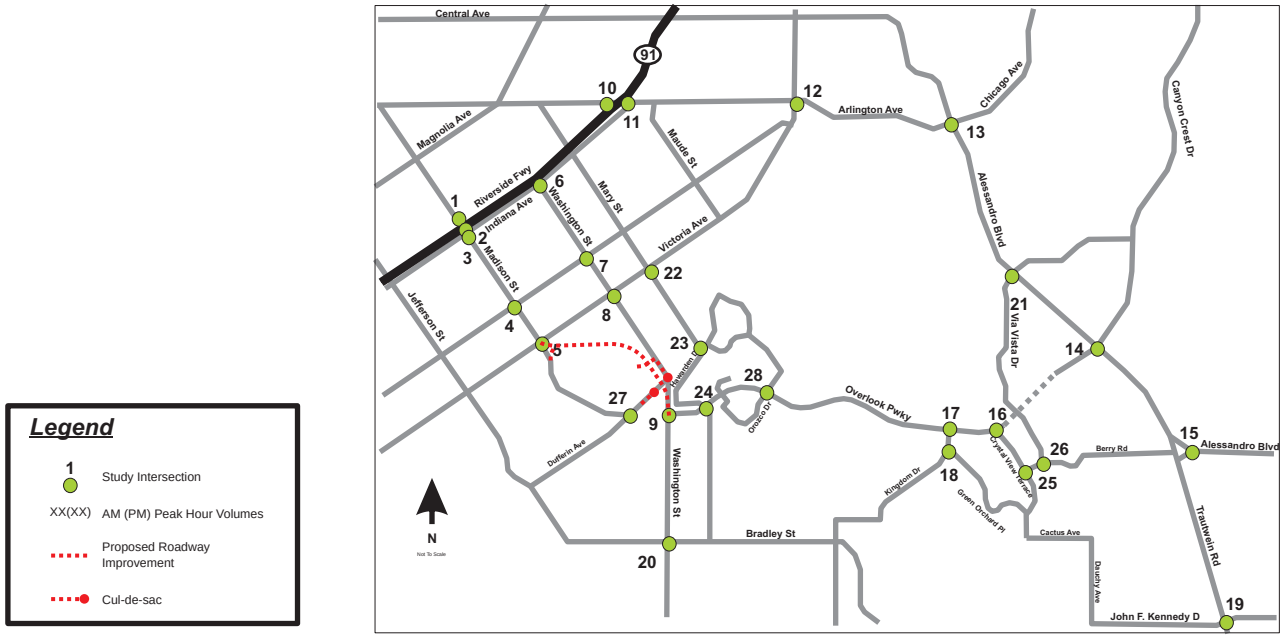
Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 5-4B

Scenario 4 Lane Configuration (Existing)

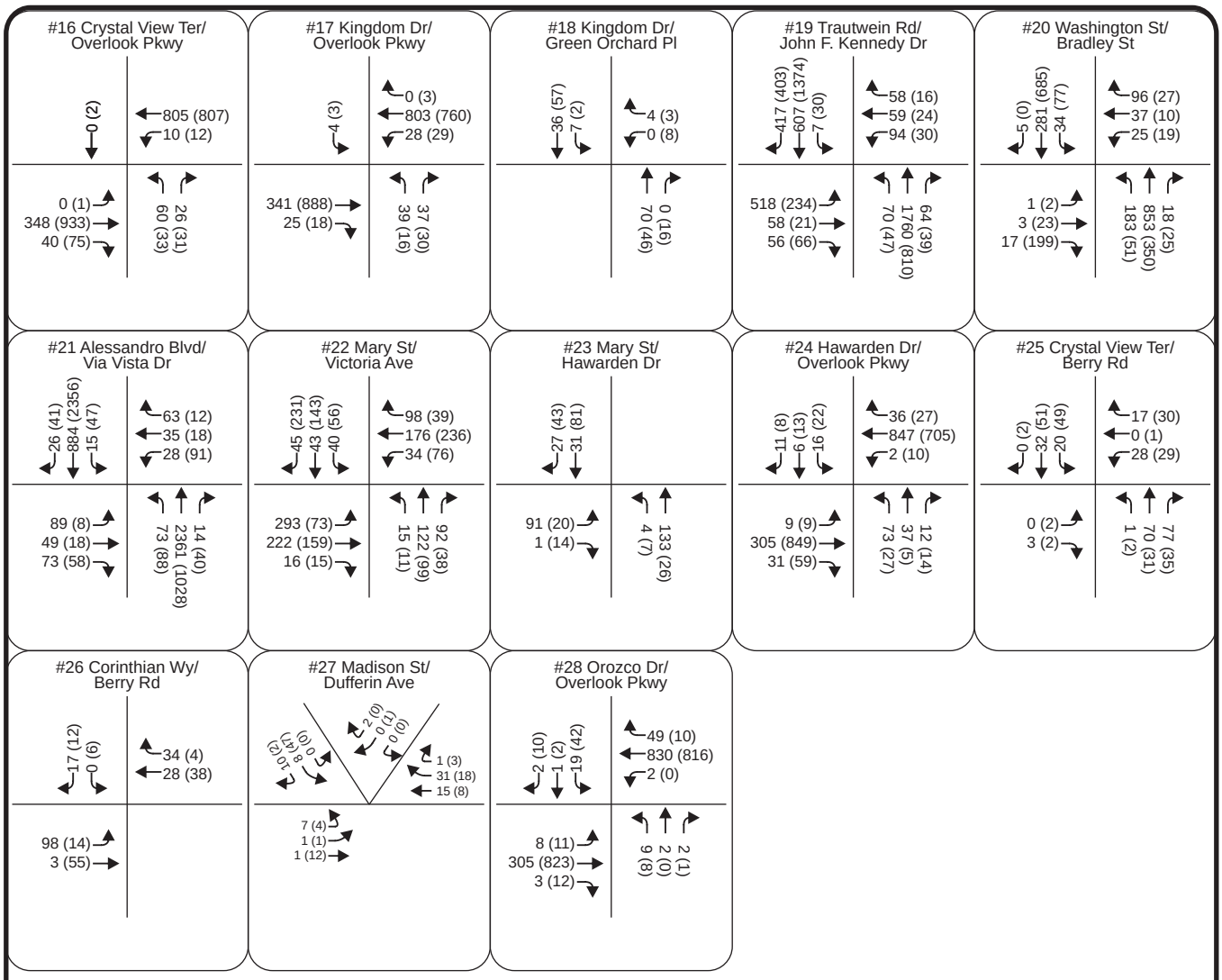


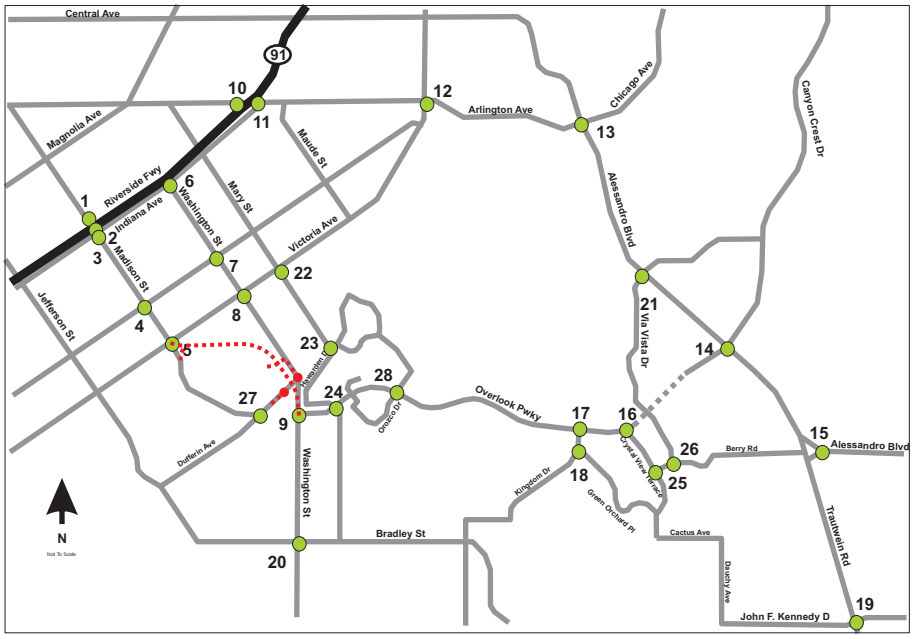


Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 5-5A

Scenario 4 Peak Hour Volumes (Existing)





Legend

1 Study Intersection

XX(XX) AM (PM) Peak Hour Volumes

Proposed Roadway Improvement

Cul-de-sac

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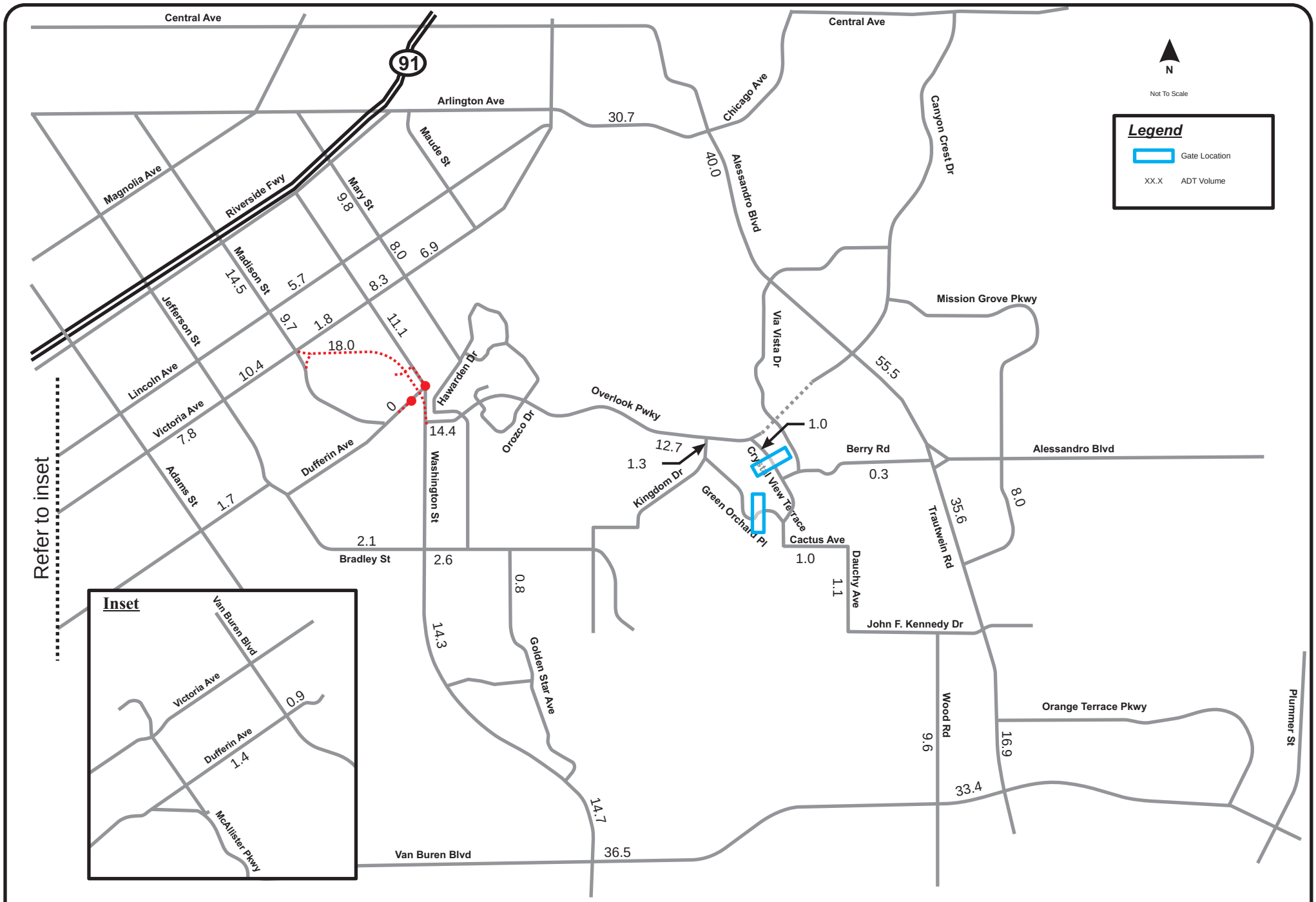
Figure 5-5B

Scenario 4 Peak Hour Volumes (Existing)



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Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA
Figure 5-6
Scenario 4 ADT Volumes (Existing)

5.1 GATES CLOSED BASELINE COMPARISON

5.1.1 *SCENARIO 1 IMPACT ANALYSIS*

5.1.1.1 INTERSECTION ANALYSIS

For study purposes, Scenario 1 is the same as the Gates Closed Baseline. There will be no difference in the volumes and resultant levels of service when comparing Scenario 1 to the Gates Closed Baseline. There would be no impacts, since the data is the same.

5.1.1.2 ROADWAY LINK ANALYSIS

For study purposes, Scenario 1 is the same as the Gates Closed Baseline. Therefore, there will be no difference in the volumes and resultant levels of service when comparing Scenario 1 to the Gates Closed Baseline. Therefore, there would be no impacts, since the data is the same.

5.1.2 *Scenario 2 Impact Analysis*

5.1.2.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and were compared to Gates Closed. **Table 5-1** shows the intersection LOS summary and project-related impacts during the AM and PM peak hours. The analysis compares Scenario 2 to the Gates Closed baseline. The following intersection exceeds the LOS standards shown in Section 2.2.2:

- Washington Street at Victoria Avenue -South (LOS E in the PM peak hour)

The results also show that for Gates Open compared to Gates Closed:

- In the AM peak hour, LOS improves at two intersections, and is reduced at one intersection.
- In the PM peak hour, LOS improves at five intersections, and is reduced at two intersections.

Per City of Riverside Guidelines, a project-related impact is projected to occur at the following location:

8. Washington Street and Victoria Avenue.

Total volumes at this intersection are very similar in the PM peak hour, Gates Closed has a total of 1,685 vehicles, and Gates Open has a total of 1,688 vehicles. However, the number of vehicles going southbound through the southern part of the intersection is 32 vehicles per hour (or approximately one vehicle every 2 minutes) higher when the Gates Open traffic counts were taken. That small volume added enough delay to cause the intersection to cross the impact threshold, and thus shows an impact.

TABLE 5-1: SCENARIO 2 PEAK HOUR IMPACT COMPARISON (2011 - GATES CLOSED)

#	Intersection	Gates Closed				Scenario 2				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	27.4	C	26.5	C	27.9	C	25.9	0.5	N	-0.6	N
2.	Madison St & SR-91 EB Ramps	C	26.9	C	27.5	C	27.9	C	25.7	1.0	N	-1.8	N
3.	Madison St & Indiana Ave	D	36.0	D	35.4	D	37.7	D	37.0	1.7	N	1.6	N
4.	Madison St & Lincoln Ave	C	30.0	C	29.9	C	30.2	C	29.8	0.2	N	-0.1	N
5A.	Madison St & Victoria Ave North	A	9.7	B	10.2	A	9.7	A	9.7	0.0	N	-0.5	N
5B.	Madison St & Victoria Ave South	A	9.3	B	10.2	A	9.5	B	10.3	0.2	N	0.1	N
6.	Washington St & Indiana Ave	C	23.6	C	23.5	C	24.2	C	23.7	0.6	N	0.2	N
7.	Washington St & Lincoln Ave	C	24.5	C	15.3	C	21.9	B	14.8	-2.6	N	-0.5	N
8A.	Washington St & Victoria Ave North	B	14.5	B	14.0	B	13.7	B	14.4	-0.8	N	0.4	N
8B.	Washington St & Victoria Ave South	C	15.8	D	30.5	B	13.7	E	37.1	-2.1	N	6.6	Y
9.	Washington St & Overlook Pkwy	B	13.4	B	11.1	B	16.2	B	11.6	2.8	N	0.5	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	29.7	C	31.6	C	31.8	C	30.8	2.1	N	-0.8	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	25.8	C	27.7	C	26.0	C	27.4	0.2	N	-0.3	N
12.	Victoria Ave & Arlington Ave	D	42.7	D	36.3	D	45.4	C	33.7	2.7	N	-2.6	N
13.	Alessandro Blvd & Arlington Ave	C	29.9	D	41.0	C	30.0	D	41.6	0.1	N	0.6	N
14.	Alessandro Blvd & Overlook Pkwy	B	19.4	C	24.8	C	21.5	C	27.9	2.1	N	3.1	N
15.	Alessandro Blvd & Trautwein Rd	C	28.4	C	21.6	C	31.3	C	20.8	2.9	N	-0.8	N
16.	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0	A	7.4	A	7.4	0.5	N	0.4	N
17.	Kingdom Dr & Overlook Pkwy	A	8.7	A	8.7	A	9.6	A	9.7	0.9	N	1.0	N
18.	Kingdom Dr & Green Orchard Pl	A	8.4	A	8.4	A	8.5	A	8.5	0.1	N	0.1	N
19.	Trautwein Rd & John F. Kennedy Dr	C	30.6	C	20.3	C	32.8	B	19.3	2.2	N	-1.0	N
20.	Washington St & Bradley St	C	21.1	C	25.4	C	20.8	C	24.4	-0.3	N	-1.0	N
21.	Alessandro Blvd & Via Vista Dr	C	23.8	B	17.2	C	24.0	C	21.1	0.2	N	3.9	N
22A.	Mary St & Victoria Ave North	C	21.5	D	25.4	C	16.3	C	16.7	-5.2	N	-8.7	N
22B.	Mary St & Victoria Ave South	C	16.2	B	13.4	B	12.3	B	11.7	-3.9	N	-1.7	N
23.	Mary St & Hawarden Ct	A	8.0	A	7.8	A	8.0	A	7.7	0.0	N	-0.1	N
24.	Hawarden Dr & Overlook Pkwy	A	7.9	A	7.8	A	8.1	A	7.8	0.2	N	0.0	N
25.	Crystal View Ter & Berry Rd	A	7.0	A	6.9	A	7.5	A	7.4	0.5	N	0.5	N
26.	Corinthian Wy & Berry Rd	A	7.4	A	6.9	A	7.7	A	7.4	0.3	N	0.5	N
27	Madison St & Dufferin Ave *	A	7.1	A	7.1	A	7.2	A	7.1	0.1	N	0.0	N
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.5	A	9.8	A	9.7	0.0	N	0.2	N

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact.

5.1.2.2 Roadway Link Analysis

The ADT roadway link volumes at 38 locations in the project vicinity for Scenario 2 were compared to Gates Closed for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 5-2** shows the resultant levels of service.

The analysis shows that no roadway links exceed the LOS standards shown in Section 2.2.2.

Scenario 2 is projected to add volumes to one location that is at LOS E-F; therefore, a project-related impact would occur at this location:

20. Alessandro Boulevard south of Canyon Crest Drive

TABLE 5-2: SCENARIO 2 ROADWAY LINK IMPACT COMPARISON (2011 - GATES CLOSED)

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 2		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	N/O Washington Street	Collector (66' or 80')	10,661	C	10,001	C	-660	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	2,717	A-B	3,536	A-B	819	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	2,805	A-B	2,628	A-B	-177	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	38,085	A-B	37,891	A-B	-194	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	33,924	A-B	34,325	A-B	401	N
6	Berry Road	W/O Trautwein Road	Local	694	A-B	1,016	A-B	322	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	34,330	A-B	34,593	A-B	263	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	37,516	A-B	37,846	A-B	330	N
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	28,219	A-B	30,407	A-B	2,188	N
10	Washington Street	S/O Victoria Avenue	Arterial (100')	16,502	A-B	16,360	A-B	-142	N
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	47,391	D	46,989	D	-402	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	15,633	A-B	14,865	A-B	-768	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	744	A-B	660	A-B	-84	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	1,026	A-B	1,505	A-B	479	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	38,447	E-F	36,508	E-F	-1,939	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	16,385	A-B	15,516	A-B	-869	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	10,014	A-B	9,877	A-B	-137	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	17,718	C	17,600	C	-118	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	9,881	A-B	9,464	A-B	-417	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	51,445	E-F	51,669	E-F	224	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	836	A-B	1,793	A-B	957	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	598	A-B	763	A-B	165	N
23	Crystal View Drive	S/O Overlook Parkway	Local	118	A-B	1,520	A-B	1,402	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	787	A-B	1,214	A-B	427	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	8,674	A-B	8,674	A-B	0	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	10,670	A-B	10,670	A-B	0	N

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 2		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Madison Street	S/O Victoria Avenue	Local	1,253	A-B	1,253	A-B	0	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	4,014	A-B	4,014	A-B	0	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	9,925	A-B	9,925	A-B	0	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	8,524	A-B	8,524	A-B	0	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	7,079	A-B	7,079	A-B	0	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	5,582	A-B	5,582	A-B	0	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	4,591	A-B	4,591	A-B	0	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	1,071	A-B	1,071	A-B	0	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	2,239	A-B	2,239	A-B	0	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	807	A-B	807	A-B	0	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	1,406	A-B	1,406	A-B	0	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	3,554	A-B	3,554	A-B	0	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	6,535	A-B	6,535	A-B	0	N
Shaded Text represents location that exceeds LOS standards or significant impact									

5.1.3 *Scenario 3 Impact Analysis*

5.1.3.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and compared to Gates Closed. **Table 5-3** shows the intersection LOS summary and project-related impacts during the AM and PM peak hours. Under Scenario 3, the results indicate that one intersection is projected to exceed the LOS standards shown in Section 2.2.2:

- Alessandro Boulevard at Overlook Parkway (LOS F in the PM peak hour)

The results also show:

- In the AM peak hour, LOS improves at three intersections, and is reduced at eight intersections.
- In the PM peak hour, LOS improves at four intersections, and is reduced at five intersections.

Per the impact criteria, a project-related impact is projected to occur at the following location:

14. Alessandro Boulevard at Overlook Parkway

This impact can be attributed to the additional volumes projected to enter the intersection with the completion of Overlook Parkway.

TABLE 5-3: SCENARIO 3 PEAK HOUR IMPACT COMPARISON (2011 - GATES CLOSED)

#	Intersection	Gates Closed				Scenario 3				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	27.4	C	26.5	C	29.1	C	27.2	1.7	N	0.7	N
2.	Madison St & SR-91 EB Ramps	C	26.9	C	27.5	C	27.7	C	25.4	0.8	N	-2.1	N
3.	Madison St & Indiana Ave	D	36.0	D	35.4	D	39.0	D	38.8	3.0	N	3.4	N
4.	Madison St & Lincoln Ave	C	30.0	C	29.9	C	30.5	C	29.7	0.5	N	-0.2	N
5A.	Madison St & Victoria Ave North	A	9.7	B	10.2	B	11.5	B	10.4	1.8	N	0.2	N
5B.	Madison St & Victoria Ave South	A	9.3	B	10.2	B	10.5	B	11.7	1.2	N	1.5	N
6.	Washington St & Indiana Ave	C	23.6	C	23.5	C	24.9	C	24.8	1.3	N	1.3	N
7.	Washington St & Lincoln Ave	C	24.5	C	15.3	C	22.9	B	14.5	-1.6	N	-0.8	N
8A.	Washington St & Victoria Ave North	B	14.5	B	14.0	B	14.3	B	13.6	-0.2	N	-0.4	N
8B.	Washington St & Victoria Ave South	C	15.8	D	30.5	B	14.7	D	29.5	-1.1	N	-1.0	N
9.	Washington St & Overlook Pkwy	B	13.4	B	11.1	C	27.4	B	16.8	14.0	N	5.7	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	29.7	C	31.6	C	31.4	C	30.5	1.7	N	-1.1	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	25.8	C	27.7	C	26.0	C	27.2	0.2	N	-0.5	N
12.	Victoria Ave & Arlington Ave	D	42.7	D	36.3	D	42.7	C	30.4	0.0	N	-5.9	N
13.	Alessandro Blvd & Arlington Ave	C	29.9	D	41.0	C	28.4	D	37.8	-1.5	N	-3.2	N
14.	Alessandro Blvd & Overlook Pkwy	B	19.4	C	24.8	C	28.4	F	151.5	9.0	N	126.7	Y
15.	Alessandro Blvd & Trautwein Rd	C	28.4	C	21.6	C	33.3	C	20.4	4.9	N	-1.2	N
16.	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0	B	10.3	B	13.7	3.4	N	6.7	N
17.	Kingdom Dr & Overlook Pkwy	A	8.7	A	8.7	C	17.7	C	22.4	9.0	N	13.7	N
18.	Kingdom Dr & Green Orchard Pl	A	8.4	A	8.4	A	8.7	A	9.2	0.3	N	0.8	N
19.	Trautwein Rd & John F. Kennedy Dr	C	30.6	C	20.3	C	32.6	B	17.5	2.0	N	-2.8	N
20.	Washington St & Bradley St	C	21.1	C	25.4	C	20.5	C	25.3	-0.6	N	-0.1	N
21.	Alessandro Blvd & Via Vista Dr	C	23.8	B	17.2	B	19.2	B	17.4	-4.6	N	0.2	N
22A.	Mary St & Victoria Ave North	C	21.5	D	25.4	C	18.1	C	20.2	-3.4	N	-5.2	N
22B.	Mary St & Victoria Ave South	C	16.2	B	13.4	B	13.5	B	14.7	-2.7	N	1.3	N
23.	Mary St & Hawarden Ct	A	8.0	A	7.8	A	8.4	A	9.1	0.4	N	1.3	N
24.	Hawarden Dr & Overlook Pkwy	A	7.9	A	7.8	B	10.4	B	12.0	2.5	N	4.2	N
25.	Crystal View Ter & Berry Rd	A	7.0	A	6.9	A	7.5	A	7.5	0.5	N	0.6	N
26.	Corinthian Wy & Berry Rd	A	7.4	A	6.9	A	7.4	A	7.2	0.0	N	0.3	N
27	Madison St & Dufferin Ave *	A	7.1	A	7.1	A	8.1	A	8.2	1.0	N	1.1	N
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.5	C	16.3	C	23.8	6.5	N	14.3	N

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact

5.1.3.2 Roadway Link Analysis

The ADT roadway link volumes at 38 locations in the project vicinity for Scenario 3 were compared to Gates Closed for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 5-4** shows the resultant levels of service.

Under Scenario 3, the analysis shows that no roadway links are projected to exceed the LOS standard shown in Section 2.2.2.

Scenario 3 is projected to add volumes to one link that is projected to operate at LOS E-F; therefore, a project-related impact would occur at this location:

20. Alessandro Boulevard south of Canyon Crest Drive

TABLE 5-4: SCENARIO 3 ROADWAY LINK IMPACT COMPARISON (2011 - GATES CLOSED)

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 3		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	N/O Washington Street	Collector (66' or 80')	10,661	C	8,864	A-B	-1,797	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	2,717	A-B	9,493	A-B	6,776	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	2,805	A-B	2,478	A-B	-327	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	38,085	A-B	37,101	A-B	-984	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	33,924	A-B	31,775	A-B	-2,149	N
6	Berry Road	W/O Trautwein Road	Local	694	A-B	106	A-B	-588	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	34,330	A-B	33,764	A-B	-566	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	37,516	A-B	39,034	C	1,518	N
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	28,219	A-B	29,746	A-B	1,527	N
10	Washington Street	S/O Victoria Avenue	Arterial (100')	16,502	A-B	18,009	A-B	1,507	N
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	47,391	D	42,860	C	-4,531	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	15,633	A-B	14,189	A-B	-1,444	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	744	A-B	827	A-B	83	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	1,026	A-B	998	A-B	-28	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	38,447	E-F	36,001	E-F	-2,446	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	16,385	A-B	14,740	A-B	-1,645	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	10,014	A-B	9,792	A-B	-222	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	17,718	C	16,981	C	-737	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	9,881	A-B	8,326	A-B	-1,555	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	51,445	E-F	54,659	E-F	3,214	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	836	A-B	7,895	A-B	7,059	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	598	A-B	430	A-B	-168	N
23	Crystal View Drive	S/O Overlook Parkway	Local	118	A-B	308	A-B	190	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	787	A-B	20	A-B	-767	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	8,674	A-B	9,602	A-B	928	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	10,670	A-B	10,952	A-B	282	N

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 3		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	-	N/A	-	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	4,014	A-B	3,776	A-B	-238	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	9,925	A-B	9,947	A-B	22	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	8,524	A-B	6,999	A-B	-1,525	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	7,079	A-B	7,493	A-B	414	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	5,582	A-B	6,989	A-B	1,407	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	4,591	A-B	5,394	A-B	803	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	1,071	A-B	2,522	A-B	1,451	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	2,239	A-B	2,758	A-B	519	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	807	A-B	1,034	A-B	227	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	1,406	A-B	1,470	A-B	64	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	3,554	A-B	3,629	A-B	75	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	6,535	A-B	6,559	A-B	24	N
Shaded Text represents location that exceeds LOS standards or significant impact									

5.1.4 *Scenario 4 Impact Analysis*

5.1.4.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9. **Table 5-5** shows the intersection LOS summary and project-related impacts during the AM and PM peak hours. Under Scenario 4, the results indicate that five intersections are projected to exceed the LOS standards shown in Section 2.2.2:

- Madison Street at Victoria Avenue North (LOS F in both AM and PM peak hours)
- Madison Street at Victoria Avenue South (LOS F in both AM and PM peak hours)
- Alessandro Boulevard at Overlook Parkway (LOS F in PM peak hour)
- Kingdom Drive at Overlook Parkway (LOS E in PM peak hour)
- Orozco Drive at Overlook Parkway (LOS E in PM peak hour)

The results also show:

- In the AM peak hour, LOS improves at five intersections, and is reduced at eight intersections
- In the PM peak hour, LOS improves at five intersections, and is reduced at seven intersections.

Per the impact criteria, a project-related impact is projected to occur at the following five locations:

5A. Madison Street at Victoria Avenue North
5B. Madison Street at Victoria Avenue South
14. Alessandro Boulevard at Overlook Parkway
17. Kingdom Drive at Overlook Parkway
28. Orozco Drive at Overlook Parkway

The impact at Madison Street at Victoria Avenue can be attributed to the additional volumes projected to enter the intersection, and the stop sign does not adequately allow vehicles through the intersection and delays occur. The impact at Alessandro Boulevard at Overlook Parkway can be attributed to the additional vehicles projected to enter the intersection with the completion of Overlook Parkway and the Parkway to the west. At Kingdom Drive at Overlook Parkway and at Orozco Drive at Overlook Parkway, drivers on the side streets experience delays because they have to stop and wait for a gap in traffic, since Overlook Parkway does not have a stop sign. The impact is due to the increased delays for drivers.

TABLE 5-5: SCENARIO 4 PEAK HOUR IMPACT COMPARISON (2011 – GATES CLOSED)

#	Intersection	Gates Closed				Scenario 4				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	27.4	C	26.5	C	30.8	C	29.0	3.4	N	2.5	N
2.	Madison St & SR-91 EB Ramps	C	26.9	C	27.5	C	26.3	C	25.6	-0.6	N	-1.9	N
3.	Madison St & Indiana Ave	D	36.0	D	35.4	D	40.3	D	37.8	4.3	N	2.4	N
4.	Madison St & Lincoln Ave	C	30.0	C	29.9	C	28.4	C	27.9	-1.6	N	-2.0	N
5A.	Madison St & Victoria Ave North	A	9.7	B	10.2	F	163.4	F	97.6	153.7	Y	87.4	Y
5B.	Madison St & Victoria Ave South	A	9.3	B	10.2	F	140.4	F	172.7	131.1	Y	162.5	Y
6.	Washington St & Indiana Ave	C	23.6	C	23.5	C	24.1	C	24.1	0.5	N	0.6	N
7.	Washington St & Lincoln Ave	C	24.5	C	15.3	C	17.9	B	12.3	-6.6	N	-3.0	N
8A.	Washington St & Victoria Ave North	B	14.5	B	14.0	B	10.6	B	14.5	-3.9	N	0.5	N
8B.	Washington St & Victoria Ave South	C	15.8	D	30.5	B	10.5	D	28.4	-5.3	N	-2.1	N
9.	Washington St & Overlook Pkwy	B	13.4	B	11.1	D	48.0	B	16.7	34.6	N	5.6	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	29.7	C	31.6	C	31.1	C	30.5	1.4	N	-1.1	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	25.8	C	27.7	C	26.0	C	27.1	0.2	N	-0.6	N
12.	Victoria Ave & Arlington Ave	D	42.7	D	36.3	D	42.1	C	29.9	-0.6	N	-6.4	N
13.	Alessandro Blvd & Arlington Ave	C	29.9	D	41.0	C	27.7	D	36.8	-2.2	N	-4.2	N
14.	Alessandro Blvd & Overlook Pkwy	B	19.4	C	24.8	D	36.5	F	249.4	17.1	N	224.6	Y
15.	Alessandro Blvd & Trautwein Rd	C	28.4	C	21.6	C	34.4	C	20.3	6.0	N	-1.3	N
16.	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0	B	13.0	C	22.8	6.1	N	15.8	N
17.	Kingdom Dr & Overlook Pkwy	A	8.7	A	8.7	D	25.6	E	36.3	16.9	N	27.6	Y
18.	Kingdom Dr & Green Orchard Pl	A	8.4	A	8.4	A	8.6	A	9.0	0.2	N	0.6	N
19.	Trautwein Rd & John F. Kennedy Dr	C	30.6	C	20.3	C	32.2	B	18.1	1.6	N	-2.2	N
20.	Washington St & Bradley St	C	21.1	C	25.4	B	19.4	C	21.4	-1.7	N	-4.0	N
21.	Alessandro Blvd & Via Vista Dr	C	23.8	B	17.2	B	18.1	B	17.4	-5.7	N	0.2	N
22A.	Mary St & Victoria Ave North	C	21.5	D	25.4	B	12.7	B	13.2	-8.8	N	-12.2	N
22B.	Mary St & Victoria Ave South	C	16.2	B	13.4	B	11.6	A	9.9	-4.6	N	-3.5	N
23.	Mary St & Hawarden Ct	A	8.0	A	7.8	A	7.8	A	7.3	-0.2	N	-0.5	N
24.	Hawarden Dr & Overlook Pkwy	A	7.9	A	7.8	C	15.2	C	18.5	7.3	N	10.7	N
25.	Crystal View Ter & Berry Rd	A	7.0	A	6.9	A	7.4	A	7.4	0.4	N	0.5	N
26.	Corinthian Wy & Berry Rd	A	7.4	A	6.9	A	7.4	A	7.2	0.0	N	0.3	N
27	Madison St & Dufferin Ave *	A	7.1	A	7.1	A	7.1	A	7.1	0.0	N	0.0	N
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.5	D	25.3	E	42.5	15.5	N	33.0	Y

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact

5.1.4.2 Roadway Link Analysis

The ADT roadway link volumes at 39 locations in the project vicinity for Scenario 4 were compared to Gates Closed for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 5-6** shows the resultant levels of service.

Under Scenario 4, the analysis shows that no roadway links exceed the LOS standards shown in Section 2.2.2.

Scenario 4 is projected to add volumes to one link that is projected to operate at LOS E-F; therefore, a project-related impact would occur at this location:

20. Alessandro Boulevard south of Canyon Crest Drive.

TABLE 5-6: SCENARIO 4 ROADWAY LINK IMPACT COMPARISON (2011 - GATES CLOSED)

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 4		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	N/O Washington Street	Collector (66' or 80')	10,661	C	8,285	A-B	-2,376	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	2,717	A-B	14,333	A-B	11,616	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	2,805	A-B	2,515	A-B	-290	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	38,085	A-B	36,478	A-B	-1,607	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	33,924	A-B	30,635	A-B	-3,289	N
6	Berry Road	W/O Trautwein Road	Local	694	A-B	208	A-B	-486	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	34,330	A-B	33,340	A-B	-990	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	37,516	A-B	39,844	C	2,328	N
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	28,219	A-B	29,684	A-B	1,465	N
10	Washington Street	S/O Victoria Avenue	Arterial (100')	16,502	A-B	11,025	A-B	-5,477	N
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	47,391	D	39,994	C	-7,397	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	15,633	A-B	14,232	A-B	-1,401	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	744	A-B	793	A-B	49	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	1,026	A-B	1,077	A-B	51	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	38,447	E-F	35,559	E-F	-2,888	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	16,385	A-B	14,635	A-B	-1,750	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	10,014	A-B	9,599	A-B	-415	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	17,718	C	16,853	C	-865	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	9,881	A-B	7,923	A-B	-1,958	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	51,445	E-F	55,424	E-F	3,979	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	836	A-B	12,664	A-B	11,828	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	598	A-B	1,255	A-B	657	N
23	Crystal View Drive	S/O Overlook Parkway	Local	118	A-B	997	A-B	879	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	787	A-B	918	A-B	131	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	8,674	A-B	7,971	A-B	-703	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	10,670	A-B	9,792	A-B	-878	N

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 4		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	17,974	A-B	17,974	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	4,014	A-B	9,696	A-B	5,682	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	9,925	A-B	14,461	A-B	4,536	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	8,524	A-B	6,837	A-B	-1,687	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	7,079	A-B	1,766	A-B	-5,313	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	5,582	A-B	10,328	C	4,746	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	4,591	A-B	7,768	A-B	3,177	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	1,071	A-B	0	A-B	-1,071	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	2,239	A-B	1,618	A-B	-621	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	807	A-B	837	A-B	30	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	1,406	A-B	1,323	A-B	-83	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	3,554	A-B	2,076	A-B	-1,478	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	6,535	A-B	5,674	A-B	-861	N
Shaded Text represents location that exceeds LOS standards or significant impact									

5.2 GATES OPEN COMPARISON

5.2.1 *SCENARIO 1 IMPACT ANALYSIS*

5.2.1.1 INTERSECTION ANALYSIS

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and were compared to Gates Open. **Table 5-7** shows the intersection LOS summary and project-related impacts during the AM and PM peak hours. The analysis compares Scenario 1 to the Gates Open baseline. No intersections in Scenario 1 are projected to exceed the LOS standards shown in Section 2.2.2.

The results also show that for Scenario 1 compared to Gates Open:

- In the AM peak hour, LOS improves at one intersection, and is reduced at two intersections.
- In the PM peak hour, LOS improves at two intersections, and is reduced at five intersections.

Per the impact criteria, no project-related impacts are projected to occur at any study location.

As noted in the Gates Open impact analysis Total volumes at the intersection of Washington Street and Victoria Avenue very similar between the two scenarios in the PM peak hour. Gates Open has a total of 1,688 vehicles, and Gates Closed has a total of 1,685 vehicles. There are some very small changes in the volume distribution through the intersection (through and turning volumes) from one scenario to the other. However, the differences are just enough that Gates Closed operates above LOS D in Gates Open.

TABLE 5-7: SCENARIO 1 PEAK HOUR IMPACT COMPARISON (2011 - GATES OPEN)

#	Intersection	Gates Open				Scenario 1				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	27.9	C	25.9	C	27.4	C	26.5	-0.5	N	0.6	N
2.	Madison St & SR-91 EB Ramps	C	27.9	C	25.7	C	26.9	C	27.5	-1.0	N	1.8	N
3.	Madison St & Indiana Ave	D	37.7	D	37.0	D	36.0	D	35.4	-1.7	N	-1.6	N
4.	Madison St & Lincoln Ave	C	30.2	C	29.8	C	30.0	C	29.9	-0.2	N	0.1	N
5A.	Madison St & Victoria Ave North	A	9.7	A	9.7	A	9.7	B	10.2	0.0	N	0.5	N
5B.	Madison St & Victoria Ave South	A	9.5	B	10.3	A	9.3	B	10.2	-0.2	N	-0.1	N
6.	Washington St & Indiana Ave	C	24.2	C	23.7	C	23.6	C	23.5	-0.6	N	-0.2	N
7.	Washington St & Lincoln Ave	C	21.9	B	14.8	C	24.5	C	15.3	2.6	N	0.5	N
8A.	Washington St & Victoria Ave North	B	13.7	B	14.4	B	14.5	B	14.0	0.8	N	-0.4	N
8B.	Washington St & Victoria Ave South	B	13.7	E	37.1	C	15.8	D	30.5	2.1	N	-6.6	N
9.	Washington St & Overlook Pkwy	B	16.2	B	11.6	B	13.4	B	11.1	-2.8	N	-0.5	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	31.8	C	30.8	C	29.7	C	31.6	-2.1	N	0.8	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	26.0	C	27.4	C	25.8	C	27.7	-0.2	N	0.3	N
12.	Victoria Ave & Arlington Ave	D	45.4	C	33.7	D	42.7	D	36.3	-2.7	N	2.6	N
13.	Alessandro Blvd & Arlington Ave	C	30.0	D	41.6	C	29.9	D	41.0	-0.1	N	-0.6	N
14.	Alessandro Blvd & Overlook Pkwy	C	21.5	C	27.9	B	19.4	C	24.8	-2.1	N	-3.1	N
15.	Alessandro Blvd & Trautwein Rd	C	31.3	C	20.8	C	28.4	C	21.6	-2.9	N	0.8	N
16.	Crystal View Ter & Overlook Pkwy	A	7.4	A	7.4	A	6.9	A	7.0	-0.5	N	-0.4	N
17.	Kingdom Dr & Overlook Pkwy	A	9.6	A	9.7	A	8.7	A	8.7	-0.9	N	-1.0	N
18.	Kingdom Dr & Green Orchard Pl	A	8.5	A	8.5	A	8.4	A	8.4	-0.1	N	-0.1	N
19.	Trautwein Rd & John F. Kennedy Dr	C	32.8	B	19.3	C	30.6	C	20.3	-2.2	N	1.0	N
20.	Washington St & Bradley St	C	20.8	C	24.4	C	21.1	C	25.4	0.3	N	1.0	N
21.	Alessandro Blvd & Via Vista Dr	C	24.0	C	21.1	C	23.8	B	17.2	-0.2	N	-3.9	N
22A.	Mary St & Victoria Ave North	C	16.3	C	16.7	C	21.5	D	25.4	5.2	N	8.7	N
22B.	Mary St & Victoria Ave South	B	12.3	B	11.7	C	16.2	B	13.4	3.9	N	1.7	N
23.	Mary St & Hawarden Ct	A	8.0	A	7.7	A	8.0	A	7.8	0.0	N	0.1	N
24.	Hawarden Dr & Overlook Pkwy	A	8.1	A	7.8	A	7.9	A	7.8	-0.2	N	0.0	N
25.	Crystal View Ter & Berry Rd	A	7.5	A	7.4	A	7.0	A	6.9	-0.5	N	-0.5	N
26.	Corinthian Wy & Berry Rd	A	7.7	A	7.4	A	7.4	A	6.9	-0.3	N	-0.5	N
27	Madison St & Dufferin Ave *	A	7.2	A	7.1	A	7.1	A	7.1	-0.1	N	0.0	N
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.7	A	9.8	A	9.5	0.0	N	-0.2	N

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact

5.2.1.2 Roadway Link Analysis

The ADT roadway link volumes at 38 locations in the project vicinity for Scenario 1 were compared to Gates Open for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 5-8** shows the resultant levels of service.

Under Scenario 1, the analysis shows that no roadway links under Gates Open exceed the LOS standards shown in Section 2.2.2.

Scenario 1 is projected to add volumes to one link that is projected to operate at LOS E-F; therefore, a project-related impact would occur at this location:

15. Trautwein Road north of John F. Kennedy Drive.

TABLE 5-8: SCENARIO 1 ROADWAY LINK IMPACT COMPARISON (2011 - GATES OPEN)

#	Street	Location	Existing Street Classification	Gates Open		Scenario 1		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	N/O Washington Street	Collector (66' or 80')	10,001	C	10,661	C	660	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	3,536	A-B	2,717	A-B	-819	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	2,628	A-B	2,805	A-B	177	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	37,891	A-B	38,085	A-B	194	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	34,325	A-B	33,924	A-B	-401	N
6	Berry Road	W/O Trautwein Road	Local	1,016	A-B	694	A-B	-322	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	34,593	A-B	34,330	A-B	-263	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	37,846	A-B	37,516	A-B	-330	N
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	30,407	A-B	28,219	A-B	-2,188	N
10	Washington Street	S/O Victoria Avenue	Arterial (100')	16,360	A-B	16,502	A-B	142	N
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	46,989	D	47,391	D	402	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	14,865	A-B	15,633	A-B	768	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	660	A-B	744	A-B	84	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	1,505	A-B	1,026	A-B	-479	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	36,508	E-F	38,447	E-F	1,939	Y
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	15,516	A-B	16,385	A-B	869	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	9,877	A-B	10,014	A-B	137	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	17,600	C	17,718	C	118	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	9,464	A-B	9,881	A-B	417	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	51,669	E-F	51,445	E-F	-224	N
21	Overlook Parkway	W/O Kingdom Drive	Arterial	1,793	A-B	836	A-B	-957	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	763	A-B	598	A-B	-165	N
23	Crystal View Drive	S/O Overlook Parkway	Local	1,520	A-B	118	A-B	-1,402	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	1,214	A-B	787	A-B	-427	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	8,674	A-B	8,674	A-B	0	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	10,670	A-B	10,670	A-B	0	N

#	Street	Location	Existing Street Classification	Gates Open		Scenario 1		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	-	N/A	-	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	4,014	A-B	4,014	A-B	0	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	9,925	A-B	9,925	A-B	0	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	8,524	A-B	8,524	A-B	0	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	7,079	A-B	7,079	A-B	0	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	5,582	A-B	5,582	A-B	0	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	4,591	A-B	4,591	A-B	0	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	1,071	A-B	1,071	A-B	0	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	2,239	A-B	2,239	A-B	0	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	807	A-B	807	A-B	0	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	1,406	A-B	1,406	A-B	0	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	3,554	A-B	3,554	A-B	0	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	6,535	A-B	6,535	A-B	0	N
Shaded Text represents location that exceeds LOS standards or significant impact									

5.2.2 *Scenario 2 Impact Analysis*

5.2.2.1 Intersection Analysis

For study purposes, Scenario 2 is the same as the Gates Open Baseline. There will be no difference in the volumes and resultant levels of service when comparing Scenario 2 to the Gates Open Baseline. There would be no impacts, since the data is the same.

