11.4 | TRAFFIC IMPACT STUDY

Coachella General Plan

Traffic Impact Study

Final Report

Prepared for:
City of Coachella

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FEHR PEERS

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1.0 EXECUTIVE SUMMARY

As part of the Environmental Impact Report (EIR), Fehr & Peers has completed a traffic assessment for the proposed City of Coachella General Plan. This Traffic Impact Study (TIS) was developed based on the requirements within the City of Coachella's General Plan and Circulation Element (2012) and the Riverside County Transportation Department Traffic Impact Analysis Preparation Guidelines (April 2008).

1.1 Project Description

The City of Coachella lies in Riverside County, approximately 80 miles east of Riverside, in the Coachella Valley. It lies adjacent to Interstate 10 and borders Indio on the northwest City boundary and Thermal on the south City boundary. The transportation system in Coachella includes diverse elements including an extensive roadway system, a bike system, a public transit system including bus and rail service, and a freight system.

1.2 Traffic Analysis

The Fehr & Peers assessment evaluates the following conditions for auto and non-auto impacts:

- Existing Conditions (2007) – Consists of existing counts collected as part of the *City-wide Traffic Study, City of Coachella, California, Urban Crossroads, March 2007*.
- General Plan (2035) – Consists of forecasted traffic volumes projected using the Coachella Valley Model.

Existing lane geometries, volumes, and operations at study intersections and roadway segments were sourced from a city-wide traffic study conducted by Urban Crossroads in March, 2007. Future traffic lane geometries were provided by Raimi + Associates. Fehr & Peers developed the Coachella Valley Model to evaluate growth within the City of Coachella and the region. The Riverside Traffic Analysis Model (RIVTAM) was updated to provide further detail within the City of Coachella and project future forecast volumes. The model was calibrated specifically to evaluate Riverside County and meets state and federal guidelines for model calibration.

Intersections were evaluated using County of Riverside traffic impact study guidelines and the Traffix level of service analysis software, and is consistent with Highway Capacity Manual (HCM) 2000 methodologies.

1.3 Findings

The potential General Plan impacts to the vehicular circulation facilities were assessed to identify if it would result in a significant impact to study area locations. Impacts along study roadway segments and

at study intersections were analyzed. Non-automotive impacts were also analyzed at study locations. Impacts were identified at the following intersections:

2.0 ANALYSIS PARAMETERS

This chapter outlines the geographic scope of the traffic impact analysis, including the study intersections and roadways, and the analysis methodologies and significance criteria employed in this study.

2.1 Project Study Area

The City of Coachella lies in Riverside County, approximately 80 miles east of Riverside, in the Coachella Valley. It lies adjacent to Interstate 10 and borders Indio on the northwest City boundary and Thermal on the south City boundary. Coachella's transportation network consists of freeways, arterial roadways, and local streets. State Route 86, 86S, and Grapefruit Boulevard (State Route 111) provide connectivity to neighboring cities, as does an established transit (bus) service.

STUDY INTERSECTIONS

This study includes the operational analysis of 19 study intersections and 36 study roadway segments. These intersections are located on major or secondary arterials. The locations of these intersections are shown on Figure 1-1. Of the 19 intersections, 15 are signalized, three are Side-Street-Stop-Controlled (SSSC), and two are All-Way-Stop-Controlled (AWSC). The following 19 intersections were selected for analysis based on a review of the roadway network and access throughout the City:

1. Jackson Street at Avenue 48
2. Calhoun Street at Avenue 48
3. Van Buren Street at Avenue 48
4. Van Buren Street at Avenue 50
5. Van Buren Street at Avenue 52
6. SR-86S Southbound Ramps at Dillon Road
7. SR-86S Northbound Ramps at Dillon Road
8. Dillon Road at I-10 Freeway Eastbound Ramps
9. Dillon Road at I-10 Freeway Westbound Ramps
10. Harrison Street at Avenue 50
11. Harrison Street at Avenue 52
12. Harrison Street at Avenue 54
13. Harrison Street at Airport Boulevard
14. SR-86S Southbound Ramps at Avenue 50
15. SR-86S Northbound Ramps (NS) at Avenue 50
16. Polk Street at Avenue 50
17. SR-86S at Avenue 52
18. SR-86S at Airport Boulevard
19. SR-86S at Avenue 62

STUDY ROADWAY SEGMENTS

Within the City, the following 36 roadway segments were selected for analysis based on a review of the roadway network and access throughout the City:

TABLE 2-1
ROADWAY SEGMENTS

Roadway	From	To
SR-86S	I-10	Avenue 48
	Avenue 48	Avenue 52
	Avenue 52	Airport Blvd
Grapefruit Blvd	Avenue 48	Avenue 49
	Avenue 49	Harrison St
	Harrison St	Avenue 50
	Avenue 50	Avenue 52
	Avenue 52	Tyler St
	Tyler St	Avenue 54
Harrison St	Grapefruit Blvd	Avenue 50
	Avenue 50	Avenue 51
	Avenue 51	Avenue 52
	Avenue 52	Avenue 53
	Avenue 53	Avenue 54
	Avenue 54	Avenue 55
	Avenue 55	Airport Blvd
Van Buren St	Avenue 48	Avenue 49
	Avenue 49	Avenue 50
	Avenue 50	Avenue 51
	Avenue 51	Avenue 52
	Avenue 52	Avenue 53
	Avenue 53	Avenue 54
Calhoun St	Avenue 48	Avenue 49
Jackson St	Avenue 48	Avenue 49
Avenue 48	Jackson St	Calhoun St
	Calhoun St	Van Buren St
	Van Buren St	Grapefruit Blvd
Avenue 50	Calhoun St	Van Buren St
	Van Buren St	Frederick St
	Frederick St	Harrison St
	Harrison St	Grapefruit Blvd

TABLE 2-1
ROADWAY SEGMENTS

Roadway	From	To
Avenue 52	Van Buren St	Frederick St
	Frederick St	Harrison St
	Harrison St	Grapefruit Blvd
	Grapefruit Blvd	SR-86S
	SR-86S	Polk St

2.2 Analysis Scenarios

To identify significant project impacts, the following two scenarios for study area intersections and roadway segments were evaluated:

- Existing Conditions (2007) – Consists of an operational analysis of Year 2007 counts collected as part of the *City-wide Traffic Study, City of Coachella, California, Urban Crossroads, March 2007*.
- General Plan (2035) – Consists of forecasted traffic volumes projected using the Travel Demand Model developed for the City of Coachella

2.3 Analysis Methodologies

OPERATIONS

The intersection analysis employs a methodology based on empirical research conducted by the Transportation Research Board and other authorities.

Signalized intersection operations are evaluated using methodologies provided in the 2000 Highway Capacity Manual (HCM) (Transportation Research Board). These methodologies assess average control delays and then assign a corresponding letter grade that represents the overall condition of the intersection. These grades range from level of service (LOS) A (minimal delay) to LOS F (excessive congestion). LOS E represents at-capacity operations. For this study, levels of service are calculated using Traffix software, which implements 2000 HCM methodologies. Descriptions of the LOS letter grades for signalized intersections and the relationship between the various delays are provided in Table 2-2. This table also provides the LOS value at various levels of delay for unsignalized intersections. Please note that V/C ratios are provided as they are used in the impact assessment based on requirements set forth by the Riverside County Congestion Management Program (CMP).

TABLE 2-2
INTERSECTION LEVEL OF SERVICE CRITERIA

Level of Service	Description	Signalized Delay (Seconds)	Unsignalized Delay (Seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0	>10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0	>15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0	>25.0 to 35.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0	>35.0 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80.0	>50.0

Source: *Highway Capacity Manual* (Transportation Research Board, 2000).

SIGNIFICANCE CRITERIA

Intersections

According to City of Coachella criteria, LOS "D" is the maximum acceptable level of congestion that should be maintained during the peak commute hours. Hence, any of the intersections within Coachella's jurisdiction operating at LOS "E" or "F" are considered deficient/unsatisfactory and vehicular traffic on Coachella's roadway system should not exceed these capacities.

Roadway Segments

Roadway segment operations were evaluated by comparing the projected traffic volumes to the maximum two-way daily traffic volumes identified in the County of Riverside General Plan Circulation Element (Figure C-3). These traffic volumes are shown in Table 2-3 below. In accordance with the City's General Plan Circulation Element (2008), LOS "C" or better shall be maintained along County roads and state highways. LOS "D" is allowed in "Community Development areas, only at intersections of any combination of Secondary Highways, Major Highways, Arterials, Urban Arterials, Expressways, conventional state highways or freeway ramp intersections. LOS "E" may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable communities." For the purposes of this evaluation, LOS "D" is the minimum acceptable LOS for roadway segments.

TABLE 2-3 ROADWAY SEGMENT THRESHOLDS

Roadway Classification	Number of Lanes	Maximum Two-Way Traffic Volume (ADT)[1]
Major Arterial[2]	6D	56,000
Primary Arterial[2]	4D	37,400
Secondary Arterial[2]	4D	28,900
Major Collector[2]	4U	20,000
Minor Collector[2]	2U	12,000
Local Street[1]	2U	10,400

Notes:

(1) Maximum two-way ADT values are based on the 1999 Modified Highway Capacity Manual Level of Service Tables as defined in the Riverside County Congestion Management Program.

(2) Maximum two-way ADT values sourced from *Coachella General Plan 2020 Circulation Element, September 1996.*

Source: Riverside County Congestion Management Program, 2008, and Coachella General Plan 2020 Circulation Element, September 1996.

3.0 EXISTING CONDITIONS

This chapter discusses the existing transportation conditions in the City study area including the roadway, transit, bike, and pedestrian networks.

EXISTING ROADWAY FACILITIES

Regional access to the City of Coachella is provided by I-10 and State Route 86 South (SR-86S). Major roadways within the City include Grapefruit Boulevard, Harrison Street, Avenues 48, 50, and 52. Roadway classifications are represented on Figure 3-1.