5.2.2.2 Roadway Link Analysis

For study purposes, Scenario 2 is the same as the Gates Open Baseline. Therefore, there will be no difference in the volumes and resultant levels of service when comparing Scenario 2 to the Gates Open Baseline. Therefore, there would be no impacts, since the data is the same.

5.2.3 *Scenario 3 Impact Analysis*

5.2.3.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and were compared to Gates Open. **Table 5-9** shows the intersection LOS summary and project-related impacts during the AM and PM peak hours. Under Scenario 3, the results indicate that one intersection is projected exceed the LOS standards shown in Section 2.2.2:

- Alessandro Boulevard at Overlook Parkway (LOS F in the PM peak hour)

The results also show:

- In the AM peak hour, LOS improves at one intersection, and is reduced at seven intersections
- In the PM peak hour, LOS improves at two intersections, and is reduced at six intersections.

Per the impact criteria, a project-related impact is projected to occur at the following location:

14. Alessandro Boulevard at Overlook Parkway

This impact can be attributed to the additional volumes projected to enter the intersection with the completion of Overlook Parkway.

TABLE 5-9: SCENARIO 3 PEAK HOUR IMPACT COMPARISON (2011 – GATES OPEN)

#	Intersection	Gates Open				Scenario 3				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour	PM Peak Hour	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	27.9	C	25.9	C	29.1	C	27.2	1.2	N	1.3	N
2.	Madison St & SR-91 EB Ramps	C	27.9	C	25.7	C	27.7	C	25.4	-0.2	N	-0.3	N
3.	Madison St & Indiana Ave	D	37.7	D	37.0	D	39.0	D	38.8	1.3	N	1.8	N
4.	Madison St & Lincoln Ave	C	30.2	C	29.8	C	30.5	C	29.7	0.3	N	-0.1	N
5A.	Madison St & Victoria Ave North	A	9.7	A	9.7	B	11.5	B	10.4	1.8	N	0.7	N
5B.	Madison St & Victoria Ave South	A	9.5	B	10.3	B	10.5	B	11.7	1.0	N	1.4	N
6.	Washington St & Indiana Ave	C	24.2	C	23.7	C	24.9	C	24.8	0.7	N	1.1	N
7.	Washington St & Lincoln Ave	C	21.9	B	14.8	C	22.9	B	14.5	1.0	N	-0.3	N
8A.	Washington St & Victoria Ave North	B	13.7	B	14.4	B	14.3	B	13.6	0.6	N	-0.8	N
8B.	Washington St & Victoria Ave South	B	13.7	E	37.1	B	14.7	D	29.5	1.0	N	-7.6	N
9.	Washington St & Overlook Pkwy	B	16.2	B	11.6	C	27.4	B	16.8	11.2	N	5.2	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	31.8	C	30.8	C	31.4	C	30.5	-0.4	N	-0.3	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	26.0	C	27.4	C	26.0	C	27.2	0.0	N	-0.2	N
12.	Victoria Ave & Arlington Ave	D	45.4	C	33.7	D	42.7	C	30.4	-2.7	N	-3.3	N
13.	Alessandro Blvd & Arlington Ave	C	30.0	D	41.6	C	28.4	D	37.8	-1.6	N	-3.8	N
14.	Alessandro Blvd & Overlook Pkwy	C	21.5	C	27.9	C	28.4	F	151.5	6.9	N	123.6	Y
15.	Alessandro Blvd & Trautwein Rd	C	31.3	C	20.8	C	33.3	C	20.4	2.0	N	-0.4	N
16.	Crystal View Ter & Overlook Pkwy	A	7.4	A	7.4	B	10.3	B	13.7	2.9	N	6.3	N
17.	Kingdom Dr & Overlook Pkwy	A	9.6	A	9.7	C	17.7	C	22.4	8.1	N	12.7	N
18.	Kingdom Dr & Green Orchard Pl	A	8.5	A	8.5	A	8.7	A	9.2	0.2	N	0.7	N
19.	Trautwein Rd & John F. Kennedy Dr	C	32.8	B	19.3	C	32.6	B	17.5	-0.2	N	-1.8	N
20.	Washington St & Bradley St	C	20.8	C	24.4	C	20.5	C	25.3	-0.3	N	0.9	N
21.	Alessandro Blvd & Via Vista Dr	C	24.0	C	21.1	B	19.2	B	17.4	-4.8	N	-3.7	N
22A.	Mary St & Victoria Ave North	C	16.3	C	16.7	C	18.1	C	20.2	1.8	N	3.5	N
22B.	Mary St & Victoria Ave South	B	12.3	B	11.7	B	13.5	B	14.7	1.2	N	3.0	N
23.	Mary St & Hawarden Ct	A	8.0	A	7.7	A	8.4	A	9.1	0.4	N	1.4	N
24.	Hawarden Dr & Overlook Pkwy	A	8.1	A	7.8	B	10.4	B	12.0	2.3	N	4.2	N
25.	Crystal View Ter & Berry Rd	A	7.5	A	7.4	A	7.5	A	7.5	0.0	N	0.1	N
26.	Corinthian Wy & Berry Rd	A	7.7	A	7.4	A	7.4	A	7.2	-0.3	N	-0.2	N
27	Madison St & Dufferin Ave *	A	7.2	A	7.1	A	8.1	A	8.2	0.9	N	1.1	N
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.7	C	16.3	C	23.8	6.5	N	14.1	N

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact

5.2.3.2 Roadway Link Analysis

The ADT roadway link volumes at 38 locations in the project vicinity for Scenario 3 were compared to Gates Open for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 5-10** shows the resultant levels of service.

Under Scenario 3, the analysis shows that no roadway links exceed the LOS standards shown in Section 2.2.2.

Scenario 3 is projected to add volumes to a roadway link that is projected to operate at LOS E-F; therefore, a project-related impact would occur at this location:

20. Alessandro Boulevard south of Canyon Crest Drive

TABLE 5-10: SCENARIO 3 ROADWAY LINK IMPACT COMPARISON (2011 - GATES OPEN)

#	Street	Location	Existing Street Classification	Gates Open		Scenario 3		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	N/O Washington Street	Collector (66' or 80')	10,001	C	8,864	A-B	-1,137	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	3,536	A-B	9,493	A-B	5,957	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	2,628	A-B	2,478	A-B	-150	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	37,891	A-B	37,101	A-B	-790	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	34,325	A-B	31,775	A-B	-2,550	N
6	Berry Road	W/O Trautwein Road	Local	1,016	A-B	106	A-B	-910	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	34,593	A-B	33,764	A-B	-829	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	37,846	A-B	39,034	C	1,188	N
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	30,407	A-B	29,746	A-B	-661	N
10	Washington Street	S/O Victoria Avenue	Arterial (100')	16,360	A-B	18,009	A-B	1,649	N
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	46,989	D	42,860	C	-4,129	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	14,865	A-B	14,189	A-B	-676	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	660	A-B	827	A-B	167	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	1,505	A-B	998	A-B	-507	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	36,508	E-F	36,001	E-F	-507	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	15,516	A-B	14,740	A-B	-776	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	9,877	A-B	9,792	A-B	-85	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	17,600	C	16,981	C	-619	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	9,464	A-B	8,326	A-B	-1,138	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	51,669	E-F	54,659	E-F	2,990	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	1,793	A-B	7,895	A-B	6,102	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	763	A-B	430	A-B	-333	N
23	Crystal View Drive	S/O Overlook Parkway	Local	1,520	A-B	308	A-B	-1,212	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	1,214	A-B	20	A-B	-1,194	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	8,674	A-B	9,602	A-B	928	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	10,670	A-B	10,952	A-B	282	N

#	Street	Location	Existing Street Classification	Gates Open		Scenario 3		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	-	N/A	-	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	4,014	A-B	3,776	A-B	-238	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	9,925	A-B	9,947	A-B	22	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	8,524	A-B	6,999	A-B	-1,525	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	7,079	A-B	7,493	A-B	414	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	5,582	A-B	6,989	A-B	1,407	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	4,591	A-B	5,394	A-B	803	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	1,071	A-B	2,522	A-B	1,451	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	2,239	A-B	2,758	A-B	519	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	807	A-B	1,034	A-B	227	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	1,406	A-B	1,470	A-B	64	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	3,554	A-B	3,629	A-B	75	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	6,535	A-B	6,559	A-B	24	N
Shaded Text represents location that exceeds LOS standards or significant impact									

5.2.4 *Scenario 4 Impact Analysis*

5.2.4.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and compared to Gates Open. **Table 5-11** shows the intersection LOS summary and project-related impacts during the AM and PM peak hours. Under Scenario 4, the results indicate that five intersections are projected to exceed the LOS standards shown in Section 2.2.2:

- Madison Street at Victoria Avenue North (LOS F in both AM and PM peak hours)
- Madison Street at Victoria Avenue South (LOS F in both AM and PM peak hours)
- Alessandro Boulevard at Overlook Parkway (LOS F in PM peak hour)
- Kingdom Drive at Overlook Parkway (LOS E in PM peak hour)
- Orozco Drive at Overlook Parkway (LOS E in PM peak hour)

The results also show:

- In the AM peak hour, LOS improves at three intersections, and is reduced at eight intersections
- In the PM peak hour, LOS improves at four intersections, and is reduced at seven intersections.

Per the impact criteria, a project-related impact is projected to occur at the following five locations:

5A. Madison Street at Victoria Avenue North
5B. Madison Street at Victoria Avenue South
14. Alessandro Boulevard at Overlook Parkway
17. Kingdom Drive at Overlook Parkway
28. Orozco Drive at Overlook Parkway

The impact at Madison Street at Victoria Avenue can be attributed to the additional volumes projected to enter the intersection, and the stop sign does not adequately allow vehicles through the intersection and delays occur. The impact at Alessandro Boulevard at Overlook Parkway can be attributed to the additional vehicles projected to enter the intersection with the completion of Overlook Parkway and the Parkway to the west. At Kingdom Drive at Overlook Parkway and at Orozco Drive at Overlook Parkway, drivers on the side streets experience delays because they have to stop and wait for a gap in traffic, since Overlook Parkway does not have a stop sign. The impact is due to the increased delays for drivers.

TABLE 5-11: SCENARIO 4 PEAK HOUR IMPACT COMPARISON (2011 – GATES OPEN)

#	Intersection	Gates Open				Scenario 4				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		Δ in Delay		Impact (Y/N)		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	27.9	C	25.9	C	30.8	C	29.0	2.9	N	3.1	N
2.	Madison St & SR-91 EB Ramps	C	27.9	C	25.7	C	26.3	C	25.6	-1.6	N	-0.1	N
3.	Madison St & Indiana Ave	D	37.7	D	37.0	D	40.3	D	37.8	2.6	N	0.8	N
4.	Madison St & Lincoln Ave	C	30.2	C	29.8	C	28.4	C	27.9	-1.8	N	-1.9	N
5A.	Madison St & Victoria Ave North	A	9.7	A	9.7	F	163.4	F	97.6	153.7	Y	87.9	Y
5B.	Madison St & Victoria Ave South	A	9.5	B	10.3	F	140.4	F	172.7	130.9	Y	162.4	Y
6.	Washington St & Indiana Ave	C	24.2	C	23.7	C	24.1	C	24.1	-0.1	N	0.4	N
7.	Washington St & Lincoln Ave	C	21.9	B	14.8	C	17.9	B	12.3	-4.0	N	-2.5	N
8A.	Washington St & Victoria Ave North	B	13.7	B	14.4	B	10.6	B	14.5	-3.1	N	0.1	N
8B.	Washington St & Victoria Ave South	B	13.7	E	37.1	B	10.5	D	28.4	-3.2	N	-8.7	N
9.	Washington St & Overlook Pkwy	B	16.2	B	11.6	D	48.0	B	16.7	31.8	N	5.1	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	31.8	C	30.8	C	31.1	C	30.5	-0.7	N	-0.3	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	26.0	C	27.4	C	26.0	C	27.1	0.0	N	-0.3	N
12.	Victoria Ave & Arlington Ave	D	45.4	C	33.7	D	42.1	C	29.9	-3.3	N	-3.8	N
13.	Alessandro Blvd & Arlington Ave	C	30.0	D	41.6	C	27.7	D	36.8	-2.3	N	-4.8	N
14.	Alessandro Blvd & Overlook Pkwy	C	21.5	C	27.9	D	36.5	F	249.4	15.0	N	221.5	Y
15.	Alessandro Blvd & Trautwein Rd	C	31.3	C	20.8	C	34.4	C	20.3	3.1	N	-0.5	N
16.	Crystal View Ter & Overlook Pkwy	A	7.4	A	7.4	B	13.0	C	22.8	5.6	N	15.4	N
17.	Kingdom Dr & Overlook Pkwy	A	9.6	A	9.7	D	25.6	E	36.3	16.0	N	26.6	Y
18.	Kingdom Dr & Green Orchard Pl	A	8.5	A	8.5	A	8.6	A	9.0	0.1	N	0.5	N
19.	Trautwein Rd & John F. Kennedy Dr	C	32.8	B	19.3	C	32.2	B	18.1	-0.6	N	-1.2	N
20.	Washington St & Bradley St	C	20.8	C	24.4	B	19.4	C	21.4	-1.4	N	-3.0	N
21.	Alessandro Blvd & Via Vista Dr	C	24.0	C	21.1	B	18.1	B	17.4	-5.9	N	-3.7	N
22A.	Mary St & Victoria Ave North	C	16.3	C	16.7	B	12.7	B	13.2	-3.6	N	-3.5	N
22B.	Mary St & Victoria Ave South	B	12.3	B	11.7	B	11.6	A	9.9	-0.7	N	-1.8	N
23.	Mary St & Hawarden Ct	A	8.0	A	7.7	A	7.8	A	7.3	-0.2	N	-0.4	N
24.	Hawarden Dr & Overlook Pkwy	A	8.1	A	7.8	C	15.2	C	18.5	7.1	N	10.7	N
25.	Crystal View Ter & Berry Rd	A	7.5	A	7.4	A	7.4	A	7.4	-0.1	N	0.0	N
26.	Corinthian Wy & Berry Rd	A	7.7	A	7.4	A	7.4	A	7.2	-0.3	N	-0.2	N
27	Madison St & Dufferin Ave *	A	7.2	A	7.1	A	7.1	A	7.1	-0.1	N	0.0	N
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.7	D	25.3	E	42.5	15.5	N	32.8	Y

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact

5.2.4.2 Roadway Link Analysis

The ADT roadway link volumes at 39 locations in the project vicinity for Scenario 4 were compared to Gates Open for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 5-12** shows the resultant levels of service.

Under Scenario 4, the analysis shows that no roadway links are projected to exceed the LOS standards shown in Section 2.2.2.

Scenario 4 is projected to add volumes to one link that is projected to operate at LOS E-F; therefore, a project-related impact would occur at this location:

20. Alessandro Boulevard south of Canyon Crest Drive

TABLE 5-12: SCENARIO 4 ROADWAY LINK IMPACT COMPARISON (2011 - GATES OPEN)

#	Street	Location	Existing Street Classification	Gates Open		Scenario 4		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	N/O Washington Street	Collector (66' or 80')	10,001	C	8,285	A-B	-1,716	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	3,536	A-B	14,333	A-B	10,797	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	2,628	A-B	2,515	A-B	-113	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	37,891	A-B	36,478	A-B	-1,413	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	34,325	A-B	30,635	A-B	-3,690	N
6	Berry Road	W/O Trautwein Road	Local	1,016	A-B	208	A-B	-808	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	34,593	A-B	33,340	A-B	-1,253	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	37,846	A-B	39,844	C	1,998	N
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	30,407	A-B	29,684	A-B	-723	N
10	Washington Street	S/O Victoria Avenue	Arterial (100')	16,360	A-B	11,025	A-B	-5,335	N
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	46,989	D	39,994	C	-6,995	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	14,865	A-B	14,232	A-B	-633	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	660	A-B	793	A-B	133	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	1,505	A-B	1,077	A-B	-428	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	36,508	E-F	35,559	E-F	-949	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	15,516	A-B	14,635	A-B	-881	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	9,877	A-B	9,599	A-B	-278	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	17,600	C	16,853	C	-747	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	9,464	A-B	7,923	A-B	-1,541	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	51,669	E-F	55,424	E-F	3,755	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	1,793	A-B	12,664	A-B	10,871	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	763	A-B	1,255	A-B	492	N
23	Crystal View Drive	S/O Overlook Parkway	Local	1,520	A-B	997	A-B	-523	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	1,214	A-B	918	A-B	-296	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	8,674	A-B	7,971	A-B	-703	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	10,670	A-B	9,792	A-B	-878	N

#	Street	Location	Existing Street Classification	Gates Open		Scenario 4		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	17,974	A-B	17,974	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	4,014	A-B	9,696	A-B	5,682	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	9,925	A-B	14,461	A-B	4,536	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	8,524	A-B	6,837	A-B	-1,687	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	7,079	A-B	1,766	A-B	-5,313	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	5,582	A-B	10,328	C	4,746	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	4,591	A-B	7,768	A-B	3,177	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	1,071	A-B	0	A-B	-1,071	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	2,239	A-B	1,618	A-B	-621	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	807	A-B	837	A-B	30	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	1,406	A-B	1,323	A-B	-83	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	3,554	A-B	2,076	A-B	-1,478	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	6,535	A-B	5,674	A-B	-861	N
Shaded Text represents location that exceeds LOS standards or significant impact									

6.0 YEAR 2035 CUMULATIVE (BUILDOUT) ANALYSIS

Potential impacts caused by a project are assessed under the existing conditions (2011) analysis (Chapter 5 of this report), as required by the recent case of *Sunnyvale West Neighborhood Association v. City of Sunnyvale City Council* (2010). A separate Cumulative analysis is undertaken, which assumes buildout of all land uses at the year 2035. The 2035 conditions are assessed in order to determine if the proposed project is projected to cause or contribute to a cumulative impact. Traffic volumes used in the Cumulative analysis were developed through the use the travel demand model, which is specific to the City of Riverside, and consistent with the Riverside County Traffic Analysis Model (RivTAM), and the Southern California Association of Governments (SCAG) travel demand model. See Chapter 2 of this report and **Appendix A** for more information regarding the development and use of the travel demand model.

The Cumulative Analysis assumes buildout of all General Plan 2025 roadways except for the completion of Overlook Parkway, opening of the Crystal View Terrace and Green Orchard Place gates, and Proposed C Street, which are all project scenario components. In other words, all roadways (except as noted) will have the number of lanes and cross sections as shown in the General Plan 2025 Circulation and Community Mobility Element (see Figure CCM-4 for further information).

The 2035 Cumulative Analysis section includes the following four scenarios:

1. **Scenario 1** – Future 2035 condition with gates closed and no connection of Overlook Parkway: both Crystal View Terrace and Green Orchard Place gates would remain in place and be closed (except for emergency vehicles) unless and until Overlook Parkway is connected to the east across the Alessandro Arroyo to Alessandro Boulevard, and a connection westerly of Washington Street is built to get the traffic to SR 91. Overlook Parkway remains in the General Plan. No General Plan 2025 amendment needed.

2. **Scenario 2** – Future 2035 condition with gates removed and no connection of Overlook Parkway: Under this scenario, the gates at Crystal View Terrace and Green Orchard Place would be removed, and there would be no connection of Overlook Parkway over Alessandro Arroyo or a connection westerly of Washington Street to get the traffic to SR 91. Overlook Parkway remains in the General Plan. The City would be required to approve an amendment to Policy CCM-4.4 in the General Plan 2025, along with project conditions related to the gates for two projects.

3. **Scenario 3** – Future 2035 condition with gates open and with Overlook Parkway connection: Under this scenario, the gates at Crystal View Terrace and Green Orchard Place would be removed. The Overlook Parkway would be connected between Via Vista Drive and Sandtrack Road with the construction of a fill crossing and over the Alessandro Arroyo with a bridge crossing, allowing for a through connection to Alessandro Boulevard.

4. **Scenario 4** – Future 2035 condition with gates open, with Overlook Parkway connected, and Proposed "C" Street would be constructed west of Washington Street: Both Crystal View Terrace and Green Orchard Place gates would be permanently removed, and Overlook Parkway would be connected over the Alessandro Arroyo. In addition, a new road, Proposed "C" Street, would be constructed to provide a more direct connection from western Riverside and to SR 91. The Proposed C Street would extend approximately one mile from Washington Street north and west ending at the intersection of Madison Street and Victoria Avenue. The proposed alignment would consist of a four-lane arterial with a 100' Right-of-Way.

The intersection lane configurations used for the analysis of Scenarios 1 through 4 are shown in **Figures 6-1 – 6-4**. Intersection turning movement volumes for Scenarios 1 to 4 are shown in **Figures 6-5 – 6-8**.

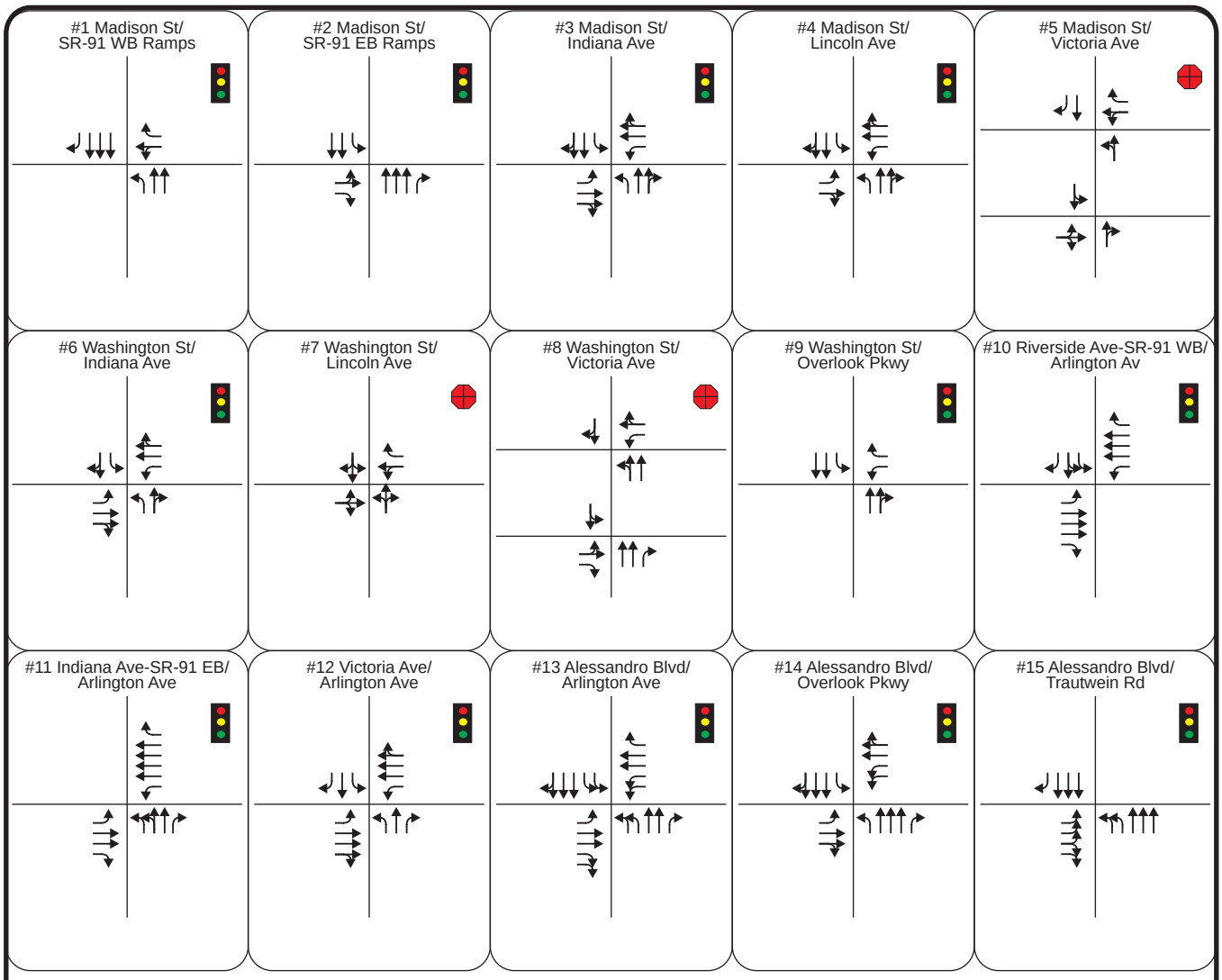
ADT roadway link volumes for the four scenarios are shown in **Figures 6-9 – 6-12**.

Similar to the Project Analysis, the Cumulative Analysis will compare the four scenarios to two future baselines:

- 2035 Gates Closed
- 2035 Gates Open.

The report will compare Scenario 2, Scenario 3 and Scenario 4 conditions to Gates Closed conditions and identify any Cumulative impacts for the Gates Closed as baseline. Then Scenario 1, Scenario 3 and Scenario 4 conditions will be compared to Gates Open conditions in order to identify any Cumulative impacts for the Gates Open as baseline.

A summary of impacted locations is included in Chapter 7 of this report.



Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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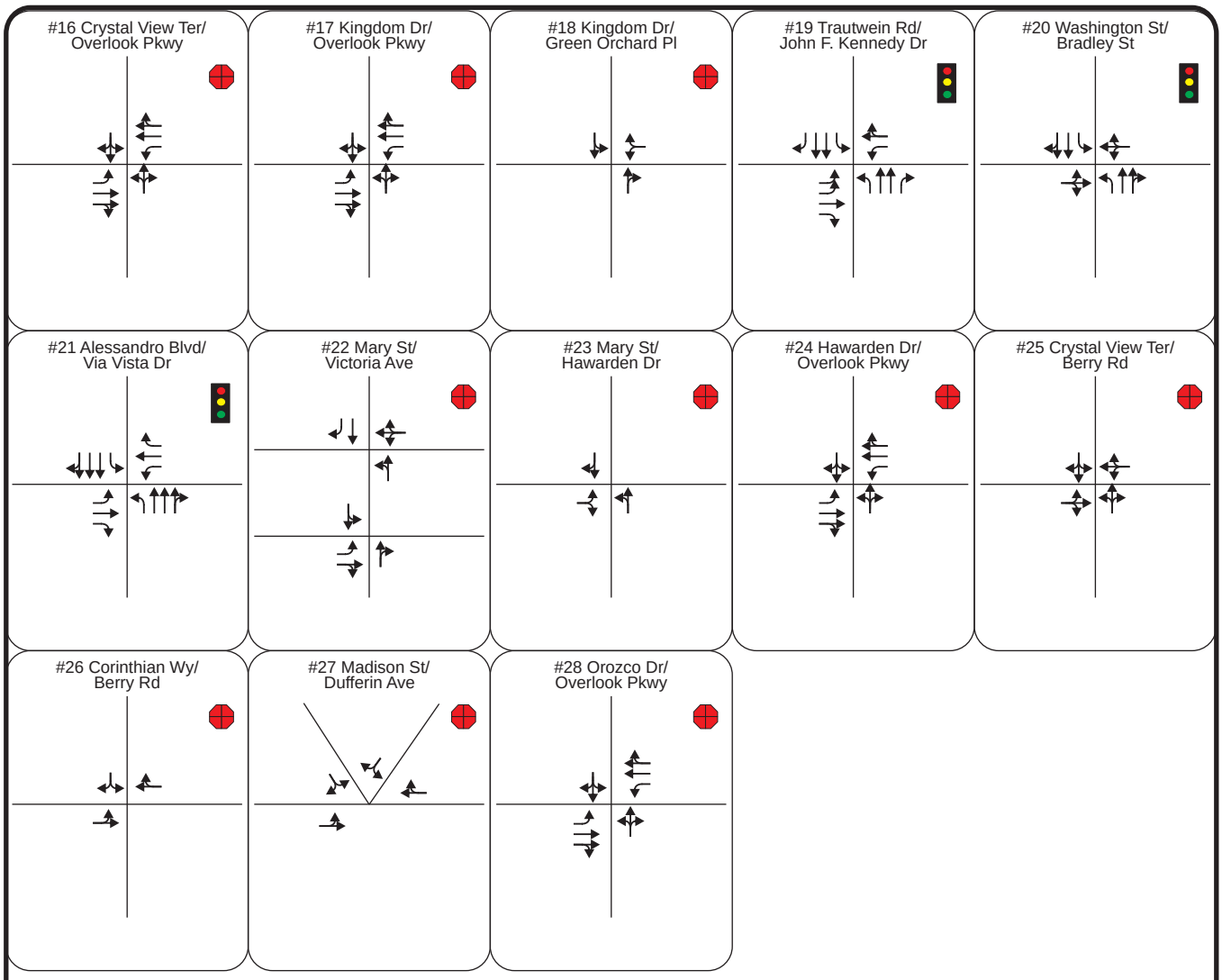
Figure 6-1A

Gates Closed Lane Configuration (2035)



Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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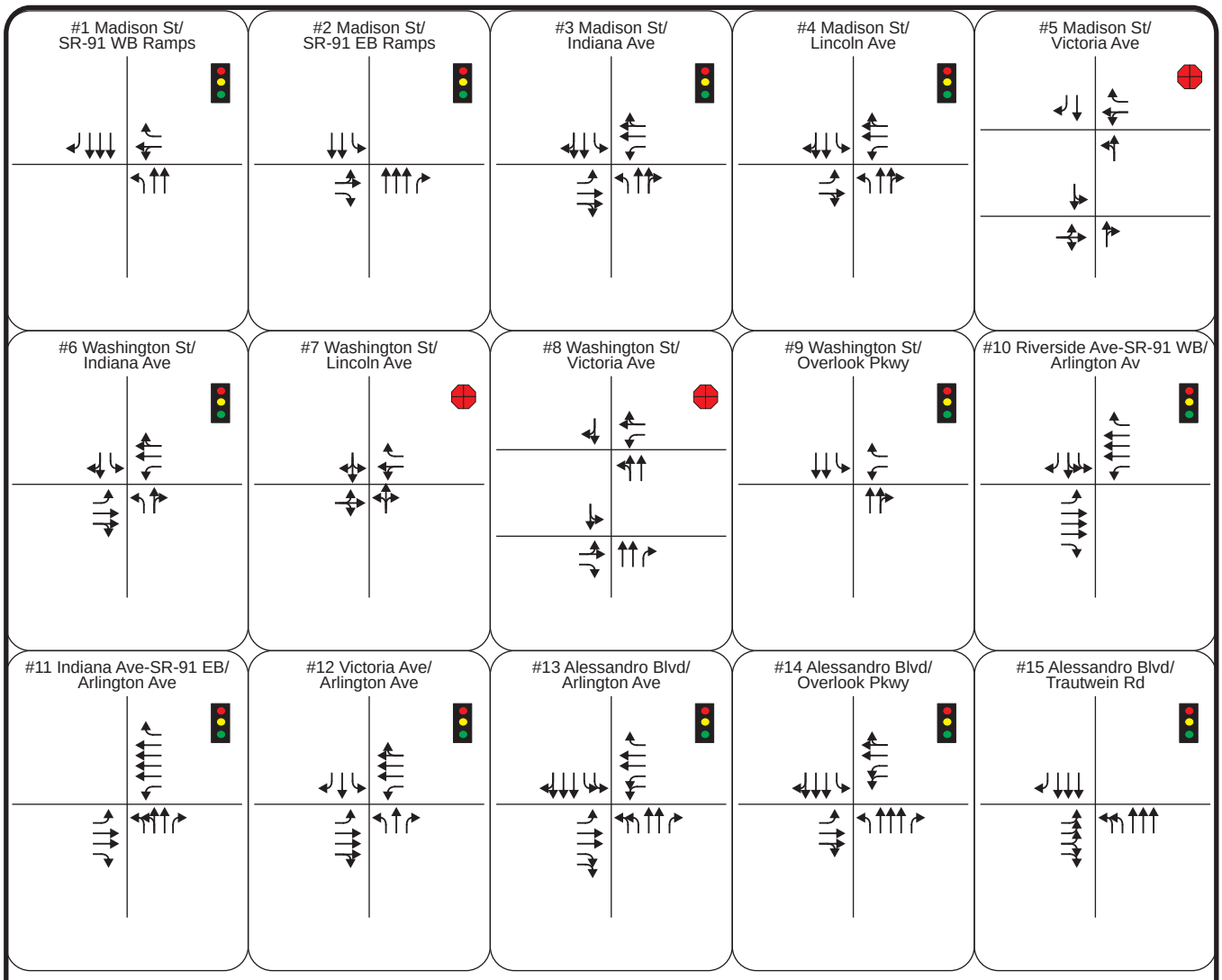
Figure 6-1B

Gates Closed Lane Configuration (2035)



Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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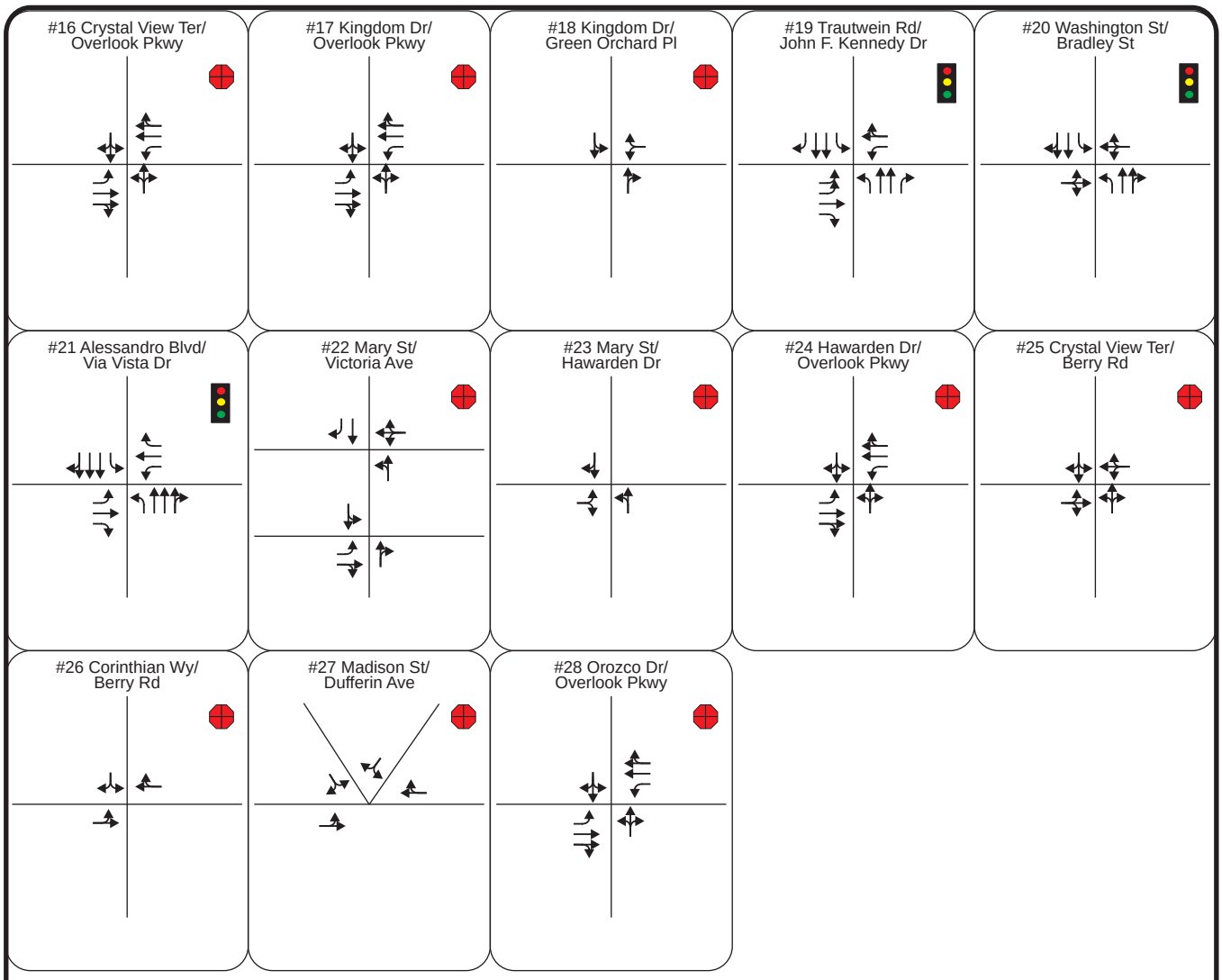
Figure 6-2A

Gates Open Lane Configuration (2035)



Note: North/south streets are listed first under intersection name.

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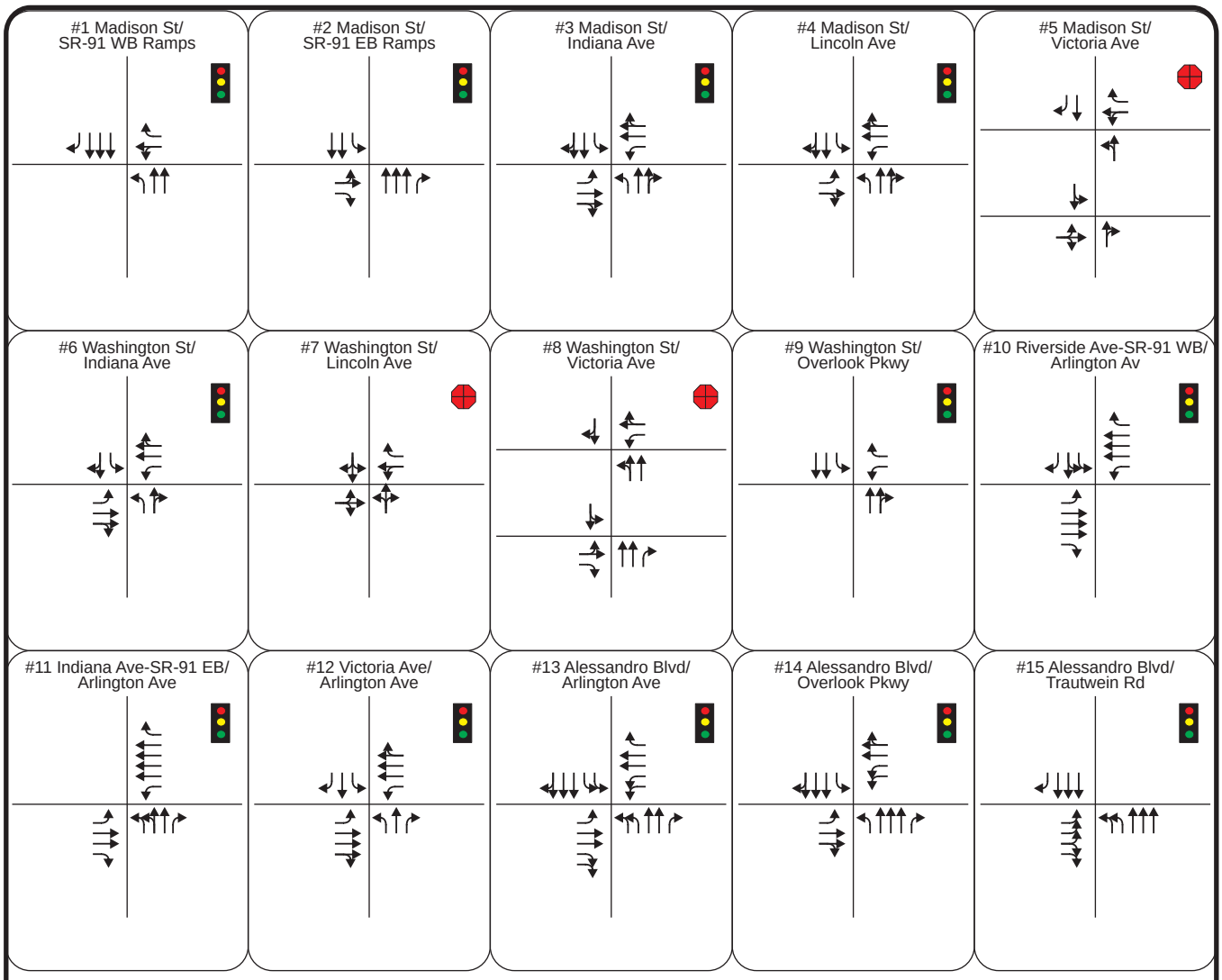
Figure 6-2B

Gates Open Lane Configuration (2035)



Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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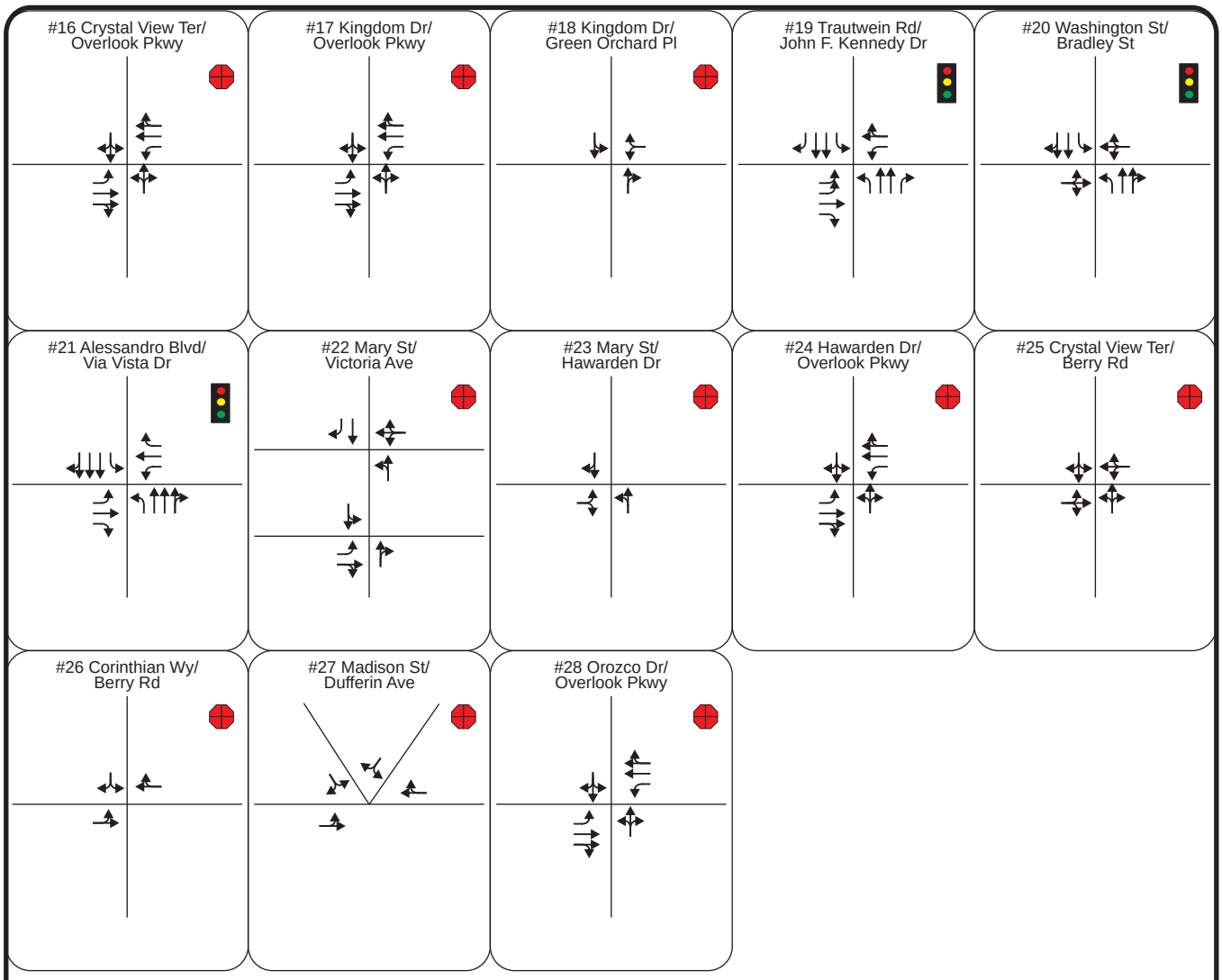
Figure 6-3A

Scenario 3 Lane Configuration (2035)



Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled

Note: North/south streets are listed first under intersection name.

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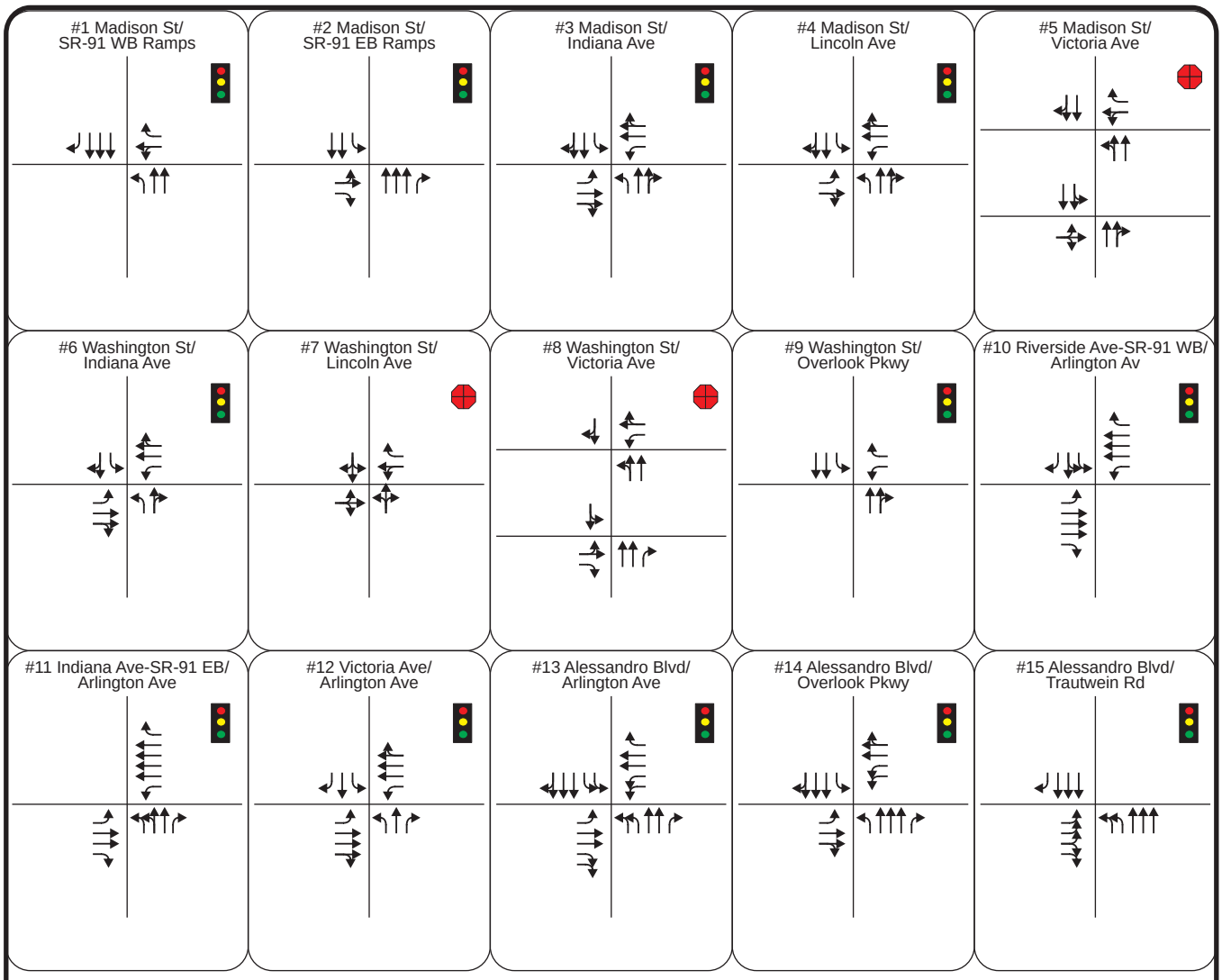
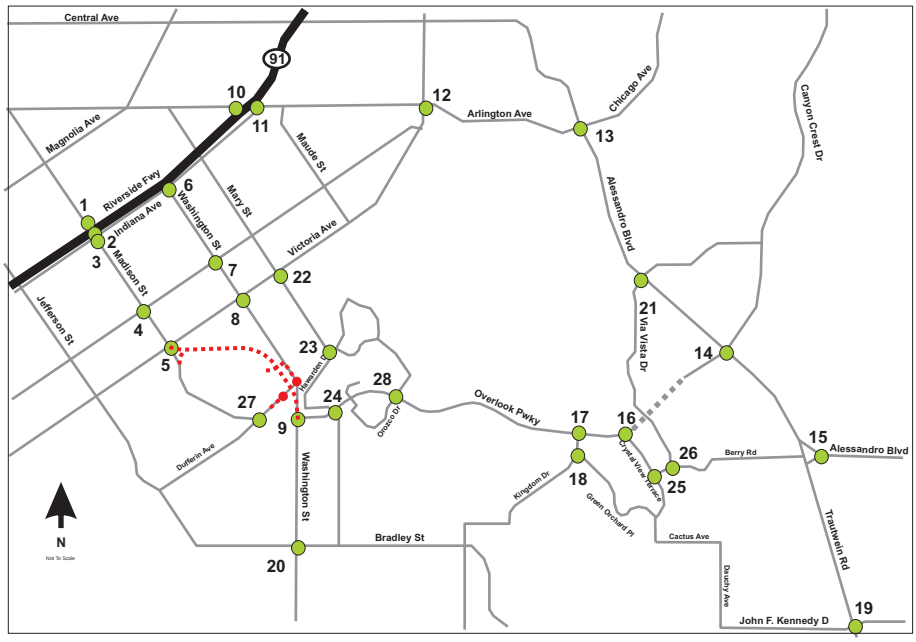
Figure 6-3B

Scenario 3 Lane Configuration (2035)





Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled
- Proposed Roadway Improvement
- Cul-de-sac

Note: North/south streets are listed first under intersection name.

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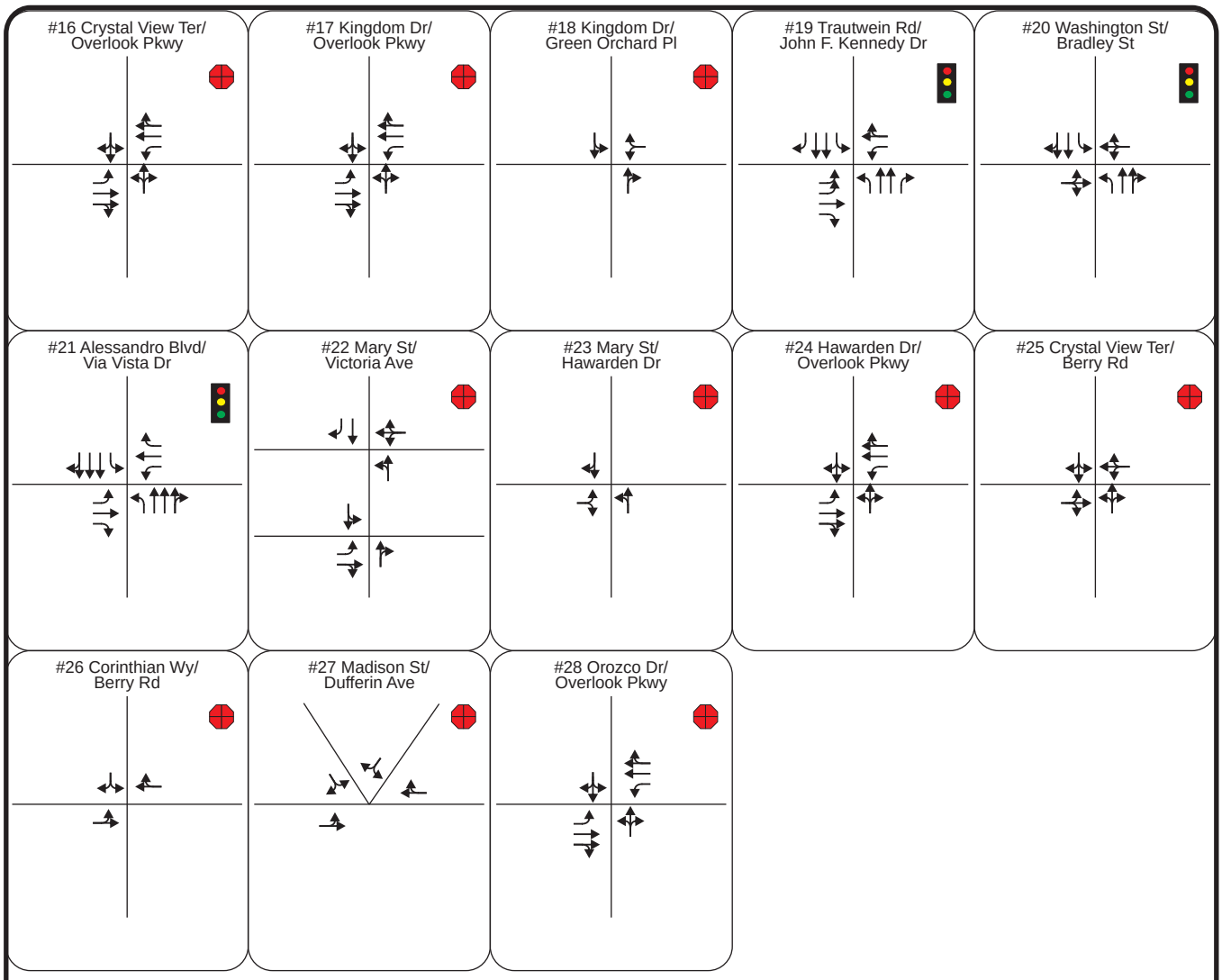
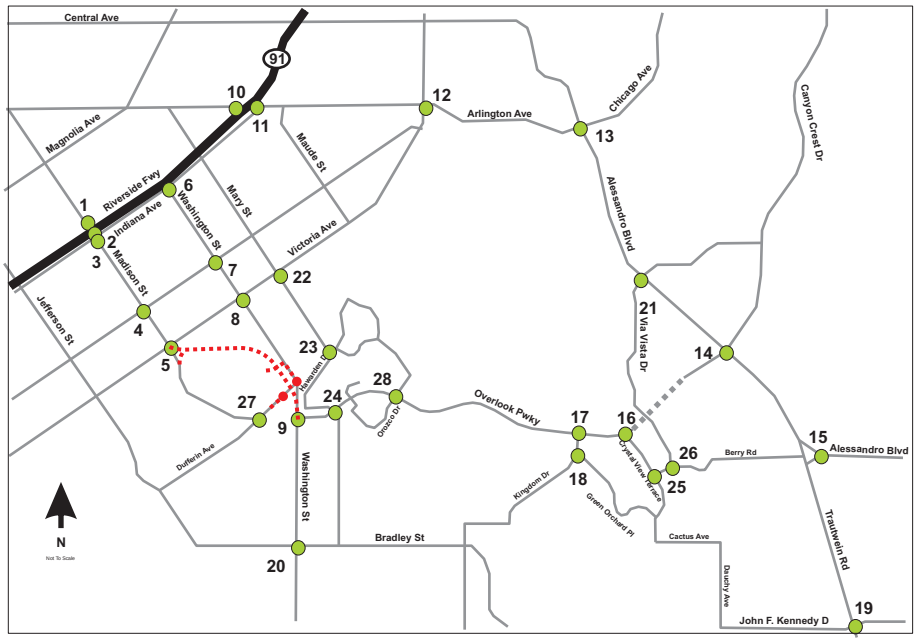
Figure 6-4A

Scenario 4 Lane Configuration (2035)





Legend

- 1 Study Intersection
- Lane Configuration
- Signal Controlled
- Stop Controlled
- Proposed Roadway Improvement
- Cul-de-sac

Note: North/south streets are listed first under intersection name.

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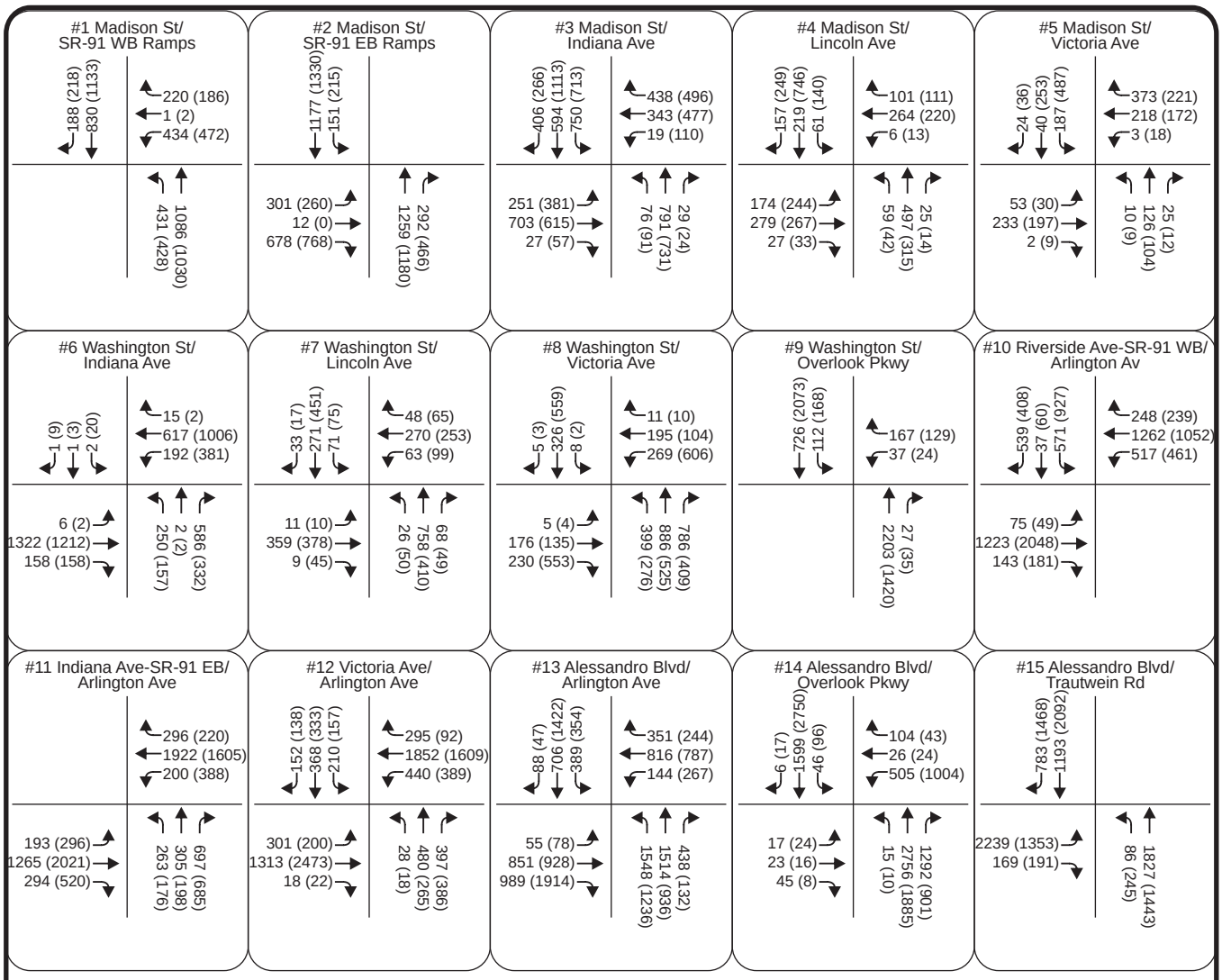
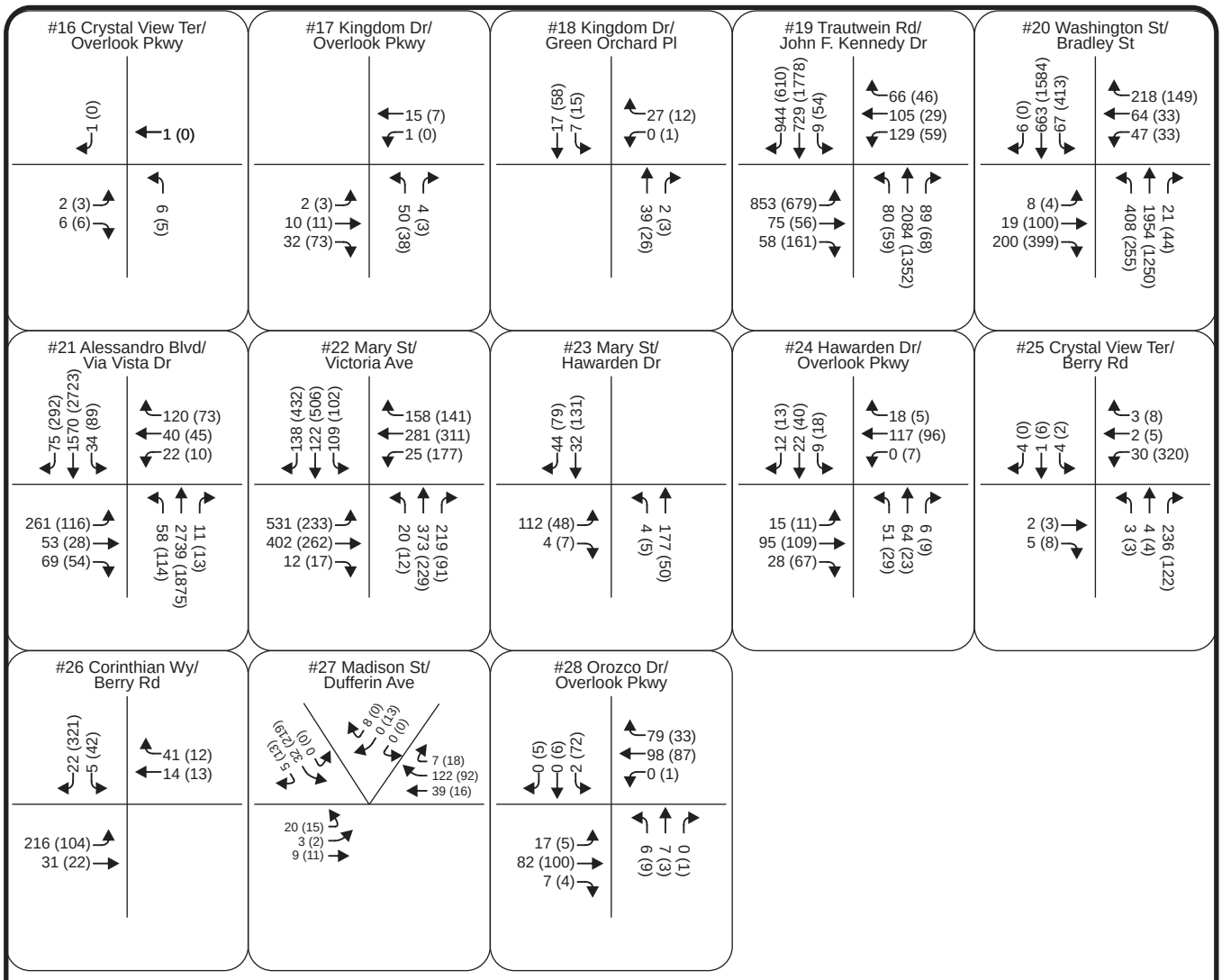
Figure 6-4B
Scenario 4 Lane Configuration (2035)



Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 6-5A

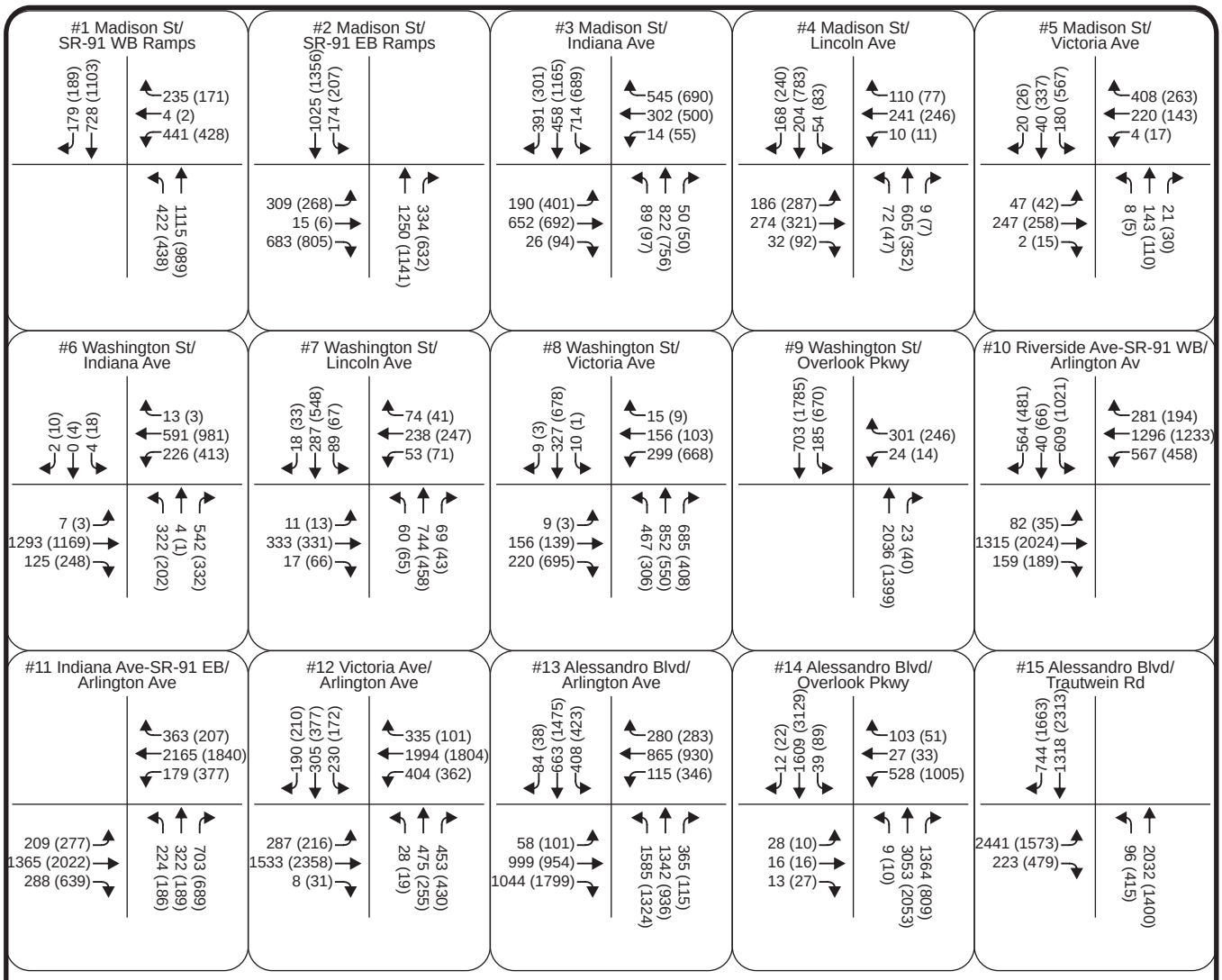
Gates Closed Peak Hour Volumes (2035)



Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 6-5B

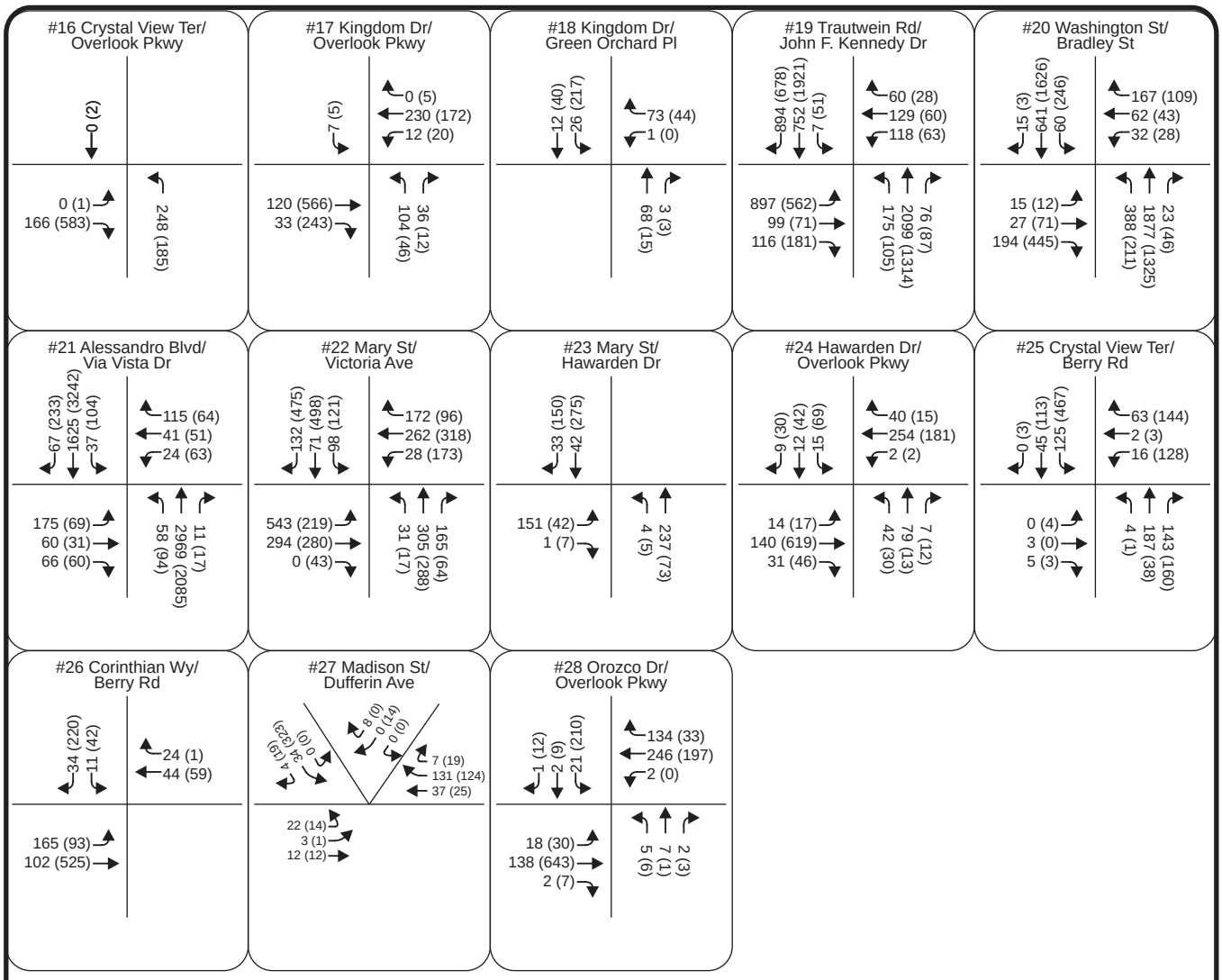
Gates Closed Peak Hour Volumes (2035)



Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 6-6A

Gates Open Peak Hour Volumes (2035)



Legend

1 Study Intersection

XX(XX) AM (PM) Peak Hour Volumes

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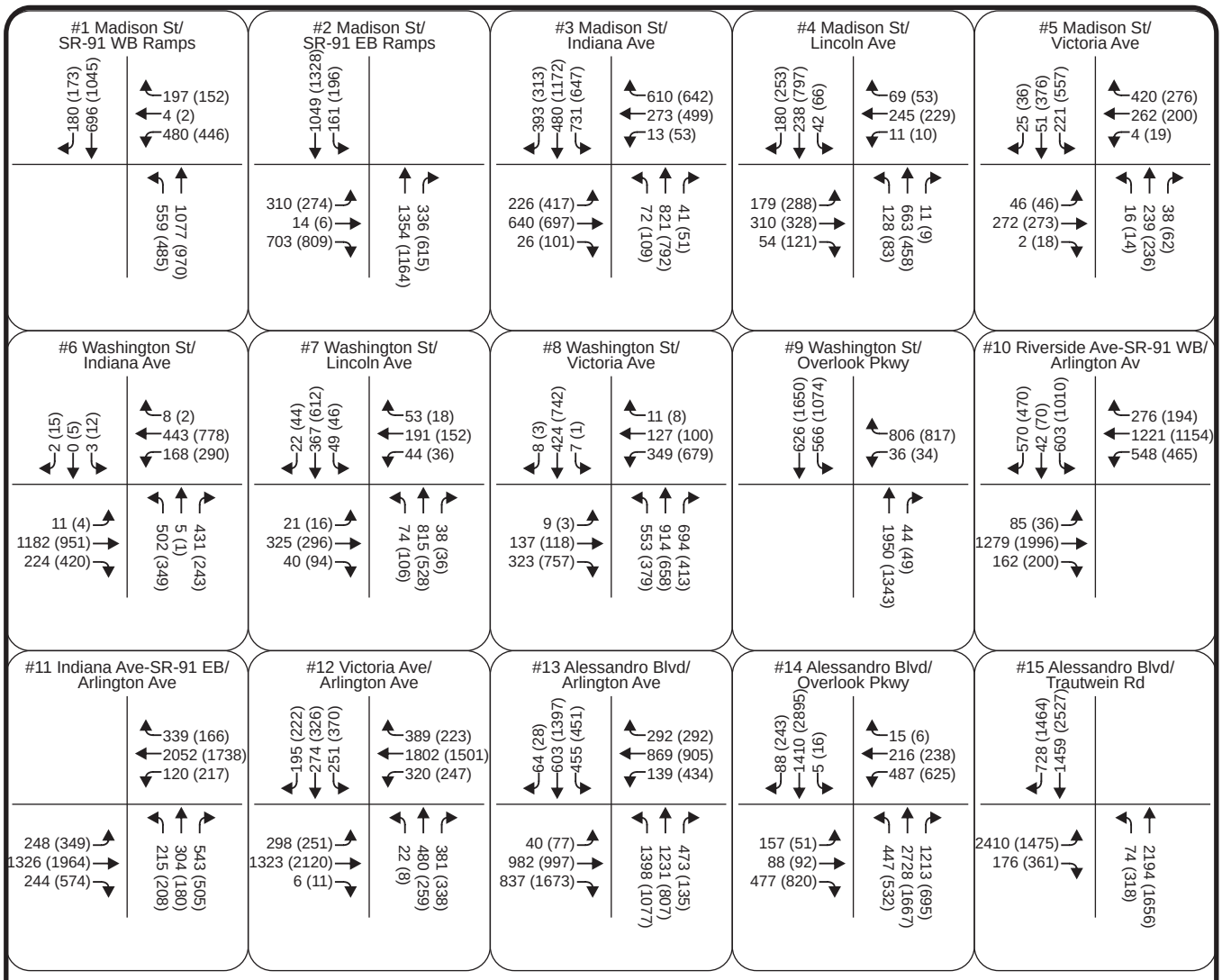
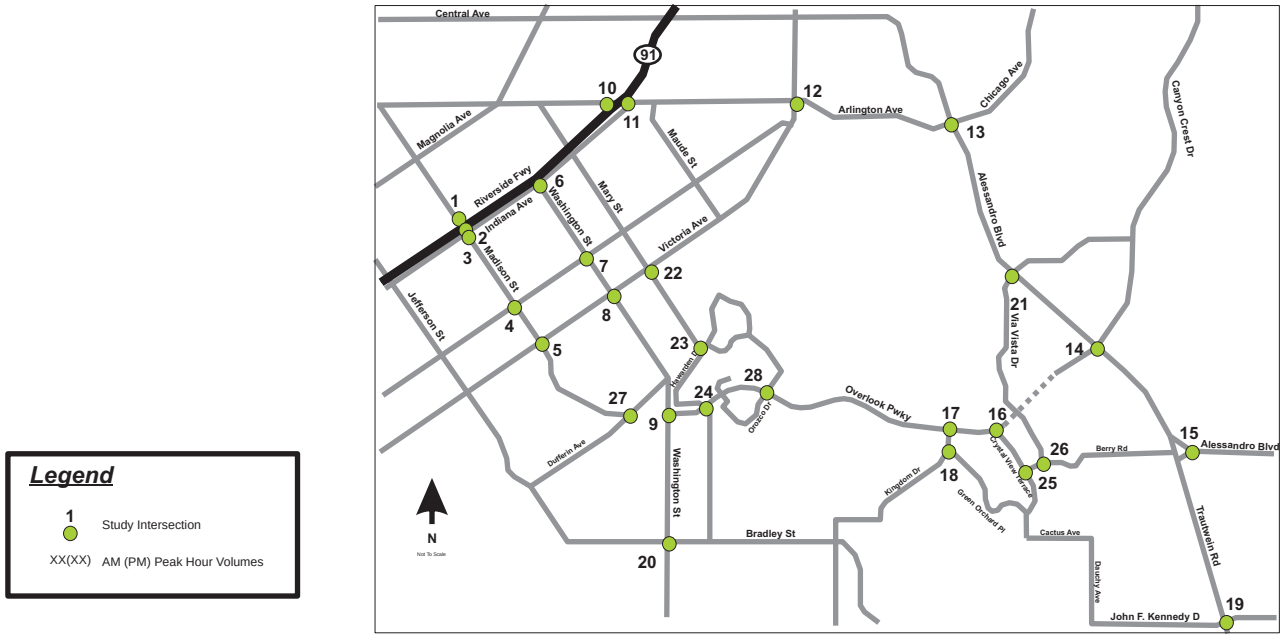
Figure 6-6B

Gates Open Peak Hour Volumes (2035)

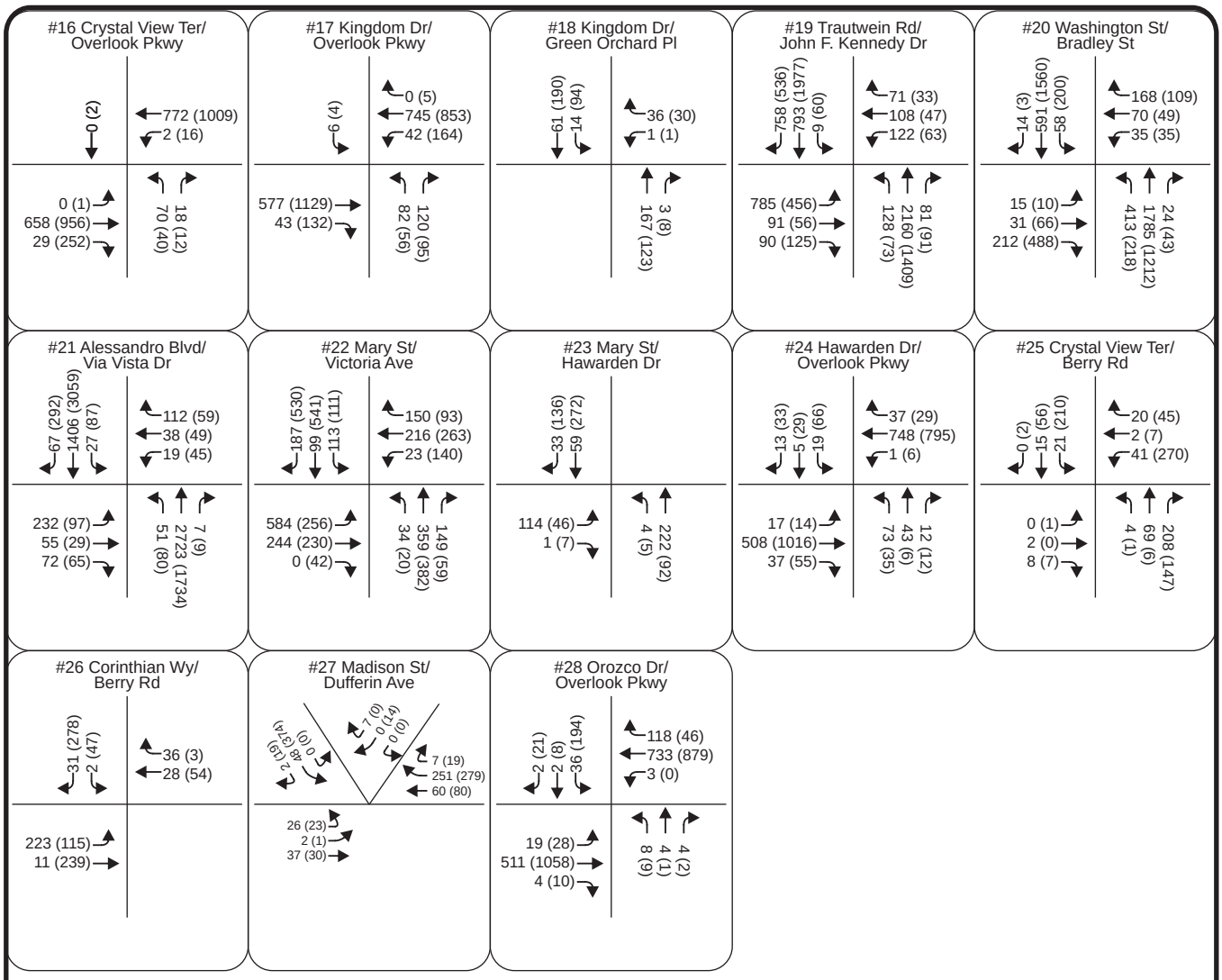


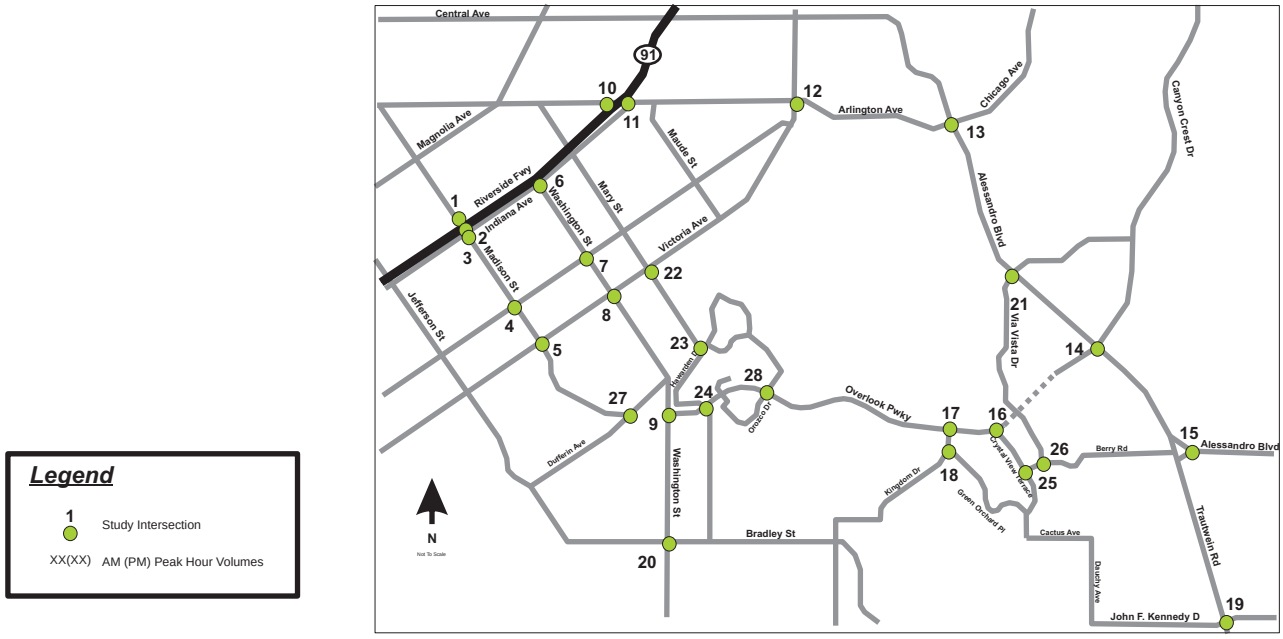


Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 6-7A

Scenario 3 Peak Hour Volumes (2035)

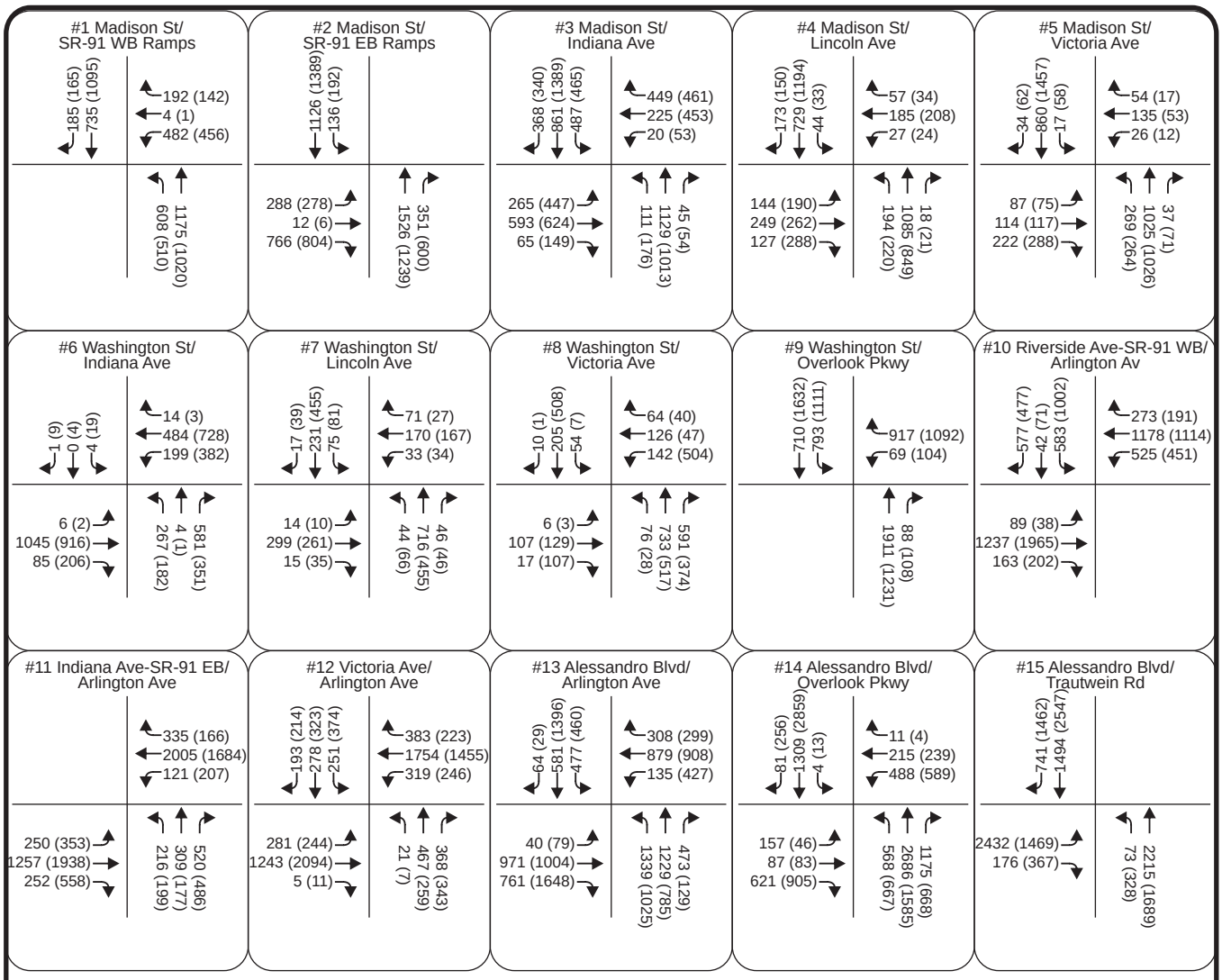


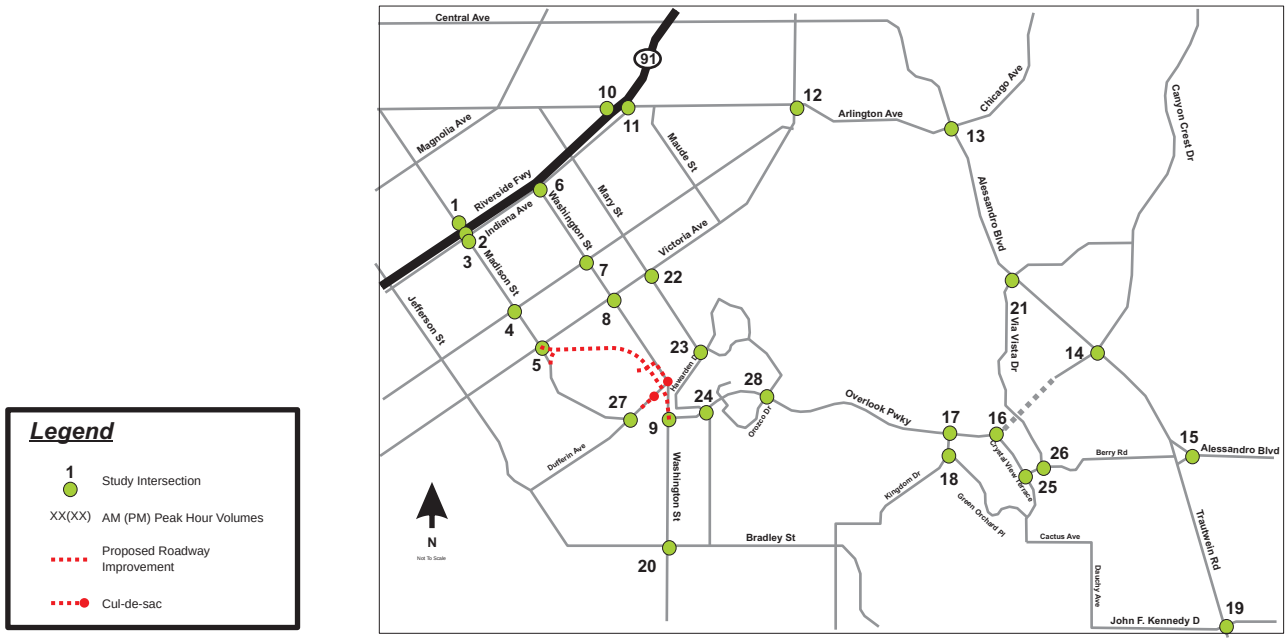


Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 6-7B

Scenario 3 Peak Hour Volumes (2035)