Major roadways within the study area include:

Regional Highway System

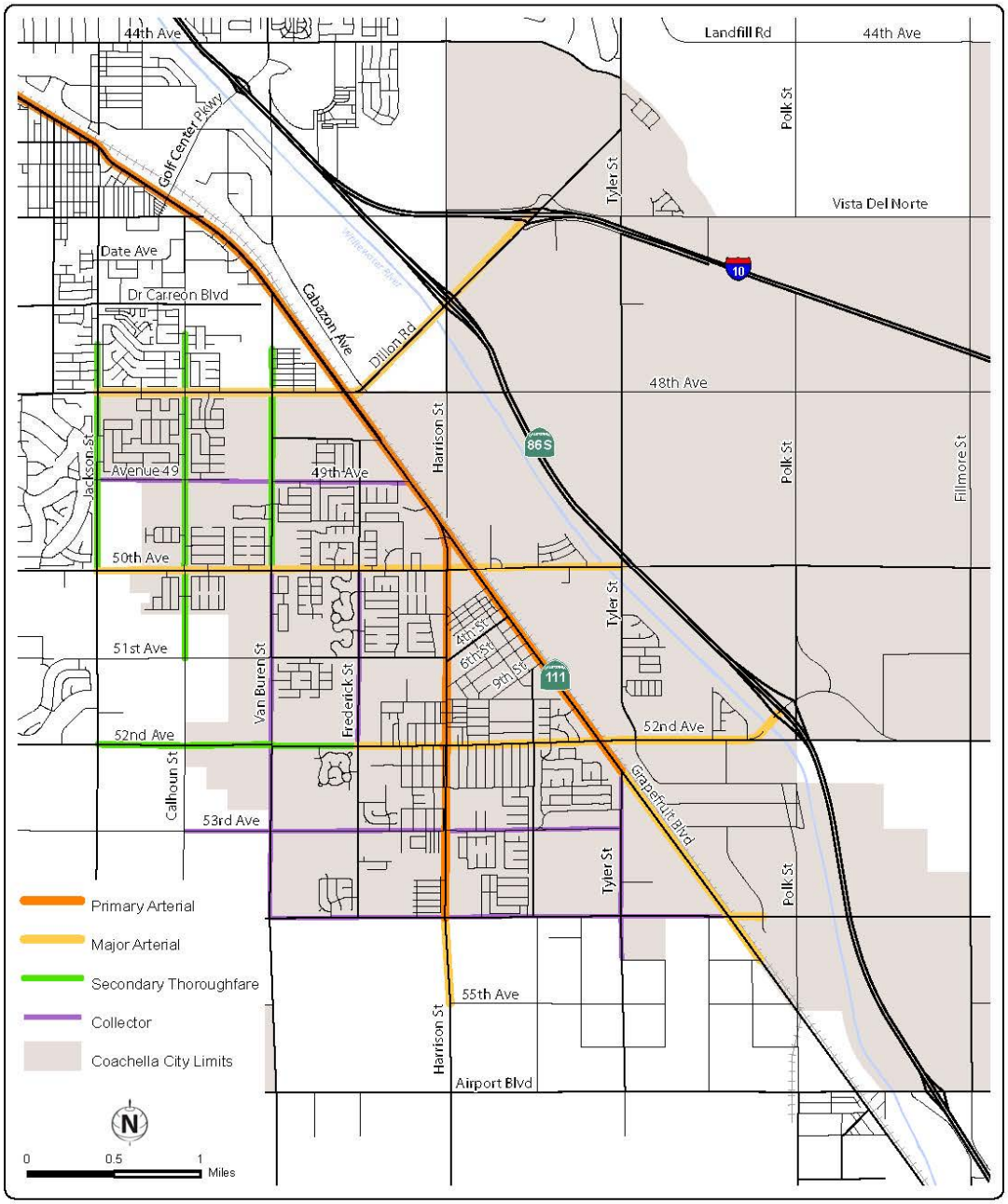
- **Interstate 10** provides direct access into the City by way of on-off ramps located at Dillon Road. It runs east-west to the north of Coachella and has two lanes in general in each direction in the vicinity of the City. Interstate 10 is the foundation of Coachella's regional transportation network and serves much of the population in Riverside County as a whole.
- **State Route 86S** is a regional highway that extends north-south in the City of Coachella. It begins at Interstate 10, north of the City, maintaining access control until reaching Tyler Street. South of Tyler Street, it operates as a divided arterial with two lanes in each direction with an open median. The posted speed limit on State Route 86S is 55 miles per hour throughout the length of the City. SR-86S is a major regional highway that provides access to Interstate 10 to the north and continues south to the Salton Sea and City of Imperial, near the United States border with Mexico.

Local Street System

- **Grapefruit Boulevard** (State Route 111) extends north-south in the City and is specified in the City Circulation Element as an enhanced major arterial roadway from the northern City boundary to Harrison Street. From Harrison Street to Tyler Street it is specified as a major arterial, and south of Tyler Street it is specified as a primary arterial. In its current implementation, Grapefruit Boulevard operates as a primary arterial with two lanes in each direction. The posted speed limit is 50mph in this section. South of Tyler Street, Grapefruit Boulevard operates as a secondary thoroughfare. SR-111 continues south from the City around the Salton Sea and reaches the City of Calexico at the United States/Mexico border.
- **Harrison Street** extends north-south and is specified in the Circulation Element as an enhanced major arterial from Grapefruit Boulevard south to Avenue 52, then as a major arterial south to Airport Boulevard. In its current implementation, Harrison Street operates as a primary arterial with two lanes in each direction. South of Avenue 54, Harrison Street operates as a two-lane highway. South of the City, Harrison Street merges with SR-86S.

- **Avenue 48/Dillon Road** is specified as a major arterial roadway running east-west in the northern part of the City. It becomes Dillon Road after crossing over SR-86S and continues east to I-10. Dillon Road is specified as an enhanced major arterial in that area. Avenue 48 operates as a six-lane, undivided major arterial west of Van Buren Street, and as a primary arterial or secondary thoroughfare east of Van Buren Street and onto Dillon Road. This link provides key access to SR-86S and I-10 for the City.
- **Avenue 50** and **Avenue 52** are east-west links that are specified as a primary and major arterial, respectively. They both currently operate as primary arterials and feature divided, 4-lane sections between Grapefruit Boulevard and SR-86S. In the City core, they mainly operate as secondary thoroughfares to Grapefruit Boulevard.
- **Jackson Street** operates as a north-south running secondary thoroughfare at the western limit of the City between Avenue 48 and Avenue 49, with two lanes of traffic in each direction. Its main function is to provide circulation to and from the commercial developments in the northwest region of the City.
- **Van Buren Street** is specified in the City's current General Plan as a north-south running secondary thoroughfare in the west region of the City, extending from the northern to southern City boundary. It currently operates as a collector with two lanes of traffic in each direction. Its main function is to provide access to the larger arterials for local residential developments.
- **Frederick Street** is specified in the City's current General Plan as a north-south running secondary thoroughfare in the City, between Avenue 50 and Airport Boulevard. It currently operates as a collector with two lanes of traffic in each direction. Its main function is to provide access to the larger arterials for local residential developments.

Figure 3-1 Roadway Classifications



EXISTING TRANSIT FACILITIES

Public transportation in Coachella consists of the following services and facilities:

- Public bus, and
- Paratransit

Public transportation in Coachella is operated by SunLine Transit Agency, which enables commuters to travel within the City and adjacent cities with minimal transfers. Currently, SunLine operates two buses routes within the City, Route 90 and Route 91.

Route 90 operates all seven days of the week and connects Coachella to the City of Indio. Service frequency is at 35-minute headways on weekdays and weekends.

Route 91 operates all seven days of the week and connects Coachella to the Cities of Indio, Thermal, Oasis and Mecca. Weekday service frequency is at 60-minute headways and weekend service frequency is at 80-minute headways.

In Coachella, an intermediate type of service is provided by SunLine via their SunDial bus service. SunDial provides next day, curb-to-curb transit service by reservation for any person with a SunDial ADA Certification Card. This certification is obtained via the application process from SunLine. Pick up and drop off can only occur within ¾ miles of a SunLine bus route, and the transit service is shared among multiple riders.

Figure 3-2 shows bus routes within the City.

BICYCLE AND PEDESTRIAN FACILITIES

Bicycle Facilities

The bicycle network in Coachella consists only of shared bicycle and motor vehicle facilities. There is one bike lane in the City on Calhoun Street between Avenue 48 and Avenue 49. The lane terminates south of Avenue 49 and bicycles share an unsigned road section with motor vehicles. The lane continues north into the City of Indio. Most of the roads in Coachella's industrial and agricultural areas are narrow and feature no shoulder, or often soft sand shoulders.

Pedestrian Facilities

Currently, most of the streets in the residential and commercial areas of the City have sidewalks. All sidewalks in the more newly developed portions of Coachella tend to be adjoining and have curb ramps. A smaller portion of sidewalks in the older areas of central Coachella do not have curb ramps. Many of the sidewalks in the newer areas of Coachella do not incorporate parkways. Parkways are more common in older residential neighborhoods and often feature shade trees. While older residential development

areas use shorter blocks, newer developments have longer blocks, and walls are common to prevent pedestrian access mid-block. In general, the pedestrian network is well-connected within areas of higher residential density. In industrial and agricultural areas of Coachella, sidewalks are uncommon and there is little consideration for pedestrian connectivity. Sidewalk facilities are represented on Figure 3-3.

TRAFFIC DATA COLLECTION

Intersection traffic counts and roadway segment volumes were collected in 2007 by Urban Crossroads for study intersections in Coachella. Intersection counts were collected between 7 AM to 9 AM and 4 PM to 6 PM. The highest one-hour peak of traffic volumes during both the morning and evening hours are shown on Figure 3-4. Roadway segment counts were collected during a 24-hour period on a weekday. Existing counts at study roadway segments are provided in Appendix A.