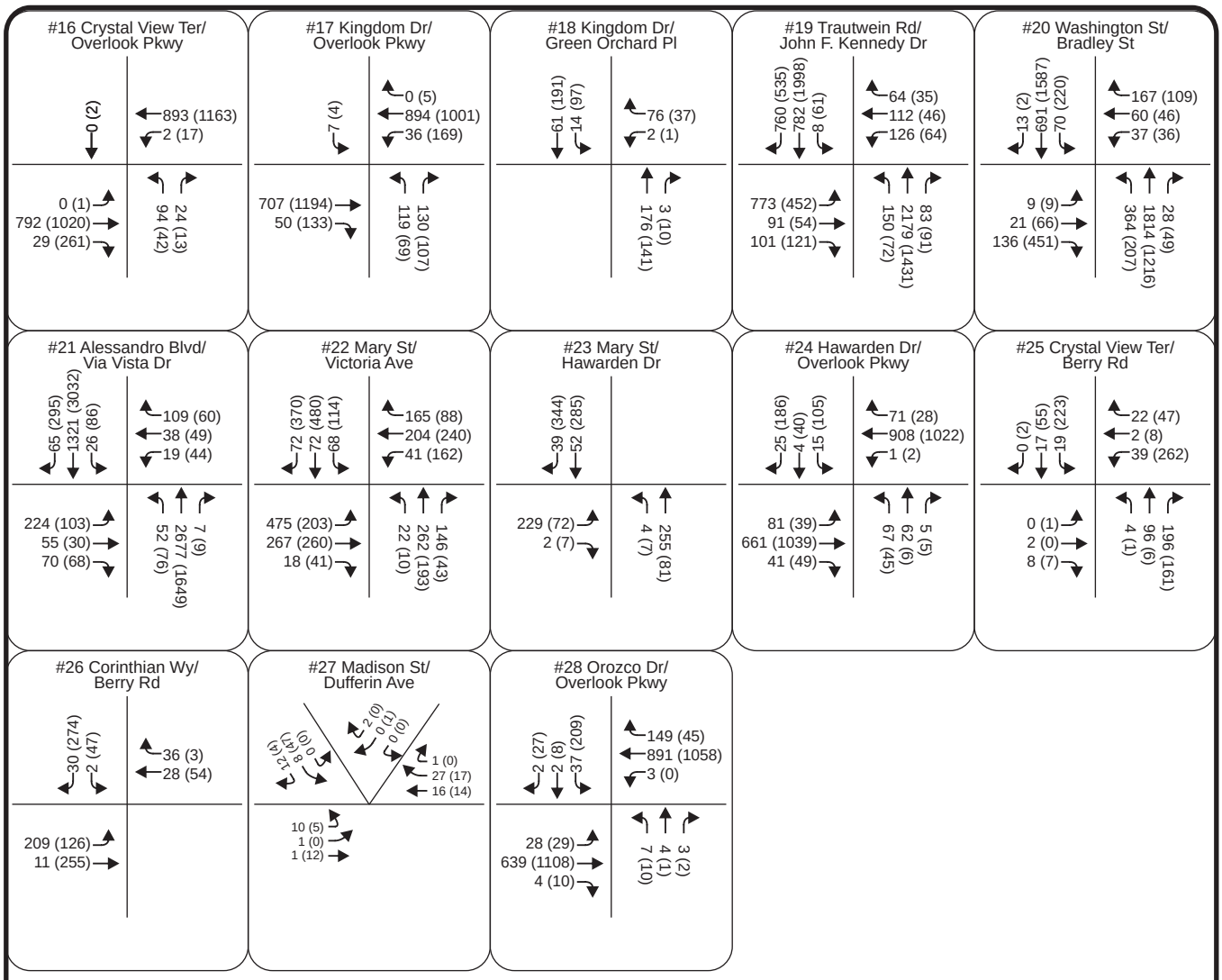


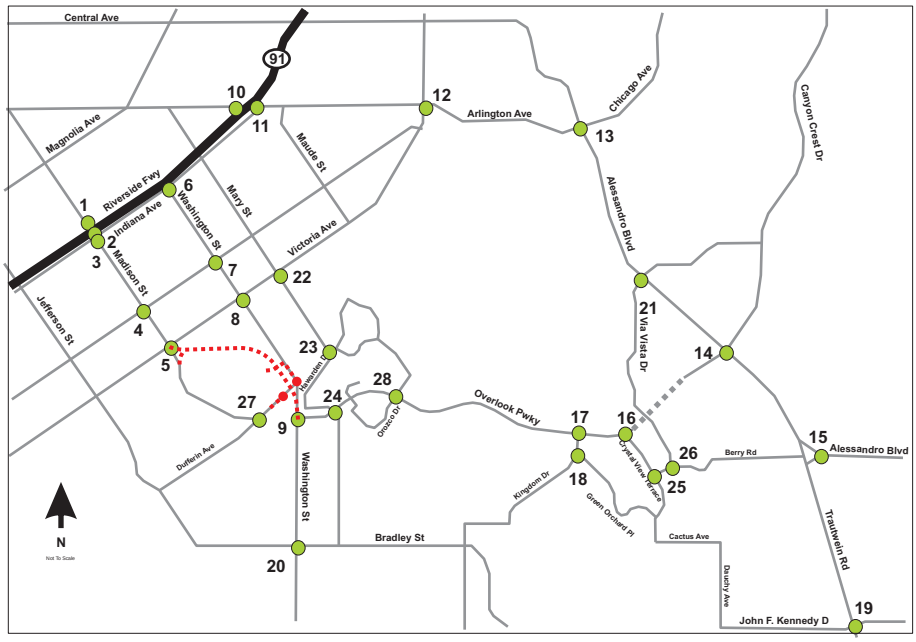


Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 6-8A

Scenario 4 Peak Hour Volumes (2035)





Legend

- 1 — Study Intersection
- XX(XX) — AM (PM) Peak Hour Volumes
- Proposed Roadway Improvement
- Cul-de-sac

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Figure 6-8B

Scenario 4 Peak Hour Volumes (2035)

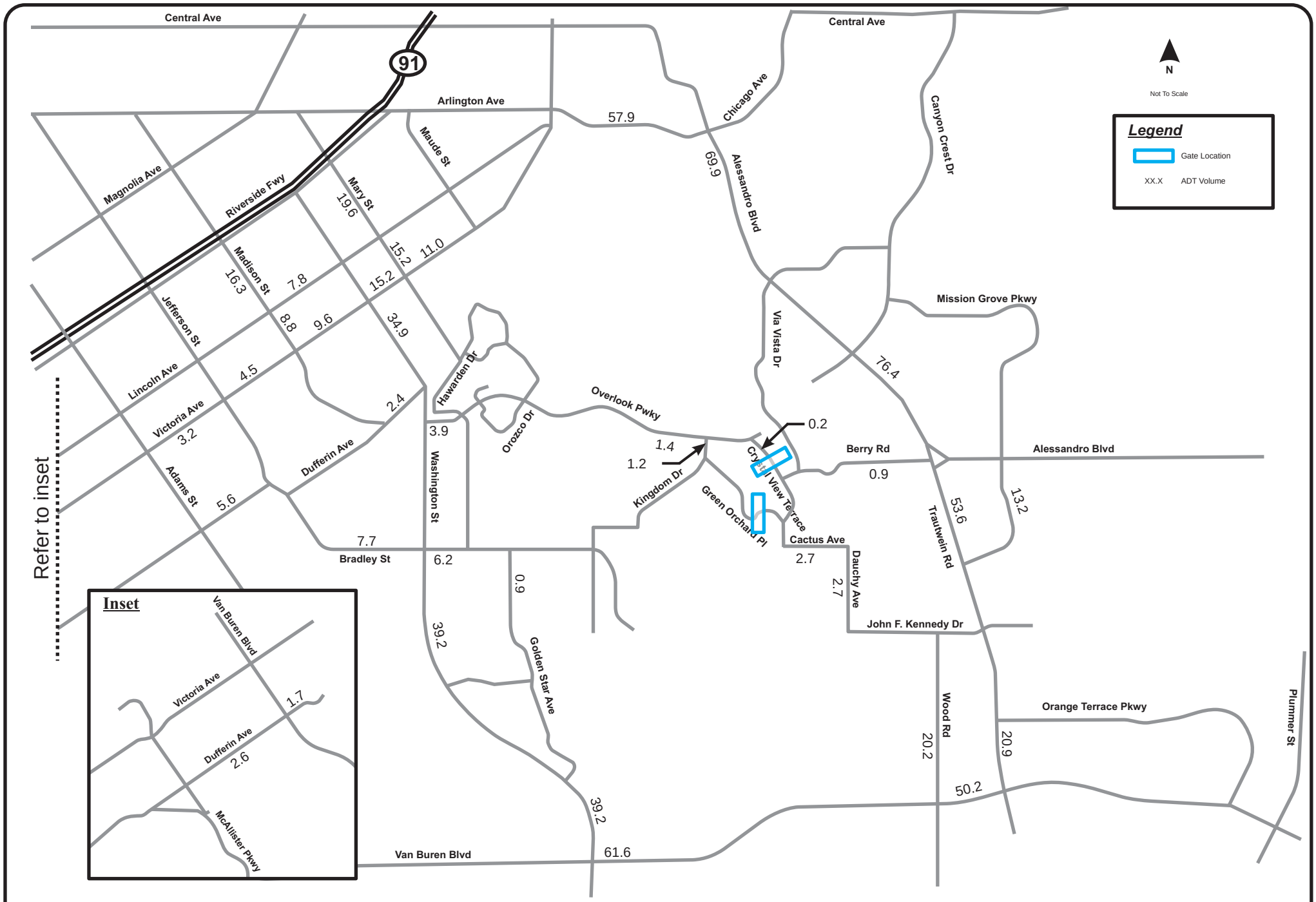

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Figure 6-9
Gates Closed ADT Volumes (2035)

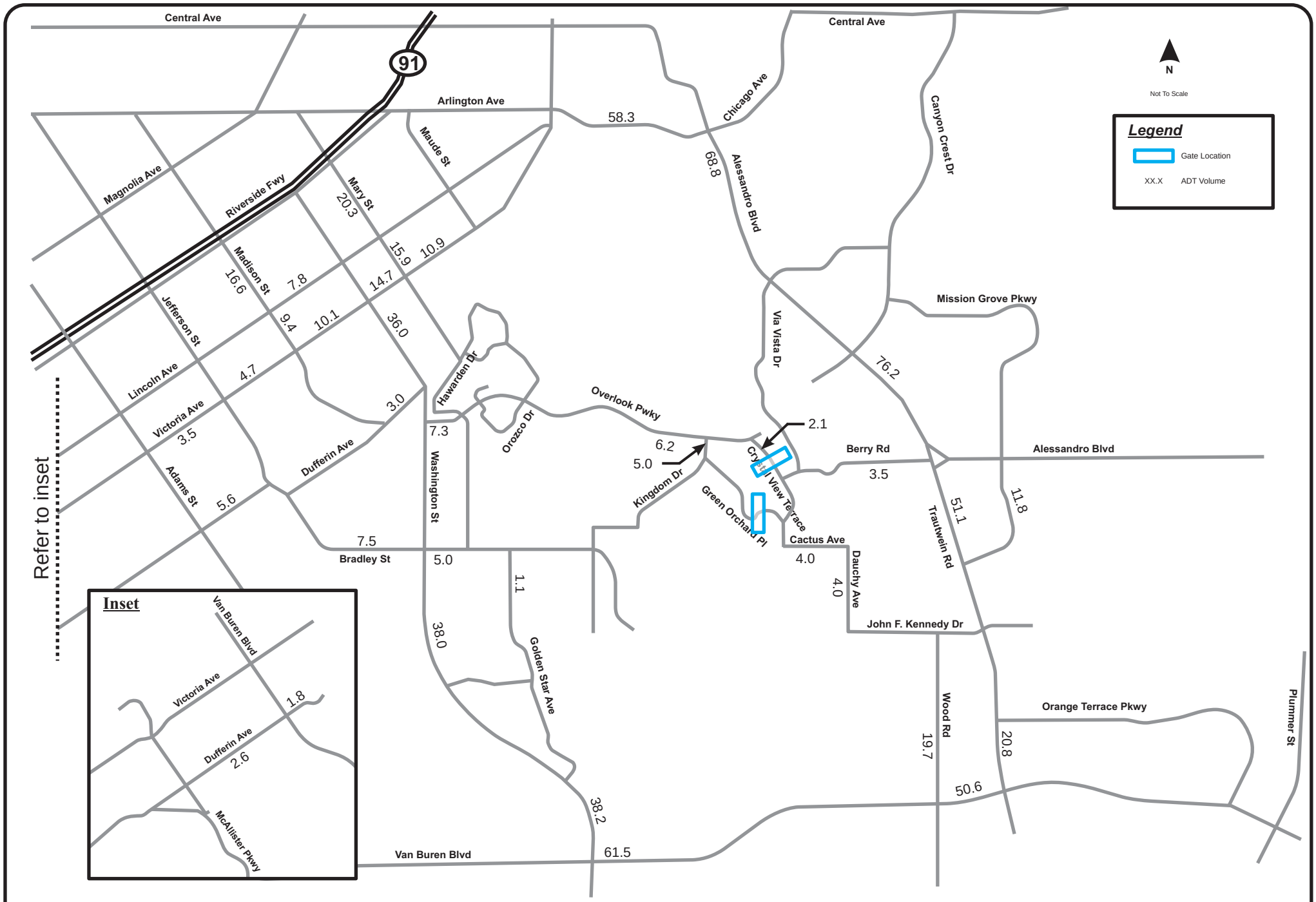

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Figure 6-10

Gates Open ADT Volumes (2035)

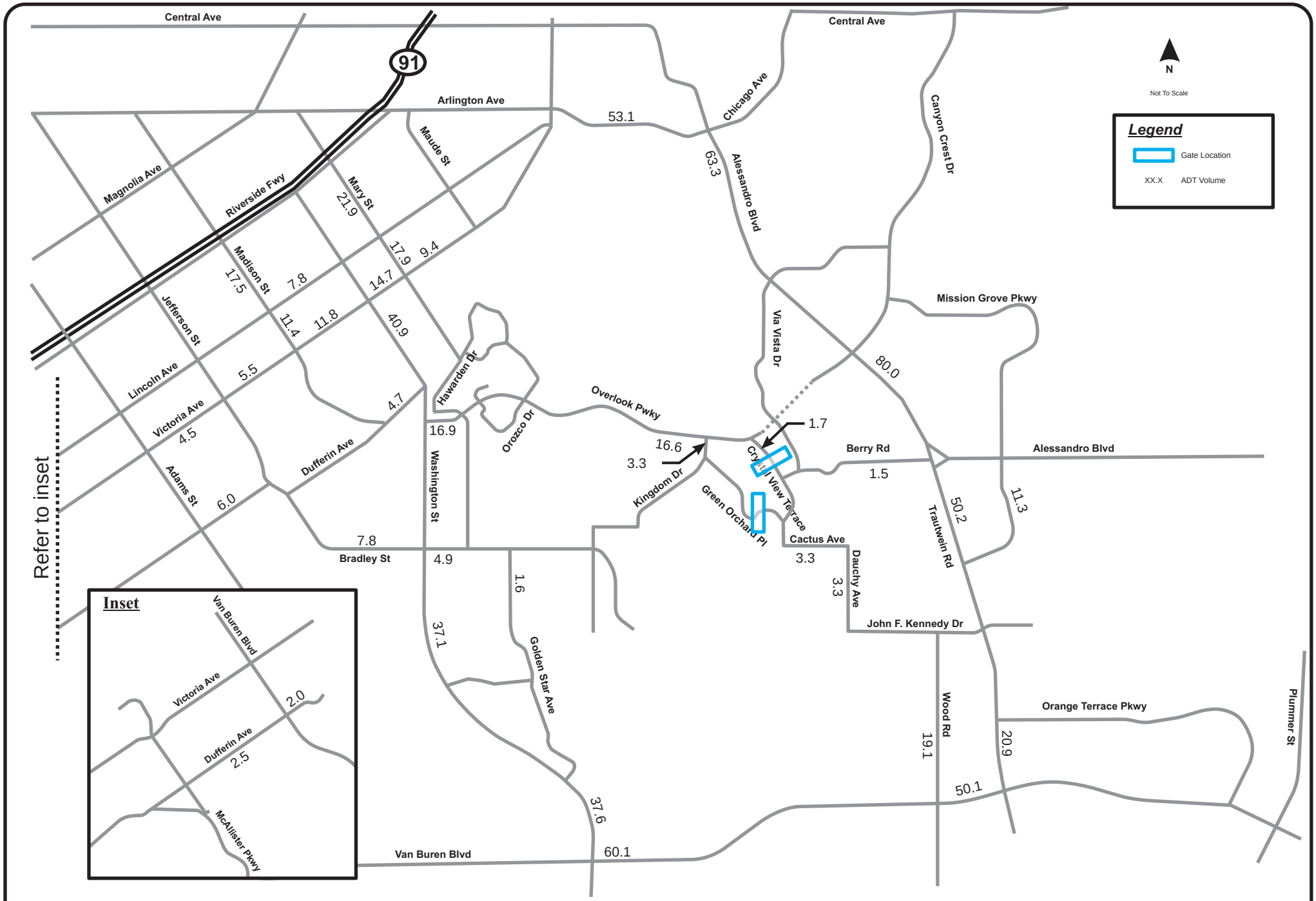

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Figure 6-11
Scenario 3 ADT Volumes (2035)

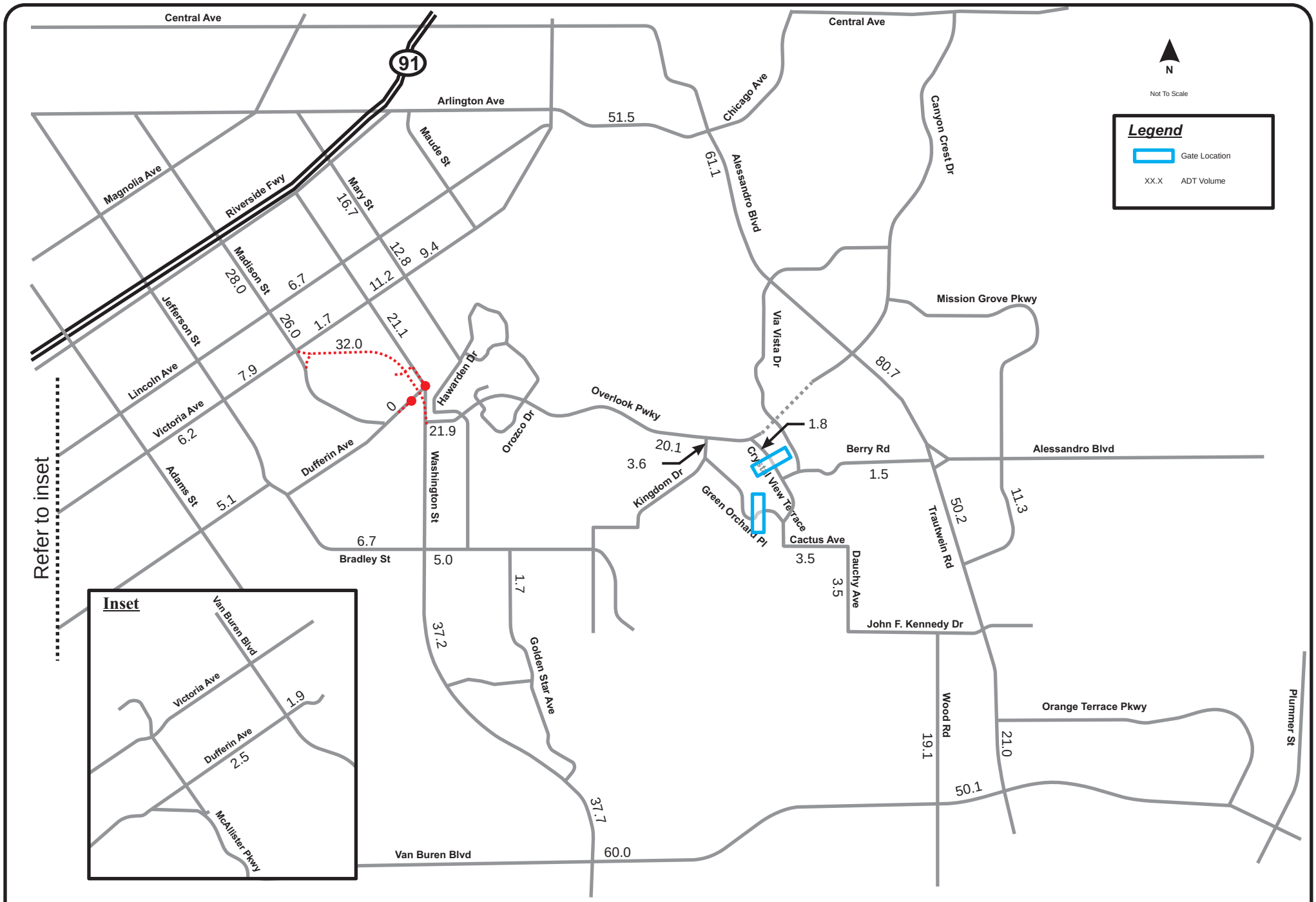

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Figure 6-12
Scenario 4 ADT Volumes (2035)

6.1 GATES CLOSED BASELINE

6.1.1 *INTERSECTIONS*

Under Gates Closed, which for this analysis is the same as the Scenario 1, all study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9. **Table 6-1** shows the intersection LOS summary during the AM and PM peak hours. Under Gates Closed, the results indicate that the following intersections are projected to exceed the LOS standards shown in Section 2.2.2:

- Madison Street at Indiana Avenue (AM and PM peak hours)
- Madison Street at Victoria Avenue North (PM peak hour)
- Madison Street at Victoria Avenue South (PM peak hour)
- Washington Street at Lincoln Avenue (AM and PM peak hours)
- Washington Street at Victoria Avenue North (AM and PM peak hours)
- Washington Street at Victoria Avenue South (AM and PM peak hours)
- Victoria Avenue at Arlington Avenue (AM peak hour)
- Alessandro Boulevard at Arlington Avenue (PM peak hour)
- Alessandro Boulevard at Overlook Parkway (PM peak hour)
- Trautwein Road at John F. Kennedy Drive (AM peak hour)
- Washington Street at Bradley Street (PM peak hour)
- Mary Street at Victoria Avenue North (AM and PM peak hours)
- Mary Street at Victoria Avenue South (AM and PM peak hours)

TABLE 6-1: 2035 PEAK HOUR LOS (GATES CLOSED)

#	Intersection	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
1.	Madison St & SR-91 WB Ramps	C	31.7	C	34.3
2.	Madison St & SR-91 EB Ramps	D	37.5	E	57.9
3.	Madison St & Indiana Ave	F	103.3	F	131.1
4.	Madison St & Lincoln Ave	C	30.7	C	32.3
5A.	Madison St & Victoria Ave (North)	B	12.4	F	77.2
5B.	Madison St & Victoria Ave (South)	B	10.3	E	47.4
6.	Washington St & Indiana Ave	D	44.7	C	31.1
7.	Washington St & Lincoln Ave	F	226.4	F	135.0
8A.	Washington St & Victoria Ave (North)	F	90.9	E	45.7
8B.	Washington St & Victoria Ave (South)	F	127.5	F	285.3
9.	Washington St & Overlook Pkwy	B	16.1	B	12.3
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	34.0	E	62.0
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	32.3	E	61.3
12.	Victoria Ave & Arlington Ave	F	83.5	E	73.4
13.	Alessandro Blvd & Arlington Ave	E	61.3	F	104.4
14.	Alessandro Blvd & Overlook Pkwy	E	69.4	F	88.7
15.	Alessandro Blvd & Trautwein Rd	D	38.2	C	28.4
16.	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0
17.	Kingdom Dr & Overlook Pkwy	A	8.9	A	8.9
18.	Kingdom Dr & Green Orchard Pl	A	8.6	A	8.5
19.	Trautwein Rd & John F. Kennedy Dr	F	85.0	D	36.1
20.	Washington St & Bradley St	C	34.4	E	60.4
21.	Alessandro Blvd & Via Vista Dr	C	34.0	C	24.3
22A.	Mary St & Victoria Ave (North)	F	154.9	F	91.5
22B.	Mary St & Victoria Ave (South)	F	59.0	F	86.2
23.	Mary St & Hawarden Ct	A	8.2	A	7.9
24.	Hawarden Dr & Overlook Pkwy	A	8.2	A	8.0
25.	Crystal View Ter & Berry Rd	A	7.5	A	9.5
26.	Corinthian Wy & Berry Rd	A	8.4	A	8.9
27	Madison St & Dufferin Ave *	A	7.8	A	8.3
28	Orozco Dr & Overlook Pkwy	B	10.4	B	10.1

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact

6.1.2 *Roadway Links*

Under Gates Closed, ADT roadway link volumes were calculated at 38 locations in the project vicinity. The Levels of service for each link was calculated using the Roadway Capacity table shown in Table 2-2. **Table 6-2** shows the resultant levels of service.

TABLE 6-2: 2035 ADT LOS (GATES CLOSED)

#	Street	Location	Street Classification	ADT	LOS
1	Victoria Avenue	East of Washington Street	Collector (66' or 80')	15,114	E-F
2	Overlook Parkway	East of Washington Street	Arterial (100')	3,837	A-B
3	Bradley Street	East of Washington Street	Collector (66' or 80')	6,199	A-B
4	Van Buren Boulevard	East of Washington Street	Arterial (120')	61,518	E-F
5	Arlington Avenue	West of Alessandro Boulevard	Arterial (120')	57,865	E-F
6	Berry Road	West of Trautwein Road	Local	893	A-B
7	Van Buren Boulevard	West of Trautwein Road	Arterial (120')	50,165	E-F
8	Alessandro Boulevard	West of Sycamore Canyon Road	Arterial (120')	59,305	E-F
9	Van Buren Boulevard	West of Plummer Street	Arterial (120')	55,995	E-F
10	Washington Street	South of Victoria Avenue	Arterial (100')	34,804	E-F
11	Alessandro Boulevard	South of Arlington Avenue	Arterial (120')	69,894	E-F
12	Washington Street	North of Valle Vista Way	Arterial (100')	39,116	E-F
13	Golden Star Avenue	North of Valle Vista Way	Collector (66' or 80')	822	A-B
14	Dauchy Avenue	North of John F Kennedy Drive	Collector (66' or 80')	2,699	A-B
15	Trautwein Road	North of John F Kennedy Drive	Arterial (100')	53,577	E-F
16	Washington Street	North of Van Buren Boulevard	Arterial (100')	39,150	E-F
17	Wood Drive	North of Van Buren Boulevard	Arterial (88')	20,126	D
18	Trautwein Road	North of Van Buren Boulevard	Arterial (88')	20,851	D
19	Mission Grove Parkway	South of Alessandro Boulevard	Collector (66' or 80')	13,165	E-F
20	Alessandro Boulevard	South of Canyon Crest Drive	Arterial (120')	76,391	E-F
21	Overlook Parkway	West of Kingdom Drive	Arterial	1,399	A-B
22	Kingdom Drive	South of Overlook Parkway	Collector (66' or 80')	1,165	A-B
23	Crystal View Drive	South of Overlook Parkway	Local	118	A-B

#	Street	Location	Street Classification	ADT	LOS
24	Cactus Avenue	East of Crystal View Terrace	Collector (66' or 80')	2,679	A-B
25	Mary Street	North of Victoria Avenue	Arterial (88')	15,106	A-B
26	Mary Street	North of Lincoln Avenue	Arterial (88')	19,599	D
27	Proposed "C" Street	South of Victoria Avenue	Arterial (100')	-	N/A
28	Madison Street	North of Victoria Avenue	Arterial (88')	8,773	A-B
29	Madison Street	North of Lincoln Avenue	Arterial (88')	16,271	A-B
30	Victoria Avenue	East of Mary Street	Collector (66' or 80')	10,941	C
31	Victoria Avenue	East of Madison Street	Collector (66' or 80')	9,528	A-B
32	Victoria Avenue	West of Madison Street	Collector (66' or 80')	4,487	A-B
33	Victoria Avenue	East of Adams Street	Collector (66' or 80')	3,169	A-B
34	Dufferin Avenue	West of Washington Street	Collector (66' or 80')	2,394	A-B
35	Dufferin Avenue	East of Adams Street	Collector (66' or 80')	5,566	A-B
36	Dufferin Avenue	East of Van Buren Boulevard	Collector (66' or 80')	1,684	A-B
37	Dufferin Avenue	East of McAllister Street	Collector (66' or 80')	2,528	A-B
38	Bradley Street	West of Washington Street	Collector (66' or 80')	7,606	A-B
39	Lincoln Avenue	East of Madison Street	Collector (66' or 80')	7,706	A-B
Shaded Text represents location that exceeds LOS standards or significant impact					

The analysis shows that six roadway links under Gates Closed are projected to exceed the LOS standards shown in Section 2.2.2.

6.2 GATES OPEN BASELINE

6.2.1 *INTERSECTIONS*

All study intersections Under Gates Open, which for this analysis is the same as the Scenario 2, were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9. **Table 6-3** shows the intersection LOS summary during the AM and PM peak hours. Under Gates Open, the results indicate that the following intersections are projected to exceed the LOS standards shown in Section 2.2.2:

- Madison Street at Indiana Avenue (AM and PM peak hours)
- Madison Street at Victoria Avenue North (PM peak hour)
- Madison Street at Victoria Avenue South (PM peak hour)
- Washington Street at Lincoln Avenue (AM and PM peak hours)
- Washington Street at Victoria Avenue North (AM and PM peak hours)
- Washington Street at Victoria Avenue South (AM and PM peak hours)
- Victoria Avenue at Arlington Avenue (AM peak hour)
- Alessandro Boulevard at Arlington Avenue (PM peak hour)
- Alessandro Boulevard at Overlook Parkway (AM and PM peak hours)
- Trautwein Road at John F. Kennedy Drive (AM peak hour)
- Mary Street at Victoria Avenue North (AM and PM peak hours)
- Mary Street at Victoria Avenue South (AM and PM peak hours)

TABLE 6-3: 2035 PEAK HOUR LOS (GATES OPEN)

#	Intersection	AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay
1.	Madison St & SR-91 WB Ramps	C	31.2	C	32.8
2.	Madison St & SR-91 EB Ramps	D	38.1	E	70.2
3.	Madison St & Indiana Ave	F	113.4	F	179.7
4.	Madison St & Lincoln Ave	C	30.5	C	33.6
5A.	Madison St & Victoria Ave (North)	B	13.0	F	152.1
5B.	Madison St & Victoria Ave (South)	B	10.4	F	121.8
6.	Washington St & Indiana Ave	D	40.7	C	34.9
7.	Washington St & Lincoln Ave	F	222.7	F	177.9
8A.	Washington St & Victoria Ave (North)	F	103.5	F	155.0
8B.	Washington St & Victoria Ave (South)	F	116.3	F	386.2
9.	Washington St & Overlook Pkwy	C	22.5	C	28.0
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	D	39.2	E	67.2
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	D	35.3	E	59.6
12.	Victoria Ave & Arlington Ave	F	94.0	E	68.6
13.	Alessandro Blvd & Arlington Ave	E	68.6	F	117.6
14.	Alessandro Blvd & Overlook Pkwy	F	83.5	F	108.3
15.	Alessandro Blvd & Trautwein Rd	E	57.9	D	42.4
16.	Crystal View Ter & Overlook Pkwy	A	8.9	B	15.0
17.	Kingdom Dr & Overlook Pkwy	B	11.2	C	19.7
18.	Kingdom Dr & Green Orchard Pl	A	8.9	A	8.5
19.	Trautwein Rd & John F. Kennedy Dr	F	94.8	D	36.5
20.	Washington St & Bradley St	C	27.6	D	52.6
21.	Alessandro Blvd & Via Vista Dr	C	29.7	D	42.7
22A.	Mary St & Victoria Ave (North)	F	110.7	F	96.2
22B.	Mary St & Victoria Ave (South)	E	40.9	F	94.1
23.	Mary St & Hawarden Ct	A	8.8	A	9.7
24.	Hawarden Dr & Overlook Pkwy	A	8.8	B	11.6
25.	Crystal View Ter & Berry Rd	A	9.0	C	20.4
26.	Corinthian Wy & Berry Rd	A	8.6	C	19.3
27	Madison St & Dufferin Ave *	A	7.9	A	9.3
28	Orozco Dr & Overlook Pkwy	B	12.4	D	27.1

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact

6.2.2 *Roadway Links*

Under Gates Open, ADT roadway link volumes were calculated at 38 locations in the project vicinity. The Levels of service for each link was calculated using the Roadway Capacity table shown in Ta6ble 2-2. **Table 6-4** shows the resultant levels of service.

TABLE 6-4: 2035 ADT LOS (GATES OPEN)

#	Street	Location	Street Classification	ADT	LOS
1	Victoria Avenue	East of Washington Street	Collector (66' or 80')	14,629	E-F
2	Overlook Parkway	East of Washington Street	Arterial (100')	7,290	A-B
3	Bradley Street	East of Washington Street	Collector (66' or 80')	4,989	A-B
4	Van Buren Boulevard	East of Washington Street	Arterial (120')	61,403	E-F
5	Arlington Avenue	West of Alessandro Boulevard	Arterial (120')	58,268	E-F
6	Berry Road	West of Trautwein Road	Local	3,432	E-F
7	Van Buren Boulevard	West of Trautwein Road	Arterial (120')	50,540	E-F
8	Alessandro Boulevard	West of Sycamore Canyon Road	Arterial (120')	60,061	E-F
9	Van Buren Boulevard	West of Plummer Street	Arterial (120')	58,188	E-F
10	Washington Street	South of Victoria Avenue	Arterial (100')	35,951	E-F
11	Alessandro Boulevard	South of Arlington Avenue	Arterial (120')	68,706	E-F
12	Washington Street	North of Valle Vista Way	Arterial (100')	37,930	E-F
13	Golden Star Avenue	North of Valle Vista Way	Collector (66' or 80')	1,005	A-B
14	Dauchy Avenue	North of John F Kennedy Drive	Collector (66' or 80')	3,974	A-B
15	Trautwein Road	North of John F Kennedy Drive	Arterial (100')	51,081	E-F
16	Washington Street	North of Van Buren Boulevard	Arterial (100')	38,162	E-F
17	Wood Drive	North of Van Buren Boulevard	Arterial (88')	19,650	D
18	Trautwein Road	North of Van Buren Boulevard	Arterial (88')	20,766	D
19	Mission Grove Parkway	South of Alessandro Boulevard	Collector (66' or 80')	11,728	D
20	Alessandro Boulevard	South of Canyon Crest Drive	Arterial (120')	76,102	E-F
21	Overlook Parkway	West of Kingdom Drive	Arterial	6,135	A-B
22	Kingdom Drive	South of Overlook Parkway	Collector (66' or 80')	4,933	A-B
23	Crystal View Drive	South of Overlook Parkway	Local	2,048	A-B

#	Street	Location	Street Classification	ADT	LOS
24	Cactus Avenue	East of Crystal View Terrace	Collector (66' or 80')	3,935	A-B
25	Mary Street	North of Victoria Avenue	Arterial (88')	15,815	A-B
26	Mary Street	North of Lincoln Avenue	Arterial (88')	20,218	D
27	Proposed "C" Street	South of Victoria Avenue	Arterial (100')	-	N/A
28	Madison Street	North of Victoria Avenue	Arterial (88')	9,398	A-B
29	Madison Street	North of Lincoln Avenue	Arterial (88')	16,541	A-B
30	Victoria Avenue	East of Mary Street	Collector (66' or 80')	10,868	C
31	Victoria Avenue	East of Madison Street	Collector (66' or 80')	10,093	C
32	Victoria Avenue	West of Madison Street	Collector (66' or 80')	4,614	A-B
33	Victoria Avenue	East of Adams Street	Collector (66' or 80')	3,459	A-B
34	Dufferin Avenue	West of Washington Street	Collector (66' or 80')	2,906	A-B
35	Dufferin Avenue	East of Adams Street	Collector (66' or 80')	5,517	A-B
36	Dufferin Avenue	East of Van Buren Boulevard	Collector (66' or 80')	1,716	A-B
37	Dufferin Avenue	East of McAllister Street	Collector (66' or 80')	2,537	A-B
38	Bradley Street	West of Washington Street	Collector (66' or 80')	7,452	A-B
39	Lincoln Avenue	East of Madison Street	Collector (66' or 80')	7,755	A-B
Shaded Text represents location that exceeds LOS standards or significant impact					

The analysis shows that six roadway links under Gates Open are projected to exceed the LOS standards shown in Section 2.2.2.

6.3 GATES CLOSED COMPARISON

6.3.1 *SCENARIO 1 ANALYSIS*

6.3.1.1 INTERSECTION ANALYSIS

For study purposes, in 2035, Scenario 1 is the same as the Gates Closed Baseline. There will be no difference in the volumes and resultant levels of service when comparing Scenario 1 to the Gates Closed Baseline. Therefore, there would be no impacts, since the data is the same.

6.3.1.2 ROADWAY LINK ANALYSIS

For study purposes, in 2035, Scenario 1 is the same as the Gates Closed Baseline. There will be no difference in the volumes and resultant levels of service when comparing Scenario 1 to the Gates Closed Baseline. Therefore, there would be no impacts, since the data is the same.

6.3.2 *Scenario 2 Analysis*

6.3.2.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and compared to Gates Closed. For impact determination **Table 6-5** shows the intersection LOS summary and cumulative impact locations during the AM and PM peak hours. Under Scenario 2, the results indicate that 12 intersections exceed the LOS standards shown in Section 2.2.2.

The results also show that as compared to Gates Closed:

- In the AM peak hour, LOS improves at one intersection, and is reduced at six intersections
- In the PM peak hour, LOS improves at one intersection, and is reduced at 11 intersections.

Per the impact criteria in Section 2.2.2, a cumulative impact is projected to occur at the following 12 locations:

3. Madison Street at Indiana Avenue
5A. Madison Street at Victoria Avenue North
5B. Madison Street at Victoria Avenue South
7. Washington Street at Lincoln Avenue
8A. Washington Street at Victoria Avenue North
8B. Washington Street at Victoria Avenue South
12. Victoria Avenue at Arlington Avenue
13. Alessandro Boulevard at Arlington Avenue
14. Alessandro Boulevard at Overlook Parkway
19. Trautwein Road at John F. Kennedy Drive
22A. Mary Street at Victoria Avenue North
22B. Mary Street at Victoria Avenue South

TABLE 6-5: SCENARIO 2 PEAK HOUR IMPACT COMPARISON TABLE (2035 – GATES CLOSED)

#	Intersection	Gates Closed				Scenario 2				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	31.7	C	34.3	C	31.2	C	32.8	-0.5	N	-1.5	N
2.	Madison St & SR-91 EB Ramps	D	37.5	E	57.9	D	38.1	E	70.2	0.6	N	12.3	N
3.	Madison St & Indiana Ave	F	103.3	F	131.1	F	113.4	F	179.7	10.1	Y	48.6	Y
4.	Madison St & Lincoln Ave	C	30.7	C	32.3	C	30.5	C	33.6	-0.2	N	1.3	N
5A.	Madison St & Victoria Ave North	B	12.4	F	77.2	B	13.0	F	152.1	0.6	N	74.9	Y
5B.	Madison St & Victoria Ave South	B	10.3	E	47.4	B	10.4	F	121.8	0.1	N	74.4	Y
6.	Washington St & Indiana Ave	D	44.7	C	31.1	D	40.7	C	34.9	-4.0	N	3.8	N
7.	Washington St & Lincoln Ave	F	226.4	F	135.0	F	222.7	F	177.9	-3.7	N	42.9	Y
8A.	Washington St & Victoria Ave North	F	90.9	E	45.7	F	103.5	F	155.0	12.6	Y	109.3	Y
8B.	Washington St & Victoria Ave South	F	127.5	F	285.3	F	116.3	F	386.2	-11.2	N	100.9	Y
9.	Washington St & Overlook Pkwy	B	16.1	B	12.3	C	22.5	C	28.0	6.4	N	15.7	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	34.0	E	62.0	D	39.2	E	67.2	5.2	N	5.2	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	32.3	E	61.3	D	35.3	E	59.6	3.0	N	-1.7	N
12.	Victoria Ave & Arlington Ave	F	83.5	E	73.4	F	94.0	E	68.6	10.5	Y	-4.8	N
13.	Alessandro Blvd & Arlington Ave	E	61.3	F	104.4	E	68.6	F	117.6	7.3	N	13.2	Y
14.	Alessandro Blvd & Overlook Pkwy	E	69.4	F	88.7	F	83.5	F	108.3	14.1	Y	19.6	Y
15.	Alessandro Blvd & Trautwein Rd	D	38.2	C	28.4	E	57.9	D	42.4	19.7	N	14.0	N
16.	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0	A	8.9	B	15.0	2.0	N	8.0	N
17.	Kingdom Dr & Overlook Pkwy	A	8.9	A	8.9	B	11.2	C	19.7	2.3	N	10.8	N
18.	Kingdom Dr & Green Orchard Pl	A	8.6	A	8.5	A	8.9	A	8.5	0.3	N	0.0	N
19.	Trautwein Rd & John F. Kennedy Dr	F	85.0	D	36.1	F	94.8	D	36.5	9.8	Y	0.4	N
20.	Washington St & Bradley St	C	34.4	E	60.4	C	27.6	D	52.6	-6.8	N	-7.8	N
21.	Alessandro Blvd & Via Vista Dr	C	34.0	C	24.3	C	29.7	D	42.7	-4.3	N	18.4	N
22A.	Mary St & Victoria Ave North	F	154.9	F	91.5	F	110.7	F	96.2	-44.2	N	4.7	Y
22B.	Mary St & Victoria Ave South	F	59.0	F	86.2	E	40.9	F	94.1	-18.1	N	7.9	Y
23.	Mary St & Hawarden Ct	A	8.2	A	7.9	A	8.8	A	9.7	0.6	N	1.8	N
24.	Hawarden Dr & Overlook Pkwy	A	8.2	A	8.0	A	8.8	B	11.6	0.6	N	3.6	N
25.	Crystal View Ter & Berry Rd	A	7.5	A	9.5	A	9.0	C	20.4	1.5	N	10.9	N
26.	Corinthian Wy & Berry Rd	A	8.4	A	8.9	A	8.6	C	19.3	0.2	N	10.4	N
27	Madison St & Dufferin Ave *	A	7.8	A	8.3	A	7.9	A	9.3	0.1	N	1.0	N
28	Orozco Dr & Overlook Pkwy	B	10.4	B	10.1	B	12.4	D	27.1	2.0	N	17.0	N

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact

6.3.2.2 Roadway Link Analysis

The ADT roadway link volumes at 38 locations in the project vicinity for Scenario 2 were compared to Gates Closed for cumulative impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 6-6** shows the resultant levels of service.

Under Scenario 2, the analysis shows that six roadway links are projected to exceed the LOS standards shown in Section 2.2.2, and are highlighted in the table.

Scenario 2 is projected to add volumes to six links that are projected to operate at LOS E-F; therefore, a cumulative impact would occur at these locations:

5. Arlington Avenue west of Alessandro Boulevard
6. Berry Road west of Trautwein Road
7. Van Buren Boulevard west of Trautwein Road
8. Alessandro Boulevard west of Sycamore Canyon Road
9. Van Buren Boulevard west of Plummer Street
10. Washington Street south of Victoria Avenue

TABLE 6-6: SCENARIO 2 ROADWAY LINK IMPACT COMPARISON (2035 - GATES CLOSED)

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 2		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	E/O Washington Street	Collector (66' or 80')	15,114	E-F	14,629	E-F	-484	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	3,837	A-B	7,290	A-B	3,453	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	6,199	A-B	4,989	A-B	-1,210	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	61,518	E-F	61,403	E-F	-116	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	57,865	E-F	58,268	E-F	403	Y
6	Berry Road	W/O Trautwein Road	Local	893	A-B	3,432	E-F	2,540	Y
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	50,165	E-F	50,540	E-F	375	Y
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	59,305	E-F	60,061	E-F	756	Y
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	55,995	E-F	58,188	E-F	2,193	Y
10	Washington Street	S/O Victoria Avenue	Arterial (100')	34,804	E-F	35,951	E-F	1,147	Y
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	69,894	E-F	68,706	E-F	-1,188	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	39,116	E-F	37,930	E-F	-1,186	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	822	A-B	1,005	A-B	183	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	2,699	A-B	3,974	A-B	1,276	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	53,577	E-F	51,081	E-F	-2,496	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	39,150	E-F	38,162	E-F	-988	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	20,126	D	19,650	D	-476	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	20,851	D	20,766	D	-85	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	13,165	E-F	11,728	D	-1,437	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	76,391	E-F	76,102	E-F	-290	N
21	Overlook Parkway	W/O Kingdom Drive	Arterial	1,399	A-B	6,135	A-B	4,736	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	1,165	A-B	4,933	A-B	3,768	N
23	Crystal View Drive	S/O Overlook Parkway	Local	118	A-B	2,048	A-B	1,930	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	2,679	A-B	3,935	A-B	1,256	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	15,106	A-B	15,815	A-B	709	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	19,599	D	20,218	D	619	N

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 2		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	-	N/A	-	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	8,773	A-B	9,398	A-B	626	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	16,271	A-B	16,541	A-B	270	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	10,941	C	10,868	C	-73	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	9,528	A-B	10,093	C	566	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	4,487	A-B	4,614	A-B	127	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	3,169	A-B	3,459	A-B	290	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	2,394	A-B	2,906	A-B	512	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	5,566	A-B	5,517	A-B	-49	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	1,684	A-B	1,716	A-B	32	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	2,528	A-B	2,537	A-B	10	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	7,606	A-B	7,452	A-B	-154	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	7,706	A-B	7,755	A-B	49	N
Shaded Text represents location that exceeds LOS standards or significant impact									

6.3.3 *Scenario 3 Impact Analysis*

6.3.3.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and compared to Gates Closed. **Table 6-7** shows the intersection LOS summary and cumulative impact locations during the AM and PM peak hours. Under Scenario 3, the results indicate that the following intersections are projected to exceed the LOS standards shown in Section 2.2.2:

- Madison Street at Indiana Avenue (AM and PM peak hours)Madison Street at Victoria Avenue North (AM and PM peak hours)
- Madison Street at Victoria Avenue South (AM and PM peak hours)
- Washington Street at Lincoln Avenue (AM and PM peak hours)
- Washington Street at Victoria Avenue North (AM and PM peak hours)
- Washington Street at Victoria Avenue South (AM and PM peak hours)
- Washington Street at Overlook Parkway (AM and PM peak hours)
- Victoria Avenue at Arlington Avenue (AM peak hour)
- Alessandro Boulevard at Arlington Avenue (PM peak hour)
- Alessandro Boulevard at Overlook Parkway (AM and PM peak hours)
- Crystal View Terrace at Overlook Parkway (PM peak hour)
- Kingdom Drive at Overlook Parkway (PM peak hour)
- Trautwein Road at John F. Kennedy Drive (AM peak hour)
- Mary Street at Victoria Avenue North (AM and PM peak hours)
- Mary Street at Victoria Avenue South (AM and PM peak hours)
- Hawarden Drive at Overlook Parkway (PM peak hour)
- Orozco Drive at Overlook Parkway (PM peak hour)

The results also show that as compared to Gates Closed:

- In the AM peak hour, LOS improves at one intersection, and is reduced at nine intersections
- In the PM peak hour, LOS improves at three intersections, and is reduced at 14 intersections.

Per the impact criteria in Section 2.2.2, a cumulative impact is projected to occur at the following 16 locations:

3. Madison Street at Indiana Avenue
5A. Madison Street at Victoria Avenue North
5B. Madison Street at Victoria Avenue South
7. Washington Street at Lincoln Avenue
8A. Washington Street at Victoria Avenue North
8B. Washington Street at Victoria Avenue South

9. Washington Street at Overlook Parkway
12. Victoria Avenue at Arlington Avenue
14. Alessandro Boulevard at Overlook Parkway
16. Crystal View Terrace at Overlook Parkway
17. Kingdom Drive at Overlook Parkway
19. Trautwein Road at John F. Kennedy Drive
22A. Mary Street at Victoria Avenue North
22B. Mary Street at Victoria Avenue South
24. Hawarden Drive at Overlook Parkway
28. Orozco Drive at Overlook Parkway

TABLE 6-7: SCENARIO 3 PEAK HOUR IMPACT COMPARISON TABLE (2035 – GATES CLOSED)

#	Intersection	Gates Closed				Scenario 3				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	31.7	C	34.3	D	35.1	C	34.5	3.4	N	0.2	N
2.	Madison St & SR-91 EB Ramps	D	37.5	E	57.9	D	39.8	E	68.0	2.3	N	10.1	N
3.	Madison St & Indiana Ave	F	103.3	F	131.1	F	135.4	F	173.2	32.1	Y	42.1	Y
4.	Madison St & Lincoln Ave	C	30.7	C	32.3	C	30.9	C	34.3	0.2	N	2.0	N
5A.	Madison St & Victoria Ave North	B	12.4	F	77.2	C	16.3	F	182.2	3.9	N	105.0	Y
5B.	Madison St & Victoria Ave South	B	10.3	E	47.4	B	12.1	F	149.0	1.8	N	101.6	Y
6.	Washington St & Indiana Ave	D	44.7	C	31.1	D	42.1	D	35.8	-2.6	N	4.7	N
7.	Washington St & Lincoln Ave	F	226.4	F	135.0	F	257.5	F	183.0	31.1	Y	48.0	Y
8A.	Washington St & Victoria Ave North	F	90.9	E	45.7	F	160.6	F	190.4	69.7	Y	144.7	Y
8B.	Washington St & Victoria Ave South	F	127.5	F	285.3	F	190.5	F	432.3	63.0	Y	147.0	Y
9.	Washington St & Overlook Pkwy	B	16.1	B	12.3	F	109.4	E	75.6	93.3	Y	63.3	Y
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	34.0	E	62.0	D	37.9	E	66.8	3.9	N	4.8	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	32.3	E	61.3	C	29.6	C	34.9	-2.7	N	-26.4	N
12.	Victoria Ave & Arlington Ave	F	83.5	E	73.4	F	88.9	E	62.6	5.4	Y	-10.8	N
13.	Alessandro Blvd & Arlington Ave	E	61.3	F	104.4	D	53.0	F	96.3	-8.3	N	-8.1	N
14.	Alessandro Blvd & Overlook Pkwy	E	69.4	F	88.7	F	130.3	F	310.5	60.9	Y	221.8	Y
15.	Alessandro Blvd & Trautwein Rd	D	38.2	C	28.4	E	66.3	D	39.0	28.1	N	10.6	N
16.	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0	C	15.1	E	49.6	8.2	N	42.6	Y
17.	Kingdom Dr & Overlook Pkwy	A	8.9	A	8.9	D	34.4	F	610.4	25.5	N	601.5	Y
18.	Kingdom Dr & Green Orchard Pl	A	8.6	A	8.5	A	9.3	A	9.1	0.7	N	0.6	N
19.	Trautwein Rd & John F. Kennedy Dr	F	85.0	D	36.1	F	87.1	C	31.8	2.1	Y	-4.3	N
20.	Washington St & Bradley St	C	34.4	E	60.4	C	27.8	D	52.2	-6.6	N	-8.2	N
21.	Alessandro Blvd & Via Vista Dr	C	34.0	C	24.3	C	29.9	D	36.3	-4.1	N	12.0	N
22A.	Mary St & Victoria Ave North	F	154.9	F	91.5	F	160.3	F	113.2	5.4	Y	21.7	Y
22B.	Mary St & Victoria Ave South	F	59.0	F	86.2	F	59.0	F	100.1	0.0	N	13.9	Y
23.	Mary St & Hawarden Ct	A	8.2	A	7.9	A	8.5	A	9.5	0.3	N	1.6	N
24.	Hawarden Dr & Overlook Pkwy	A	8.2	A	8.0	C	15.0	E	35.6	6.8	N	27.6	Y
25.	Crystal View Ter & Berry Rd	A	7.5	A	9.5	A	8.0	B	10.9	0.5	N	1.4	N
26.	Corinthian Wy & Berry Rd	A	8.4	A	8.9	A	8.3	B	10.9	-0.1	N	2.0	N
27	Madison St & Dufferin Ave *	A	7.8	A	8.3	A	9.1	B	11.5	1.3	N	3.2	N
28	Orozco Dr & Overlook Pkwy	B	10.4	B	10.1	D	32.9	F	781.0	22.5	N	770.9	Y

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact

6.3.3.2 Roadway Link Analysis

The ADT roadway link volumes at 38 locations in the project vicinity for Scenario 3 were compared to Gates Closed for cumulative impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 6-8** shows the resultant levels of service.

Under Scenario 3, the analysis shows that six roadway links are projected to exceed the LOS standards shown in Section 2.2.2, and are highlighted in the table.

Using the impact criteria in Section 2.2.2, a cumulative impact is projected to occur at the following locations:

8 Alessandro Boulevard west of Sycamore Canyon Road
9 Van Buren Boulevard west of Plummer Street
10 Washington Street south of Victoria Avenue
20 Alessandro Boulevard south of Canyon Crest Drive
26 Mary Street north of Lincoln Avenue

TABLE 6-8: SCENARIO 3 ROADWAY LINK IMPACT COMPARISON (2035 - GATES CLOSED)

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 3		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	E/O Washington Street	Collector (66' or 80')	15,114	E-F	14,648	E-F	-466	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	3,837	A-B	16,880	A-B	13,044	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	6,199	A-B	4,898	A-B	-1,301	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	61,518	E-F	60,065	E-F	-1,453	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	57,865	E-F	53,004	E-F	-4,861	N
6	Berry Road	W/O Trautwein Road	Local	893	A-B	1,416	A-B	524	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	50,165	E-F	50,022	E-F	-143	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	59,305	E-F	60,903	E-F	1,598	Y
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	55,995	E-F	58,083	E-F	2,088	Y
10	Washington Street	S/O Victoria Avenue	Arterial (100')	34,804	E-F	40,897	E-F	6,093	Y
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	69,894	E-F	63,273	E-F	-6,621	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	39,116	E-F	37,055	E-F	-2,061	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	822	A-B	1,572	A-B	750	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	2,699	A-B	3,272	A-B	574	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	53,577	E-F	50,142	E-F	-3,435	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	39,150	E-F	37,538	E-F	-1,613	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	20,126	D	19,062	C	-1,064	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	20,851	D	20,848	D	-3	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	13,165	E-F	11,280	D	-1,885	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	76,391	E-F	79,940	E-F	3,548	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	1,399	A-B	16,551	A-B	15,152	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	1,165	A-B	3,295	A-B	2,130	N
23	Crystal View Drive	S/O Overlook Parkway	Local	118	A-B	1,638	A-B	1,520	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	2,679	A-B	3,244	A-B	566	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	15,106	A-B	17,815	C	2,709	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	19,599	D	21,870	E-F	2,272	Y

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 3		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	-	N/A	-	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	8,773	A-B	11,352	A-B	2,579	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	16,271	A-B	17,475	C	1,204	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	10,941	C	9,332	A-B	-1,609	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	9,528	A-B	11,770	D	2,242	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	4,487	A-B	5,466	A-B	979	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	3,169	A-B	4,405	A-B	1,237	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	2,394	A-B	4,699	A-B	2,306	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	5,566	A-B	5,961	A-B	396	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	1,684	A-B	1,994	A-B	311	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	2,528	A-B	2,478	A-B	-49	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	7,606	A-B	7,770	A-B	164	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	7,706	A-B	7,711	A-B	5	N
Shaded Text represents location that exceeds LOS standards or significant impact									

6.3.4 *Scenario 4 Impact Analysis*

6.3.4.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and compared to Gates Closed for impact determination. **Table 6-9** shows the intersection LOS summary and cumulative impact locations during the AM and PM peak hours. Under Scenario 4, the results indicate that 18 intersections are projected to exceed the LOS standards described in Section 2.2.2:

- Madison Street at Indiana Avenue (AM and PM peak hours)
- Madison Street at Lincoln Avenue (PM peak hour)
- Madison Street at Victoria Avenue North (AM and PM peak hours)
- Madison Street at Victoria Avenue South (AM and PM peak hours)
- Washington Street at Lincoln Avenue (AM and PM peak hours)
- Washington Street at Victoria Avenue North (PM peak hour)
- Washington Street at Victoria Avenue South (PM peak hour)
- Washington Street at Overlook Parkway (AM and PM peak hours)
- Victoria Avenue at Arlington Avenue (AM peak hour)
- Alessandro Boulevard at Arlington Avenue (PM peak hour)
- Alessandro Boulevard at Overlook Parkway (AM and PM peak hours)
- Crystal View Terrace at Overlook Parkway (PM peak hour)
- Kingdom Drive at Overlook Parkway (AM and PM peak hours)
- Trautwein Road at John F. Kennedy Drive (AM peak hour)
- Mary Street at Victoria Avenue North (AM and PM peak hours)
- Mary Street at Victoria Avenue South (PM peak hour)
- Hawarden Drive at Overlook Parkway (PM peak hour)
- Orozco Drive at Overlook Parkway (AM and PM peak hours)

The results also show that as compared to Gates Closed:

- In the AM peak hour, LOS improves at five intersections, and is reduced at 11 intersections
- In the PM peak hour, LOS improves at two intersections, and is reduced at 15 intersections.

Per the impact criteria in Section 2.2.2, a cumulative impact is projected to occur at the following 12 locations:

3. Madison Street at Indiana Avenue
4. Madison Street at Lincoln Avenue

5A. Madison Street at Victoria Avenue North
5B. Madison Street at Victoria Avenue South

8A Washington Street at Victoria Avenue North
9. Washington Street at Overlook Parkway
14. Alessandro Boulevard at Overlook Parkway
16. Crystal View Terrace at Overlook Parkway
17. Kingdom Drive at Overlook Parkway
19. Trautwein Road at John F. Kennedy Drive
24. Hawarden Drive at Overlook Parkway
28. Orozco Drive at Overlook Parkway

.

TABLE 6-9: SCENARIO 4 PEAK HOUR IMPACT COMPARISON TABLE (2035 – GATES CLOSED)

#	Intersection	Gates Closed				Scenario 4				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	31.7	C	34.3	D	36.9	D	36.2	5.2	N	1.9	N
2.	Madison St & SR-91 EB Ramps	D	37.5	E	57.9	D	47.6	E	70.6	10.1	N	12.7	Y
3.	Madison St & Indiana Ave	F	103.3	F	131.1	F	95.0	F	161.3	-8.3	N	30.2	Y
4.	Madison St & Lincoln Ave	C	30.7	C	32.3	C	33.0	E	63.3	2.3	N	31.0	Y
5A.	Madison St & Victoria Ave North	B	12.4	F	77.2	F	109.6	F	178.5	97.2	Y	101.3	Y
5B.	Madison St & Victoria Ave South	B	10.3	E	47.4	F	113.2	F	223.1	102.9	Y	175.7	Y
6.	Washington St & Indiana Ave	D	44.7	C	31.1	C	34.0	C	29.8	-10.7	N	-1.3	N
7.	Washington St & Lincoln Ave	F	226.4	F	135.0	F	138.0	F	87.9	-88.4	N	-47.1	N
8A.	Washington St & Victoria Ave North	F	90.9	E	45.7	C	17.5	F	59.3	-73.4	N	13.6	Y
8B.	Washington St & Victoria Ave South	F	127.5	F	285.3	C	18.1	F	169.5	-109.4	N	-115.8	N
9.	Washington St & Overlook Pkwy	B	16.1	B	12.3	F	136.8	F	92.6	120.7	Y	80.3	Y
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	C	34.0	E	62.0	D	36.5	E	62.4	2.5	N	0.4	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	C	32.3	E	61.3	C	28.5	C	32.7	-3.8	N	-28.6	N
12.	Victoria Ave & Arlington Ave	F	83.5	E	73.4	F	81.4	E	61.5	-2.1	N	-11.9	N
13.	Alessandro Blvd & Arlington Ave	E	61.3	F	104.4	D	50.3	F	91.2	-11.0	N	-13.2	N
14.	Alessandro Blvd & Overlook Pkwy	E	69.4	F	88.7	F	174.3	F	358.0	104.9	Y	269.3	Y
15.	Alessandro Blvd & Trautwein Rd	D	38.2	C	28.4	E	69.2	D	39.9	31.0	N	11.5	N
16.	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0	C	21.2	F	79.5	14.3	N	72.5	Y
17.	Kingdom Dr & Overlook Pkwy	A	8.9	A	8.9	F	152.0	F	OVRFL	143.1	Y	N/A	Y
18.	Kingdom Dr & Green Orchard Pl	A	8.6	A	8.5	A	9.6	A	9.2	1.0	N	0.7	N
19.	Trautwein Rd & John F. Kennedy Dr	F	85.0	D	36.1	F	87.0	C	32.4	2.0	Y	-3.7	N
20.	Washington St & Bradley St	C	34.4	E	60.4	C	25.8	D	47.8	-8.6	N	-12.6	N
21.	Alessandro Blvd & Via Vista Dr	C	34.0	C	24.3	C	28.3	D	35.3	-5.7	N	11.0	N
22A.	Mary St & Victoria Ave North	F	154.9	F	91.5	F	71.2	F	54.6	-83.7	N	-36.9	N
22B.	Mary St & Victoria Ave South	F	59.0	F	86.2	C	25.0	F	70.9	-34.0	N	-15.3	N
23.	Mary St & Hawarden Ct	A	8.2	A	7.9	A	9.6	B	13.4	1.4	N	5.5	N
24.	Hawarden Dr & Overlook Pkwy	A	8.2	A	8.0	C	24.4	F	80.3	16.2	N	72.3	Y
25.	Crystal View Ter & Berry Rd	A	7.5	A	9.5	A	8.2	B	11.0	0.7	N	1.5	N
26.	Corinthian Wy & Berry Rd	A	8.4	A	8.9	A	8.2	B	11.3	-0.2	N	2.4	N
27	Madison St & Dufferin Ave *	A	7.8	A	8.3	A	7.1	A	7.1	-0.7	N	-1.2	N
28	Orozco Dr & Overlook Pkwy	B	10.4	B	10.1	F	58.5	F	OVRFL	48.1	Y	N/A	Y

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact.

6.3.4.2 Roadway Link Analysis

The ADT roadway link volumes at 39 locations in the project vicinity for Scenario 4 were compared to Gates Closed for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 6-10** shows the resultant levels of service.

Under Scenario 4, the analysis shows that five roadway links are projected to exceed the LOS standards shown in Section 2.2.2, and are highlighted in the table.

Using the impact criteria in Section 2.2.2, a cumulative impact is projected to occur at the following locations:

8 Alessandro Boulevard west of Sycamore Canyon Road
9 Van Buren Boulevard west of Plummer Street
20 Alessandro Boulevard south of Canyon Crest Drive
28 Madison Street north of Victoria Avenue
29 Madison Street north of Lincoln Avenue

TABLE 6-10: SCENARIO 4 ROADWAY LINK IMPACT COMPARISON (2035 - GATES CLOSED)

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 4		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	E/O Washington Street	Collector (66' or 80')	15,114	E-F	11,111	C	-4,003	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	3,837	A-B	21,820	A-B	17,983	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	6,199	A-B	4,980	A-B	-1,218	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	61,518	E-F	59,965	E-F	-1,553	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	57,865	E-F	51,437	E-F	-6,428	N
6	Berry Road	W/O Trautwein Road	Local	893	A-B	1,462	A-B	569	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	50,165	E-F	50,096	E-F	-68	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	59,305	E-F	61,318	E-F	2,013	Y
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	55,995	E-F	58,334	E-F	2,339	Y
10	Washington Street	S/O Victoria Avenue	Arterial (100')	34,804	E-F	21,071	A-B	-13,733	N
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	69,894	E-F	61,021	E-F	-8,874	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	39,116	E-F	37,197	E-F	-1,920	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	822	A-B	1,617	A-B	795	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	2,699	A-B	3,474	A-B	775	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	53,577	E-F	50,117	E-F	-3,459	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	39,150	E-F	37,698	E-F	-1,452	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	20,126	D	19,022	C	-1,104	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	20,851	D	20,906	D	55	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	13,165	E-F	11,288	D	-1,876	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	76,391	E-F	80,619	E-F	4,228	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	1,399	A-B	20,028	A-B	18,628	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	1,165	A-B	3,598	A-B	2,433	N
23	Crystal View Drive	S/O Overlook Parkway	Local	118	A-B	1,770	A-B	1,652	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	2,679	A-B	3,474	A-B	796	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	15,106	A-B	12,793	A-B	-2,313	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	19,599	D	16,610	A-B	-2,988	N

#	Street	Location	Existing Street Classification	Gates Closed		Scenario 4		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Local/Arterial (100')	-	N/A	31,999	D	31,999	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	8,773	A-B	25,909	E-F	17,136	Y
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	16,271	A-B	27,925	E-F	11,654	Y
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	10,941	C	9,375	A-B	-1,566	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	9,528	A-B	1,643	A-B	-7,885	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	4,487	A-B	7,867	A-B	3,380	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	3,169	A-B	6,184	A-B	3,015	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	2,394	A-B	0	A-B	-2,394	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	5,566	A-B	5,050	A-B	-516	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	1,684	A-B	1,853	A-B	170	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	2,528	A-B	2,466	A-B	-61	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	7,606	A-B	6,647	A-B	-959	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	7,706	A-B	6,619	A-B	-1,087	N

Shaded Text represents location that exceeds LOS standards or significant impact.

6.4 GATES OPEN COMPARISON

6.4.1 *SCENARIO 1 IMPACT ANALYSIS*

6.4.1.1 INTERSECTION ANALYSIS

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and compared to Gates Open for cumulative impact determination. **Table 6-11** shows the intersection LOS summary and cumulative impact locations during the AM and PM peak hours. The following 13 intersections are projected exceed the LOS standards shown in Section 2.2.2:

- Madison Street at Indiana Avenue (AM and PM peak hours)
- Madison Street at Victoria Avenue North (PM peak hour)
- Madison Street at Victoria Avenue South (PM peak hour)
- Washington Street at Lincoln Avenue (AM and PM peak hours)
- Washington Street at Victoria Avenue North (AM and PM peak hours)
- Washington Street at Victoria Avenue South (AM and PM peak hours)
- Victoria Avenue at Arlington Avenue (AM and PM peak hours)
- Alessandro Boulevard at Arlington Avenue (PM peak hour)
- Alessandro Boulevard at Overlook Parkway (PM peak hour)
- Trautwein Road at John F. Kennedy Drive (AM peak hour)
- Washington Street at Bradley Street (PM peak hour)
- Mary Street at Victoria Avenue North (AM and PM peak hours)
- Mary Street at Victoria Avenue South (AM and PM peak hours)

The results also show that as compared to Gates Open:

- In the AM peak hour, LOS improves at six intersections, and is reduced at one intersection
- In the PM peak hour, LOS improves at 11 intersections, and is reduced at one intersection.

Per the impact criteria in Section 2.2.2, a cumulative impact is projected to occur at the following five locations:

7. Washington Street at Lincoln Avenue
8B. Washington Street at Victoria Avenue South
20. Washington Street at Bradley Street
22A. Mary Street at Victoria Avenue North
22B. Mary Street at Victoria Avenue South

.

TABLE 6-11: SCENARIO 1 PEAK HOUR IMPACT COMPARISON TABLE (2035 – GATES OPEN)

#	Intersection	Gates Open				Scenario 1				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	31.2	C	32.8	C	31.7	C	34.3	0.5	N	1.5	N
2.	Madison St & SR-91 EB Ramps	D	38.1	E	70.2	D	37.5	E	57.9	-0.6	N	-12.3	N
3.	Madison St & Indiana Ave	F	113.4	F	179.7	F	103.3	F	131.1	-10.1	N	-48.6	N
4.	Madison St & Lincoln Ave	C	30.5	C	33.6	C	30.7	C	32.3	0.2	N	-1.3	N
5A.	Madison St & Victoria Ave North	B	13.0	F	152.1	B	12.4	F	77.2	-0.6	N	-74.9	N
5B.	Madison St & Victoria Ave South	B	10.4	F	121.8	B	10.3	E	47.4	-0.1	N	-74.4	N
6.	Washington St & Indiana Ave	D	40.7	C	34.9	D	44.7	C	31.1	4.0	N	-3.8	N
7.	Washington St & Lincoln Ave	F	222.7	F	177.9	F	226.4	F	135.0	3.7	Y	-42.9	N
8A.	Washington St & Victoria Ave North	F	103.5	F	155.0	F	90.9	E	45.7	-12.6	N	-109.3	N
8B.	Washington St & Victoria Ave South	F	116.3	F	386.2	F	127.5	F	285.3	11.2	Y	-100.9	N
9.	Washington St & Overlook Pkwy	C	22.5	C	28.0	B	16.1	B	12.3	-6.4	N	-15.7	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	D	39.2	E	67.2	C	34.0	E	62.0	-5.2	N	-5.2	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	D	35.3	E	59.6	C	32.3	E	61.3	-3.0	N	1.7	N
12.	Victoria Ave & Arlington Ave	F	94.0	E	68.6	F	83.5	E	73.4	-10.5	N	4.8	N
13.	Alessandro Blvd & Arlington Ave	E	68.6	F	117.6	E	61.3	F	104.4	-7.3	N	-13.2	N
14.	Alessandro Blvd & Overlook Pkwy	F	83.5	F	108.3	E	69.4	F	88.7	-14.1	N	-19.6	N
15.	Alessandro Blvd & Trautwein Rd	E	57.9	D	42.4	D	38.2	C	28.4	-19.7	N	-14.0	N
16.	Crystal View Ter & Overlook Pkwy	A	8.9	B	15.0	A	6.9	A	7.0	-2.0	N	-8.0	N
17.	Kingdom Dr & Overlook Pkwy	B	11.2	C	19.7	A	8.9	A	8.9	-2.3	N	-10.8	N
18.	Kingdom Dr & Green Orchard Pl	A	8.9	A	8.5	A	8.6	A	8.5	-0.3	N	0.0	N
19.	Trautwein Rd & John F. Kennedy Dr	F	94.8	D	36.5	F	85.0	D	36.1	-9.8	N	-0.4	N
20.	Washington St & Bradley St	C	27.6	D	52.6	C	34.4	E	60.4	6.8	N	7.8	Y
21.	Alessandro Blvd & Via Vista Dr	C	29.7	D	42.7	C	34.0	C	24.3	4.3	N	-18.4	N
22A.	Mary St & Victoria Ave North	F	110.7	F	96.2	F	154.9	F	91.5	44.2	Y	-4.7	N
22B.	Mary St & Victoria Ave South	E	40.9	F	94.1	F	59.0	F	86.2	18.1	Y	-7.9	N
23.	Mary St & Hawarden Ct	A	8.8	A	9.7	A	8.2	A	7.9	-0.6	N	-1.8	N
24.	Hawarden Dr & Overlook Pkwy	A	8.8	B	11.6	A	8.2	A	8.0	-0.6	N	-3.6	N
25.	Crystal View Ter & Berry Rd	A	9.0	C	20.4	A	7.5	A	9.5	-1.5	N	-10.9	N
26.	Corinthian Wy & Berry Rd	A	8.6	C	19.3	A	8.4	A	8.9	-0.2	N	-10.4	N
27	Madison St & Dufferin Ave *	A	7.9	A	9.3	A	7.8	A	8.3	-0.1	N	-1.0	N
28	Orozco Dr & Overlook Pkwy	B	12.4	D	27.1	B	10.4	B	10.1	-2.0	N	-17.0	N

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact.

6.4.1.2 Roadway Link Analysis

The ADT roadway link volumes at 38 locations in the project vicinity for Gates Closed were compared to Gates Open for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 6-12** shows the resultant levels of service.

Under Scenario 1, the analysis shows six roadway links exceed the LOS standard shown in Section 2.2.2, and are highlighted in the table.

Using the impact criteria in Section 2.2.2, cumulative impacts projected to occur at the following locations:

1 Victoria Avenue east of Washington Street
4 Van Buren Boulevard east of Washington Street
11 Alessandro Boulevard south of Arlington Avenue
12 Washington Street north of Valle Vista Way
15 Trautwein Road north of John F Kennedy Drive
16 Washington Street north of Van Buren Boulevard
19 Mission Grove Parkway south of Alessandro Boulevard
20 Alessandro Boulevard south of Canyon Crest Drive

TABLE 6-12: SCENARIO 1 ROADWAY LINK IMPACT COMPARISON (2035 - GATES OPEN)

#	Street	Location	Existing Street Classification	Gates Open		Scenario 1		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	E/O Washington Street	Collector (66' or 80')	14,629	E-F	15,114	E-F	484	Y
2	Overlook Parkway	E/O Washington Street	Arterial (100')	7,290	A-B	3,837	A-B	-3,453	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	4,989	A-B	6,199	A-B	1,210	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	61,403	E-F	61,518	E-F	116	Y
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	58,268	E-F	57,865	E-F	-403	N
6	Berry Road	W/O Trautwein Road	Local	3,432	E-F	893	A-B	-2,540	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	50,540	E-F	50,165	E-F	-375	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	60,061	E-F	59,305	E-F	-756	N
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	58,188	E-F	55,995	E-F	-2,193	N
10	Washington Street	S/O Victoria Avenue	Arterial (100')	35,951	E-F	34,804	E-F	-1,147	N
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	68,706	E-F	69,894	E-F	1,188	Y
12	Washington Street	N/O Valle Vista Way	Arterial (100')	37,930	E-F	39,116	E-F	1,186	Y
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	1,005	A-B	822	A-B	-183	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	3,974	A-B	2,699	A-B	-1,276	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	51,081	E-F	53,577	E-F	2,496	Y
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	38,162	E-F	39,150	E-F	988	Y
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	19,650	D	20,126	D	476	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	20,766	D	20,851	D	85	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	11,728	D	13,165	E-F	1,437	Y
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	76,102	E-F	76,391	E-F	290	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	6,135	A-B	1,399	A-B	-4,736	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	4,933	A-B	1,165	A-B	-3,768	N
23	Crystal View Drive	S/O Overlook Parkway	Local	2,048	A-B	118	A-B	-1,930	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	3,935	A-B	2,679	A-B	-1,256	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	15,815	A-B	15,106	A-B	-709	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	20,218	D	19,599	D	-619	N

#	Street	Location	Existing Street Classification	Gates Open		Scenario 1		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	-	N/A	-	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	9,398	A-B	8,773	A-B	-626	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	16,541	A-B	16,271	A-B	-270	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	10,868	C	10,941	C	73	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	10,093	C	9,528	A-B	-566	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	4,614	A-B	4,487	A-B	-127	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	3,459	A-B	3,169	A-B	-290	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	2,906	A-B	2,394	A-B	-512	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	5,517	A-B	5,566	A-B	49	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	1,716	A-B	1,684	A-B	-32	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	2,537	A-B	2,528	A-B	-10	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	7,452	A-B	7,606	A-B	154	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	7,755	A-B	7,706	A-B	-49	N

Shaded Text represents location that exceeds LOS standards or significant impact.

6.4.2 *Scenario 2 Impact Analysis*

6.4.2.1 Intersection Analysis

For study purposes, Scenario 2 is the same as the Gates Open Baseline. There will be no difference in the volumes and resultant levels of service when comparing Scenario 2 to the Gates Open Baseline. Therefore, there would be no impacts, since the data is the same.

6.4.2.2 Roadway Link Analysis

For study purposes, Scenario 2 is the same as the Gates Open Baseline. There will be no difference in the volumes and resultant levels of service when comparing Scenario 2 to the Gates Open Baseline. Therefore, there would be no impacts, since the data is the same.

6.4.3 *Scenario 3 Impact Analysis*

6.4.3.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7.9 and compared to Gates Open for impact determination. **Table 6-13** shows the intersection LOS summary and cumulative impact locations during the AM and PM peak hours. Under Scenario 3, the results indicate that 20 intersections exceed the LOS standards in Section 2.2.2:

- Madison Street at SR 91 EB Ramps (PM peak hour)
- Madison Street at Indiana Avenue (AM and PM peak hours)Madison Street at Victoria Avenue North (AM and PM peak hours)
- Madison Street at Victoria Avenue South (AM and PM peak hours)
- Washington Street at Lincoln Avenue (AM and PM peak hours)
- Washington Street at Overlook Parkway (AM and PM peak hours)
- Washington Street at Victoria Avenue North (AM and PM peak hours)
- Washington Street at Victoria Avenue South(AM and PM peak hours)
- Riverside Avenue/SR 91 WB Ramps at Arlington Avenue (PM peak hour)
- Victoria Avenue at Arlington Avenue (AM and PM peak hours)
- Alessandro Boulevard at Arlington Avenue (PM peak hour)
- Alessandro Boulevard at Overlook Parkway (AM and PM peak hours)
- Alessandro Boulevard at Trautwein Road (AM peak hour)
- Crystal View Terrace at Overlook Parkway (PM peak hour)
- Kingdom Drive at Overlook Parkway (PM peak hour)
- Trautwein Road at John F. Kennedy Drive (AM peak hour)
- Mary Street at Victoria Avenue North (AM and PM peak hours)
- Mary Street at Victoria Avenue South (AM and PM peak hours)
- Hawarden Drive at Overlook Parkway (PM peak hour)
- Orozco Drive at Overlook Parkway (PM peak hour)

The results also show that as compared to Gates Open:

- In the AM peak hour, LOS improves at two intersections, and is reduced at eight intersections
- In the PM peak hour, LOS improves at two intersections, and is reduced at six intersections.

Per the impact criteria in Section 2.2.2, a cumulative impact is projected to occur at the following 14 locations:

3. Madison Street at Indiana Avenue5A. Madison Street at Victoria Avenue North
5B. Madison Street at Victoria Avenue South
7. Washington Street at Lincoln Avenue

8A. Madison Street at Washington Avenue North
8B. Madison Street at Washington Avenue South
9. Washington Street at Overlook Parkway
14. Alessandro Boulevard at Overlook Parkway
16. Crystal View Terrace at Overlook Parkway
17. Kingdom Drive at Overlook Parkway
22A. Mary Street at Victoria Avenue North
22B. Mary Street at Victoria Avenue South
24. Hawarden Drive at Overlook Parkway
28. Orozco Drive at Overlook Parkway

.

TABLE 6-13: SCENARIO 3 PEAK HOUR IMPACT COMPARISON TABLE (2035 – GATES OPEN)

#	Intersection	Gates Open				Scenario 3				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	31.2	C	32.8	D	35.1	C	34.5	3.9	N	1.7	N
2.	Madison St & SR-91 EB Ramps	D	38.1	E	70.2	D	39.8	E	68.0	1.7	N	-2.2	N
3.	Madison St & Indiana Ave	F	113.4	F	179.7	F	135.4	F	173.2	22.0	Y	-6.5	N
4.	Madison St & Lincoln Ave	C	30.5	C	33.6	C	30.9	C	34.3	0.4	N	0.7	N
5A.	Madison St & Victoria Ave North	B	13.0	F	152.1	C	16.3	F	182.2	3.3	N	30.1	Y
5B.	Madison St & Victoria Ave South	B	10.4	F	121.8	B	12.1	F	149.0	1.7	N	27.2	Y
6.	Washington St & Indiana Ave	D	40.7	C	34.9	D	42.1	D	35.8	1.4	N	0.9	N
7.	Washington St & Lincoln Ave	F	222.7	F	177.9	F	257.5	F	183.0	34.8	Y	5.1	Y
8A.	Washington St & Victoria Ave North	F	103.5	F	155.0	F	160.6	F	190.4	57.1	Y	35.4	Y
8B.	Washington St & Victoria Ave South	F	116.3	F	386.2	F	190.5	F	432.3	74.2	Y	46.1	Y
9.	Washington St & Overlook Pkwy	C	22.5	C	28.0	F	109.4	E	75.6	86.9	Y	47.6	Y
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	D	39.2	E	67.2	D	37.9	E	66.8	-1.3	N	-0.4	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	D	35.3	E	59.6	C	29.6	C	34.9	-5.7	N	-24.7	N
12.	Victoria Ave & Arlington Ave	F	94.0	E	68.6	F	88.9	E	62.6	-5.1	N	-6.0	N
13.	Alessandro Blvd & Arlington Ave	E	68.6	F	117.6	D	53.0	F	96.3	-15.6	N	-21.3	N
14.	Alessandro Blvd & Overlook Pkwy	F	83.5	F	108.3	F	130.3	F	310.5	46.8	Y	202.2	Y
15.	Alessandro Blvd & Trautwein Rd	E	57.9	D	42.4	E	66.3	D	39.0	8.4	N	-3.4	N
16.	Crystal View Ter & Overlook Pkwy	A	8.9	B	15.0	C	15.1	E	49.6	6.2	N	34.6	Y
17.	Kingdom Dr & Overlook Pkwy	B	11.2	C	19.7	D	34.4	F	610.4	23.2	N	590.7	Y
18.	Kingdom Dr & Green Orchard Pl	A	8.9	A	8.5	A	9.3	A	9.1	0.4	N	0.6	N
19.	Trautwein Rd & John F. Kennedy Dr	F	94.8	D	36.5	F	87.1	C	31.8	-7.7	N	-4.7	N
20.	Washington St & Bradley St	C	27.6	D	52.6	C	27.8	D	52.2	0.2	N	-0.4	N
21.	Alessandro Blvd & Via Vista Dr	C	29.7	D	42.7	C	29.9	D	36.3	0.2	N	-6.4	N
22A.	Mary St & Victoria Ave North	F	110.7	F	96.2	F	160.3	F	113.2	49.6	Y	17.0	Y
22B.	Mary St & Victoria Ave South	E	40.9	F	94.1	F	59.0	F	100.1	18.1	Y	6.0	Y
23.	Mary St & Hawarden Ct	A	8.8	A	9.7	A	8.5	A	9.5	-0.3	N	-0.2	N
24.	Hawarden Dr & Overlook Pkwy	A	8.8	B	11.6	C	15.0	E	35.6	6.2	N	24.0	Y
25.	Crystal View Ter & Berry Rd	A	9.0	C	20.4	A	8.0	B	10.9	-1.0	N	-9.5	N
26.	Corinthian Wy & Berry Rd	A	8.6	C	19.3	A	8.3	B	10.9	-0.3	N	-8.4	N
27	Madison St & Dufferin Ave *	A	7.9	A	9.3	A	9.1	B	11.5	1.2	N	2.2	N
28	Orozco Dr & Overlook Pkwy	B	12.4	D	27.1	D	32.9	F	781.0	20.5	N	753.9	Y

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact.

6.4.3.2 Roadway Link Analysis

The ADT roadway link volumes at 38 locations in the project vicinity for Scenario 3 were compared to Gates Open for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 6-14** shows the resultant levels of service.

Under Scenario 3, the analysis shows that six roadway links exceed the LOS standard shown in Section 2.2.2, and are highlighted in the table.

Using the impact criteria in Section 2.2.2, cumulative impacts are projected to occur at the following five locations:

1 Victoria Avenue east of Washington Street
8 Alessandro Boulevard west of Sycamore Canyon Road
10 Washington Street south of Victoria Avenue
20 Alessandro Boulevard south of Canyon Crest Drive
26 Mary Street north of Lincoln Avenue

TABLE 6-14: SCENARIO 3 ROADWAY LINK IMPACT COMPARISON (2035 - GATES OPEN)

#	Street	Location	Street Classification	Gates Open		Scenario 3		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	E/O Washington Street	Collector (66' or 80')	14,629	E-F	14,648	E-F	18	Y
2	Overlook Parkway	E/O Washington Street	Arterial (100')	7,290	A-B	16,880	A-B	9,590	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	4,989	A-B	4,898	A-B	-91	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	61,403	E-F	60,065	E-F	-1,337	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	58,268	E-F	53,004	E-F	-5,263	N
6	Berry Road	W/O Trautwein Road	Local	3,432	E-F	1,416	A-B	-2,016	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	50,540	E-F	50,022	E-F	-518	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	60,061	E-F	60,903	E-F	842	Y
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	58,188	E-F	58,083	E-F	-105	N
10	Washington Street	S/O Victoria Avenue	Arterial (100')	35,951	E-F	40,897	E-F	4,946	Y
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	68,706	E-F	63,273	E-F	-5,433	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	37,930	E-F	37,055	E-F	-875	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	1,005	A-B	1,572	A-B	568	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	3,974	A-B	3,272	A-B	-702	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	51,081	E-F	50,142	E-F	-939	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	38,162	E-F	37,538	E-F	-624	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	19,650	D	19,062	C	-588	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	20,766	D	20,848	D	82	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	11,728	D	11,280	D	-448	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	76,102	E-F	79,940	E-F	3,838	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	6,135	A-B	16,551	A-B	10,416	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	4,933	A-B	3,295	A-B	-1,638	N
23	Crystal View Drive	S/O Overlook Parkway	Local	2,048	A-B	1,638	A-B	-410	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	3,935	A-B	3,244	A-B	-690	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	15,815	A-B	17,815	C	2,000	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	20,218	D	21,870	E-F	1,652	Y

#	Street	Location	Street Classification	Gates Open		Scenario 3		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	-	N/A	-	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	9,398	A-B	11,352	A-B	1,953	N
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	16,541	A-B	17,475	C	934	N
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	10,868	C	9,332	A-B	-1,536	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	10,093	C	11,770	D	1,676	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	4,614	A-B	5,466	A-B	852	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	3,459	A-B	4,405	A-B	946	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	2,906	A-B	4,699	A-B	1,793	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	5,517	A-B	5,961	A-B	444	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	1,716	A-B	1,994	A-B	279	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	2,537	A-B	2,478	A-B	-59	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	7,452	A-B	7,770	A-B	318	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	7,755	A-B	7,711	A-B	-44	N

Shaded Text represents location that exceeds LOS standards or significant impact.

6.4.4 *Scenario 4 Impact Analysis*

6.4.4.1 Intersection Analysis

All study intersections were evaluated using the Highway Capacity Manual delay-based methodology with the TRAFFIX software, version 7, and compared to Gates Open for impact determination. **Table 6-15** shows the intersection LOS summary and cumulative impact locations during the AM and PM peak hours. Under Scenario 4, the results indicate that 18 intersections are projected exceed the LOS standards shown in Section 2.2.2 during the AM and/or PM peak hours:

- Madison Street at Indiana Avenue (AM and PM peak hours)
- Madison Street at Lincoln Avenue (PM peak hour)
- Madison Street at Victoria Avenue North (AM and PM peak hours)
- Madison Street at Victoria Avenue South (AM and PM peak hours)
- Washington Street at Lincoln Avenue (AM and PM peak hours)
- Washington Street at Victoria Avenue North (LOS F in PM peak hour)
- Washington Street at Victoria Avenue South (LOS F in PM peak hour)
- Washington Street at Overlook Parkway (AM and PM peak hours)
- Victoria Avenue at Arlington Avenue (AM peak hour)
- Alessandro Boulevard at Arlington Avenue (PM peak hour)
- Alessandro Boulevard at Overlook Parkway (AM and PM peak hours)
- Crystal View Terrace at Overlook Parkway (PM peak hour)
- Kingdom Drive at Overlook Parkway (AM and PM peak hours)
- Trautwein Road at John F. Kennedy Drive (AM peak hour)
- Mary Street at Victoria Avenue North (AM and PM peak hours)
- Mary Street at Victoria Avenue South (PM peak hour)
- Hawarden Drive at Overlook Parkway (PM peak hour)
- Orozco Drive at Overlook Parkway (AM and PM peak hours)

The results also show that as compared to Gates Open:

- In the AM peak hour, LOS improves at six intersections, and is reduced at eight intersections
- In the PM peak hour, LOS improves at four intersections, and is reduced at eight intersections.

Per the impact criteria in Section 2.2.2, a cumulative impact is projected to occur at the following 9 locations:

4. Madison Street at Lincoln Avenue
5A. Madison Street at Victoria Avenue North
5B. Madison Street at Victoria Avenue South

9. Washington Street at Overlook Parkway
14. Alessandro Boulevard at Overlook Parkway
16. Crystal View Terrace at Overlook Parkway
17. Kingdom Drive at Overlook Parkway
24. Hawarden Drive at Overlook Parkway
28. Orozco Drive at Overlook Parkway

TABLE 6-15: SCENARIO 4 PEAK HOUR IMPACT COMPARISON TABLE (2035 – GATES OPEN)

#	Intersection	Gates Open				Scenario 4				AM Peak Hour		PM Peak Hour	
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Δ in Delay	Impact (Y/N)	Δ in Delay	Impact (Y/N)
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay				
1.	Madison St & SR-91 WB Ramps	C	31.2	C	32.8	D	36.9	D	36.2	5.7	N	3.4	N
2.	Madison St & SR-91 EB Ramps	D	38.1	E	70.2	D	47.6	E	70.6	9.5	N	0.4	N
3.	Madison St & Indiana Ave	F	113.4	F	179.7	F	95.0	F	161.3	-18.4	N	-18.4	N
4.	Madison St & Lincoln Ave	C	30.5	C	33.6	C	33.0	E	63.3	2.5	N	29.7	Y
5A.	Madison St & Victoria Ave North	B	13.0	F	152.1	F	109.6	F	178.5	96.6	Y	26.4	Y
5B.	Madison St & Victoria Ave South	B	10.4	F	121.8	F	113.2	F	223.1	102.8	Y	101.3	Y
6.	Washington St & Indiana Ave	D	40.7	C	34.9	C	34.0	C	29.8	-6.7	N	-5.1	N
7.	Washington St & Lincoln Ave	F	222.7	F	177.9	F	138.0	F	87.9	-84.7	N	-90.0	N
8A.	Washington St & Victoria Ave North	F	103.5	F	155.0	C	17.5	F	59.3	-86.0	N	-95.7	N
8B.	Washington St & Victoria Ave South	F	116.3	F	386.2	C	18.1	F	169.5	-98.2	N	-216.7	N
9.	Washington St & Overlook Pkwy	C	22.5	C	28.0	F	136.8	F	92.6	114.3	Y	64.6	Y
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	D	39.2	E	67.2	D	36.5	E	62.4	-2.7	N	-4.8	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	D	35.3	E	59.6	C	28.5	C	32.7	-6.8	N	-26.9	N
12.	Victoria Ave & Arlington Ave	F	94.0	E	68.6	F	81.4	E	61.5	-12.6	N	-7.1	N
13.	Alessandro Blvd & Arlington Ave	E	68.6	F	117.6	D	50.3	F	91.2	-18.3	N	-26.4	N
14.	Alessandro Blvd & Overlook Pkwy	F	83.5	F	108.3	F	174.3	F	358.0	90.8	Y	249.7	Y
15.	Alessandro Blvd & Trautwein Rd	E	57.9	D	42.4	E	69.2	D	39.9	11.3	N	-2.5	N
16.	Crystal View Ter & Overlook Pkwy	A	8.9	B	15.0	C	21.2	F	79.5	12.3	N	64.5	Y
17.	Kingdom Dr & Overlook Pkwy	B	11.2	C	19.7	F	152.0	F	OVRFL	140.8	Y	N/A	Y
18.	Kingdom Dr & Green Orchard Pl	A	8.9	A	8.5	A	9.6	A	9.2	0.7	N	0.7	N
19.	Trautwein Rd & John F. Kennedy Dr	F	94.8	D	36.5	F	87.0	C	32.4	-7.8	N	-4.1	N
20.	Washington St & Bradley St	C	27.6	D	52.6	C	25.8	D	47.8	-1.8	N	-4.8	N
21.	Alessandro Blvd & Via Vista Dr	C	29.7	D	42.7	C	28.3	D	35.3	-1.4	N	-7.4	N
22A.	Mary St & Victoria Ave North	F	110.7	F	96.2	F	71.2	F	54.6	-39.5	N	-41.6	N
22B.	Mary St & Victoria Ave South	E	40.9	F	94.1	C	25.0	F	70.9	-15.9	N	-23.2	N
23.	Mary St & Hawarden Ct	A	8.8	A	9.7	A	9.6	B	13.4	0.8	N	3.7	N
24.	Hawarden Dr & Overlook Pkwy	A	8.8	B	11.6	C	24.4	F	80.3	15.6	N	68.7	Y
25.	Crystal View Ter & Berry Rd	A	9.0	C	20.4	A	8.2	B	11.0	-0.8	N	-9.4	N
26.	Corinthian Wy & Berry Rd	A	8.6	C	19.3	A	8.2	B	11.3	-0.4	N	-8.0	N
27	Madison St & Dufferin Ave *	A	7.9	A	9.3	A	7.1	A	7.1	-0.8	N	-2.2	N
28	Orozco Dr & Overlook Pkwy	B	12.4	D	27.1	F	58.5	F	OVRFL	46.1	Y	N/A	Y

Note: * indicates intersection analysis conducted with Synchro
Shaded Text represents location that exceeds LOS standards or significant impact.

6.4.4.2 Roadway Link Analysis

The ADT roadway link volumes at 39 locations in the project vicinity for Scenario 4 were compared to Gates Open for impact determination. The V/C for each link was calculated using the methodology described in Chapter 2 of this report. **Table 6-16** shows the resultant levels of service.

Under Scenario 4, the analysis shows that five roadway links exceed the LOS standard shown in Section 2.2.2, and are highlighted in the table.