Figure 3-2 Transit Facilities Figure

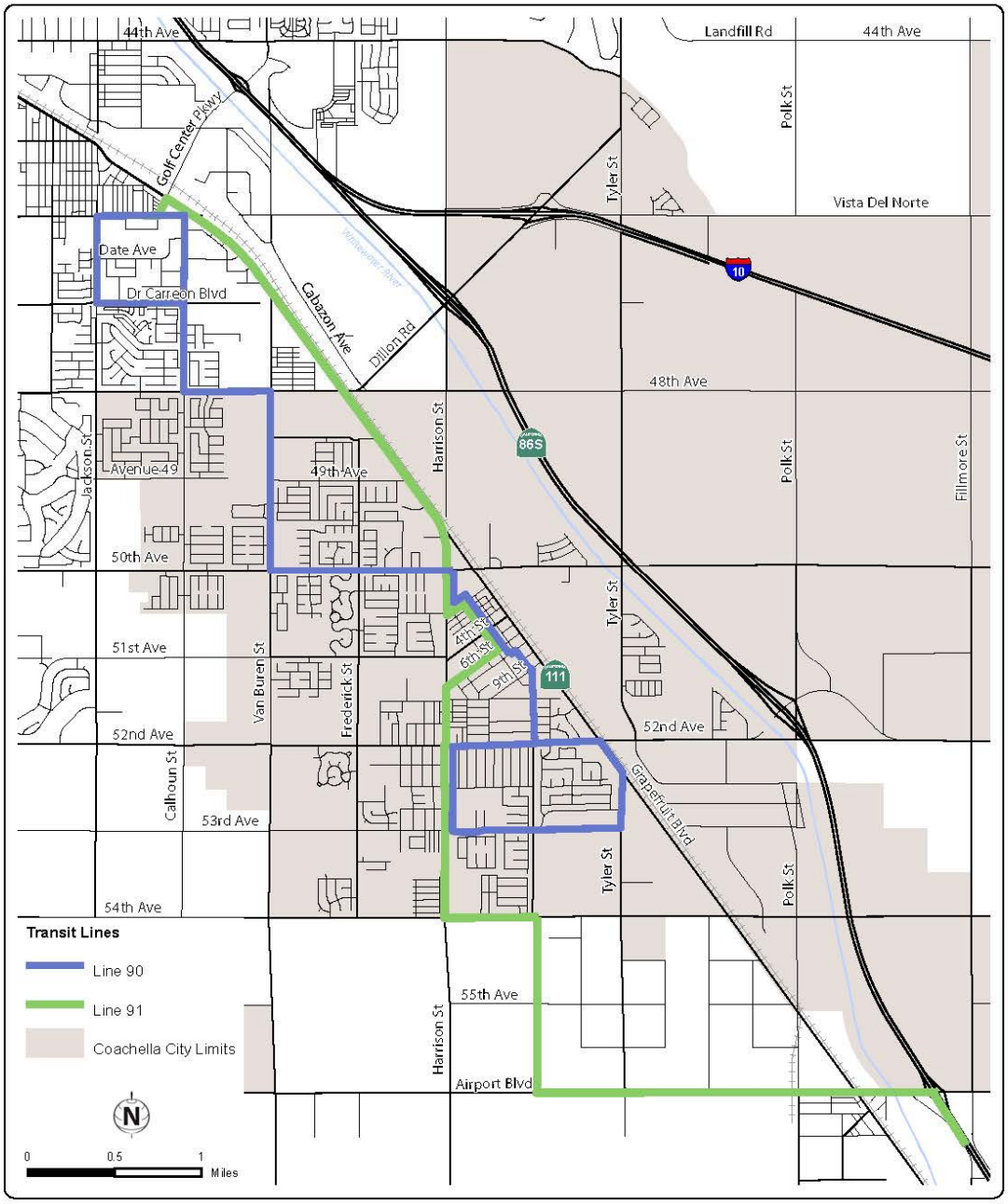
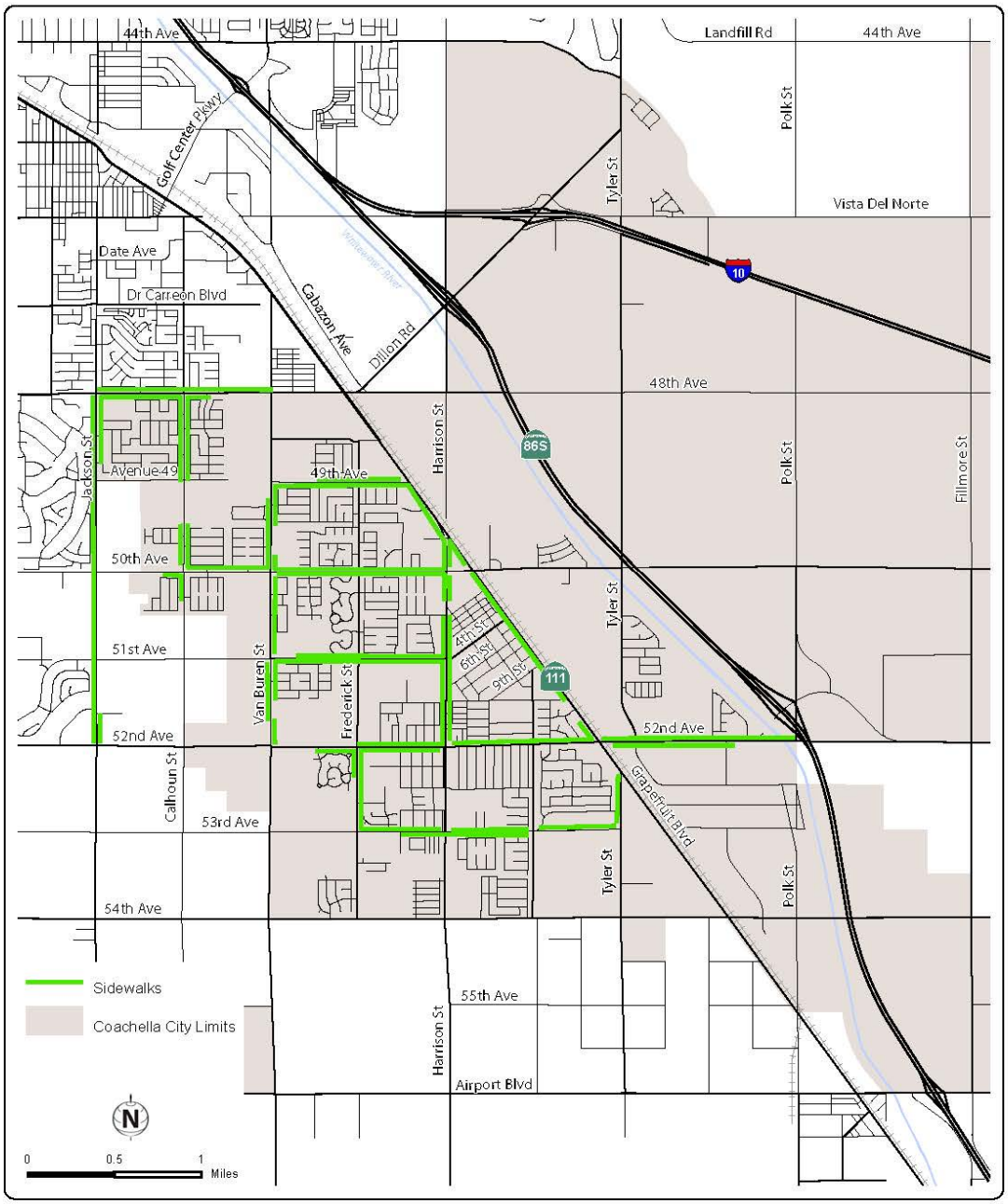


Figure 3-3 Pedestrian Facilities



3.1 Intersection Operations

As previously stated, the existing conditions analysis for study intersections were conducted by Urban Crossroads. Existing traffic volumes are represented on Figure 3-4. Existing LOS results for study intersections are summarized in Table 2-1. Table 3-1 provides study intersection LOS under Existing Conditions.

TABLE 3-1 INTERSECTION LEVEL OF SERVICE

Intersection	Traffic Control[2]	Delay[1] (secs)		Level of Service	
		AM	PM	AM	PM
Jackson Street (NS) at:					
• Avenue 48 (EW)	Signalized	35.0	35.6	C	D
Calhoun Street (NS) at:					
• Avenue 48 (EW)	Signalized	22.2	23.2	C	C
Van Buren Street (NS) at:	AWS	21.7	40.3	C	E
• Avenue 48 (EW)					
• Avenue 50 (EW)	AWS	20.9	<50	C	F
• Avenue 52 (EW)	AWS	24.2	18.2	C	C
SR-86S SB Ramps (NS) at:					
• Dillon Road (EW)	Signalized	18.8	21.6	B	C
SR-86S NB Ramps at:					
• Dillon Road (EW)	Signalized	23.1	21.7	C	C
Dillon Road (NS) at:	SSSC	14.2	13.6	B	B
• I-10 EB Ramps (EW)					
• I-10 WB Ramps (EW)	SSSC	13.6	13.6	B	B
Harrison Street (NS) at:	Signalized	30.2	43.4	C	D
• Avenue 50 (EW)					
• Avenue 52 (EW)	Signalized	32.7	44.3	C	D
• Avenue 54 (EW)	Signalized	22.3	25.1	C	C
• Airport Blvd (EW)	Signalized	24.9	24.2	C	C

TABLE 3-1 INTERSECTION LEVEL OF SERVICE

Intersection	Traffic Control[2]	Delay[1] (secs)		Level of Service	
		AM	PM	AM	PM
SR-86S SB Ramps (NS) at:					
• Avenue 50 (EW)	Signalized	17.9	16.5	B	B
SR-86S NB Ramps (NS) at:					
• Avenue 50 (EW)	Signalized	18.4	18.5	B	B
Polk Street (NS) at:					
• Avenue 50 (EW)	SSSC	9.0	10.0	A	B
SR-86S (NS) at:	Signalized	40.5	38.2	D	D
• Avenue 52 (EW)					
• Airport Blvd (EW)	Signalized	25.7	29.5	C	C
• Avenue 62 (EW)	Signalized	31.7	30.1	C	C

1 Delay and level of service calculated using the following analysis software: Traffix, Version 7.6.0.38 (2003). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersection with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