Roadway link analysis identifies cumulative impacts projected to occur at the following locations:

8 Alessandro Boulevard west of Sycamore Canyon Road
9 Van Buren Boulevard west of Plummer Street
20 Alessandro Boulevard south of Canyon Crest Drive
28 Madison Street north of Victoria Avenue
29 Madison Street north of Lincoln Avenue

TABLE 6-16: SCENARIO 4 ROADWAY LINK IMPACT COMPARISON (2035 - GATES OPEN)

#	Street	Location	Existing Street Classification	Gates Open		Scenario 4		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
1	Victoria Avenue	E/O Washington Street	Collector (66' or 80')	14,629	E-F	11,111	C	-3,519	N
2	Overlook Parkway	E/O Washington Street	Arterial (100')	7,290	A-B	21,820	A-B	14,530	N
3	Bradley Street	E/O Washington Street	Collector (66' or 80')	4,989	A-B	4,980	A-B	-9	N
4	Van Buren Boulevard	E/O Washington Street	Arterial (120')	61,403	E-F	59,965	E-F	-1,438	N
5	Arlington Avenue	W/O Alessandro Boulevard	Arterial (120')	58,268	E-F	51,437	E-F	-6,831	N
6	Berry Road	W/O Trautwein Road	Local/Arterial (100’)	3,432	E-F	1,462	A-B	-1,970	N
7	Van Buren Boulevard	W/O Trautwein Road	Arterial (120')	50,540	E-F	50,096	E-F	-443	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Arterial (120')	60,061	E-F	61,318	E-F	1,256	Y
9	Van Buren Boulevard	W/O Plummer Street	Arterial (120')	58,188	E-F	58,334	E-F	146	Y
10	Washington Street	S/O Victoria Avenue	Arterial (100')	35,951	E-F	21,071	A-B	-14,880	N
11	Alessandro Boulevard	S/O Arlington Avenue	Arterial (120')	68,706	E-F	61,021	E-F	-7,685	N
12	Washington Street	N/O Valle Vista Way	Arterial (100')	37,930	E-F	37,197	E-F	-734	N
13	Golden Star Avenue	N/O Valle Vista Way	Collector (66' or 80')	1,005	A-B	1,617	A-B	613	N
14	Dauchy Avenue	N/O John F Kennedy Drive	Collector (66' or 80')	3,974	A-B	3,474	A-B	-500	N
15	Trautwein Road	N/O John F Kennedy Drive	Arterial (100')	51,081	E-F	50,117	E-F	-964	N
16	Washington Street	N/O Van Buren Boulevard	Arterial (100')	38,162	E-F	37,698	E-F	-464	N
17	Wood Drive	N/O Van Buren Boulevard	Arterial (88')	19,650	D	19,022	C	-628	N
18	Trautwein Road	N/O Van Buren Boulevard	Arterial (88')	20,766	D	20,906	D	140	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	Collector (66' or 80')	11,728	D	11,288	D	-440	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Arterial (120')	76,102	E-F	80,619	E-F	4,518	Y
21	Overlook Parkway	W/O Kingdom Drive	Arterial	6,135	A-B	20,028	A-B	13,893	N
22	Kingdom Drive	S/O Overlook Parkway	Collector (66' or 80')	4,933	A-B	3,598	A-B	-1,335	N
23	Crystal View Drive	S/O Overlook Parkway	Local	2,048	A-B	1,770	A-B	-278	N
24	Cactus Avenue	E/O Crystal View Terrace	Collector (66' or 80')	3,935	A-B	3,474	A-B	-460	N
25	Mary Street	N/O Victoria Avenue	Arterial (88')	15,815	A-B	12,793	A-B	-3,022	N
26	Mary Street	N/O Lincoln Avenue	Arterial (88')	20,218	D	16,610	A-B	-3,607	N

#	Street	Location	Existing Street Classification	Gates Open		Scenario 4		Δ Vol	Impact (Y/N)
				ADT	LOS	ADT	LOS		
27	Proposed "C" Street	S/O Victoria Avenue	Arterial (100')	-	N/A	31,999	D	31,999	N
28	Madison Street	N/O Victoria Avenue	Arterial (88')	9,398	A-B	25,909	E-F	16,510	Y
29	Madison Street	N/O Lincoln Avenue	Arterial (88')	16,541	A-B	27,925	E-F	11,384	Y
30	Victoria Avenue	E/O Mary Street	Collector (66' or 80')	10,868	C	9,375	A-B	-1,493	N
31	Victoria Avenue	E/O Madison Street	Collector (66' or 80')	10,093	C	1,643	A-B	-8,450	N
32	Victoria Avenue	W/O Madison Street	Collector (66' or 80')	4,614	A-B	7,867	A-B	3,253	N
33	Victoria Avenue	E/O Adams Street	Collector (66' or 80')	3,459	A-B	6,184	A-B	2,725	N
34	Dufferin Avenue	W/O Washington Street	Collector (66' or 80')	2,906	A-B	0	A-B	-2,906	N
35	Dufferin Avenue	E/O Adams Street	Collector (66' or 80')	5,517	A-B	5,050	A-B	-468	N
36	Dufferin Avenue	E/O Van Buren Boulevard	Collector (66' or 80')	1,716	A-B	1,853	A-B	137	N
37	Dufferin Avenue	E/O McAllister Street	Collector (66' or 80')	2,537	A-B	2,466	A-B	-71	N
38	Bradley Street	W/O Washington Street	Collector (66' or 80')	7,452	A-B	6,647	A-B	-805	N
39	Lincoln Avenue	E/O Madison Street	Collector (66' or 80')	7,755	A-B	6,619	A-B	-1,136	N

Shaded Text represents location that exceeds LOS standards or significant impact.

7.0 MITIGATION MEASURES

Mitigations measures have been developed for intersections and roadway links for both existing 2011 and 2035 conditions, for project-related and cumulative impacts, respectively. Mitigations are shown for impacts identified under the Gates Closed and Gates Open baseline analyses.

The mitigations are shown in a similar format as the analysis, with 2011 first, with potential mitigation measures for project-related impacts for the Gates Closed analysis, then the Gates Open analysis. The mitigations for the 2035 cumulative analysis follow in similar format.

7.1 IMPACTED LOCATION SUMMARY

7.1.1 *INTERSECTIONS*

Mitigation measures were developed for intersection locations that were projected to experience a project-related or cumulative impact. **Table 7-1** shows a summary of locations that are projected to experience either a project or cumulative impact. Note that Scenario 1 is not shown under the Gates Closed baseline conditions, and Scenario 2 is not shown under the Gates Open baseline conditions, since there are no changes in volumes and therefore no impacts.

Mitigation measures consist of improvements such as changing a two-way stop controlled intersection to four-way stop control, traffic signal installation, changes to traffic signal operations, and new or additional right- or left turn lanes.

7.1.2 *ROADWAY LINKS*

Mitigation measures were developed for roadway link locations that were projected to experience a project-related or cumulative impact. **Table 7-2** shows a summary of locations that are projected to experience either a project or cumulative impact.

Mitigation measures may consist of roadway reclassifications, roadway widenings, Intelligent Transportation System (ITS) improvements, signal coordination, etc.

The General Plan 2025 Circulation and Community Mobility Element, the City noted:
…The City will strive to maintain LOS D or better on arterial streets wherever possible. At some key locations, such as City arterial roadways which are used as a freeway bypass by regional through traffic and at heavily traveled freeway interchanges, LOS E may be acceptable as determined on a case-by-case basis. Locations that may warrant the LOS E standard include portions of Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard throughout the City, portions of La Sierra Avenue and selected freeway interchanges… The City recognizes that along key freeway-feeder segments during peak commute hours, LOS F may be expected due to regional travel patterns…

TABLE 7-1: INTERSECTION IMPACT SUMMARY – ALL SCENARIOS

#	Intersection	Existing 2011 Conditions						2035 Cumulative Conditions					
		Gates Closed Baseline			Gates Open Baseline			Gates Closed Baseline			Gates Open Baseline		
		Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4	Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4
1.	Madison St & SR-91 WB Ramps	N	N	N	N	N	N	N	N	N	N	N	N
2.	Madison St & SR-91 EB Ramps	N	N	N	N	N	N	N	N	N	N	N	N
3.	Madison St & Indiana Ave	N	N	N	N	N	N	Y	Y	Y	N	Y	N
4.	Madison St & Lincoln Ave	N	N	N	N	N	N	N	N	Y	N	N	Y
5A.	Madison St & Victoria Ave North	N	N	Y	N	N	Y	Y	Y	Y	N	Y	Y
5B.	Madison St & Victoria Ave South	N	N	Y	N	N	Y	Y	Y	Y	N	Y	Y
6.	Washington St & Indiana Ave	N	N	N	N	N	N	N	N	N	N	N	N
7.	Washington St & Lincoln Ave	N	N	N	N	N	N	Y	Y	N	Y	Y	N
8A.	Washington St & Victoria Ave North	N	N	N	N	N	N	Y	Y	Y	N	Y	N
8B.	Washington St & Victoria Ave South	Y	N	N	N	N	N	Y	Y	N	Y	Y	N
9.	Washington St & Overlook Pkwy	N	N	N	N	N	N	N	Y	Y	N	Y	Y
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	N	N	N	N	N	N	N	N	N	N	N	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	N	N	N	N	N	N	N	N	N	N	N	N
12.	Victoria Ave & Arlington Ave	N	N	N	N	N	N	Y	Y	N	N	N	N
13.	Alessandro Blvd & Arlington Ave	N	N	N	N	N	N	Y	N	N	N	N	N
14.	Alessandro Blvd & Overlook Pkwy	N	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y
15.	Alessandro Blvd & Trautwein Rd	N	N	N	N	N	N	N	N	N	N	N	N
16.	Crystal View Ter & Overlook Pkwy	N	N	N	N	N	N	N	Y	Y	N	Y	Y
17.	Kingdom Dr & Overlook Pkwy	N	N	Y	N	N	Y	N	Y	Y	N	Y	Y
18.	Kingdom Dr & Green Orchard Pl	N	N	N	N	N	N	N	N	N	N	N	N
19.	Trautwein Rd & John F. Kennedy Dr	N	N	N	N	N	N	Y	Y	Y	N	N	N
20.	Washington St & Bradley St	N	N	N	N	N	N	N	N	N	Y	N	N
21.	Alessandro Blvd & Via Vista Dr	N	N	N	N	N	N	N	N	N	N	N	N
22A.	Mary St & Victoria Ave North	N	N	N	N	N	N	Y	Y	N	Y	Y	N
22B.	Mary St & Victoria Ave South	N	N	N	N	N	N	Y	Y	N	Y	Y	N
23.	Mary St & Hawarden Ct	N	N	N	N	N	N	N	N	N	N	N	N
24.	Hawarden Dr & Overlook Pkwy	N	N	N	N	N	N	N	Y	Y	N	Y	Y
25.	Crystal View Ter & Berry Rd	N	N	N	N	N	N	N	N	N	N	N	N
26.	Corinthian Wy & Berry Rd	N	N	N	N	N	N	N	N	N	N	N	N
27	Madison St & Dufferin Ave	N	N	N	N	N	N	N	N	N	N	N	N
28	Orozco Dr & Overlook Pkwy	N	N	Y	N	N	Y	N	Y	Y	N	Y	Y
	Total Number of Locations	**1**	**1**	**5**	**0**	**1**	**5**	**12**	**16**	**12**	**5**	**14**	**9**

TABLE 7-2: ROADWAY LINK IMPACT SUMMARY – ALL SCENARIOS

#	Street	Location	Existing Conditions						2035 Cumulative Conditions					
			Gates Closed Baseline			Gates Open Baseline			Gates Closed Baseline			Gates Open Baseline		
			Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4	Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4
1	Victoria Avenue	E/O Washington Street	N	N	N	N	N	N	N	N	N	Y	Y	N
2	Overlook Parkway	E/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
3	Bradley Street	E/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
4	Van Buren Boulevard	E/O Washington Street	N	N	N	N	N	N	N	N	N	Y	N	N
5	Arlington Avenue	W/O Alessandro Boulevard	N	N	N	N	N	N	Y	N	N	N	N	N
6	Berry Road	W/O Trautwein Road	N	N	N	N	N	N	Y	N	N	N	N	N
7	Van Buren Boulevard	W/O Trautwein Road	N	N	N	N	N	N	Y	N	N	N	N	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	N	N	N	N	N	N	Y	Y	Y	N	Y	Y
9	Van Buren Boulevard	W/O Plummer Street	N	N	N	N	N	N	Y	Y	Y	N	N	Y
10	Washington Street	S/O Victoria Avenue	N	N	N	N	N	N	Y	Y	N	N	Y	N
11	Alessandro Boulevard	S/O Arlington Avenue	N	N	N	N	N	N	N	N	N	Y	N	N
12	Washington Street	N/O Valle Vista Way	N	N	N	N	N	N	N	N	N	Y	N	N
13	Golden Star Avenue	N/O Valle Vista Way	N	N	N	N	N	N	N	N	N	N	N	N
14	Dauchy Avenue	N/O John F Kennedy Drive	N	N	N	N	N	N	N	N	N	N	N	N
15	Trautwein Road	N/O John F Kennedy Drive	N	N	N	Y	N	N	N	N	N	Y	N	N
16	Washington Street	N/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	Y	N	N
17	Wood Drive	N/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
18	Trautwein Road	N/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	N	N	N	N	N	N	N	N	N	Y	N	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y
21	Overlook Parkway	W/O Kingdom Drive	N	N	N	N	N	N	N	N	N	N	N	N
22	Kingdom Drive	S/O Overlook Parkway	N	N	N	N	N	N	N	N	N	N	N	N
23	Crystal View Drive	S/O Overlook Parkway	N	N	N	N	N	N	N	N	N	N	N	N
24	Cactus Avenue	E/O Crystal View Terrace	N	N	N	N	N	N	N	N	N	N	N	N
25	Mary Street	N/O Victoria Avenue	N	N	N	N	N	N	N	N	N	N	N	N
26	Mary Street	N/O Lincoln Avenue	N	N	N	N	N	N	N	Y	N	N	Y	N

#	Street	Location	Existing Conditions						2035 Cumulative Conditions					
			Gates Closed Baseline			Gates Open Baseline			Gates Closed Baseline			Gates Open Baseline		
			Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4	Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4
27	Proposed "C" Street	S/O Victoria Avenue	N	N	N	N	N	N	N	N	N	N	N	N
28	Madison Street	N/O Victoria Avenue	N	N	N	N	N	N	N	N	Y	N	N	Y
29	Madison Street	N/O Lincoln Avenue	N	N	N	N	N	N	N	N	Y	N	N	Y
30	Victoria Avenue	E/O Mary Street	N	N	N	N	N	N	N	N	N	N	N	N
31	Victoria Avenue	E/O Madison Street	N	N	N	N	N	N	N	N	N	N	N	N
32	Victoria Avenue	W/O Madison Street	N	N	N	N	N	N	N	N	N	N	N	N
33	Victoria Avenue	E/O Adams Street	N	N	N	N	N	N	N	N	N	N	N	N
34	Dufferin Avenue	W/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
35	Dufferin Avenue	E/O Adams Street	N	N	N	N	N	N	N	N	N	N	N	N
36	Dufferin Avenue	E/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
37	Dufferin Avenue	E/O McAllister Street	N	N	N	N	N	N	N	N	N	N	N	N
38	Bradley Street	W/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
39	Lincoln Avenue	E/O Madison Street	N	N	N	N	N	N	N	N	N	N	N	N
	Total Number of Locations		**1**	**1**	**1**	**1**	**1**	**1**	**6**	**5**	**5**	**8**	**5**	**5**

7.2 YEAR 2011 PROJECT RELATED IMPACT MITIGATION MEASURES

Mitigation measures were developed for intersections projected to experience a project related impact under Gates Closed and Gates Open. The mitigation measures and resultant levels of service are shown in the following sections.

7.2.1 *GATES CLOSED*

7.2.1.1 MITIGATIONS FOR SCENARIO 2

Intersections

The mitigated intersection lane configurations/signalization for Scenario 2 is shown in **Figure 7-1**. **Table 7-3** shows a summary of the resultant levels of service after mitigation.

8. Washington Street at Victoria Avenue

- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control; and include split phasing.

This fully mitigates project-related impacts.

Roadway Links

20. Alessandro Boulevard south of Canyon Crest Drive

The City of Riverside General Plan 2025 recognizes this roadway as a location that may operate with a lower level of service, and would not be improved to accommodate regional traffic. Therefore, no mitigation has been identified, and a project related impact would remain.

7.2.1.2 MITIGATIONS FOR SCENARIO 3

Intersections

The mitigated intersection lane configurations for Scenario 3 are shown in **Figure 7-1**. **Table 7-4** shows a summary of the resultant levels of service after mitigation.

14. Alessandro Boulevard at Overlook Parkway

- Add a southbound right turn lane from Alessandro Boulevard to Overlook Parkway
- Reconfigure the eastbound approach on Overlook Parkway to one left-through lane and two right-turn lanes.
- Modify signal operations.

This fully mitigates project-related impacts.

Roadway Links

20. Alessandro Boulevard south of Canyon Crest Drive

The City of Riverside General Plan 2025 recognizes this roadway as a location that may operate with a lower level of service, and would not be improved to accommodate regional traffic. Therefore, no mitigation has been identified, and a project related impact would remain.

7.2.1.3 Mitigations for Scenario 4

Intersections

The mitigated intersection lane configurations for Scenario 4 are shown in **Figure 7-2**. **Table 7-5** shows a summary of the resultant levels of service after mitigation.

5. Madison Street at Victoria Avenue

- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control; and include split phasing

This fully mitigates project-related impacts.

14. Alessandro Boulevard at Overlook Parkway

- Add a southbound right turn lane from Alessandro Boulevard to Overlook Parkway
- Reconfigure the eastbound approach on Overlook Parkway to one left-through lane and two right-turn lanes.
- Modify signal operations.

This fully mitigates project-related impacts.

17. Kingdom Drive at Overlook Parkway

- Modify intersection to a four-way stop.

This fully mitigates project-related impacts.

28. Orozco Drive at Overlook Parkway

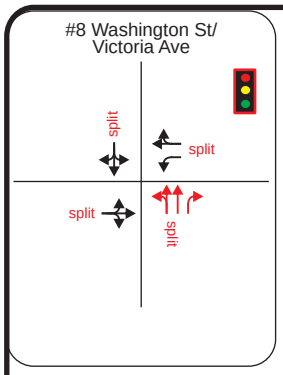
- Modify intersection to a four-way stop.

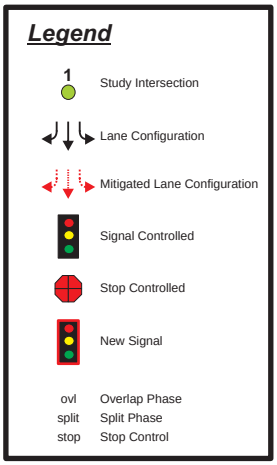
This fully mitigates project-related impacts.

Roadway Links

20. Alessandro Boulevard south of Canyon Crest Drive

The City of Riverside General Plan 2025 recognizes this roadway as a location that may operate with a lower level of service, and would not be improved to accommodate regional traffic. Therefore, no mitigation has been identified, and a project related impact would remain.





Note: North/south streets are listed first under intersection name.

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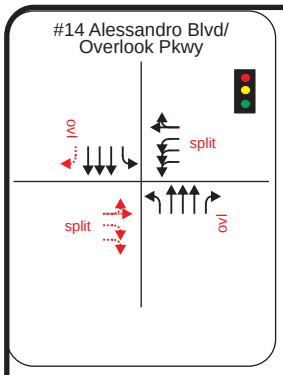
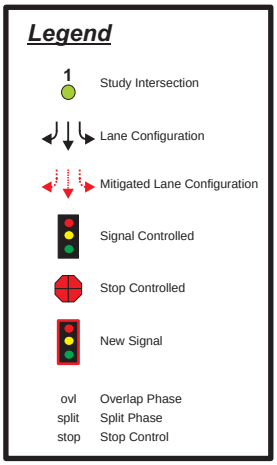
Figure 7-1

Scenario 2 Mitigations (2011 - Gates Closed)



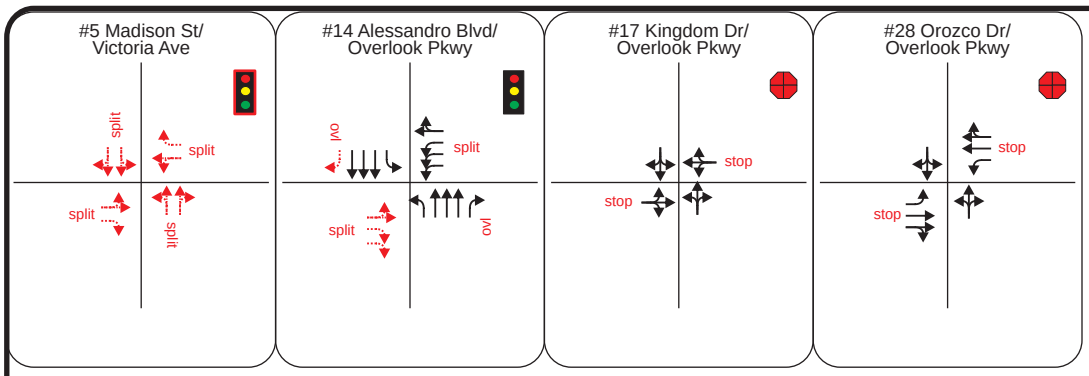


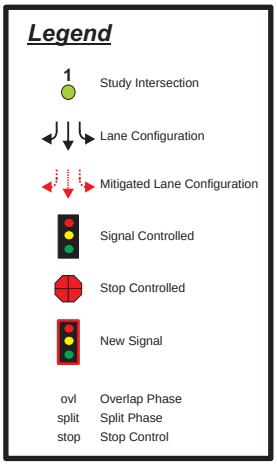
Note: North/south streets are listed first under intersection name.

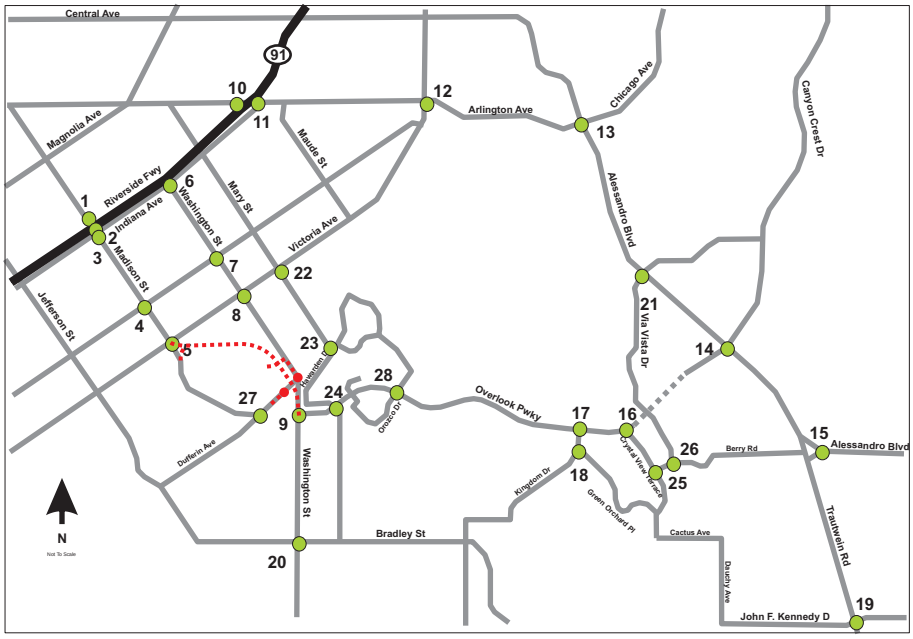
Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 7-2

Scenario 3 Mitigations (2011 - Gates Closed)







Note: North/south streets are listed first under intersection name.

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Figure 7-3

Scenario 4 Mitigations (2011 - Gates Closed)

Table 7-3: Scenario 2 Peak Hour Mitigation Comparison (2011 – Gates Closed)

#	Intersection	Gates Closed				Scenario 2								Scenario 2 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
8A	Washington St at Victoria Ave (North)	B	14.5	B	14.0	B	13.7	B	14.4	-0.8	N	0.4	N	D	36.8	D	45.8	22.3	N	31.8	N
8B	Washington St at Victoria Ave (South)	C	15.8	D	30.5	B	13.7	E	37.1	-2.1	N	6.6	Y	D	36.8	D	45.8	21.0	N	15.3	N

Shaded Text represents location with significant impact.

Table 7-4: Scenario 3 Peak Hour Mitigation Comparison (2011 – Gates Closed)

#	Intersection	Gates Closed				Scenario 3								Scenario 3 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
14	Alessandro Blvd & Overlook Pkwy	B	19.4	C	24.8	C	28.4	F	151.5	9.0	N	126.7	Y	C	24.8	D	38.8	5.4	N	14.0	N

Shaded Text represents location with significant impact.

Table 7-5: Scenario 4 Peak Hour Mitigation Comparison (2011 – Gates Closed)

#	Intersection	Gates Closed				Scenario 4								Scenario 4 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
5A	Madison St & Victoria Ave (North)	A	9.7	B	10.2	F	163.4	F	97.6	153.7	Y	87.4	Y	D	36.8	D	48.5	27.1	N	38.3	N
5B	Madison St & Victoria Ave (South)	A	9.3	B	10.2	F	140.4	F	172.7	131.1	Y	162.5	Y	D	36.8	D	48.5	27.5	N	38.3	N
14	Alessandro Blvd & Overlook Pkwy	B	19.4	C	24.8	D	36.5	F	249.4	17.1	N	224.6	Y	C	25.5	D	52.9	6.1	N	28.1	N
17	Kingdom Dr & Overlook Pkwy	A	8.7	A	8.7	D	25.6	E	36.3	16.9	N	27.6	Y	B	12.8	C	18.0	4.1	N	9.3	N
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.5	D	25.3	E	42.5	15.5	N	33.0	Y	B	13.0	C	18.0	3.2	N	8.5	N

Shaded Text represents location with significant impact.

7.2.2 *Gates Open*

7.2.2.1 Mitigations for Scenario 1

Intersections

None required.

Roadway Links

15. Trautwein Road north of John F. Kennedy Drive

The City of Riverside General Plan 2025 recognizes this roadway as a location that may operate with a lower level of service, and would not be improved to accommodate regional traffic. Therefore, no mitigation has been identified, and a project related impact would remain.

7.2.2.2 Mitigations for Scenario 3

Intersections

The mitigated intersection lane configurations for Scenario 3 are shown in **Figure 7-4**. **Table 7-6** shows a summary of the resultant levels of service after mitigation.

14. Alessandro Boulevard at Overlook Parkway

- Add a southbound right turn lane from Alessandro Boulevard to Overlook Parkway
- Reconfigure the eastbound approach on Overlook Parkway to one left-through lane and two right-turn lanes.
- Modify signal operations.

This fully mitigates project-related impacts.

Roadway Links

20. Alessandro Boulevard south of Canyon Crest Drive

The City of Riverside General Plan 2025 recognizes this roadway as a location that may operate with a lower level of service, and would not be improved to accommodate regional traffic. Therefore, no mitigation has been identified, and a project related impact would remain.

7.2.2.3 Mitigations for Scenario 4

Intersections

The mitigated intersection lane configurations for Scenario 4 are shown in **Figure 7-5**. **Table 7-7** shows a summary of the resultant levels of service after mitigation.

5. Madison Street at Victoria Avenue

- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control; and include split phasing.

This fully mitigates project-related impacts.

14. Alessandro Boulevard at Overlook Parkway

- Add a southbound right turn lane from Alessandro Boulevard to Overlook Parkway
- Reconfigure the eastbound approach on Overlook Parkway to one left-through lane and two right-turn lanes.
- Modify signal operations.

This fully mitigates project-related impacts.

17. Kingdom Drive at Overlook Parkway

- Modify intersection to a four-way stop.

This fully mitigates project-related impacts.

28. Orozco Drive at Overlook Parkway

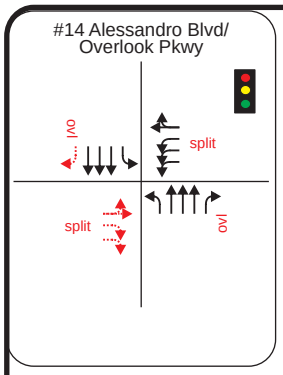
- Modify intersection to a four-way stop.

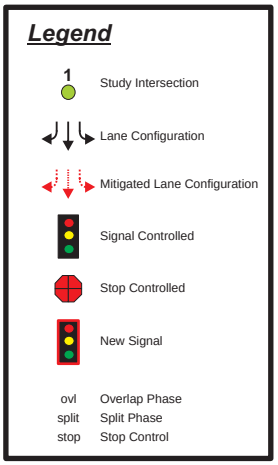
This fully mitigates project-related impacts.

<u>Roadway Links</u>

20. Alessandro Boulevard south of Canyon Crest Drive

The City of Riverside General Plan 2025 recognizes this roadway as a location that may operate with a lower level of service, and would not be improved to accommodate regional traffic. Therefore, no mitigation has been identified, and a project related impact would remain.





Note: North/south streets are listed first under intersection name.

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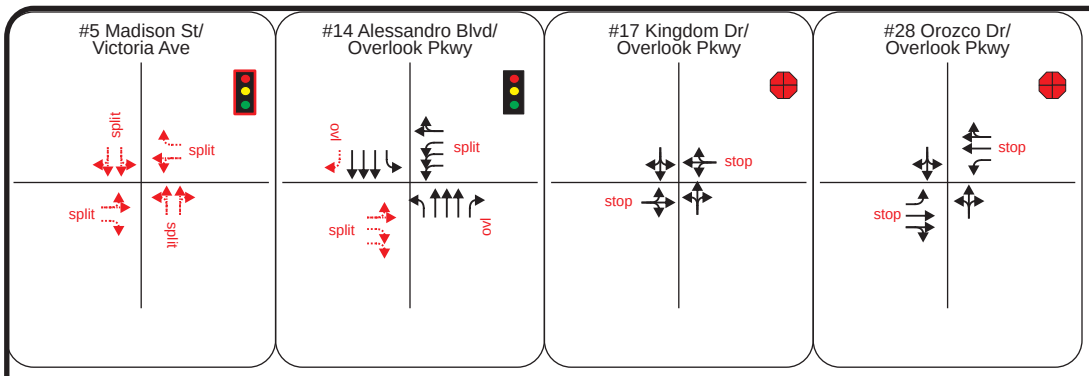
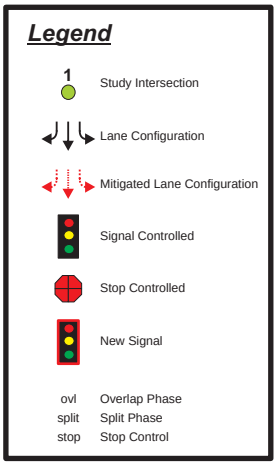
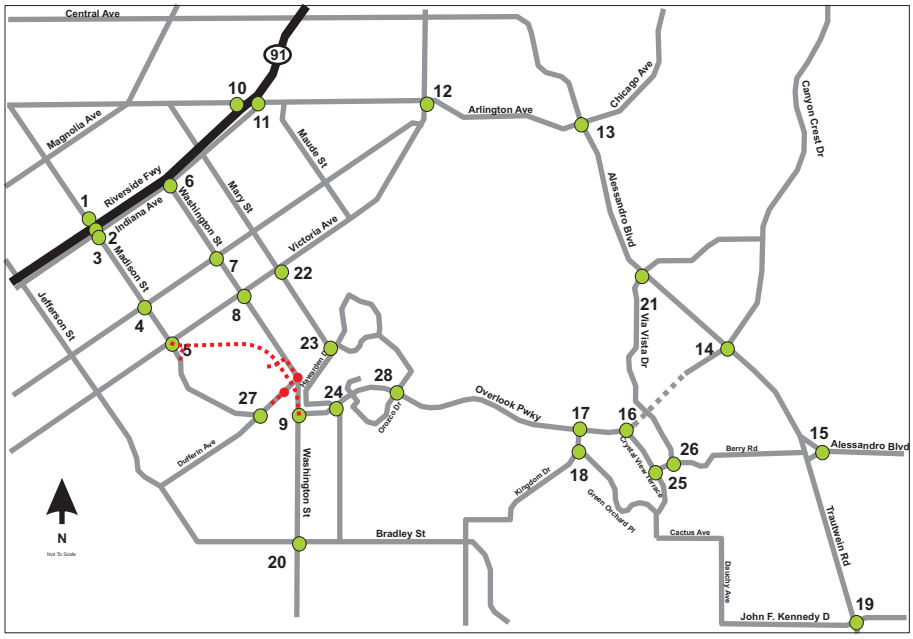
Figure 7-4

Scenario 3 Mitigations (2011 - Gates Open)







Note: North/south streets are listed first under intersection name.

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Figure 7-5

Scenario 4 Mitigations (2011 - Gates Open)

Table 7-6: Scenario 3 Peak Hour Mitigation Comparison (2011 – Gates Open)

#	Intersection	Gates Open				Scenario 3								Scenario 3 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
14	Alessandro Blvd & Overlook Pkwy	C	21.5	C	27.9	C	28.4	F	151.5	6.9	N	123.6	Y	C	24.8	D	38.8	3.3	N	10.9	N

Shaded Text represents location with significant impact.

Table 7-7: Scenario 4 Peak Hour Mitigation Comparison (2011 – Gates Open)

#	Intersection	Gates Open				Scenario 4								Scenario 4 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
5A	Madison St & Victoria Ave (North)	A	9.7	A	9.7	F	163.4	F	97.6	153.7	Y	87.9	Y	D	36.8	D	48.5	27.1	N	38.8	N
5B	Madison St & Victoria Ave (South)	A	9.5	B	10.3	F	140.4	F	172.7	130.9	Y	162.4	Y	D	36.8	D	48.5	27.3	N	38.2	N
14	Alessandro Blvd & Overlook Pkwy	C	21.5	C	27.9	D	36.5	F	249.4	15.0	N	221.5	Y	C	25.5	D	52.9	4.0	N	25.0	N
17	Kingdom Dr & Overlook Pkwy	A	9.6	A	9.7	D	25.6	E	36.3	16.0	N	26.6	Y	B	12.8	C	18.0	3.2	N	8.3	N
28	Orozco Dr & Overlook Pkwy	A	9.8	A	9.7	D	25.3	E	42.5	15.5	N	32.8	Y	B	13.0	C	18.0	3.2	N	8.3	N

Shaded Text represents location with significant impact.

7.3 YEAR 2035 CUMULATIVE IMPACTS MITIGATION MEASURES

Mitigation measures were developed for intersections and roadway links projected to experience a cumulative impact under Gates Closed and Gates Open analyses. The mitigation measures and resultant levels of service are shown in the following sections.

7.3.1 *GATES CLOSED*

7.3.1.1 MITIGATIONS FOR SCENARIO 2

Intersections

The mitigated intersection lane configurations for Scenario 2 are shown in **Figure 7-6**. **Table 7-8** shows a summary of the resultant levels of service after mitigation.

3. Madison Street at Indiana Avenue

- Add a westbound right turn lane on Indiana Avenue
- Add overlap phasing to the traffic signal

This fully mitigates the cumulative impact.

5. Madison Street at Victoria Avenue

- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control
- Include split phasing
- Include overlap phasing

This fully mitigates the cumulative impact.

7. Washington Street at Lincoln Avenue

- Add separate left turn lanes on Washington Street in both directions
- Add a separate right turn lane on eastbound Lincoln Avenue

This fully mitigates the cumulative impact.

8. Washington Street at Victoria Avenue

- Add an additional southbound through lane on Washington Street
- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control; and include split phasing

This mitigation reduces the cumulative impact, but does not fully mitigate the cumulative impact. Therefore, a cumulative impact will remain.

12. Victoria Avenue at Arlington Avenue

- Add a westbound right turn lane on Arlington Avenue
- Add overlap phasing to the traffic signal

This fully mitigates the cumulative impact.

13. Alessandro Boulevard at Arlington Avenue
No feasible mitigation measure was identified; therefore, a cumulative impact will remain.

14. Alessandro Boulevard at Overlook Parkway
A majority of the impact is due to the high volumes projected on Alessandro Boulevard in the 2035 cumulative condition. There is limited right of way on Alessandro Boulevard available for improvements. Changes to the eastbound lanes on Overlook Parkway will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

19. Trautwein Road at John F. Kennedy Drive

- Add a separate right turn lane on westbound John F. Kennedy Drive

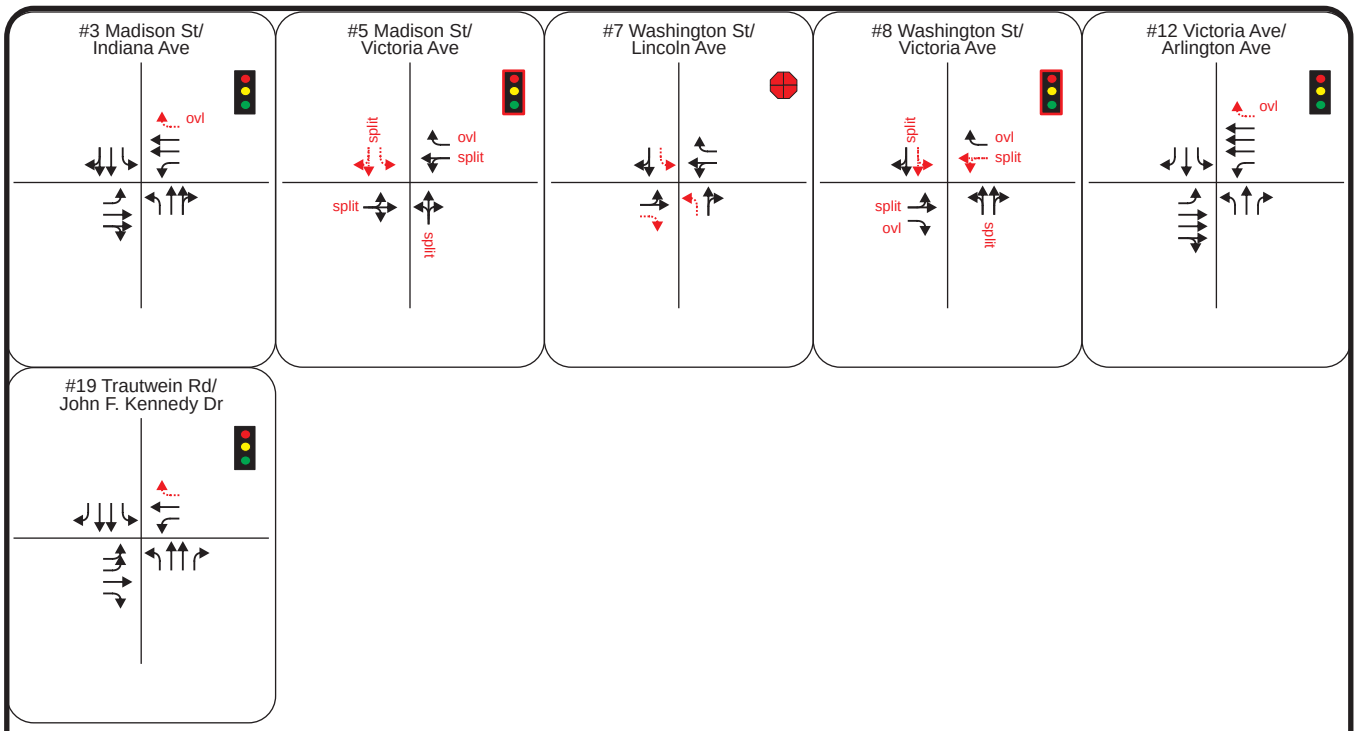
This fully mitigates the cumulative impact.

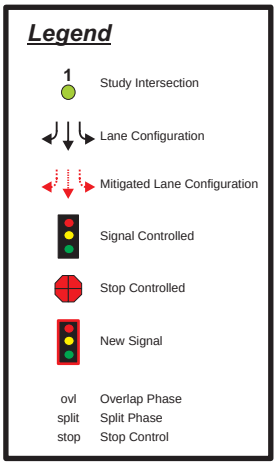
22. Mary Street at Victoria Avenue
This intersection is projected to operate at LOS F, due to the high number of vehicles that are projected to utilize Mary Street towards downtown Riverside. Addition of a traffic signal was evaluated, as well as potential mitigation measures. No mitigations were identified that would fully mitigate the cumulative impact. Therefore, a cumulative impact will remain.

<u>Roadway Links</u>

5. **Arlington Avenue west of Alessandro Boulevard**
6. **Berry Road west of Trautwein Road**
7. **Van Buren Boulevard west of Trautwein Road**
8. **Alessandro Boulevard west of Sycamore Canyon Road**
9. **Van Buren Boulevard west of Plummer Street**
10. **Washington Street south of Victoria Avenue**

The City of Riverside General Plan 2025 recognizes certain roadways as locations that may operate with a lower level of service and would not be improved to accommodate regional traffic, including Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard and La Sierra Avenue. The roadway links that contribute to a cumulative impact are a combination of these roadways and other City roadways. However, the City generally does not wish to improve roadways to more lanes than their General Plan 2025 configurations, especially since some of these roadways may accommodate regional traffic. Therefore, no mitigations have been identified, and a cumulative impact would remain at all locations.





Note: North/south streets are listed first under intersection name.

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Figure 7-6

Scenario 2 Mitigations (2035 - Gates Closed)

TABLE 7-8: SCENARIO 2 PEAK HOUR MITIGATION COMPARISON (2035 – GATES CLOSED)

#	Intersection	Gates Closed				Scenario 2								Scenario 2 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
3.	Madison St & Indiana Ave	F	103.3	F	131.1	F	113.4	F	179.7	10.1	Y	48.6	Y	E	63.8	F	80.5	-39.5	N	-50.6	N
5A	Madison St & Victoria Ave (North)	B	12.4	F	77.2	B	13.0	F	152.1	0.6	N	74.9	Y	C	32.9	C	33.9	20.5	N	-43.3	N
5B	Madison St & Victoria Ave (South)	B	10.3	E	47.4	B	10.4	F	121.8	0.1	N	74.4	Y	C	32.9	C	33.9	22.6	N	-13.5	N
7.	Washington St & Lincoln Ave	F	226.4	F	135.0	F	222.7	F	177.9	-3.7	N	42.9	Y	F	181.1	F	117.5	-45.3	N	-17.5	N
8A.	Washington St & Victoria Ave North	F	90.9	E	45.7	F	103.5	F	155.0	12.6	Y	109.3	Y	F	133.0	F	163.9	42.1	Y	118.2	Y
8B.	Washington St & Victoria Ave South	F	127.5	F	285.3	F	116.3	F	386.2	-11.2	N	100.9	Y	F	133.0	F	163.9	5.5	Y	-121.4	N
12.	Victoria Ave & Arlington Ave	F	83.5	E	73.4	F	94.0	E	68.6	10.5	Y	-4.8	N	E	76.9	E	67.9	-6.6	N	-5.5	N
13.	Alessandro Blvd & Arlington Ave	E	61.3	F	104.4	E	68.6	F	117.6	7.3	Y	13.2	Y	E	68.6	F	117.6	7.3	Y	13.2	Y
14.	Alessandro Blvd & Overlook Pkwy	E	69.4	F	88.7	F	83.5	F	108.3	14.1	Y	19.6	Y	F	83.5	F	108.3	14.1	Y	19.6	Y
19.	Trautwein Rd & John F. Kennedy Dr	F	85.0	D	36.1	F	94.8	D	36.5	9.8	Y	0.4	N	F	84.2	D	36.3	-0.8	N	0.2	N
22A.	Mary St & Victoria Ave North	F	154.9	F	91.5	F	110.7	F	96.2	-44.2	N	4.7	Y	F	110.7	F	96.2	-44.2	N	4.7	Y
22B.	Mary St & Victoria Ave South	F	59.0	F	86.2	E	40.9	F	94.1	-18.1	N	7.9	Y	E	40.9	F	94.1	-18.1	N	7.9	Y

Shaded Text represents location with significant impact.

7.3.1.2 Mitigations for Scenario 3

Intersections

The mitigated intersection lane configurations for Scenario 3 are shown in **Figure 7-7**. **Table 7-9** shows a summary of the resultant levels of service after mitigation.

3. Madison Street at Indiana Avenue

- Add a westbound right turn lane on Indiana Avenue
- Add overlap phasing to the traffic signal

This fully mitigates the cumulative impact.

5. Madison Street at Victoria Avenue

- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control
- Add split phasing to the traffic signal
- Add overlap phasing to the traffic signal.

This fully mitigates the cumulative impact.

7. Washington Street at Lincoln Avenue

- Add separate left turn lanes on Washington Street in both directions
- Add a separate right turn lane on eastbound Lincoln Avenue

This fully mitigates the cumulative impact.

8. Washington Street at Victoria Avenue

- Modify the westbound approach on Victoria Avenue to have one through-left lane and one right turn lane
- Add a second southbound through lane
- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control
- Add overlap phasing to the intersection.

This mitigation reduces the cumulative impact, but does not fully mitigate the cumulative impact. Therefore, a cumulative impact will remain.

9. Washington Street at Overlook Parkway

- Add an additional southbound left turn lane on Washington Street.
- Modify the westbound approach on Overlook Parkway to have one left turn lane and two right turn lanes.
- Add overlap phasing to the traffic signal

This fully mitigates the cumulative impact.

12. Victoria Avenue at Arlington Avenue

- Add a westbound right turn lane on Arlington Avenue
- Add overlap phasing to the traffic signal

This fully mitigates the cumulative impact.

14. Alessandro Boulevard at Overlook Parkway

A majority of the impact is due to the high volumes projected on Alessandro Boulevard in the 2035 cumulative condition. There is limited right of way on Alessandro Boulevard available for improvements. Changes to the eastbound lanes on Overlook Parkway will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

16. Crystal View Terrace at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

17. Kingdom Drive at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

19. Trautwein Road at John F. Kennedy Drive

- Add a separate right turn lane on westbound John F. Kennedy Drive

This fully mitigates the cumulative impact.