2 AWS = All Way Stop; SSSC = Side Street Stop Controlled

Source: *City-wide Traffic Study, Urban Crossroads, March 20, 2007.*

Figure 3-4 Existing Roadway Segment Volumes

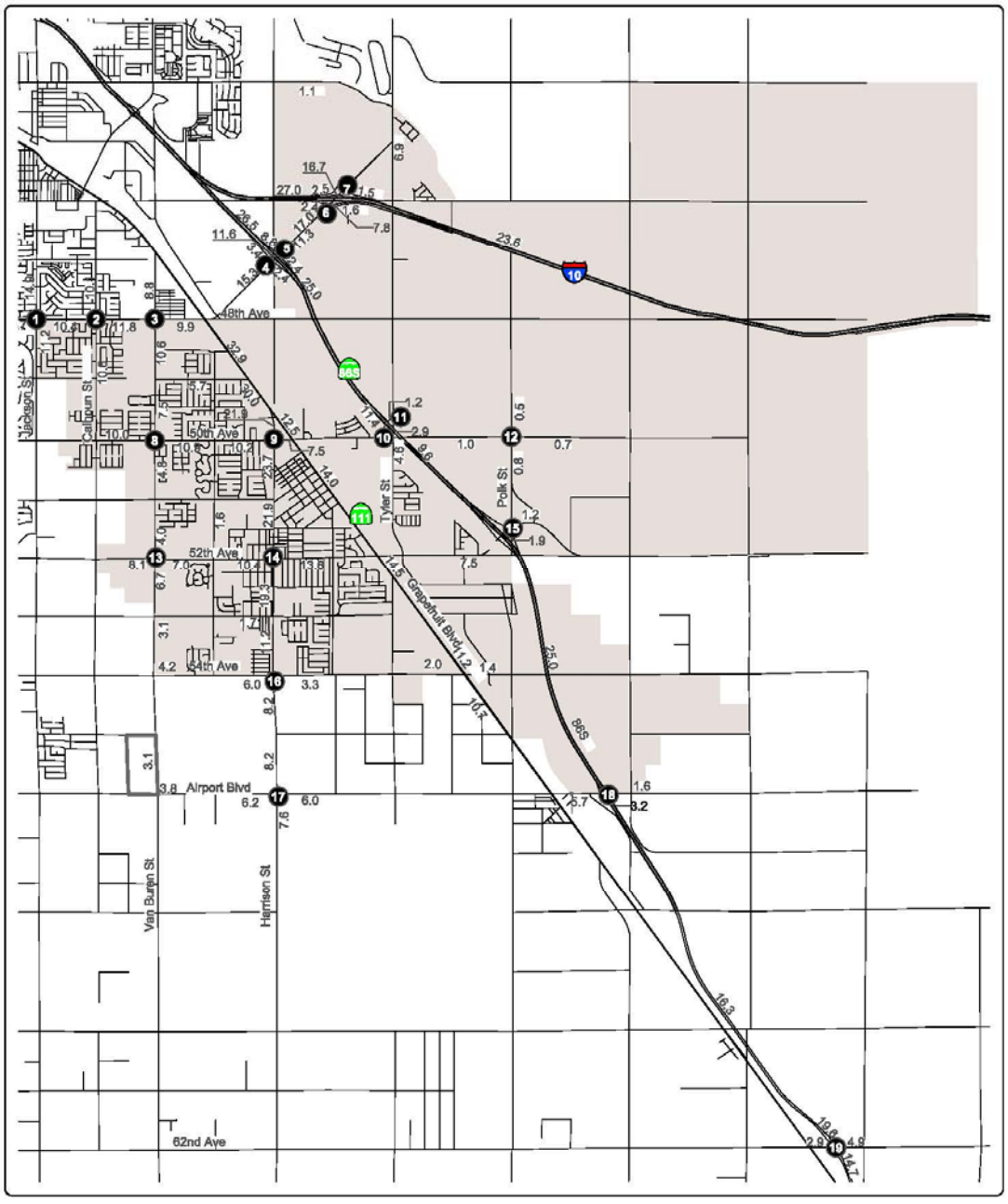


Figure 3-5 Existing Lane Configurations and Peak Hour Traffic Volumes

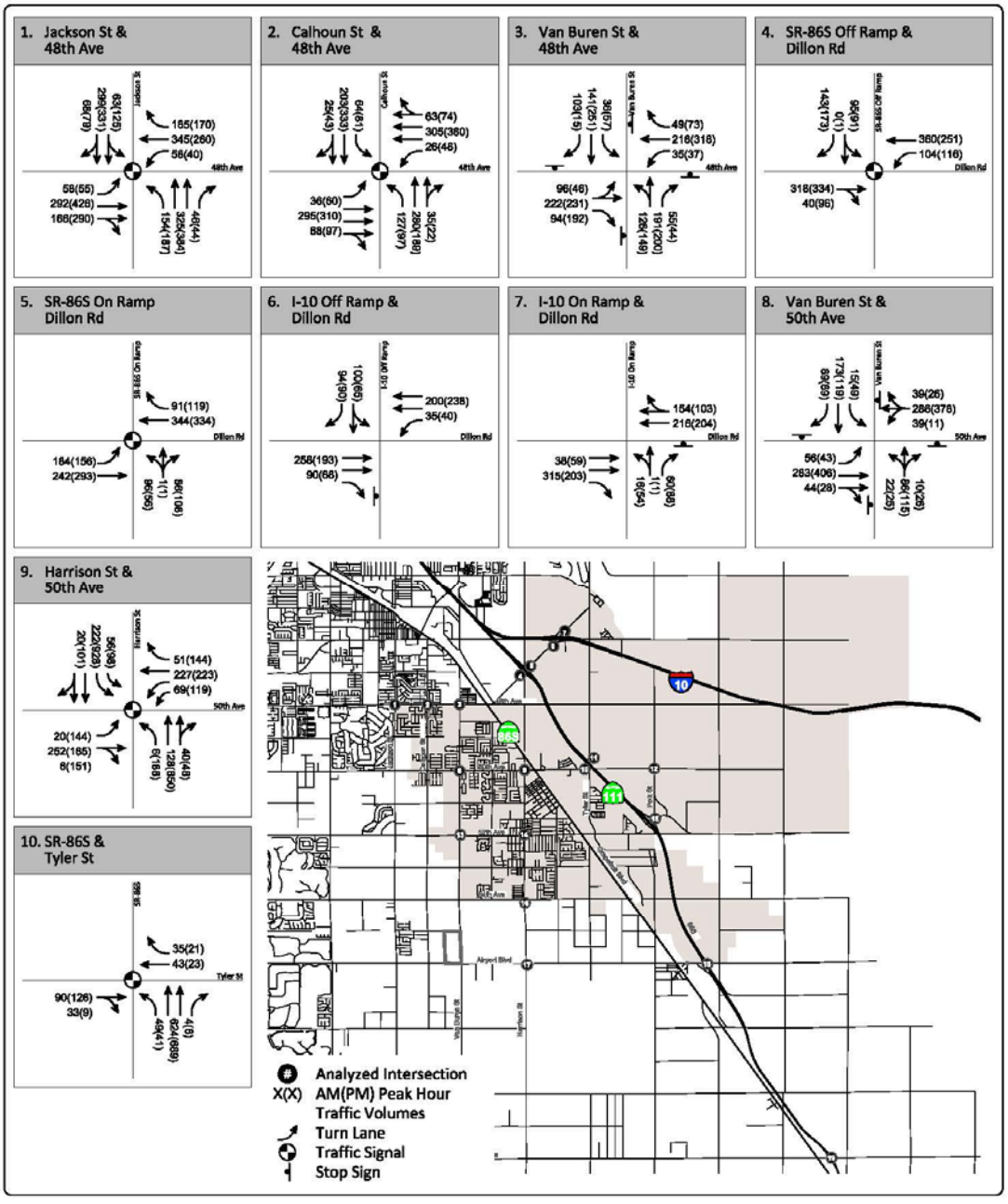
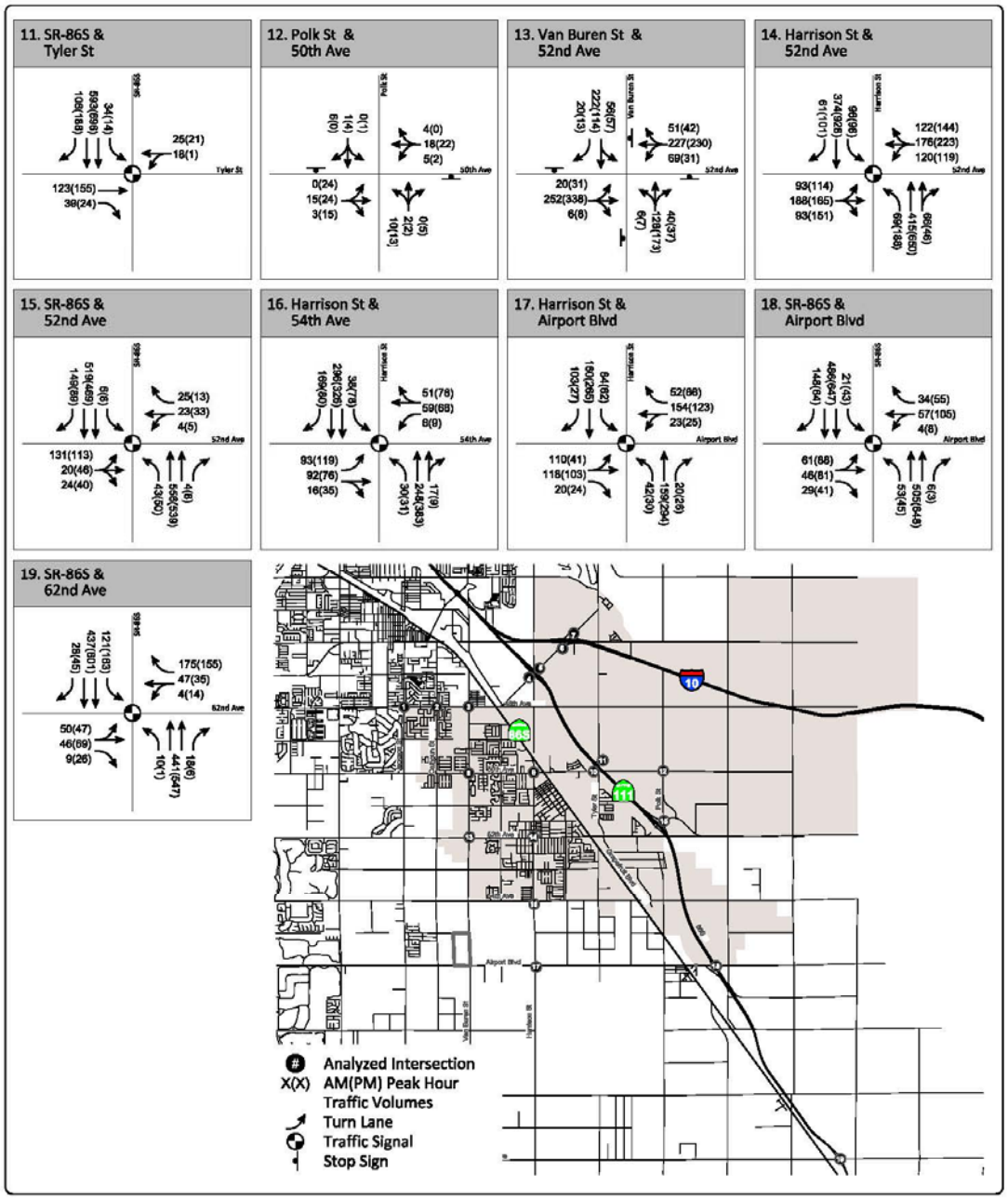


Figure 3-5b Existing Lane Configurations and Peak Hour Traffic Volumes



3.2 Existing Roadway Segment Operations

As previously stated, the existing conditions analysis for study roadway segments were conducted by Urban Crossroads. Existing LOS results for study intersections are summarized in Table 3-2.