22. Mary Street at Victoria Avenue

This intersection is projected to operate at LOS F, due to the high number of vehicles that are projected to utilize Mary Street towards downtown Riverside. No feasible mitigation measures were identified that would fully mitigate the cumulative impact. Therefore, a cumulative impact will remain.

24. Hawarden Drive at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

28. Orozco Drive at Overlook Parkway

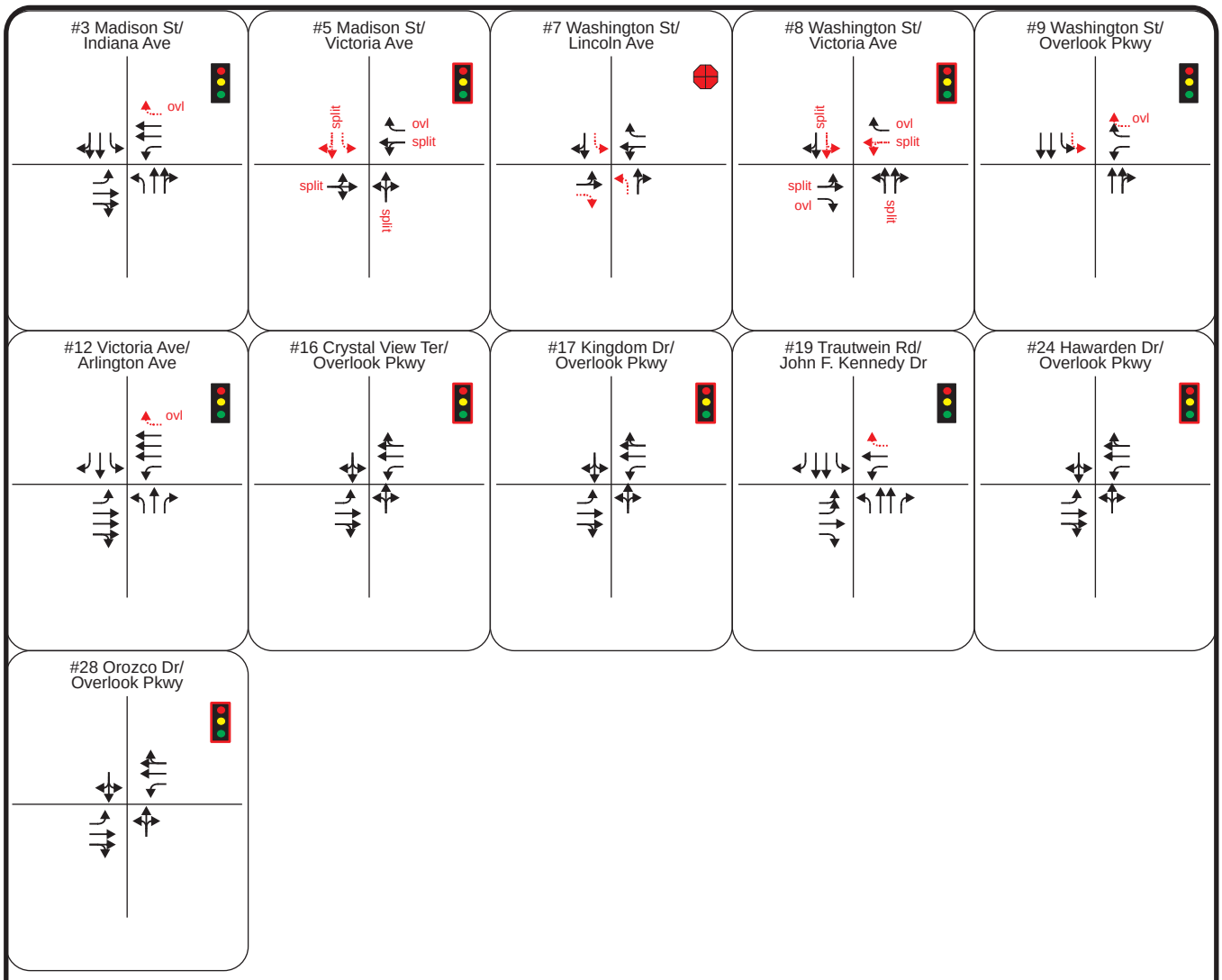
- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

<u>Roadway Links</u>

8. Alessandro Boulevard west of Sycamore Canyon Road
9. Van Buren Boulevard west of Plummer Street
10. Washington Street south of Victoria Avenue
20. Alessandro Boulevard south of Canyon Crest Drive
26. Mary Street north of Lincoln Avenue

The City of Riverside General Plan 2025 recognizes certain roadways as locations that may operate with a lower level of service and would not be improved to accommodate regional traffic, including Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard and La Sierra Avenue. The roadway links that contribute to a cumulative impact are a combination of these roadways and other City roadways. However, the City generally does not wish to improve roadways to more lanes than their General Plan 2025 configurations, especially since some of these roadways may accommodate regional traffic. Therefore, no mitigations have been identified, and a cumulative impact would remain at all locations.



Legend

- 1 — Study Intersection
- Lane Configuration
- Mitigated Lane Configuration
- Signal Controlled
- Stop Controlled
- New Signal
- ovl — Overlap Phase
- split — Split Phase
- stop — Stop Control

Note: North/south streets are listed first under intersection name.

Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 7-7

Scenario 3 Mitigations (2035 - Gates Closed)

Table 7-9: Scenario 3 Peak Hour Mitigation Comparison (2035 – Gates Closed)

#	Intersection	Gates Closed				Scenario 3								Scenario 3 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
3	Madison St & Indiana Ave	F	103.3	F	131.1	F	135.4	F	173.2	32.1	Y	42.1	Y	E	65.2	F	80.5	-38.1	N	-50.6	N
5A	Madison St & Victoria Ave (North)	B	12.4	F	77.2	C	16.3	F	182.2	3.9	N	105.0	Y	D	38.6	D	51.3	26.2	N	-25.9	N
5B	Madison St & Victoria Ave (South)	B	10.3	E	47.4	B	12.1	F	149.0	1.8	N	101.6	Y	D	38.6	D	51.3	28.3	N	3.9	N
7	Washington St & Lincoln Ave	F	226.4	F	135.0	F	257.5	F	183.0	31.1	Y	48.0	Y	F	205.9	F	128.0	-20.5	N	-7.0	N
8A	Washington St & Victoria Ave (North)	F	90.9	E	45.7	F	160.6	F	190.4	69.7	Y	144.7	Y	F	167.6	F	198.2	76.7	Y	152.5	Y
8B	Washington St & Victoria Ave (South)	F	127.5	F	285.3	F	190.5	F	432.3	63.0	Y	147.0	Y	F	167.6	F	198.2	40.1	Y	-87.1	N
9	Washington St & Overlook Pkwy	B	16.1	B	12.3	F	109.4	E	75.6	93.3	Y	63.3	Y	D	37.6	C	23.2	21.5	N	10.9	N
12	Victoria Ave & Arlington Ave	F	83.5	E	73.4	F	88.9	E	62.6	5.4	Y	-10.8	N	E	64.8	E	59.4	-18.7	N	-14.0	N
14	Alessandro Blvd & Overlook Pkwy	E	69.4	F	88.7	F	130.3	F	310.5	60.9	Y	221.8	Y	F	130.3	F	310.5	60.9	Y	221.8	Y
16	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0	C	15.1	E	49.6	8.2	N	42.6	Y	A	6.8	A	3.2	-0.1	N	-3.8	N
17	Kingdom Dr & Overlook Pkwy	A	8.9	A	8.9	D	34.4	F	610.4	25.5	N	601.5	Y	B	13.5	A	7.2	4.6	N	-1.7	N
19	Trautwein Rd & John F. Kennedy Dr	F	85.0	D	36.1	F	87.1	C	31.8	2.1	Y	-4.3	N	E	77.1	C	31.6	-7.9	N	-4.5	N
22A	Mary St & Victoria Ave (North)	F	154.9	F	91.5	F	160.3	F	113.2	5.4	Y	21.7	Y	F	160.3	F	113.2	5.4	Y	21.7	Y
22B	Mary St & Victoria Ave (South)	F	59.0	F	86.2	F	59.0	F	100.1	0.0	N	13.9	Y	F	59.0	F	100.1	0.0	N	13.9	Y
24	Hawarden Dr & Overlook Pkwy	A	8.2	A	8.0	C	15.0	E	35.6	6.8	N	27.6	Y	A	9.5	A	8.1	1.3	N	0.1	N
28	Orozco Dr & Overlook Pkwy	B	10.4	B	10.1	D	32.9	F	781.0	22.5	N	770.9	Y	A	3.6	B	13.2	-6.8	N	3.1	N

Shaded Text represents location with significant impact.

7.3.1.3 Mitigations for Scenario 4

Intersections

The mitigated intersection lane configurations for Scenario 4 are shown in **Figure 7-8**. **Table 7-10** shows a summary of the resultant levels of service after mitigation.

3. Madison Street at Indiana Avenue

- Add a westbound right turn lane on Indiana Avenue
- Add overlap phasing to the traffic signal

This fully mitigates the cumulative impact.

4. Madison Street at Lincoln Avenue

- Add a southbound right turn lane on Madison Street

This fully mitigates the cumulative impact.

5. Madison Street at Victoria Avenue

- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control
- Add split phasing to the signal
- Add overlap phasing to the signal
- Add a separate eastbound right turn lane, by paving the existing 2 foot shoulder for approximately 100 feet.

These changes will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

8. Washington Street at Victoria Avenue

- Add a second southbound through lane
- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.
- Add split phasing to the signal
- Add overlap phasing to the signal
- Reconfigure the westbound approach on Victoria Avenue to have one through-left lane and one right turn lane.

These changes will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

9. Washington Street at Overlook Parkway

- Add an additional southbound left turn lane on Washington Street.
- Modify the westbound approach on Overlook Parkway to have one left turn lane and two right turn lanes
- Add overlap phasing to the traffic signal

This fully mitigates the cumulative impact.

14. Alessandro Boulevard at Overlook Parkway

A majority of the impact is due to the high volumes projected on Alessandro Boulevard in the 2035 cumulative condition. There is limited right of way on Alessandro Boulevard available for improvements. Changes to the eastbound lanes on Overlook Parkway will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

16. Crystal View Terrace at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection should be converted to a signalized intersection, when signal warrants are satisfied, when field conditions satisfy the need for signalized traffic control, and as approved by the City Traffic Engineer.

This fully mitigates the cumulative impact.

17. Kingdom Drive at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

19. Trautwein Road at John F. Kennedy Drive

- Add a separate right turn lane on westbound John F. Kennedy Drive

This fully mitigates the cumulative impact.

24. Hawarden Drive at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

28. Orozco Drive at Overlook Parkway

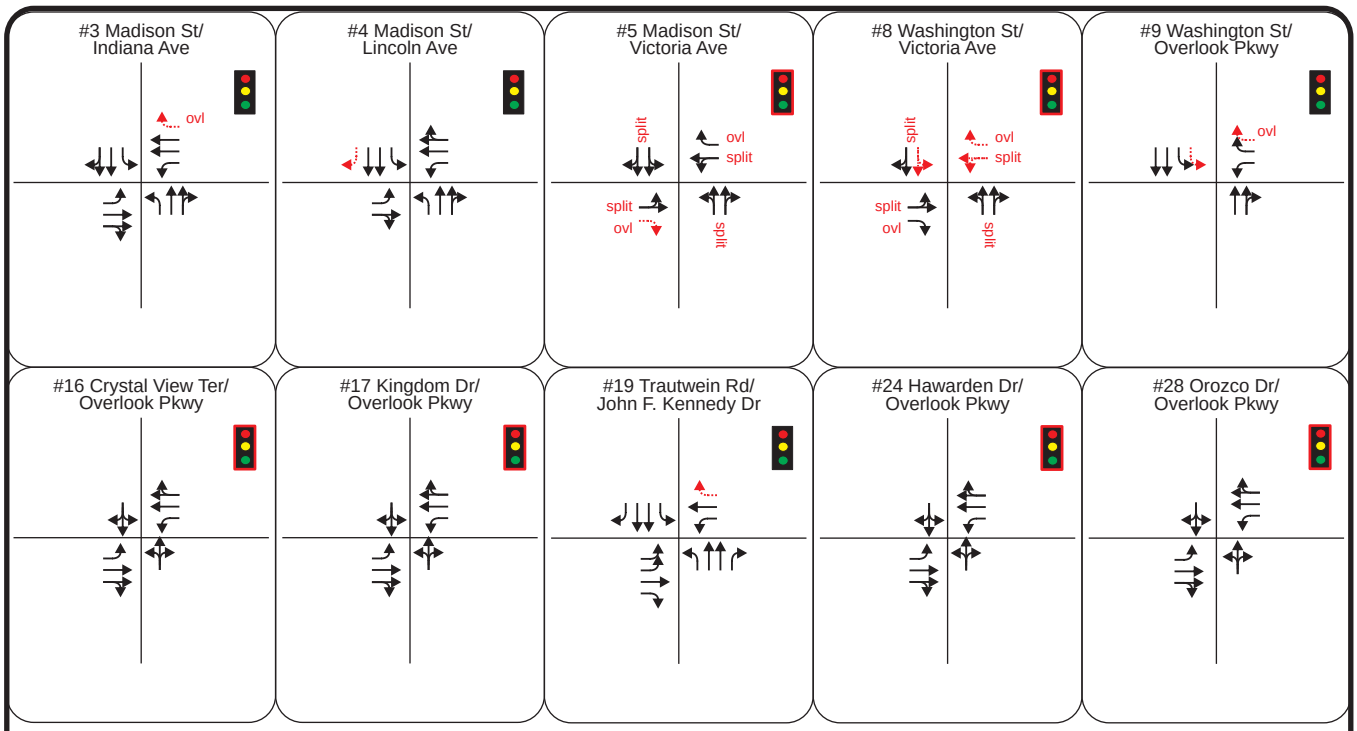
- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

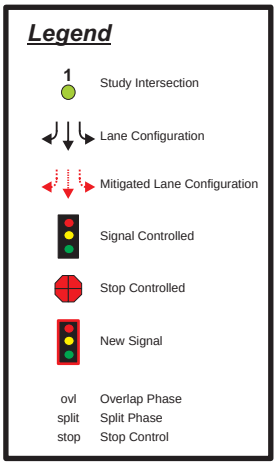
This fully mitigates the cumulative impact.

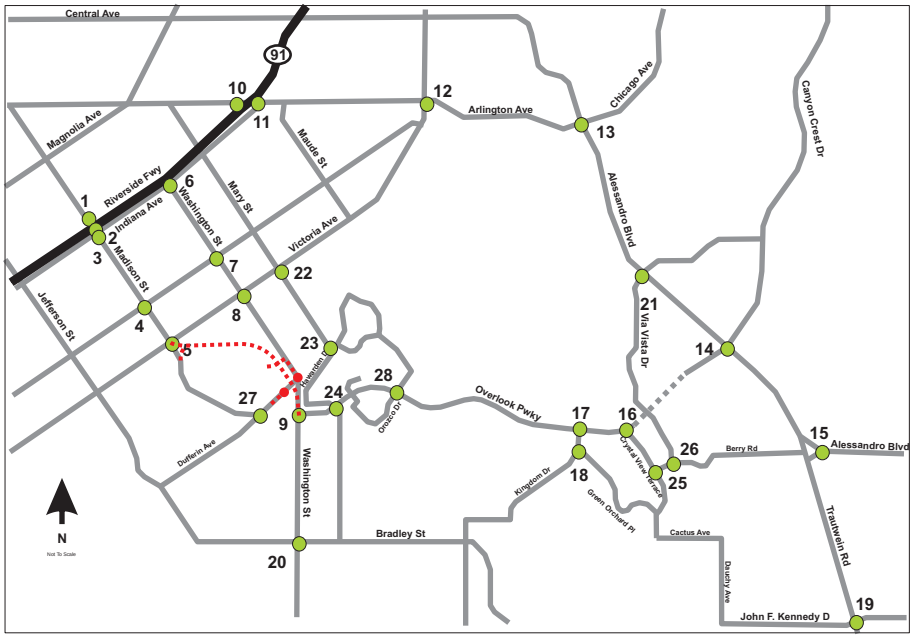
Roadway Links

8. Alessandro Boulevard west of Sycamore Canyon Road
9. Van Buren Boulevard west of Plummer Street
20. Alessandro Boulevard south of Canyon Crest Drive
28. Madison Street north of Victoria Avenue
29. Madison Street north of Lincoln Avenue

The City of Riverside General Plan 2025 recognizes certain roadways as locations that may operate with a lower level of service and would not be improved to accommodate regional traffic, including Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard and La Sierra Avenue. The roadway links that contribute to a cumulative impact are a combination of these roadways and other City roadways. However, the City generally does not wish to improve roadways to more lanes than their General Plan 2025 configurations, especially since some of these roadways may accommodate regional traffic. Therefore, no mitigations have been identified, and a cumulative impact would remain at all locations.







Note: North/south streets are listed first under intersection name.

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Figure 7-8

Scenario 4 Mitigations (2035 - Gates Closed)

TABLE 7-10: SCENARIO 4 PEAK HOUR MITIGATION COMPARISON (2035 – GATES CLOSED)

#	Intersection	Gates Closed				Scenario 4								Scenario 4 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
3	Madison St & Indiana Ave	F	103.3	F	131.1	F	95.0	F	161.3	-8.3	N	30.2	Y	D	53.5	F	94.0	-49.8	N	-37.1	N
4	Madison St & Lincoln Ave	C	30.7	C	32.3	C	33.0	E	63.3	2.3	N	31.0	Y	C	31.7	D	51.6	1.0	N	19.3	N
5A	Madison St & Victoria Ave (North)	B	12.4	F	77.2	F	109.6	F	178.5	97.2	Y	101.3	Y	E	56.9	F	124.2	44.5	Y	47.0	Y
5B	Madison St & Victoria Ave (South)	B	10.3	E	47.4	F	113.2	F	223.1	102.9	Y	175.7	Y	E	56.9	F	124.2	46.6	Y	76.8	Y
8A	Washington St & Victoria Ave (North)	F	90.9	E	45.7	C	17.5	F	59.3	-73.4	N	13.6	Y	D	36.0	E	56.3	-54.9	N	10.6	Y
8B	Washington St & Victoria Ave (South)	F	127.5	F	285.3	C	18.1	F	169.5	-109.4	N	-115.8	N	D	36.0	E	56.3	-91.5	N	-229.0	N
9	Washington St & Overlook Pkwy	B	16.1	B	12.3	F	136.8	F	92.6	120.7	Y	80.3	Y	D	46.8	C	26.0	30.7	N	13.7	N
14	Alessandro Blvd & Overlook Pkwy	E	69.4	F	88.7	F	174.3	F	358.0	104.9	Y	269.3	Y	F	174.3	F	358.0	104.9	Y	269.3	Y
16	Crystal View Ter & Overlook Pkwy	A	6.9	A	7.0	C	21.2	F	79.5	14.3	N	72.5	Y	A	8.2	A	3.2	1.3	N	-3.8	N
17	Kingdom Dr & Overlook Pkwy	A	8.9	A	8.9	F	152.0	F	OVRFL	143.1	Y	N/A	Y	B	14.7	A	8.2	5.8	N	-0.7	N
19	Trautwein Rd & John F. Kennedy Dr	F	85.0	D	36.1	F	87.0	C	32.4	2.0	Y	-3.7	N	E	78.0	C	32.2	-7.0	N	-3.9	N
24	Hawarden Dr & Overlook Pkwy	A	8.2	A	8.0	C	24.4	F	80.3	16.2	N	72.3	Y	A	8.5	B	16.9	0.3	N	8.9	N
28	Orozco Dr & Overlook Pkwy	B	10.4	B	10.1	F	58.5	F	OVRFL	48.1	Y	N/A	Y	A	3.2	B	14.2	-7.2	N	4.1	N

Shaded Text represents location with significant impact.

7.3.2 *Gates Open*

7.3.2.1 Mitigations for Scenario 1

Intersections

The mitigated intersection lane configurations for Scenario 1 are shown in **Figure 7-9**. **Table 7-11** shows a summary of the resultant levels of service after mitigation.

7. Washington Street at Lincoln Avenue

- Add separate left turn lanes on Washington Street in both directions
- Add a separate right turn lane on eastbound Lincoln Avenue

This fully mitigates the cumulative impact.

8. Washington Street at Victoria Avenue

- Add a second southbound through lane
- Reconfigure westbound approach on Victoria Avenue to one left-through lane and one right turn lane
- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control
- Add split phasing to the signal
- Add overlap phasing to the signal

These changes will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

20. Washington Street at Bradley Street

- Add a separate eastbound right turn lane on Bradley Street

This fully mitigates the cumulative impact.

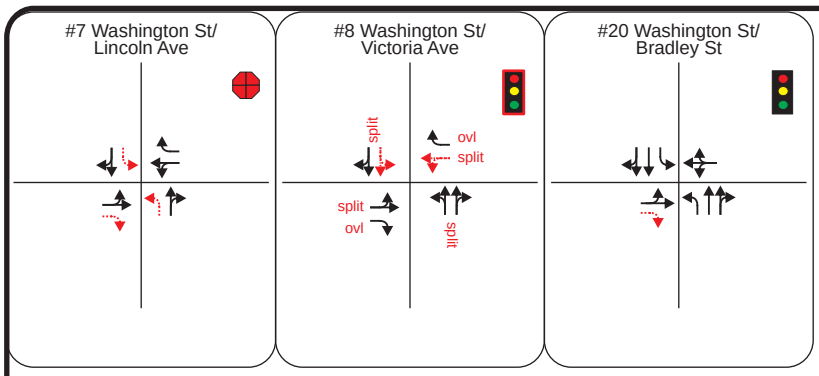
22. Mary Street at Victoria Avenue

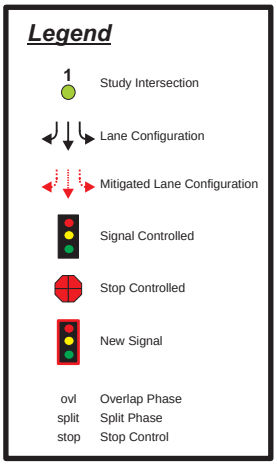
This intersection is projected to operate at LOS F, due to the high number of vehicles that are projected to utilize Mary Street towards downtown Riverside. No feasible mitigation measures were identified that would fully mitigate the cumulative impact. Therefore, a cumulative impact will remain.

Roadway Links

1. **Victoria Avenue east of Washington Street**
4. **Van Buren Boulevard east of Washington Street**
11. **Alessandro Boulevard south of Arlington Avenue**
12. **Washington Street north of Valle Vista Way**
15. **Trautwein Road north of John F Kennedy Drive**
16. **Washington Street north of Van Buren Boulevard**
19. **Mission Grove Parkway south of Alessandro Boulevard**
20. **Alessandro Boulevard south of Canyon Crest Drive**

The City of Riverside General Plan 2025 recognizes certain roadways as locations that may operate with a lower level of service and would not be improved to accommodate regional traffic, including Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard and La Sierra Avenue. The roadway links that contribute to a cumulative impact are a combination of these roadways and other City roadways. However, the City generally does not wish to improve roadways to more lanes than their General Plan 2025 configurations, especially since some of these roadways may accommodate regional traffic. Therefore, no mitigations have been identified, and a cumulative impact would remain at all locations.





Note: North/south streets are listed first under intersection name.

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Figure 7-9

Scenario 1 Mitigations (2035 - Gates Open)

TABLE 7-11: SCENARIO 1 PEAK HOUR MITIGATION COMPARISON (2035 – GATES OPEN)

#	Intersection	Gates Open				Scenario 1								Scenario 1 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
7	Washington St & Lincoln Ave	F	222.7	F	177.9	F	226.4	F	135.0	3.7	Y	-42.9	N	F	205.2	F	91.1	-17.5	N	-86.8	N
8A	Washington St & Victoria Ave (North)	F	103.5	F	155.0	F	90.9	E	45.7	-12.6	N	-109.3	N	F	148.0	F	114.7	44.5	Y	-40.3	N
8B	Washington St & Victoria Ave (South)	F	116.3	F	386.2	F	127.5	F	285.3	11.2	Y	-100.9	N	F	148.0	F	114.7	31.7	Y	-271.5	N
20	Washington St & Bradley St	C	27.6	D	52.6	C	34.4	E	60.4	6.8	N	7.8	Y	C	31.8	D	46.6	4.2	N	-6.0	N
22A	Mary St & Victoria Ave (North)	F	110.7	F	96.2	F	154.9	F	91.5	44.2	Y	-4.7	N	F	154.9	F	91.5	44.2	Y	-4.7	N
22B	Mary St & Victoria Ave (South)	E	40.9	F	94.1	F	59.0	F	86.2	18.1	Y	-7.9	N	F	59.0	F	86.2	18.1	Y	-7.9	N

Shaded Text represents location with significant impact.

7.3.2.2 Mitigations for Scenario 3

Intersections

The mitigated intersection lane configurations for Scenario 3 are shown in **Figure 7-10**. **Table 7-12** shows a summary of the resultant levels of service after mitigation.

3. Madison Street at Indiana Avenue

- Add a westbound right turn lane on Indiana Avenue
- Add overlap phasing to the traffic signal

This fully mitigates the cumulative impact.

5. Madison Street at Victoria Avenue

- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control
- Add split phasing to the traffic signal

This fully mitigates the cumulative impact.

7. Washington Street at Lincoln Avenue

- Add separate left turn lanes on Washington Street in both directions
- Add a separate right turn lane on eastbound Lincoln Avenue

This fully mitigates the cumulative impact.

8. Washington Street at Victoria Avenue

- Add a second southbound through lane
- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control
- Add split phasing to the signal
- Add overlap phasing to the traffic signal
- Reconfigure westbound approach on Victoria Avenue to have one thru-left lane and one right turn lane.

These changes will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

9. Washington Street at Overlook Parkway

- Add an additional southbound left turn lane on Washington Street.
- Modify the westbound approach on Overlook Parkway to have one left turn lane and two right turn lanes.
- Add overlap phasing to the signal

This fully mitigates the cumulative impact.

14. Alessandro Boulevard at Overlook Parkway

A majority of the impact is due to the high volumes projected on Alessandro Boulevard in the 2035 cumulative condition. There is limited right of way on Alessandro Boulevard available for improvements. Changes to the eastbound lanes on Overlook Parkway will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

16. Crystal View Terrace at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

17. Kingdom Drive at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

22. Mary Street at Victoria Avenue

This intersection is projected to operate at LOS F, due to the high number of vehicles that are projected to utilize Mary Street towards downtown Riverside. No feasible mitigation measures were identified that would fully mitigate the cumulative impact. Therefore, a cumulative impact will remain.

24. Hawarden Drive at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

28. Orozco Drive at Overlook Parkway

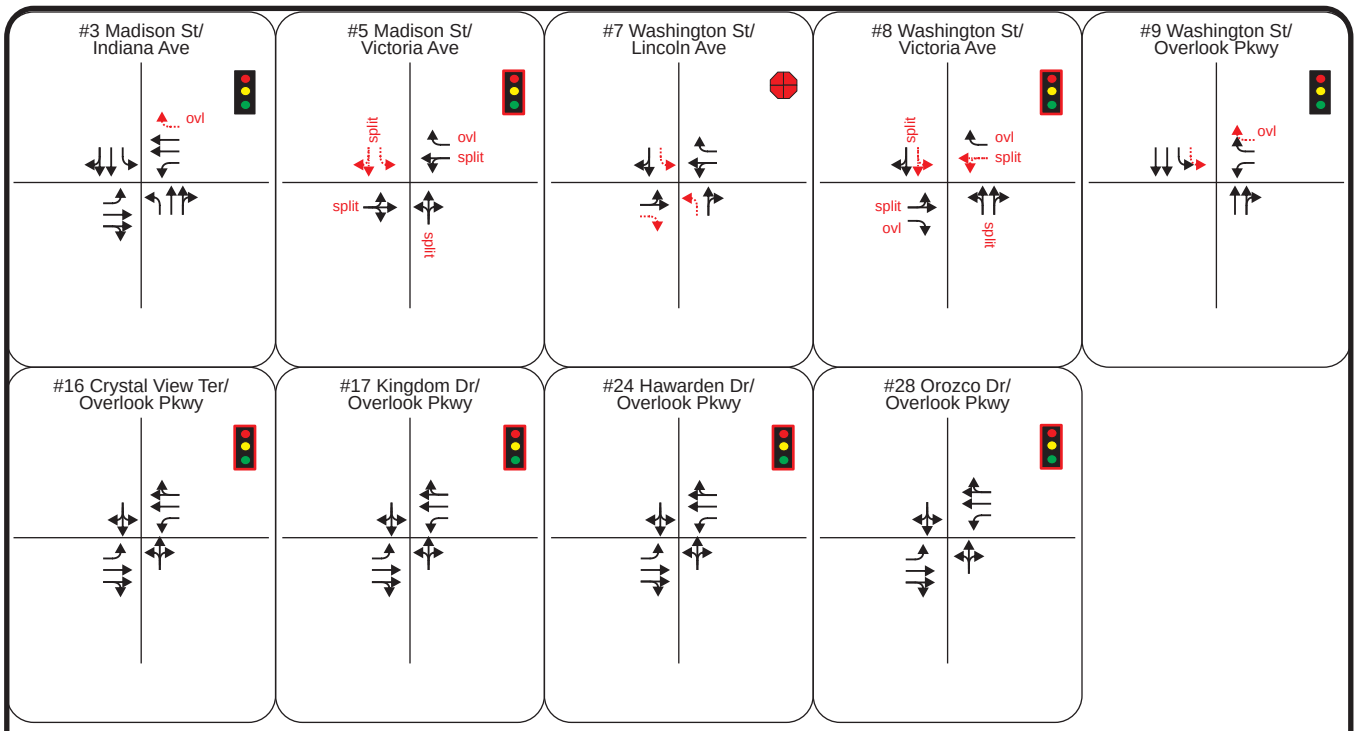
- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

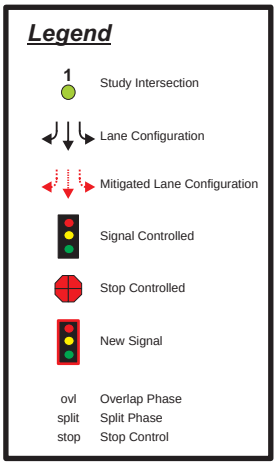
This fully mitigates the cumulative impact.

Roadway Links

1. **Victoria Avenue east of Washington Street**
8. **Alessandro Boulevard west of Sycamore Canyon Road**
10. **Washington Street south of Victoria Avenue**
20. **Alessandro Boulevard south of Canyon Crest Drive**
26. **Mary Street north of Lincoln Avenue**

The City of Riverside General Plan 2025 recognizes certain roadways as locations that may operate with a lower level of service and would not be improved to accommodate regional traffic, including Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard and La Sierra Avenue. The roadway links that contribute to a cumulative impact are a combination of these roadways and other City roadways. However, the City generally does not wish to improve roadways to more lanes than their General Plan 2025 configurations, especially since some of these roadways may accommodate regional traffic. Therefore, no mitigations have been identified, and a cumulative impact would remain at all locations.





Note: North/south streets are listed first under intersection name.

Crystal View Terrace/Green Orchard Place/Overlook Parkway TIA

Figure 7-10

Scenario 3 Mitigations (2035 - Gates Open)

TABLE 7-12: SCENARIO 3 PEAK HOUR MITIGATION COMPARISON (2035 – GATES OPEN)

#	Intersection	Gates Open				Scenario 3								Scenario 3 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
3	Madison St & Indiana Ave	F	113.4	F	179.7	F	135.4	F	173.2	22.0	Y	-6.5	N	E	65.2	F	80.5	-48.2	N	-99.2	N
5A	Madison St & Victoria Ave (North)	B	13.0	F	152.1	C	16.3	F	182.2	3.3	N	30.1	Y	D	38.6	D	51.3	25.6	N	-100.8	N
5B	Madison St & Victoria Ave (South)	B	10.4	F	121.8	B	12.1	F	149.0	1.7	N	27.2	Y	D	38.6	D	51.3	28.2	N	-70.5	N
7	Washington St & Lincoln Ave	F	222.7	F	177.9	F	257.5	F	183.0	34.8	Y	5.1	Y	F	205.9	F	128.0	-16.8	N	-49.9	N
8A	Washington St & Victoria Ave (North)	F	103.5	F	155.0	F	160.6	F	190.4	57.1	Y	35.4	Y	F	167.6	F	198.2	64.1	Y	43.2	Y
8B	Washington St & Victoria Ave (South)	F	116.3	F	386.2	F	190.5	F	432.3	74.2	Y	46.1	Y	F	167.6	F	198.2	51.3	Y	-188.0	N
9	Washington St & Overlook Pkwy	C	22.5	C	28.0	F	109.4	E	75.6	86.9	Y	47.6	Y	D	37.6	C	23.2	15.1	N	-4.8	N
14	Alessandro Blvd & Overlook Pkwy	F	83.5	F	108.3	F	130.3	F	310.5	46.8	Y	202.2	Y	F	130.3	F	310.5	46.8	Y	202.2	Y
16	Crystal View Ter & Overlook Pkwy	A	8.9	B	15.0	C	15.1	E	49.6	6.2	N	34.6	Y	A	6.8	A	3.2	-2.1	N	-11.8	N
17	Kingdom Dr & Overlook Pkwy	B	11.2	C	19.7	D	34.4	F	610.4	23.2	N	590.7	Y	B	13.5	A	7.2	2.3	N	-12.5	N
22A	Mary St & Victoria Ave (North)	F	110.7	F	96.2	F	160.3	F	113.2	49.6	Y	17.0	Y	F	160.3	F	113.2	49.6	Y	17.0	Y
22B	Mary St & Victoria Ave (South)	E	40.9	F	94.1	F	59.0	F	100.1	18.1	Y	6.0	Y	F	59.0	F	100.1	18.1	Y	6.0	Y
24	Hawarden Dr & Overlook Pkwy	A	8.8	B	11.6	C	15.0	E	35.6	6.2	N	24.0	Y	A	9.5	A	8.1	0.7	N	-3.5	N
28	Orozco Dr & Overlook Pkwy	B	12.4	D	27.1	D	32.9	F	781.0	20.5	N	753.9	Y	A	3.6	B	13.2	-8.8	N	-13.9	N

Shaded Text represents location with significant impact.

7.3.2.3 Mitigations for Scenario 4

Intersections

The mitigated intersection lane configurations for Scenario 4 are shown in **Figure 7-11**. **Table 7-13** shows a summary of the resultant levels of service after mitigation.

4. Madison Street at Lincoln Avenue

- Add a southbound right turn lane on Madison Street

This fully mitigates the cumulative impact.

5. Madison Street at Victoria Avenue

- The intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control
- Add split phasing to the signal
- Add overlap phasing to the signal
- Add a separate eastbound right turn lane, by paving the existing 2 foot shoulder for approximately 100 feet.

These changes will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

9. Washington Street at Overlook Parkway

- Add an additional southbound left turn lane on Washington Street.
- Modify the westbound approach on Overlook Parkway to have one left turn lane and two right turn lanes
- Add overlap phasing to the signal

This fully mitigates the cumulative impact.

14. Alessandro Boulevard at Overlook Parkway

A majority of the impact is due to the high volumes projected on Alessandro Boulevard in the 2035 cumulative condition. There is limited right of way on Alessandro Boulevard available for improvements. Changes to the eastbound lanes on Overlook Parkway will reduce, but not fully mitigate the cumulative impact. Therefore a cumulative impact will remain.

16. Crystal View Terrace at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

17. Kingdom Drive at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

24. Hawarden Drive at Overlook Parkway

- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

This fully mitigates the cumulative impact.

28. Orozco Drive at Overlook Parkway

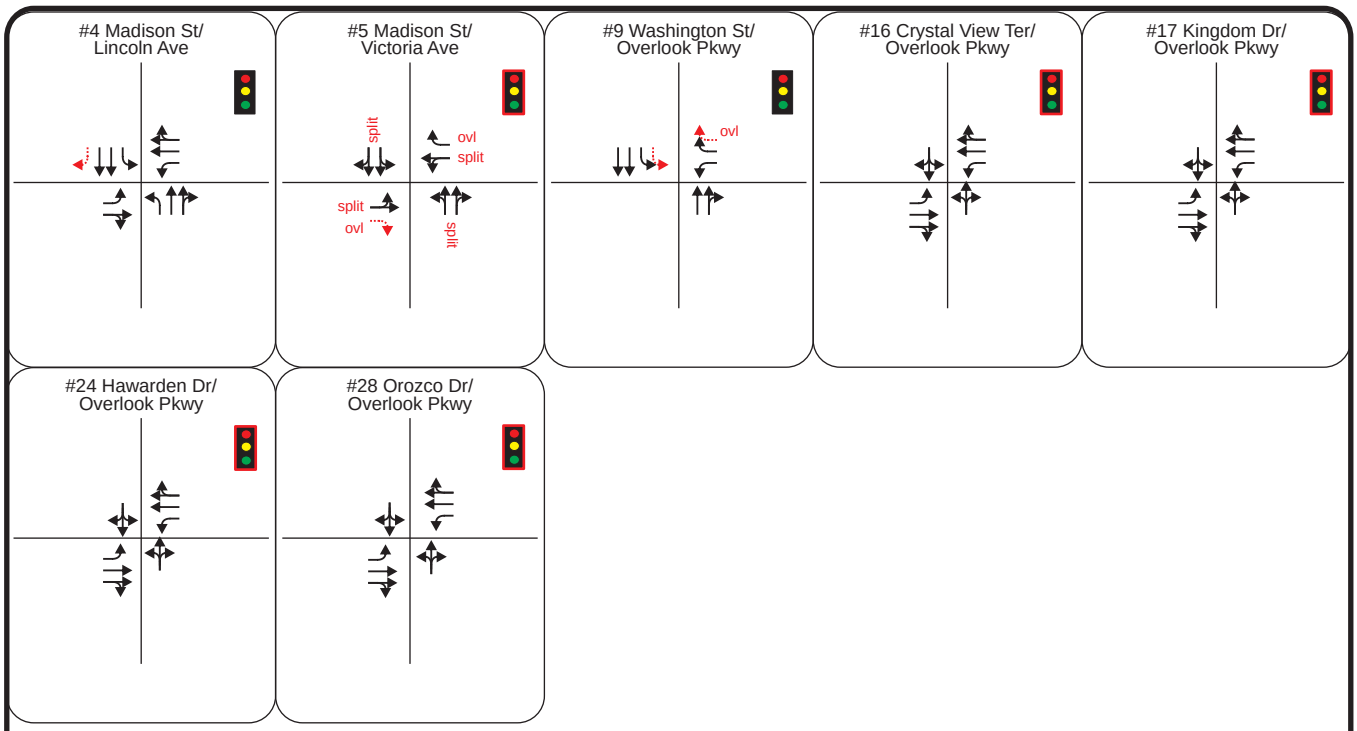
- Due to the high volumes on Overlook Parkway as compared to the side streets, a four-way stop does not allow acceptable operating conditions. Therefore, the intersection shall be converted to a signalized intersection upon notice by the City Traffic Engineer that traffic counts, signal warrants, and/or field conditions satisfy the need for signalized traffic control.

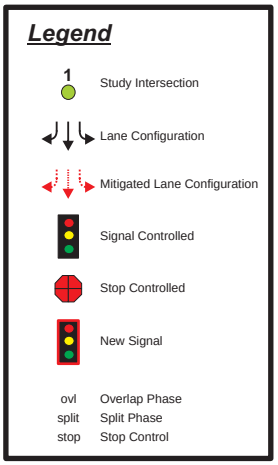
This fully mitigates the cumulative impact.

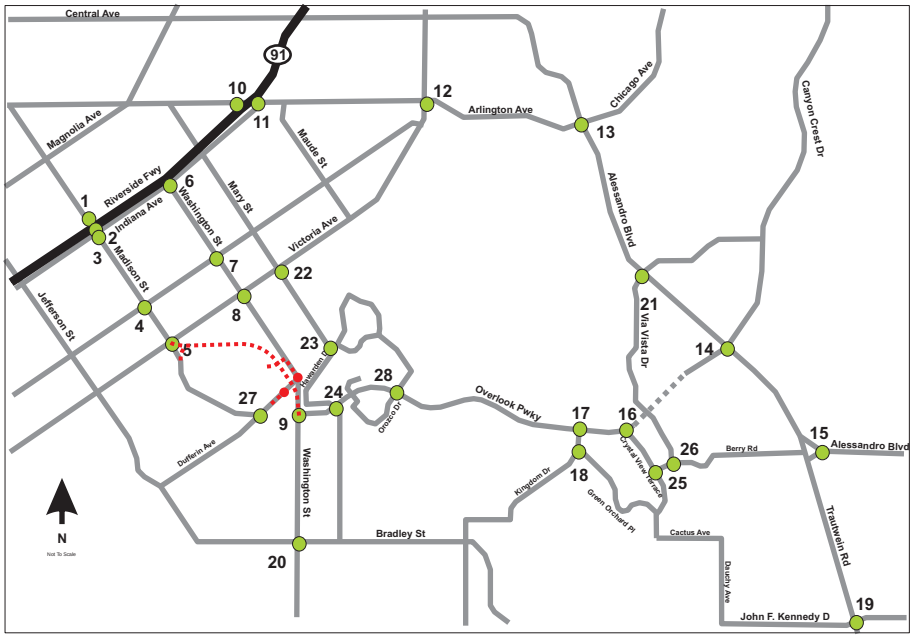
<u>Roadway Links</u>

8. Alessandro Boulevard west of Sycamore Canyon Road
9. Van Buren Boulevard west of Plummer Street
20. Alessandro Boulevard south of Canyon Crest Drive
28. Madison Street north of Victoria Avenue
29. Madison Street north of Lincoln Avenue

The City of Riverside General Plan 2025 recognizes certain roadways as locations that may operate with a lower level of service and would not be improved to accommodate regional traffic, including Arlington Avenue/Alessandro Boulevard, Van Buren Boulevard and La Sierra Avenue. The roadway links that contribute to a cumulative impact are a combination of these roadways and other City roadways. However, the City generally does not wish to improve roadways to more lanes than their General Plan 2025 configurations, especially since some of these roadways may accommodate regional traffic. Therefore, no mitigations have been identified, and a cumulative impact would remain at all locations.







Note: North/south streets are listed first under intersection name.

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Figure 7-11

Scenario 4 Mitigations (2035 - Gates Open)

TABLE 7-13: SCENARIO 4 PEAK HOUR MITIGATION COMPARISON (2035 – GATES OPEN)

#	Intersection	Gates Open				Scenario 4								Scenario 4 With Mitigation							
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact	LOS	Delay	LOS	Delay	Diff	Impact	Diff	Impact
4	Madison St & Lincoln Ave	C	30.5	C	33.6	C	33.0	E	63.3	2.5	N	29.7	Y	C	31.7	D	51.6	1.2	N	18.0	N
5A	Madison St & Victoria Ave (North)	B	13.0	F	152.1	F	109.6	F	178.5	96.6	Y	26.4	Y	E	56.9	F	124.2	43.9	Y	-27.9	N
5B	Madison St & Victoria Ave (South)	B	10.4	F	121.8	F	113.2	F	223.1	102.8	Y	101.3	Y	E	56.9	F	124.2	46.5	Y	2.4	Y
9	Washington St & Overlook Pkwy	C	22.5	C	28.0	F	136.8	F	92.6	114.3	Y	64.6	Y	D	46.8	C	26.0	24.3	N	-2.0	N
14	Alessandro Blvd & Overlook Pkwy	F	83.5	F	108.3	F	174.3	F	358.0	90.8	Y	249.7	Y	F	174.3	F	358.0	90.8	Y	249.7	Y
16	Crystal View Ter & Overlook Pkwy	A	8.9	B	15.0	C	21.2	F	79.5	12.3	N	64.5	Y	A	8.2	A	3.2	-0.7	N	-11.8	N
17	Kingdom Dr & Overlook Pkwy	B	11.2	C	19.7	F	152.0	F	OVRFL	140.8	Y	N/A	Y	B	14.7	A	8.2	3.5	N	-11.5	N
24	Hawarden Dr & Overlook Pkwy	A	8.8	B	11.6	C	24.4	F	80.3	15.6	N	68.7	Y	A	8.5	B	16.9	-0.3	N	5.3	N
28	Orozco Dr & Overlook Pkwy	B	12.4	D	27.1	F	58.5	F	OVRFL	46.1	Y	N/A	Y	A	3.2	B	14.2	-9.2	N	-12.9	N

Shaded Text represents location with significant impact.

7.4 MITIGATION SUMMARY

Project impacts and mitigations have been summarized in the following section, in order to easily identify project related and cumulative impact locations, and note which locations would have residual impacts after mitigation measures are implemented.

Tables 7-14 and 7-15 show Existing Conditions project-related impact and residual impact locations for roadway intersections and links, respectively. It should be noted that for intersections, all project-related impacts are fully mitigated. For roadway links, the locations that were shown to have project-related impacts were locations that the City acknowledges lower levels of service are acceptable, therefore no additional mitigations were identified for these roadway links.

Tables 7-16 and 7-17 show 2035 Conditions cumulative impact and residual impact locations for roadway intersections and links, respectively. Not all cumulative impacts at intersections were able to be mitigated. No mitigation measures were identified for links that are projected to experience a cumulative impact.

TABLE 7-14: YEAR 2011 INTERSECTION MITIGATION SUMMARY – ALL SCENARIOS

#	Intersection	Gates Closed						Gates Open					
		Project Impact			Residual Impact			Project Impact			Residual Impact		
		Scenario 2	Scenario 3	Scenario 4	Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4
1.	Madison St & SR-91 WB Ramps	N	N	N	N	N	N	N	N	N	N	N	N
2.	Madison St & SR-91 EB Ramps	N	N	N	N	N	N	N	N	N	N	N	N
3.	Madison St & Indiana Ave	N	N	N	N	N	N	N	N	N	N	N	N
4.	Madison St & Lincoln Ave	N	N	N	N	N	N	N	N	N	N	N	N
5A.	Madison St & Victoria Ave North	N	N	Y	N	N	N	N	N	Y	N	N	N
5B.	Madison St & Victoria Ave South	N	N	Y	N	N	N	N	N	Y	N	N	N
6.	Washington St & Indiana Ave	N	N	N	N	N	N	N	N	N	N	N	N
7.	Washington St & Lincoln Ave	N	N	N	N	N	N	N	N	N	N	N	N
8A.	Washington St & Victoria Ave North	N	N	N	N	N	N	N	N	N	N	N	N
8B.	Washington St & Victoria Ave South	Y	N	N	N	N	N	N	N	N	N	N	N
9.	Washington St & Overlook Pkwy	N	N	N	N	N	N	N	N	N	N	N	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	N	N	N	N	N	N	N	N	N	N	N	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	N	N	N	N	N	N	N	N	N	N	N	N
12.	Victoria Ave & Arlington Ave	N	N	N	N	N	N	N	N	N	N	N	N
13.	Alessandro Blvd & Arlington Ave	N	N	N	N	N	N	N	N	N	N	N	N
14.	Alessandro Blvd & Overlook Pkwy	N	Y	Y	N	N	N	N	Y	Y	N	N	N
15.	Alessandro Blvd & Trautwein Rd	N	N	N	N	N	N	N	N	N	N	N	N
16.	Crystal View Ter & Overlook Pkwy	N	N	N	N	N	N	N	N	N	N	N	N
17.	Kingdom Dr & Overlook Pkwy	N	N	Y	N	N	N	N	N	Y	N	N	N
18.	Kingdom Dr & Green Orchard Pl	N	N	N	N	N	N	N	N	N	N	N	N
19.	Trautwein Rd & John F. Kennedy Dr	N	N	N	N	N	N	N	N	N	N	N	N
20.	Washington St & Bradley St	N	N	N	N	N	N	N	N	N	N	N	N
21.	Alessandro Blvd & Via Vista Dr	N	N	N	N	N	N	N	N	N	N	N	N
22A.	Mary St & Victoria Ave North	N	N	N	N	N	N	N	N	N	N	N	N
22B.	Mary St & Victoria Ave South	N	N	N	N	N	N	N	N	N	N	N	N
23.	Mary St & Hawarden Ct	N	N	N	N	N	N	N	N	N	N	N	N
24.	Hawarden Dr & Overlook Pkwy	N	N	N	N	N	N	N	N	N	N	N	N
25.	Crystal View Ter & Berry Rd	N	N	N	N	N	N	N	N	N	N	N	N
26.	Corinthian Wy & Berry Rd	N	N	N	N	N	N	N	N	N	N	N	N
27	Madison St & Dufferin Ave	N	N	N	N	N	N	N	N	N	N	N	N
28	Orozco Dr & Overlook Pkwy	N	N	Y	N	N	N	N	N	Y	N	N	N
	Total Number of Locations	**1**	**1**	**5**	**0**	**0**	**0**	**0**	**1**	**5**	**0**	**0**	**0**

TABLE 7-15: YEAR 2011 ROADWAY LINK MITIGATION SUMMARY – ALL SCENARIOS

#	Street	Location	Gates Closed						Gates Open					
			Project Impact			Residual Impact			Project Impact			Residual Impact		
			Scenario 2	Scenario 3	Scenario 4	Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4
1	Victoria Avenue	E/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
2	Overlook Parkway	E/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
3	Bradley Street	E/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
4	Van Buren Boulevard	E/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
5	Arlington Avenue	W/O Alessandro Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
6	Berry Road	W/O Trautwein Road	N	N	N	N	N	N	N	N	N	N	N	N
7	Van Buren Boulevard	W/O Trautwein Road	N	N	N	N	N	N	N	N	N	N	N	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	N	N	N	N	N	N	N	N	N	N	N	N
9	Van Buren Boulevard	W/O Plummer Street	N	N	N	N	N	N	N	N	N	N	N	N
10	Washington Street	S/O Victoria Avenue	N	N	N	N	N	N	N	N	N	N	N	N
11	Alessandro Boulevard	S/O Arlington Avenue	N	N	N	N	N	N	N	N	N	N	N	N
12	Washington Street	N/O Valle Vista Way	N	N	N	N	N	N	N	N	N	N	N	N
13	Golden Star Avenue	N/O Valle Vista Way	N	N	N	N	N	N	N	N	N	N	N	N
14	Dauchy Avenue	N/O John F Kennedy Drive	N	N	N	N	N	N	N	N	N	N	N	N
15	Trautwein Road	N/O John F Kennedy Drive	N	N	N	N	N	N	Y	N	N	Y	N	N
16	Washington Street	N/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
17	Wood Drive	N/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
18	Trautwein Road	N/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y
21	Overlook Parkway	W/O Kingdom Drive	N	N	N	N	N	N	N	N	N	N	N	N
22	Kingdom Drive	S/O Overlook Parkway	N	N	N	N	N	N	N	N	N	N	N	N
23	Crystal View Drive	S/O Overlook Parkway	N	N	N	N	N	N	N	N	N	N	N	N
24	Cactus Avenue	E/O Crystal View Terrace	N	N	N	N	N	N	N	N	N	N	N	N
25	Mary Street	N/O Victoria Avenue	N	N	N	N	N	N	N	N	N	N	N	N
26	Mary Street	N/O Lincoln Avenue	N	N	N	N	N	N	N	N	N	N	N	N
27	Madison Street	S/O Victoria Avenue	N	N	N	N	N	N	N	N	N	N	N	N

#	Street	Location	Gates Closed						Gates Open					
			Project Impact			Residual Impact			Project Impact			Residual Impact		
			Scenario 2	Scenario 3	Scenario 4	Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4
28	Madison Street	N/O Victoria Avenue	N	N	N	N	N	N	N	N	N	N	N	N
29	Madison Street	N/O Lincoln Avenue	N	N	N	N	N	N	N	N	N	N	N	N
30	Victoria Avenue	E/O Mary Street	N	N	N	N	N	N	N	N	N	N	N	N
31	Victoria Avenue	E/O Madison Street	N	N	N	N	N	N	N	N	N	N	N	N
32	Victoria Avenue	W/O Madison Street	N	N	N	N	N	N	N	N	N	N	N	N
33	Victoria Avenue	E/O Adams Street	N	N	N	N	N	N	N	N	N	N	N	N
34	Dufferin Avenue	W/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
35	Dufferin Avenue	E/O Adams Street	N	N	N	N	N	N	N	N	N	N	N	N
36	Dufferin Avenue	E/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
37	Dufferin Avenue	E/O McAllister Street	N	N	N	N	N	N	N	N	N	N	N	N
38	Bradley Street	W/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
39	Lincoln Avenue	E/O Madison Street	N	N	N	N	N	N	N	N	N	N	N	N
	Total Number of Locations		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**

TABLE 7-16: 2035 INTERSECTION MITIGATION SUMMARY – ALL SCENARIOS

#	Intersection	Gates Closed						Gates Open					
		Cumulative Impact			Residual Impact			Cumulative Impact			Residual Impact		
		Scenario 2	Scenario 3	Scenario 4	Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4
1.	Madison St & SR-91 WB Ramps	N	N	N	N	N	N	N	N	N	N	N	N
2.	Madison St & SR-91 EB Ramps	N	N	N	N	N	N	N	N	N	N	N	N
3.	Madison St & Indiana Ave	Y	Y	Y	N	N	N	N	Y	N	N	N	N
4.	Madison St & Lincoln Ave	N	N	Y	N	N	N	N	N	Y	N	N	N
5A.	Madison St & Victoria Ave North	Y	Y	Y	N	N	Y	N	Y	Y	N	N	Y
5B.	Madison St & Victoria Ave South	Y	Y	Y	N	N	Y	N	Y	Y	N	N	Y
6.	Washington St & Indiana Ave	N	N	N	N	N	N	N	N	N	N	N	N
7.	Washington St & Lincoln Ave	Y	Y	N	N	N	N	Y	Y	N	N	N	N
8A.	Washington St & Victoria Ave North	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	N
8B.	Washington St & Victoria Ave South	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
9.	Washington St & Overlook Pkwy	N	Y	Y	N	N	N	N	Y	Y	N	N	N
10.	Riverside Ave-SR-91 WB Ramps & Arlington Ave	N	N	N	N	N	N	N	N	N	N	N	N
11.	Indiana Ave-SR-91 EB Ramps & Arlington Ave	N	N	N	N	N	N	N	N	N	N	N	N
12.	Victoria Ave & Arlington Ave	Y	Y	N	N	N	N	N	N	N	N	N	N
13.	Alessandro Blvd & Arlington Ave	Y	N	N	Y	N	N	N	N	N	N	N	N
14.	Alessandro Blvd & Overlook Pkwy	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y
15.	Alessandro Blvd & Trautwein Rd	N	N	Y	N	N	N	N	N	N	N	N	N
16.	Crystal View Ter & Overlook Pkwy	N	Y	Y	N	N	N	N	Y	Y	N	N	N
17.	Kingdom Dr & Overlook Pkwy	N	Y	Y	N	N	N	N	Y	Y	N	N	N
18.	Kingdom Dr & Green Orchard Pl	N	N	N	N	N	N	N	N	N	N	N	N
19.	Trautwein Rd & John F. Kennedy Dr	Y	Y	Y	N	N	N	N	N	N	N	N	N
20.	Washington St & Bradley St	N	N	N	N	N	N	Y	N	N	N	N	N
21.	Alessandro Blvd & Via Vista Dr	N	N	N	N	N	N	N	N	N	N	N	N
22A.	Mary St & Victoria Ave North	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
22B.	Mary St & Victoria Ave South	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
23.	Mary St & Hawarden Ct	N	N	N	N	N	N	N	N	N	N	N	N
24.	Hawarden Dr & Overlook Pkwy	N	Y	Y	N	N	N	N	Y	Y	N	N	N
25.	Crystal View Ter & Berry Rd	N	N	N	N	N	N	N	N	N	N	N	N
26.	Corinthian Wy & Berry Rd	N	N	N	N	N	N	N	N	N	N	N	N
27	Madison St & Dufferin Ave	N	N	N	N	N	N	N	N	N	N	N	N
28	Orozco Dr & Overlook Pkwy	N	Y	Y	N	N	N	N	Y	Y	N	N	N
	Total Number of Locations	**12**	**16**	**12**	**6**	**5**	**4**	**5**	**14**	**9**	**4**	**5**	**3**

TABLE 7-17: 2035 ROADWAY LINK MITIGATION SUMMARY – ALL SCENARIOS

#	Street	Location	Gates Closed						Gates Open					
			Cumulative Impact			Residual Impact			Cumulative Impact			Residual Impact		
			Scenario 2	Scenario 3	Scenario 4	Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4
1	Victoria Avenue	E/O Washington Street	N	N	N	N	N	N	Y	Y	N	Y	Y	N
2	Overlook Parkway	E/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
3	Bradley Street	E/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
4	Van Buren Boulevard	E/O Washington Street	N	N	N	N	N	N	Y	N	N	Y	N	N
5	Arlington Avenue	W/O Alessandro Boulevard	Y	N	N	Y	N	N	N	N	N	N	N	N
6	Berry Road	W/O Trautwein Road	Y	N	N	Y	N	N	N	N	N	N	N	N
7	Van Buren Boulevard	W/O Trautwein Road	Y	N	N	Y	N	N	N	N	N	N	N	N
8	Alessandro Boulevard	W/O Sycamore Canyon Road	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y
9	Van Buren Boulevard	W/O Plummer Street	Y	Y	Y	Y	Y	Y	N	N	Y	N	N	Y
10	Washington Street	S/O Victoria Avenue	Y	Y	N	Y	Y	N	N	Y	N	N	Y	N
11	Alessandro Boulevard	S/O Arlington Avenue	N	N	N	N	N	N	Y	N	N	Y	N	N
12	Washington Street	N/O Valle Vista Way	N	N	N	N	N	N	Y	N	N	Y	N	N
13	Golden Star Avenue	N/O Valle Vista Way	N	N	N	N	N	N	N	N	N	N	N	N
14	Dauchy Avenue	N/O John F Kennedy Drive	N	N	N	N	N	N	N	N	N	N	N	N
15	Trautwein Road	N/O John F Kennedy Drive	N	N	N	N	N	N	Y	N	N	Y	N	N
16	Washington Street	N/O Van Buren Boulevard	N	N	N	N	N	N	Y	N	N	Y	N	N
17	Wood Drive	N/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
18	Trautwein Road	N/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
19	Mission Grove Parkway	S/O Alessandro Boulevard	N	N	N	N	N	N	Y	N	N	Y	N	N
20	Alessandro Boulevard	S/O Canyon Crest Drive	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
21	Overlook Parkway	W/O Kingdom Drive	N	N	N	N	N	N	N	N	N	N	N	N
22	Kingdom Drive	S/O Overlook Parkway	N	N	N	N	N	N	N	N	N	N	N	N
23	Crystal View Drive	S/O Overlook Parkway	N	N	N	N	N	N	N	N	N	N	N	N
24	Cactus Avenue	E/O Crystal View Terrace	N	N	N	N	N	N	N	N	N	N	N	N
25	Mary Street	N/O Victoria Avenue	N	N	N	N	N	N	N	N	N	N	N	N
26	Mary Street	N/O Lincoln Avenue	N	Y	N	N	Y	N	N	Y	N	N	Y	N
27	Madison Street	S/O Victoria Avenue	N	N	N	N	N	N	N	N	N	N	N	N

#	Street	Location	Gates Closed						Gates Open					
			Cumulative Impact			Residual Impact			Cumulative Impact			Residual Impact		
			Scenario 2	Scenario 3	Scenario 4	Scenario 2	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4	Scenario 1	Scenario 3	Scenario 4
28	Madison Street	N/O Victoria Avenue	N	N	Y	N	N	Y	N	N	Y	N	N	Y
29	Madison Street	N/O Lincoln Avenue	N	N	Y	N	N	Y	N	N	Y	N	N	Y
30	Victoria Avenue	E/O Mary Street	N	N	N	N	N	N	N	N	N	N	N	N
31	Victoria Avenue	E/O Madison Street	N	N	N	N	N	N	N	N	N	N	N	N
32	Victoria Avenue	W/O Madison Street	N	N	N	N	N	N	N	N	N	N	N	N
33	Victoria Avenue	E/O Adams Street	N	N	N	N	N	N	N	N	N	N	N	N
34	Dufferin Avenue	W/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
35	Dufferin Avenue	E/O Adams Street	N	N	N	N	N	N	N	N	N	N	N	N
36	Dufferin Avenue	E/O Van Buren Boulevard	N	N	N	N	N	N	N	N	N	N	N	N
37	Dufferin Avenue	E/O McAllister Street	N	N	N	N	N	N	N	N	N	N	N	N
38	Bradley Street	W/O Washington Street	N	N	N	N	N	N	N	N	N	N	N	N
39	Lincoln Avenue	E/O Madison Street	N	N	N	N	N	N	N	N	N	N	N	N
	Total Number of Locations		**6**	**5**	**5**	**6**	**5**	**5**	**8**	**5**	**5**	**8**	**5**	**5**

8.0 POTENTIAL CUT-THROUGH TRAFFIC

An evaluation was made to see if the proposed alternatives would potentially cause an increase in cut-through traffic in the area. Since the project alternatives add a new roadway link or links not currently available to drivers, a redistribution of traffic volumes will occur with any alternative. This analysis looks at the numbers of new vehicles coming into the project area; these can be attributed to cut-through drivers (drivers who come into the area that did not com to this area before).

Since the difference in volumes is small when comparing Scenarios 1 and 2 (Gates Closed and Gates Open), for simplicity this evaluation looks at daily traffic volume changes between Scenarios 2 and 3 and between Scenarios 2 and 4 for both 2011 and cumulative (2035) conditions.

Any new cut-through traffic would eventually enter or leave the area via roads on the east of the study area; this analysis focuses on east-west facilities that are generally parallel to Overlook Parkway.

The analysis shows that for both 2011 and 2035 conditions, the projected cut-through volumes are low.

8.1 YEAR 2011 ANALYSIS

The volumes used in this portion of the analysis are the same as those shown in Chapter 5 of this report; refer to Table 5-10 for a comparison of 2011 Gates Open and Scenario 3 volume changes, and Table 5-12 for a comparison of 2011 Gates Open and Scenario 4 volume changes.

8.1.1 *SCENARIO 3 VOLUME CHANGES*

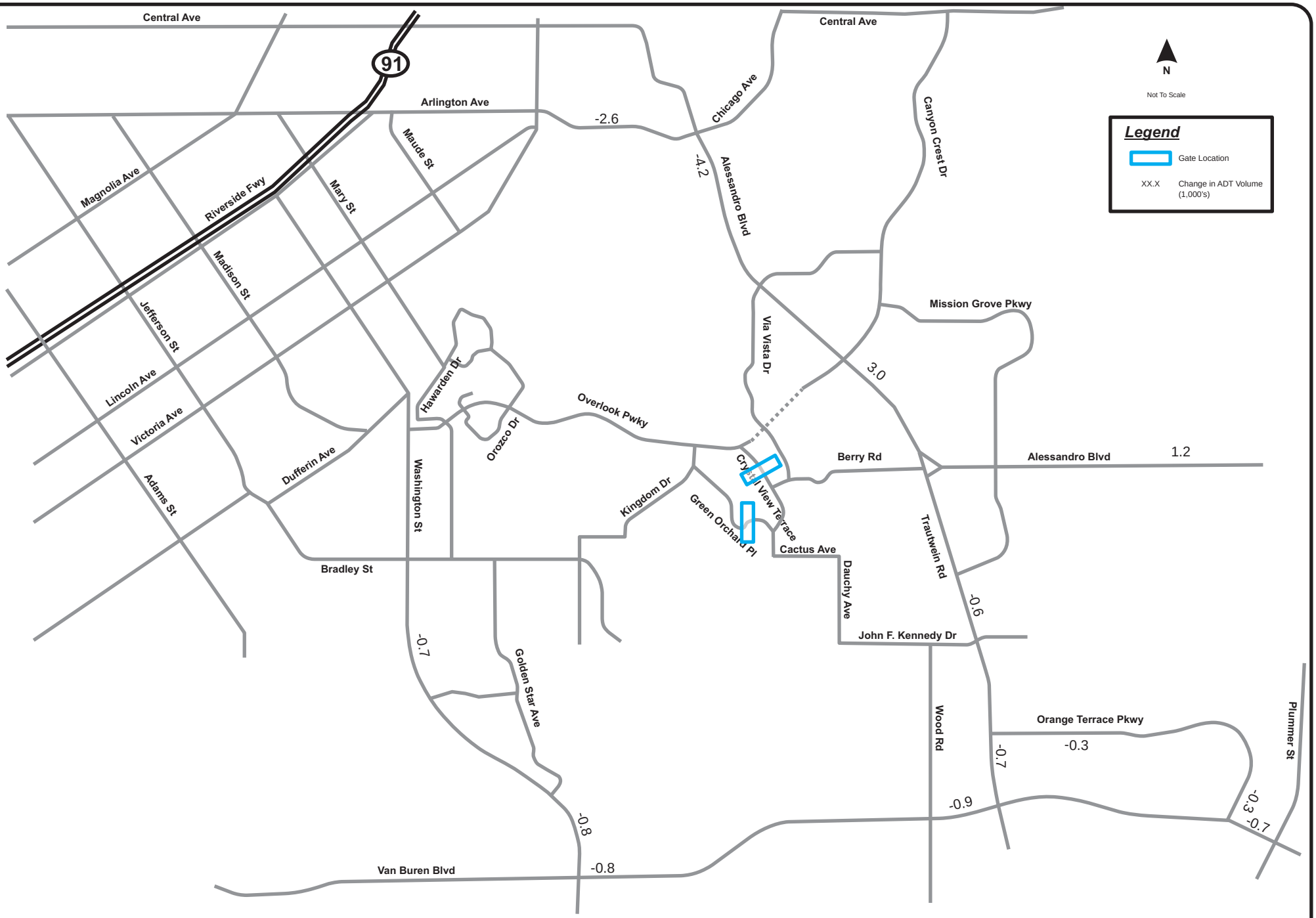
Volumes were compared between Scenario 3 and Gates Open conditions. Figure 8-1 illustrates the changes in daily volumes. A positive value indicates an increase in volumes with Scenario 3 in place (as compared to Gates Open) and a negative number indicates a decrease in volumes with Scenario 3 in place (as compared to Gates Open).

On Alessandro Blvd. east of Mission Grove Parkway, the daily volumes are projected to increase by about 1,200 vehicles (about 50/hour on average) or about 3%. Between Trautwein Road and Overlook Parkway, Alessandro Boulevard is expected to increase by about 3,000 vehicles per day (about 125/hour on average) or approximately 6%. However, south of Arlington, volumes on Alessandro are projected to decrease by about 4,200 vehicles (about 175/hour) or -9%. West of Alessandro Boulevard, Arlington Avenue is also projected to have a decrease in volumes, almost 2,600 vehicles per day (108/hour on average) or -7%.

Along Van Buren Boulevard, volumes are projected to show a decrease of between 700 to 900 vehicles per day (29 to 38/hour on average) between the area of Washington Street and Plummer Street. This is about a 2% decrease in traffic.

Trautwein Road is also projected to experience a decrease in volumes in compared to Gates Open. North of Van Buren Boulevard, a drop of approximately 700 vehicles per day, or -1%, and north of John F. Kennedy Drive, a decrease of about 600 vehicles per day or about 3% decrease.

It can be seen that new potential cut-through traffic entering the area is low overall.



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Riverside Overlook Parkway Extension

Figure 8-1

Scenario 3 ADT Volume Difference (2011 - Gates Open)

8.1.2 *Scenario 4 Volume Changes*

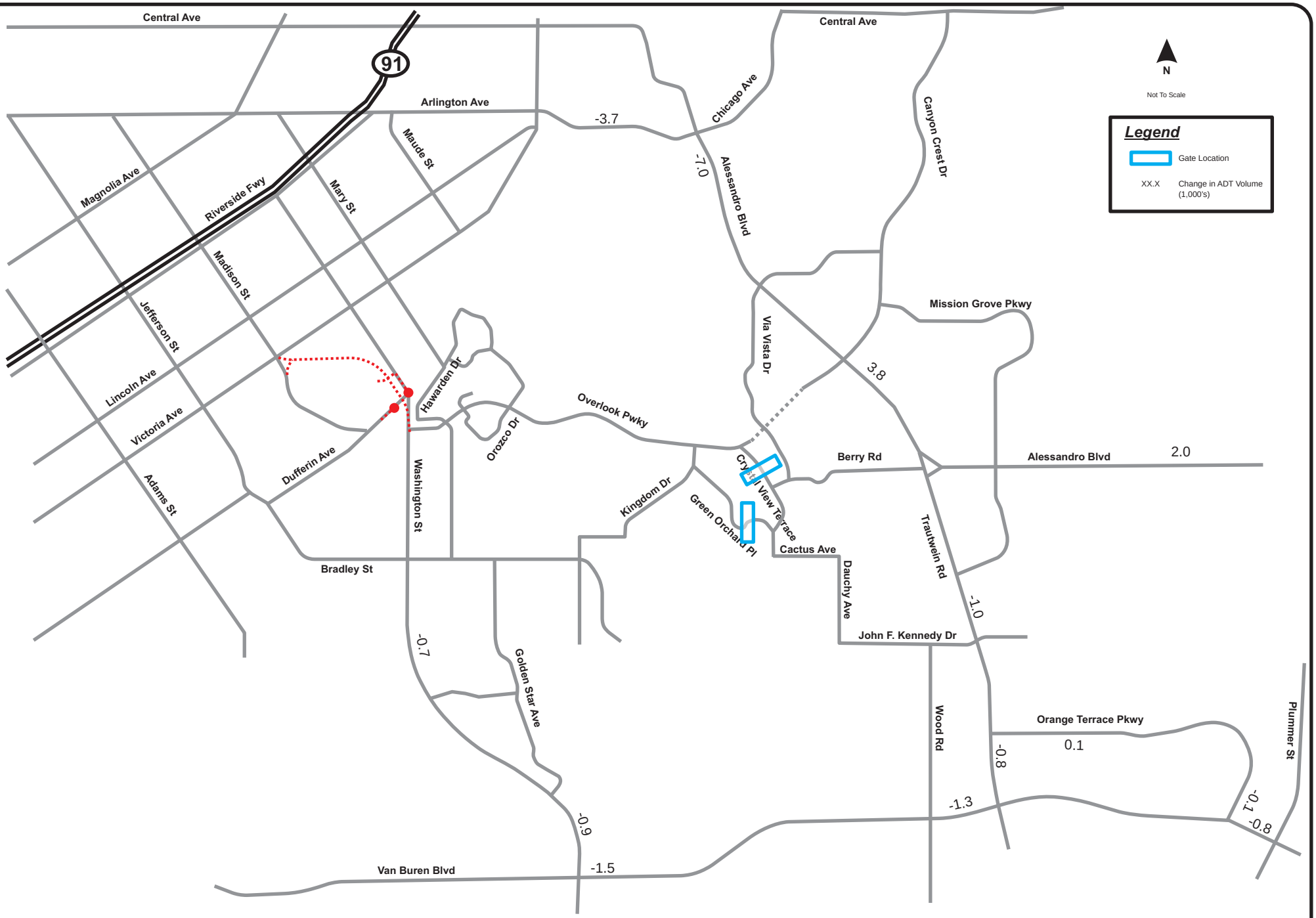
Similar to section 8.1.2, daily traffic volumes were compared between Scenario 4 and Gates Open conditions. Figure 8-2 illustrates the changes in daily volumes. A positive value indicates an increase in volumes with Scenario 4 in place (as compared to Gates Open) and a negative number indicates a decrease in volumes with Scenario 4 in place (as compared to Gates Open).

On Alessandro Blvd. east of Mission Grove Parkway, the daily volumes are projected to increase by about 2,000 vehicles (about 83/hour on average) or about 5%. Between Trautwein Road and Overlook Parkway, Alessandro Boulevard is expected to increase by about 3,800 vehicles per day (about 158/hour on average) or approximately 7%. However, south of Arlington, volumes on Alessandro are projected to decrease by about 7,000 vehicles (about 292/hour) or -15%. West of Alessandro Boulevard, Arlington Avenue is also projected to have a decrease in volumes, almost 3,700 vehicles per day (154/hour on average) or -11%.

Along Van Buren Boulevard, volumes are projected to show a decrease of between 800 to 1,300 vehicles per day (33 to 54/hour on average) between the area of Washington Street and Plummer Street. This is about a 3% decrease in traffic on average.

Trautwein Road is also projected to experience a decrease in volumes in compared to Gates Open. North of Van Buren Boulevard, a drop of approximately 800 vehicles per day, or -4%, and north of John F. Kennedy Drive, a decrease of about 1,000 vehicles per day or about 3% decrease.

It can be seen that new potential cut-through traffic entering the area is low overall; however the increase is slightly larger than Scenario 3.



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Riverside Overlook Parkway Extension

Figure 8-2

Scenario 4 ADT Volume Difference (2011 - Gates Open)

8.2 YEAR 2035 BUILDOUT (CUMULATIVE) ANALYSIS

The volumes used in this portion of the analysis are the same as those shown in Chapter 6 of this report; refer to Table 6-14 for a comparison of 2035 Gates Open and Scenario 3 volume changes, and Table 6-16 for a comparison of 2035 Gates Open and Scenario 4 volume changes.

8.2.1 *SCENARIO 3 VOLUME CHANGES*

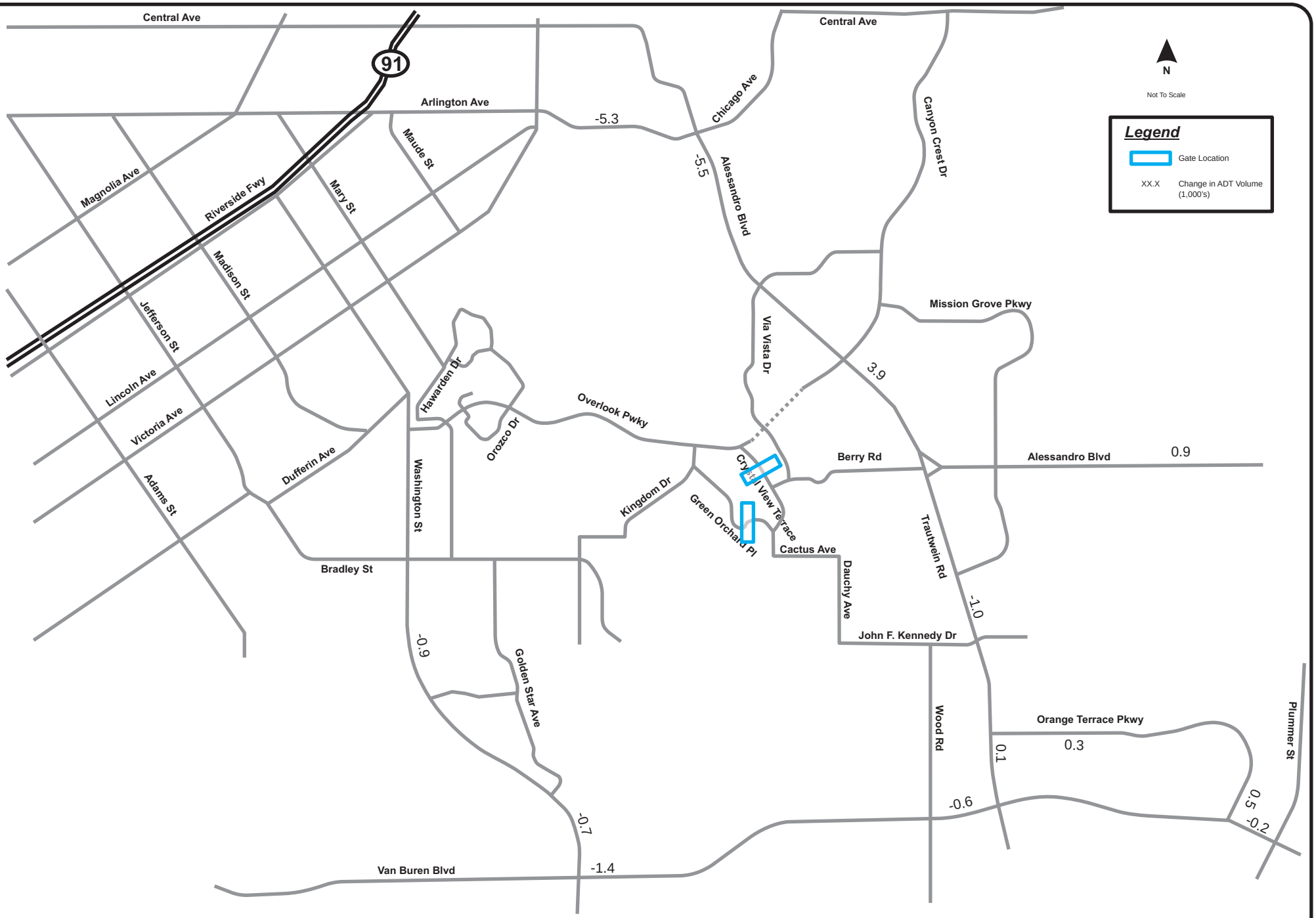
Volumes were compared between Scenario 3 and Gates Open conditions. Figure 8-3 illustrates the changes in daily volumes. A positive value indicates an increase in volumes with Scenario 3 in place (as compared to Gates Open) and a negative number indicates a decrease in volumes with Scenario 3 in place (as compared to Gates Open).

On Alessandro Blvd. east of Mission Grove Parkway, the daily volumes are projected to increase by about 900 vehicles (about 38/hour on average) or about 1%. Between Trautwein Road and Overlook Parkway, Alessandro Boulevard is expected to increase by about 3,900 vehicles per day (about 163/hour on average) or approximately 5%. However, south of Arlington, volumes on Alessandro are projected to decrease by about 5,500 vehicles (about 229/hour) or -8%. West of Alessandro Boulevard, Arlington Avenue is also projected to have a decrease in volumes, almost 5,300 vehicles per day (221/hour on average) or -9%.

Along Van Buren Boulevard, volumes are projected to show a decrease of between 200 to 600 vehicles per day (8 to 25/hour on average) between the area of Washington Street and Plummer Street. This is almost a 1% decrease in traffic.

Trautwein Road is also projected to experience a both ha slight increase and a decrease in volumes in compared to Gates Open. North of Van Buren Boulevard, a increase of approximately 100 vehicles per day, or less than 1%, and north of John F. Kennedy Drive, a decrease of about 1,000 vehicles per day is projected, or about 2% decrease.

It can be seen that new potential cut-through traffic entering the area is low overall, and the results are similar to the 2011 analysis.



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Riverside Overlook Parkway Extension

Figure 8-3

Scenario 3 ADT Volume Difference (2035 - Gates Open)

8.2.2 *Scenario 4 Volume Changes*

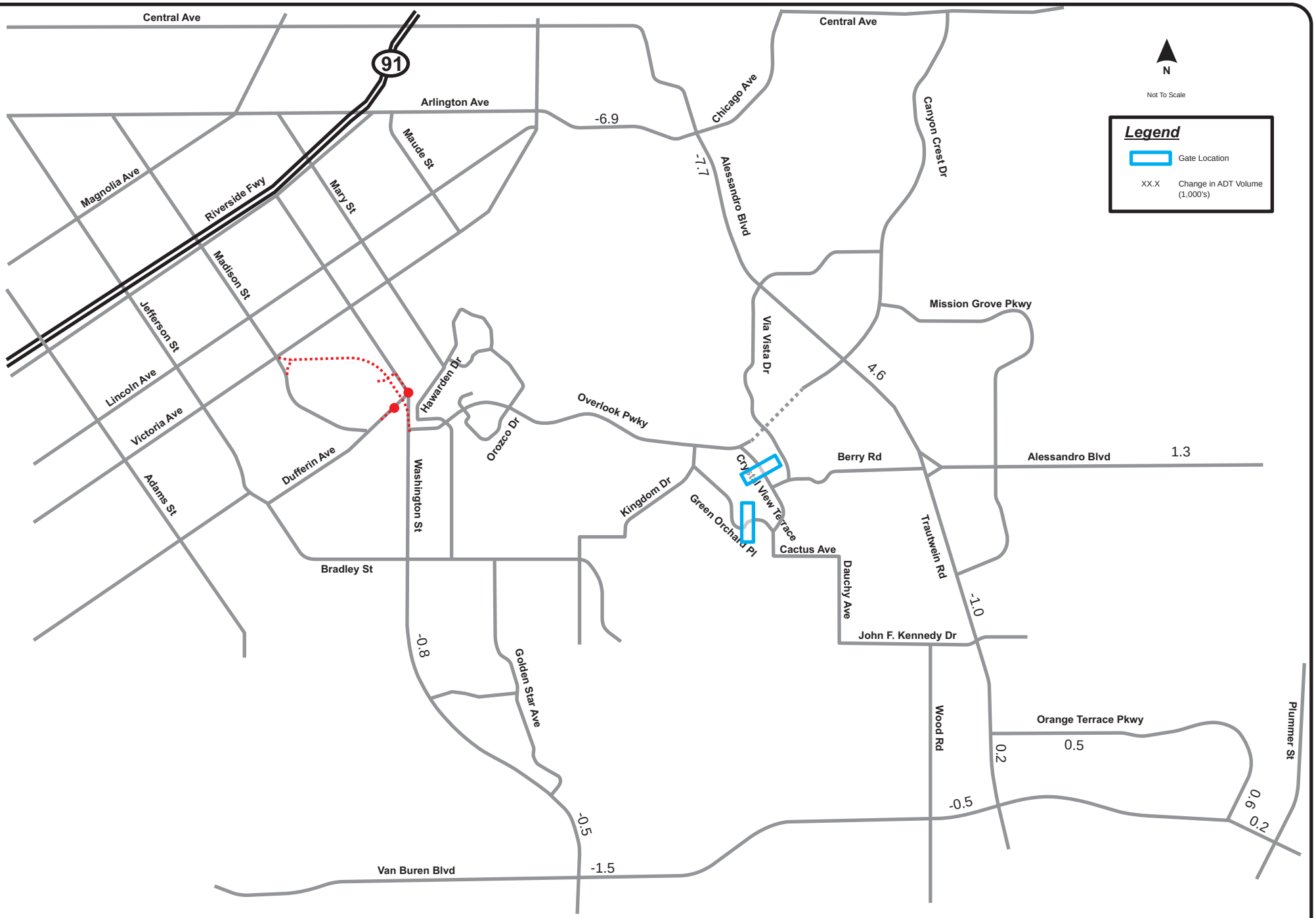
Similar to section 8.2.2, daily traffic volumes were compared between Scenario 4 and Gates Open conditions. Figure 8-4 illustrates the changes in daily volumes. A positive value indicates an increase in volumes with Scenario 4 in place (as compared to Gates Open) and a negative number indicates a decrease in volumes with Scenario 4 in place (as compared to Gates Open).

On Alessandro Blvd. east of Mission Grove Parkway, the daily volumes are projected to increase by about 1,300 vehicles (about 54/hour on average) or about 2%. Between Trautwein Road and Overlook Parkway, Alessandro Boulevard is expected to increase by about 4,600 vehicles per day (about 192/hour on average) or approximately 6%. However, south of Arlington, volumes on Alessandro are projected to decrease by about 7,700 vehicles (about 321/hour) or -11%. West of Alessandro Boulevard, Arlington Avenue is also projected to have a decrease in volumes, almost 6,900 vehicles per day (288/hour on average) or -12%.

Along Van Buren Boulevard near Trautwein Road, volumes show a projected slight increase in near Plummer Street of 200 vehicles per day, which is considerably less than a 1% increase, and a decrease of about 500 vehicles per day (21/hour on average) between the area of Washington Street and Plummer Street. This is about a 1% decrease in traffic on average.

Trautwein Road is also projected to experience a decrease in volumes north of John F. Kennedy Drive and a slight increase north of Van Buren Boulevard, compared to Gates Open. North of Van Buren Boulevard, a slight increase of approximately 200 vehicles per day, or less than 1% is projected, and north of John F. Kennedy Drive, a decrease of about 1,000 vehicles per day or about 2% decrease.

It can be seen that new potential cut-through traffic entering the area is low overall; however the increase is slightly larger than Scenario 3.



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Riverside Overlook Parkway Extension

Figure 8-4

Scenario 4 ADT Volume Difference (2035 - Gates Open)

9.0 CONSTRUCTION ANALYSIS

The City of Riverside *Traffic Impact Analysis Preparation Guide* (September 2011) requires traffic analysis for projects that create 50 or more peak hour trips. The number of construction workers, based on the preliminary construction information, would range from 15 to 25 workers, and would only occur for a limited time duration. If the workers arrive in the AM peak hour, and depart during the PM peak hours, there would be a maximum of 15 to 25 construction worker trips on area roadway. Therefore, there would be increased traffic volumes on the study area roadways during the construction period. Additionally, construction worker and construction material trips can be scheduled to occur during off peak hours.

Since the proposed construction of any of the project alternatives will generate less than 50 peak hour trips, no significant level of service impacts are expected at any of the local intersections or roadway links. No increase in traffic during peak hours is expected following the completion of construction activities. Therefore, the impact of any of the proposed project alternatives on LOS or an intersection's or roadway link's volume to capacity ratio is less than significant.

10.0 PUBLIC SAFETY RECOMMENDATIONS

The different scenarios analyzed within the report may affect emergency access to the surrounding area. The City Police and Fire Departments were asked to provide input in regards to response times and disaster/evacuation.

10.1 POLICE DEPARTMENT

The Field Operations Division is the largest division of the Police Department and provides the "first response" to all emergencies, performs preliminary investigations, and basic patrol services to the City of Riverside. Officers begin and end their shifts at Lincoln Station, which is located "mid-city" at 8181 Lincoln Avenue. Once going on-duty, officers travel to their areas of responsibility or "beats" which are found in the four (4) different Neighborhood Policing Precincts making up the City of Riverside. Officers respond to calls for service, from wherever they happen to be in their beats at the time the call is dispatched.

Police Officer response times for responding officers vary based on a number of different factors. These include the level of priority which is placed on the call for service, as they vary greatly between an in-progress felony assault versus a late-reported misdemeanor fraud. Also included are the number of calls for service holding, staffing levels, deployment schemes and traffic conditions. In general, traffic conditions are adversely affected when the number of routes to and from a location, are limited by any barrier to efficient travel, such as a gated road or controlled access point. Conversely, it is anticipated the creation of new roads or a thoroughfare present officers with alternative routes and the likelihood of improved response times when responding to a call for service.

Based upon the Police Department response, Scenarios Gates Open, 3 or 4 could improve police response times to residents throughout the area.

10.2 FIRE DEPARTMENT

Response Times

Response time goals - The Fire Department's mission, which is to preserve life and property, requires prompt response times. The standard response time goal is to have the first emergency response unit arrive to an emergency within five minutes 95% of the time. For multiple unit incident responses the desirable response time for the second and additional units on a first alarm assignment is 10-15 minutes. The five-minute variance is based on the type of incident response and the locations of our strategic placement of specialized response vehicles.

Locations of existing stations serving project area with current and historic response times to the Overlook Parkway (east and west of arroyo), Crystal View and Green Orchard areas; for both the gates open and gates closed scenarios. - The City of Riverside is served by 14 fire stations

strategically located with the intent of having acceptable first in response times. A response to the project area could come from any of the 14 stations, depending on the fire department response activity in the City and the complexity of an incident in the project area. The information in this report is based on the scenario where all emergency response units are available and not on another emergency.

There are three primary fire stations that would serve as the usual first in response station. They are:
Mission Grove Fire Station 9 – 6674 Alessandro
Orange Crest Fire Station 11 – 19595 Orange Terrace
Arlington Heights Fire Station 10 – 2590 Jefferson

The secondary fire stations that would serve the area for a first alarm (multi-unit response) would typically come from the following stations:
Magnolia Center Fire Station 3 – 6395 Riverside
Canyon Crest Fire Station 14 – 725 Central
Sycamore Canyon Fire Station 13 – 6490 Sycamore Canyon
Downtown Fire Station 1 – 3420 Mission Inn
La Sierra South Fire Station 12 – 10692 Indiana

The Department was able to determine the three-year historical response time statistics for the project area. However, they could not differentiate whether or not the gates were open or closed for these responses, since the gates have been open and closed at various times. In summary, the historical data simply indicates that the response times for the area do not meet their desirable response time goals. In most all cases, the response times to the project area for the first emergency response unit to arrive on the scene exceeded the desirable five-minute response time. The average response times to the project area listed below include fire and medical emergencies.

Primary Response Stations

Fire Station	Average Response Time	Highest Response Time
Mission Grove Fire Station 9	6 min. 27 seconds	7min. 51 seconds
Orange Crest Fire Station 11	7 min. 36 seconds	9min. 47 seconds
Arlington Heights Fire Station 10	9 min. 7 seconds	13min. 11 seconds

Secondary Response Stations

Fire Station	Average Response Time	Highest Response Time
Magnolia Center Fire Station 3	13 minutes 53 seconds	13 min. 53 seconds
Canyon Crest Fire Station 14	No Data for first in response	Estimated 15 minutes
Sycamore Canyon Fire Station 13	No Data for first in response	Estimated 14 minutes
Downtown Fire Station 1	No Data for first in response	Estimated 17 minutes
La Sierra South Fire Station 12	No Data for first in response	Estimated 20 minutes

Locations of existing plus future stations and anticipated response times for the same area (without completion of Overlook), for both the gates open and gates closed scenarios - The project area is in a recognized wildland fire urban interface area. Should a wildland vegetation fire occur in the area, it is likely that additional City Fire Department units would respond from one of the additional six fire stations located in the city. The estimated response times from these locations would vary from 17 – 24 minutes. These response times exceed the desirable response time of 15 minutes. However, these times would be considered acceptable since the responders would be coming from tertiary response stations.

The response times for the project area, coupled with the fact that the area is in a wildland urban interface area, would indicate that an additional fire station should be considered, in order to service the area. However, the low frequency of emergencies, coupled with the economics of building and staffing a new fire station, make an additional fire station prohibitive. Consequently, the fire department is not in support of blocking access into this area with the gates. Locked gates add 30-60 seconds to the already excessive response times. The Department supports some traffic calming measures as an acceptable alternative due to the fact that they only add a few seconds to our response time.

Anticipated response times in the future with the completion of Overlook Parkway. - The expected reduction of the first in response times ranges from one to two minutes, depending on which fire station the paramedic fire engine is responding from. The fire department is in very strong favor of the extension of Overlook Parkway. This is not only important for the single unit paramedic engine responses to heart attacks or respiratory arrest medical emergencies; it is important for fire emergencies.

Fire emergencies require backup teams to promptly support the actions of the first responders. Studies show that a free burning fire in a structure doubles in size every minute. Without quick responses from backup firefighter teams, the first engine crew is forced to employ defensive tactics until backup teams arrive. One relatively rare but high risk incident of great concern is a fast moving vegetation fire. Well planned access/egress routes insure quick fire response times into the area and, if necessary, quick evacuation of residents from the area.

Based upon the Fire Department response, Scenarios Gates Open, 3 or 4 could improve fire department response times to residents throughout the area.

10.3 Disaster/Evacuation Routes

Implementation of Scenarios Gates Open, 3 and/or 4 would improve the ability of residents who need to evacuate in an emergency. Gates Open, which opens the gates at Crystal View Terrace and Green Orchard Place, provides northerly access to the neighborhoods located south of Overlook Parkway.

Scenario 3, the completion of Overlook Parkway, provides an additional east-west evacuation route south of I-15. There are currently limited direct east-west routes in the area. Scenario 4 would provide additional access to I-15, especially for residents located north and south of Overlook Parkway.

Appendices for the Traffic Impact Analysis are available at the City of Riverside.