TABLE 3-2 AVERAGE DAILY TRAFFIC

Road	From	To	Classification	ADT
SR-86S	I-10	Avenue 48	Primary Arterial	26,500
	Avenue 48	Avenue 52	Primary Arterial	25,000
	Avenue 52	Airport Blvd	Major Arterial	25,000
Grapefruit Blvd	Avenue 48	Avenue 49	Primary Arterial	32,900
	Avenue 49	Harrison St	Primary Arterial	30,000
	Harrison St	Avenue 50	Primary Arterial	12,500
	Avenue 50	Avenue 52	Primary Arterial	14,000
	Avenue 52	Tyler St	Major Arterial	14,500
	Tyler St	Avenue 54	Major Arterial	11,200
Harrison St	Grapefruit Blvd	Avenue 50	Primary Arterial	21,900
	Avenue 50	Avenue 51	Primary Arterial	23,700
	Avenue 51	Avenue 52	Primary Arterial	21,900
	Avenue 52	Avenue 53	Primary Arterial	19,300
	Avenue 53	Avenue 54	Primary Arterial	11,200
	Avenue 54	Avenue 55	Major Arterial	8,200
	Avenue 55	Airport Blvd	Major Arterial	8,200
Van Buren St	Avenue 48	Avenue 49	Secondary Thoroughfare	10,600
	Avenue 49	Avenue 50	Secondary Thoroughfare	7,500
	Avenue 50	Avenue 51	Collector	4,800

TABLE 3-2 AVERAGE DAILY TRAFFIC

Road	From	To	Classification	ADT
	Avenue 51	Avenue 52	Collector	4,000
	Avenue 52	Avenue 53	Collector	6,700
	Avenue 53	Avenue 54	Collector	3,100
Jackson St	Avenue 48	Avenue 49	Secondary Thoroughfare	11,200
Avenue 48	Jackson St	Calhoun St	Major Arterial	10,400
	Calhoun St	Van Buren St	Major Arterial	11,800
	Van Buren St	Grapefruit Blvd	Major Arterial	9,900
Avenue 50	Calhoun St	Van Buren St	Major Arterial	10,000
	Van Buren St	Frederick St	Major Arterial	10,900
	Frederick St	Harrison St	Major Arterial	10,200
	Harrison St	Grapefruit Blvd	Major Arterial	7,500
Avenue 52	Van Buren St	Frederick St	Secondary Thoroughfare	7,000
	Frederick St	Harrison St	Major Arterial	10,400
	Harrison St	Grapefruit Blvd	Major Arterial	13,600
	Grapefruit Blvd	SR-86S	Major Arterial	7,500
	SR-86S	Polk St	Major Arterial	1,900

Source: *City-wide Traffic Study, Urban Crossroads, March 20, 2007.*

4.0 General Plan Conditions

This section documents the General Plan Conditions for the City of Coachella in 2035.

4.1 Intersection Operations

Table 4-1 provides the intersection operations following the implementation of the proposed General Plan land use changes.

TABLE 4-1
2035 INTERSECTION LEVEL OF SERVICE

Intersection	Traffic Control[2]	Delay[1] (secs)		Level of Service	
		AM	PM	AM	PM
Jackson Street (NS) at:					
• Avenue 48 (EW)	Signalized	36.8	47.7	D	D
Calhoun Street (NS) at:					
• Avenue 48 (EW)	Signalized	26.5	37.3	C	D
Van Buren Street (NS) at:	AWS	31.6	**54.0**	C	**E**
• Avenue 48 (EW)					
• Avenue 50 (EW)	AWS	23.4	24.0	C	C
• Avenue 52 (EW)	AWS	25.3	27.7	C	C
SR-86S SB Ramps (NS) at:					
• Dillon Road (EW)	Signalized	**56.4**	**58.0**	**E**	**E**
SR-86S NB Ramps at:					
• Dillon Road (EW)	Signalized	**80.6**	**53.9**	**F**	**E**
Dillon Road (NS) at:	SSSC	**>50**	**>50**	**F**	**F**
• I-10 EB Ramps (EW)					
• I-10 WB Ramps (EW)	SSSC	**>50**	18.8	**F**	C
Harrison Street (NS) at:	Signalized	26.5	**>80**	C	**F**
• Avenue 50 (EW)					
• Avenue 52 (EW)	Signalized	50.0	**>80**	D	**F**

TABLE 4-1
2035 INTERSECTION LEVEL OF SERVICE

Intersection	Traffic Control[2]	Delay[1] (secs) AM	Delay[1] (secs) PM	Level of Service AM	Level of Service PM
• Avenue 54 (EW)	Signalized	23.8	31.7	C	C
• Airport Blvd (EW)	Signalized	**58.1**	50.9	**E**	D
SR-86S SB Ramps (NS) at:					
• Avenue 50 (EW)	Signalized	12.9	12.2	B	B
SR-86S NB Ramps (NS) at:					
• Avenue 50 (EW)	Signalized	17.3	17.8	B	B
Polk Street (NS) at:					
• Avenue 50 (EW)	SSSC	24.6	19.6	C	B
SR-86S (NS) at:	Signalized	35.6	35.3	**D**	D
• Avenue 52 (EW)					
• Airport Blvd (EW)	Signalized	31.1	40.6	C	D
• Avenue 62 (EW)	Signalized	25.8	23.5	C	C

1 Delay and level of service calculated using the following analysis software: Traffix, Version 7.6.0.38 (2003). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersection with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

2 AWS = All Way Stop; SSSC = Side Street Stop Controlled

Source: *Fehr & Peers, 2013*

As noted in Table 4-2, there are eight locations where the incremental traffic associated with the General Plan will cause an intersection to operate at a level worse than LOS D. These locations include:

- Van Buren Street/Avenue 48
- SR-86S SB Ramps/Dillon Road

- SR-86S NB Ramps/Dillon Road
- Dillon Road/I-10 EB Ramps
- Dillon Road I-10 WB Ramps
- Harrison Street/Avenue 50
- Harrison Street/Avenue 52
- Harrison Street/Airport Boulevard

4.2 Intersection Operations

Roadway segment volumes are shown in Table 4-2.

TABLE 4-2
2035 AVERAGE DAILY TRAFFIC

Road	From	To	Classification	ADT
SR-86S	I-10	Avenue 48	Freeway	85,000
	Avenue 48	Avenue 52	Freeway	**82,590**
	Avenue 52	Airport Blvd	Freeway	**82,290**
Grapefruit Blvd	Avenue 48	Avenue 49	Primary Arterial	**55,100**
	Avenue 49	Harrison St	Primary Arterial	**65,980**
	Harrison St	Avenue 50	Primary Arterial	32,220
	Avenue 50	Avenue 52	Primary Arterial	24,000
	Avenue 52	Tyler St	Primary Arterial	42,300
	Tyler St	Avenue 54	Primary Arterial	21,010
Harrison St	Grapefruit Blvd	Avenue 50	Primary Arterial	27,530
	Avenue 50	Avenue 51	Major Arterial	27,610
	Avenue 51	Avenue 52	Major Arterial	**63,700**
	Avenue 52	Avenue 53	Major Arterial	29,320
	Avenue 53	Avenue 54	Major Arterial	**36,550**

TABLE 4-2
2035 AVERAGE DAILY TRAFFIC

Road	From	To	Classification	ADT
	Avenue 54	Avenue 55	Major Arterial	7,330
	Avenue 55	Airport Blvd	Major Arterial	30,740
Van Buren St	Avenue 48	Avenue 49	Major Arterial	27,830
	Avenue 49	Avenue 50	Major Arterial	27,720
	Avenue 50	Avenue 51	Major Arterial	36,670
	Avenue 51	Avenue 52	Major Arterial	40,960
	Avenue 52	Avenue 53	Major Arterial	12,690
Jackson St	Avenue 48	Avenue 49	Major Arterial	28,790
Avenue 48	Jackson St	Calhoun St	Primary Arterial	31,930
	Calhoun St	Van Buren St	Primary Arterial	41,020
	Van Buren St	Grapefruit Blvd	Primary Arterial	25,980
Avenue 50	Calhoun St	Van Buren St	Primary Arterial	11,070
	Van Buren St	Frederick St	Primary Arterial	18,960
	Frederick St	Harrison St	Primary Arterial	17,540
	Harrison St	Grapefruit Blvd	**Major Arterial**	**35,110**
	Grapefruit Blvd	City Limits	Primary Arterial	28,850
Avenue 52	Van Buren St	Frederick St	Primary Arterial	19,070
	Frederick St	Harrison St	Primary Arterial	20,430
	Harrison St	Grapefruit Blvd	Primary Arterial	48,480
	Grapefruit Blvd	SR-86S	Primary Arterial	21,030
	SR-86S	Polk St	Primary Arterial	20,250

TABLE 4-2
2035 AVERAGE DAILY TRAFFIC

Road	From	To	Classification	ADT

Source: *Fehr & Peers, 2013*

As shown in this table, there are seven roadway segments which exceed the LOS D capacity including:

- SR-86 South (Avenue 48 to Avenue 52)
- SR-86 South (Avenue 52 to Airport Boulevard)
- Grapefruit Boulevard (Avenue 48 to Avenue 49)
- Grapefruit Boulevard (Avenue 59 to Harrison Street)
- Harrison Street (Avenue 51 to Avenue 52)
- Harrison Street (Avenue 53 to Avenue 54)
- Avenue 50 (Harrison Street to Grapefruit Boulevard)

5.0 Mitigation Measures for Roadway and Intersection Impacts

This chapter provides

5.1 Intersection Mitigations

Many of these impacts can be mitigated through a combination of physical improvements and policies contained within the General Plan. Physical improvements identified to mitigate the impacts include:

- Van Buren Street/Avenue 48
  - Signalized Intersection
- SR-86S SB Ramps/Dillon Road
  - NB Approach– Add 2nd right turn lane
  - EB Approach– Change thru-right to a third thru lane with separated right turn lane
- SR-86S NB Ramps/Dillon Road
  - NB Approach – Change to left and right turn lanes
  - EB Approach – Add 3rd left turn lane
- Dillon Road/I-10 EB Ramps
  - Signalized Intersection
- Dillon Road I-10 WB Ramps
  - Signalize Intersection
  - EB Approach- Change right turn to a free right (no conflict)
- Harrison Street/Avenue 50
  - SB Approach - Change thru from 3 to 4 lanes
  - NB Approach - Change left from 1 to 2 lanes
  - EB Approach - Change left from 2 to 3 lanes
  - WB Approach - Change right from 1 to 2 lanes
- Harrison Street/Avenue 52
  - NB Approach - Change 1 left to triple lefts
  - SB Approach - Change 1 left to triple lefts and 2 thrus to 3 thrus
  - EB Approach - Change from 2 lefts to 3 lefts and 1 right to 2 rights
  - WB Approach – Change from 1 right to 2 rights
- Harrison Street/Airport Boulevard
  - SB Approach- Add second SB thru lane

5.2 Policy Mitigations

Additional mitigation is provided by policy language in the General Plan which is oriented towards reducing vehicle usage through increases in density, provision of mixed use, improving the design of development, and the provision of alternative mode facilities. Supporting policy statements include:

- **LU-2.9: Infill development**. Promote and provide development incentives for infill development and redevelopment of existing properties.
- **LU-2.10: Contiguous development pattern**. Encourage and incentivize development to occur contiguous to, or proximate to, existing built areas to facilitate delivery of City services and minimize "leapfrog" development not connected to existing urbanized areas.
- **LU-3.2: Walkable streets.** Regulate new development to ensure new blocks encourage walkability by maximizing connectivity and route choice, create reasonable block lengths to encourage more walking and physical activity and improve the walkability of existing neighborhood streets.
- **LU 3.3: Pedestrian barriers.** Discourage physical barriers to walking and bicycling between and within neighborhoods and neighborhood centers. If physical barriers are unavoidable, provide safe and comfortable crossings for pedestrians and cyclists. Physical barriers may include arterial streets with speed limits above 35 mph, transit or utility rights-of-way, very long blocks without through-streets, and sound walls, among others
- **LU-5.1: Complete neighborhoods**. Through the development entitlement process, ensure that all new Neighborhoods (areas with a "Neighborhood" General Plan Designation) are complete and well-structured such that the physical layout and land use mix promote walking to services, biking and transit use; develop community identity and pride, are family friendly and address the needs of multiple ages and physical abilities. New neighborhoods should have the following characteristics:
    - Be approximately 125 acres in size and approximately half-mile in diameter
    - Contain short, walkable block lengths.
    - ・Have a grid or modified grid street network (except where topography necessitates another street network layout).
    - Contain a high level of connectivity for pedestrians, bicycles and vehicles (except where existing development or natural features prohibit connectivity).
    - Have homes with entries and windows facing the street.
    - Contain a diversity of housing types, where possible.
    - Provide a diversity of architectural styles.
    - Have goods and services within a short walking distance.
    - Are organized around a central focal point such as a park, school, civic building or neighborhood retail such that most homes are no more than one quarter-mile from this focal point.

- **LU- 5.15: Access to daily activities**. Strive to create development patterns such that the majority of residents are within one-half mile walking distance to a variety of neighborhood goods and services, such as supermarkets, restaurants, churches, cafes, dry cleaners, laundromats, farmers markets, banks, hair care, pharmacies and similar uses.
- **LU- 6.6: Redevelopment of existing retail into neighborhood centers.** Provide incentives to transform existing, auto-dominated suburban centers into neighborhood destinations by adding a diversity of uses, providing new pedestrian connections to adjacent residential areas, reducing the visual prominence of parking lots, making the centers more pedestrian-friendly and enhance the definition and character of street frontage and associated streetscapes.
- **LU- 9.1: City-wide connectivity.** Establish and preserve a Citywide street network throughout the City where through roads occur approximately every one-quarter mile, except where connections cannot be made because of previous large development projects or physical constraints. Physical constraints shall be canals, railroads, water, steep slopes, limited access roadways and similar natural and man-made barriers.
- **LU- 9.2: Subarea connectivity.** Ensure a high-level of connectivity in all Neighborhoods, Centers and Districts throughout the City. The connectivity shall be measured as block perimeter and in external connectivity on the perimeter of a new development project.
- **LU- 9.3: Connections between development projects.** Require the continuation of the street network between adjacent development projects and discourage the use of cul-desacs except where necessary because connections cannot be made due to existing development, topographic conditions or limited access to transportation systems.
- **M-3.1: Pedestrian network.** Improve health outcomes by creating a safe and convenient circulation system for pedestrians that focuses on crosswalks, improves the connections between neighborhoods and commercial areas, provides places to sit or gather, pedestrian-scaled street lighting, buffers from moving vehicle traffic, and includes amenities that attract people of all ages and abilities.
- **M-3.2: Pedestrian improvement prioritizations.** Prioritize pedestrian improvements in existing areas of the City with supportive land use patterns and those facilities that provide connectivity to other modes of travel such as bicycling and transit.
- **M-3.3: Sidewalks for roadways**. Require that the City provide wide sidewalks along all roadways which are built or reconstructed in the City except in those instances in which there is insufficient right-of-way or other physical limitations.
- **M-3.4: Pedestrian connections for development.** Require that all development or redevelopment projects provide pedestrian connections to the external pedestrian network.
- **M-3.5: Pedestrian access to gated communities.** Require that all new communities, regardless of the presence of gates and sound walls, provide pedestrian connections from external areas into the community.
- **M-3.6: Pedestrian only areas**. Promote the closure of streets on a recurring basis to create temporary pedestrian zones for Community Events, such as farmers markets, community events, ciclovías (bicycle and pedestrian events), and other events consistent with the walking and biking

environment policies of the Mobility Element. Leverage the momentum of other regional bike events, such as Tour de Palm Springs, to create events locally.

- **M-4.1: Bicycle networks**. Require that the City provide additional bicycle facilities along all roadways in the City which are built or reconstructed in the City except in those instances in which there is insufficient right-of-way or other physical limitations
- **M-4.2: Priority bike improvements.** Prioritize improvements that address bicycling in existing areas of the City with complementary land use patterns and connections to other modes of travel including walking and transit.
- **M-4.3: Bicycle access to gated communities.** Require that all new communities, regardless of the presence of gates and sound walls, provide bicycle connections from external areas into the community.
- **M-4.4: Bicycle parking.** Require that the public and private development in the City provide sufficient bicycle parking.
- **M-4.5: Wayfinding.** Develop a comprehensive and visible way-finding signage system in the city to direct cyclists to transit facilities, local and regional bike routes, civic and cultural amenities, and visitor and recreation destinations. The way-finding system should make an effort to connect with the region and surrounding cities.
- **M-5.1: Transit improvements**. Promote transit service in areas of the City with sufficient density and intensity of uses, mix of appropriate uses, and supportive bicycle/pedestrian networks.
- **M-5.2: Bus stops.** Review existing bus stop locations to determine their accessibility to key destinations such as schools, residential areas, retail centers, civic facilities. The City will encourage bus shelters as public art and work with Sun Line to relocate bus stop locations as needed to provide greater access to these key destinations. Prioritize those bus stop locations which are connected to bicycle and pedestrian facilities.
- **M-5.3: Promote bus shelters.** Encourage bus shelters in new development, if a stop is determined necessary by SunLine. Bus shelters should be designed as public art or to be compatible with the building architecture of the site.
- **M-5.4: Transit accessible development**. Encourage new large residential or commercial developments to locate on existing and planned transit routes.
- **M-5.5: Senior transit.** Ex**p**and affordable and reliable transportation options for older adults and persons with disabilities through collaboration with Sun Line, the Senior Center, and other community groups.
- **M-5.7: Safe routes to transit.** Regularly review and improve **p**edestrian and cyclist access to transit.
- **M-8.1: Regional transit.** Collaborate with Sun Line Transit to identify regional connections for City residents and employees
- **M-8.3: Regional non-motorized connections.** Collaborate with CVAG to provide connections between the City's bicycle and pedestrian network to regional facilities.

6.0 Design, Emergency Vehicle Access and Non-Automotive Impact Analysis

This chapter documents conditions with the General Plan related to transportation design, emergency vehicle access, and non-automotive modes.

6.1 Design and Emergency Vehicle Access

A key aspect of the transportation system is limiting hazardous conditions for all users of the transportation system including vehicles, bicyclists, and pedestrians. As such, the design of transportation facilities is a key consideration to limit these hazards.

The General Plan and the Circulation Element contain a number of policy statements related to the design of transportation facilities which limits hazardous conditions. Significant policies include:

- **Goal 1:** A balanced transportation system that accommodates all modes of travel safely and efficiently without prioritizing automobile travel at the expense of other modes.
- **M-1.5: Pedestrian and cyclist safety.** Balance the safety concerns of pedestrians and cyclists with motor vehicles and emergency response to ensure that the safety of all users of the transportation system is considered.
- **M-2.1: Traffic calming.** Develop traffic calming policies for selecting targeted existing neighborhoods to include: clearly marked bike and pedestrian zones, bike boulevards, bulb outs, median islands, speed humps, traffic circles, speed tables, center island narrowings, raised crosswalks, blinking crosswalks, chicanes, chokers, raised intersections, realigned intersections, and textured pavements, among other effective enhancements. [From Health Element]
- **M-2.2: Traffic calming**. Apply traffic calming techniques to future residential streets to limit cut-through traffic and speeding on these roadways streets. **– Potential traffic calming applications can include** clearly marked bike and pedestrian zones, bike boulevards, bulb outs, median islands, speed humps, traffic circles, speed tables, center island narrowings, raised crosswalks, blinking crosswalks, chicanes, chokers, raised intersections, realigned intersections, and textured pavements, among other effective enhancements
- **M-3.1: Pedestrian network.** Improve health outcomes by creating a safe and convenient circulation system for pedestrians that focuses on crosswalks, improves the connections between neighborhoods and commercial areas, provides places to sit or gather, pedestrian-scaled street lighting, buffers from moving vehicle traffic, and includes amenities that attract people of all ages and abilities.

The General Plan also will not impede access by emergency vehicles. Policy M-1.5 also references emergency vehicle access in relation to the safety of motor vehicles, pedestrians, and bicyclists. Additionally, the General Plan roadway network anticipates that widening and reconstruction of many roadways existing roadways in Coachella, consistent with the anticipated level of growth. Additionally, several new roadways are proposed. This expanded roadway network will provide additional access for emergency vehicles to ensure continued service for City residents, employees, and visitors.

6.2 Non-Automotive Facilities

The General Plan substantially expands the non-automotive facilities within the City. The proposed General Plan roadway network would provide nearly 200 miles of roadways within in-street bicycle lanes and over 50 miles of off-street facilities. The proposed cross-sections for the General Plan also provide for sidewalks along many of the roadways within the City to facilitate pedestrian travel within the City. These Citywide facilities complement CVAG's Regional Non-Motorized Plan, which will provide regional connections along alignments such as the Parkway 1e11 into the City of Coachella.

These facilities will be complemented by policies within the General Plan which encourage the development of transit, bicycle, and pedestrian facilities including:

- **M-1.1: Complete Streets for new construction.** Require that the planning, design and construction of all new transportation projects consider the needs of all modes of travel to create safe, livable and inviting environments for pedestrians, bicyclists, motorists and public transit users of all ages and abilities.
- **M-1.2: Complete streets for existing roadways.** Require that the planning, design and reconstruction of any existing transportation projects consider the needs of all travel modes to the extent feasible.
- **M-1.5: Pedestrian and cyclist safety.** Balance the safety concerns of pedestrians and cyclists with motor vehicles and emergency response to ensure that the safety of all users of the transportation system is considered.
- **M-3.1: Pedestrian network.** Improve health outcomes by creating a safe and convenient circulation system for pedestrians that focuses on crosswalks, improves the connections between neighborhoods and commercial areas, provides places to sit or gather, pedestrian-scaled street lighting, buffers from moving vehicle traffic, and includes amenities that attract people of all ages and abilities.
- **M-4.1: Bicycle networks**. Require that the City provide additional bicycle facilities along all roadways in the City which are built or reconstructed in the City except in those instances in which there is insufficient right-of-way or other physical limitations
- **M-5.1: Transit improvements**. Promote transit service in areas of the City with sufficient density and intensity of uses, mix of appropriate uses, and supportive bicycle/pedestrian networks..

- **M-5.2: Bus stops.** Review existing bus stop locations to determine their accessibility to key destinations such as schools, residential areas, retail centers, civic facilities. Work with Sun Line to relocate bus stop locations as needed to provide greater access to these key destinations. Prioritize those bus stop locations which are connected to bicycle and pedestrian facilities.
- **M-8.3: Regional non-motorized connections.** Collaborate with CVAG to provide connections between the City's bicycle and pedestrian network to regional facilities.

Given the alternative mode improvements identified and the supporting policy language, the General Plan strongly supports travel by walking, bicycling, and transit.

APPENDIX A: EXISTING TRAFFIC COUNTS

URBAN
CROSSROADS

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CITY-WIDE TRAFFIC STUDY
CITY OF COACHELLA, CALIFORNIA

March 20, 2007

JN:04070-03
CW:MZ:KT:JW:cg

3.0 EXISTING CONDITIONS

This section of the traffic study report describes existing traffic conditions in the study area, including the existing roadway features, daily traffic volumes, intersection turning movement volumes and levels of service analysis, as well as the existing transit services, and the Currently Adopted General Plan Circulation Element roadway system and standard cross-sections.

3.1 Existing Roadway Characteristics

Field review of the existing roadway system for the City of Coachella has been performed. Exhibit 3-A depicts the existing number of through lanes on the roadway system, existing intersection lane configurations, and the intersection traffic control devices at the study area intersections. Existing cross-sections range from numerous two lane undivided roadways to 6 lane roadways. Avenue 48 is the only roadway in the City that has 6 through lanes under existing conditions. Grapefruit Boulevard (SR-111), Avenue 50 and Harrison Street include some segments that consist of 4 lane divided cross-sections. A number of roadways include segments with a 4 lane undivided cross-section.

3.2 Existing Daily Traffic Volumes

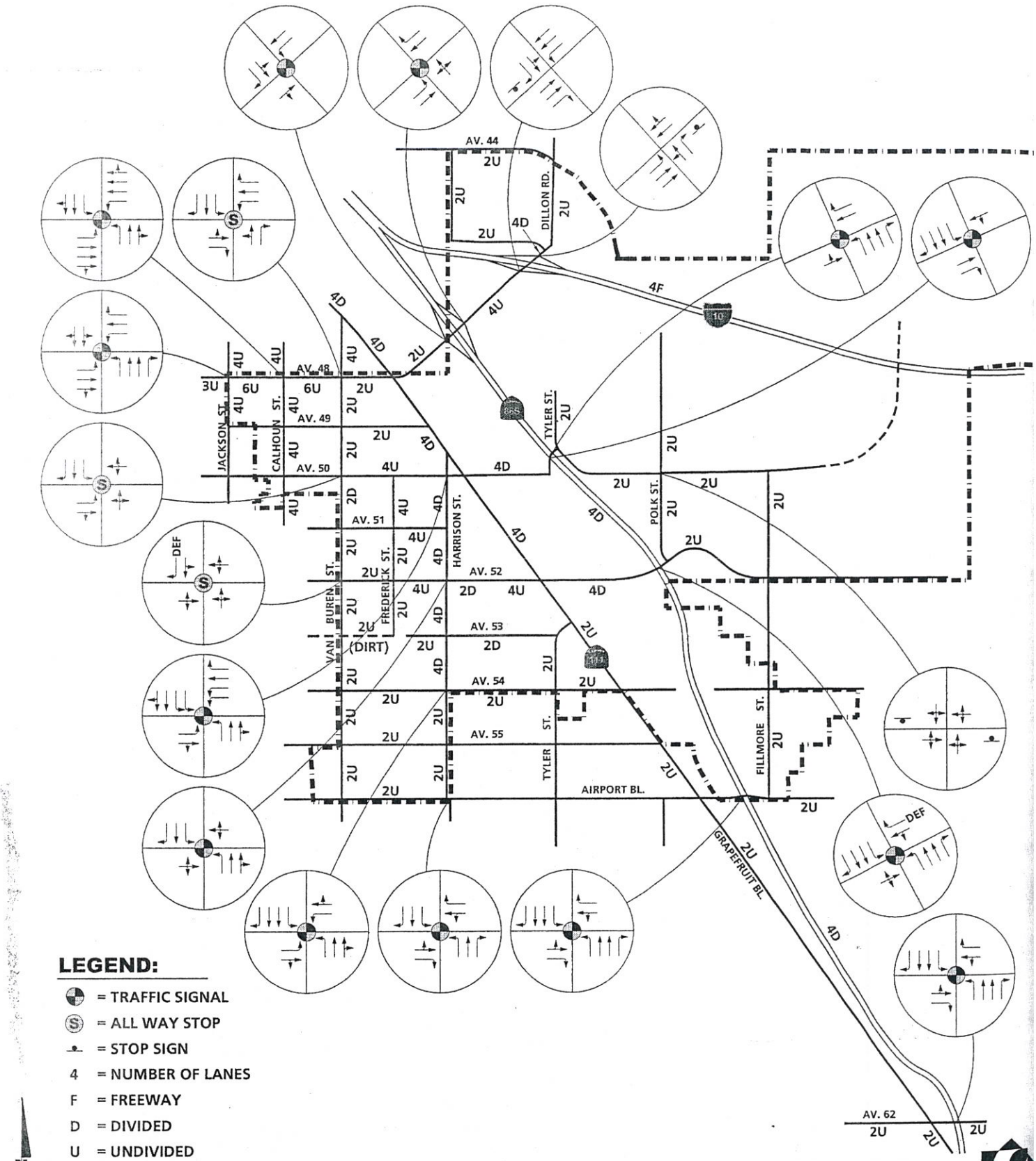
Exhibit 3-B shows the existing average daily traffic (ADT) volumes for the study area. Daily traffic count data was compiled from 24-hour intersection approach count data provided to Urban Crossroads, Inc. or estimated based on peak hour turning movement volumes at adjacent intersections using the following formula for each intersection leg:

[AM + PM Peak Hour (Approach + Exit Volume)] / (6.3%+8.1%) = Daily Leg Volume.

In the above formula, the constants of 6.3% and 8.1% are calculated AM and PM peak hour to ADT volume ratios based on the actual turning movement counts and daily counts. Appendix "B" contains the daily traffic count data and the peak to daily relationship analysis.

EXHIBIT 3-A

EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



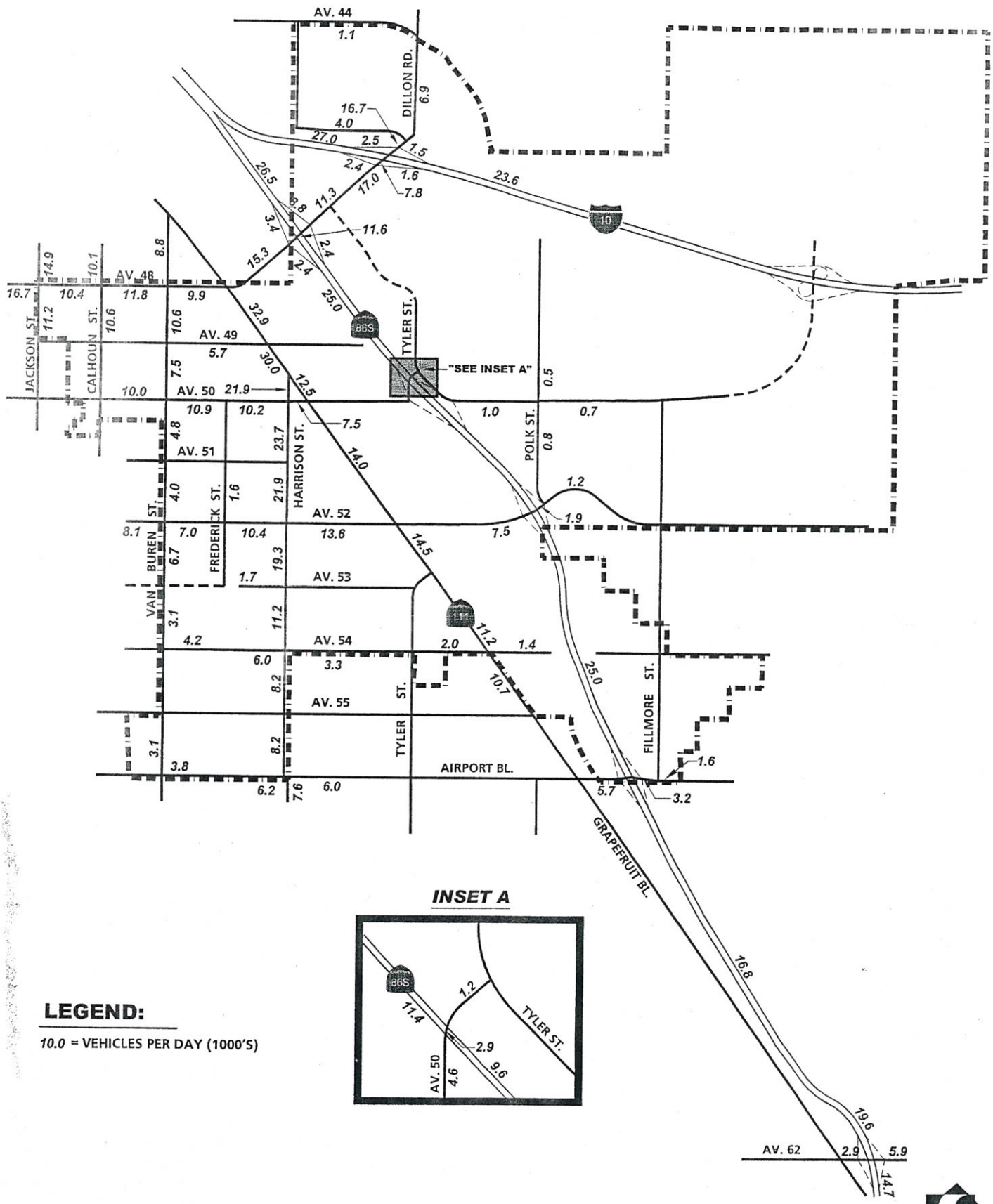
LEGEND:

- = TRAFFIC SIGNAL
- S = ALL WAY STOP
- = STOP SIGN
- 4 = NUMBER OF LANES
- F = FREEWAY
- D = DIVIDED
- U = UNDIVIDED
- DEF = DEFACTO RIGHT TURN LANE

N

EXHIBIT 3-B

EXISTING AVERAGE DAILY TRAFFIC (ADT)



Daily traffic volumes on the City of Coachella arterial system and immediate vicinity range from very low volumes to daily traffic volumes that approach 32,900 vehicles per day (VPD). Grapefruit Boulevard (111) carries volumes greater than 32,000 VPD north of Avenue 49. Harrison Street carries 23,700 VPD south of Avenue 50, SR-86 carries up to 21,900 VPD south of Dillon Road Interchange, and Dillon road carries 15,300 VPD south of the SR-86 interchange.

3.3 Existing Roadway Segment Volume/Capacity Ratio

Existing conditions roadway segment daily volume-to-capacity ratios have been calculated based on the roadway capacities table is presented on Table 1-4 in Chapter 1. The LOS "E" capacity is used for the volume-to-capacity ratio calculation. The daily volume-to-capacity ratios provide a screening level analysis of daily traffic flows and potential operational problems within the study area. The peak hour analysis for intersections, presented in the following section, provide a more definitive analysis of the operation of the arterial roadways in the project area. Daily volume to capacity ratios are illustrated on Exhibit 3-C. As illustrated, all roadway V/C ratios are within the adequate range under existing conditions. No daily deficiencies occur under existing conditions. The highest V/C ratio (0.82) occurs along Grapefruit Boulevard, south of Dillon Road.

3.4 Existing Intersection Traffic Conditions

Nineteen (19) existing key intersections in and near the City of Coachella have been selected for analysis in coordination with City staff for this analysis. The analysis intersections are:

Jackson Street (NS) at:

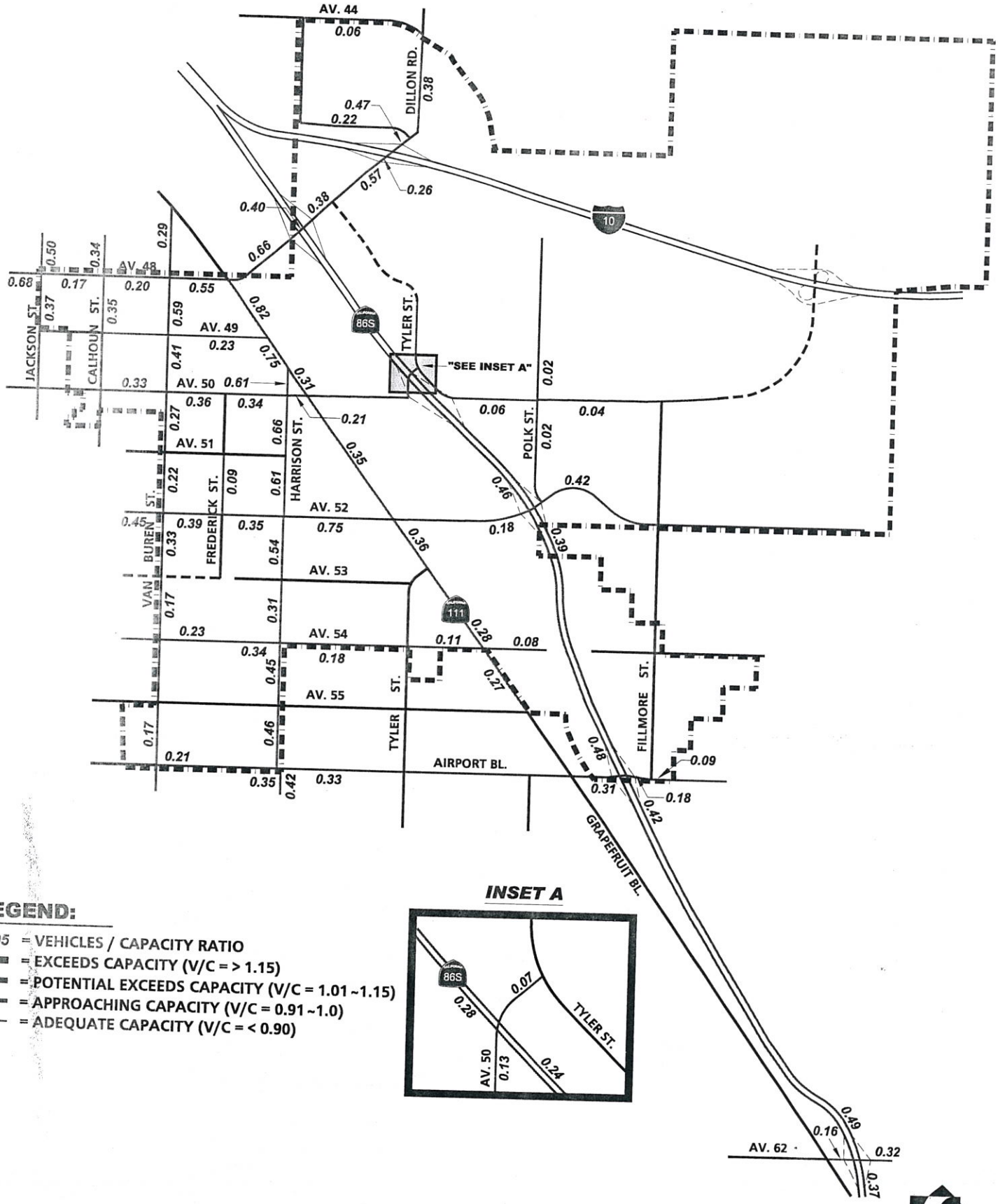
- Avenue 48 (EW)

Calhoun Street (NS) at:

- Avenue 48 (EW)

EXHIBIT 3-C

EXISTING DAILY V/C RATIO



INSET A

LEGEND:

- 0.95 = VEHICLES / CAPACITY RATIO
- = EXCEEDS CAPACITY (V/C = > 1.15)
- = POTENTIAL EXCEEDS CAPACITY (V/C = 1.01 ~ 1.15)
- = APPROACHING CAPACITY (V/C = 0.91 ~ 1.0)
- = ADEQUATE CAPACITY (V/C = < 0.90)

Van Buren Street (NS) at:

- Avenue 48 (EW)
- Avenue 50 (EW)
- Avenue 52 (EW)

SR-86 Southbound Ramps (NS) at:

- Dillon Road (EW)

SR-86 Northbound Ramps (NS) at:

- Dillon Road (EW)

Dillon Road (NS) at:

- I-10 Freeway Eastbound Ramps (EW)
- I-10 Freeway Westbound Ramps (EW)

Harrison Street (NS) at:

- Avenue 50 (EW)
- Avenue 52 (EW)
- Avenue 54 (EW)
- Airport Boulevard (EW)

SR-86S Southbound Ramps (NS) at:

- Avenue 50 (EW)

SR-86S Northbound Ramps (NS) at:

- Avenue 50 (EW)

Polk Street (NS) at:

- Avenue 50 (EW)

SR-86S (NS) at:

- Avenue 52 (EW)

SR-86S (NS) at:

- Airport Boulevard (EW)

SR-86S (NS) at:

- Avenue 62 (EW)

Peak hour turning movement counts for the existing intersections are included in Appendix "C". All intersections were counted during August 2006 or December 2006. Seasonal adjustment factor has been used to adjust the traffic count conducted in August 2006. The existing turning movement volume data has been reviewed to verify the conservation of flow with adjacent intersections. The existing intersection AM and PM peak hour traffic volumes are included on Exhibits 3-D and 3-E, respectively. The calculated 25% seasonal adjustment factor has been applied to the following intersections for which the traffic counts were conducted during the off-season:

SR-86 Southbound Ramps (NS) at:

- Dillon Road (EW)

SR-86 Northbound Ramps (NS) at:

- Dillon Road (EW)

Dillon Road (NS) at:

- I-10 Freeway Eastbound Ramps (EW)
- I-10 Freeway Westbound Ramps (EW)

Harrison Street (NS) at:

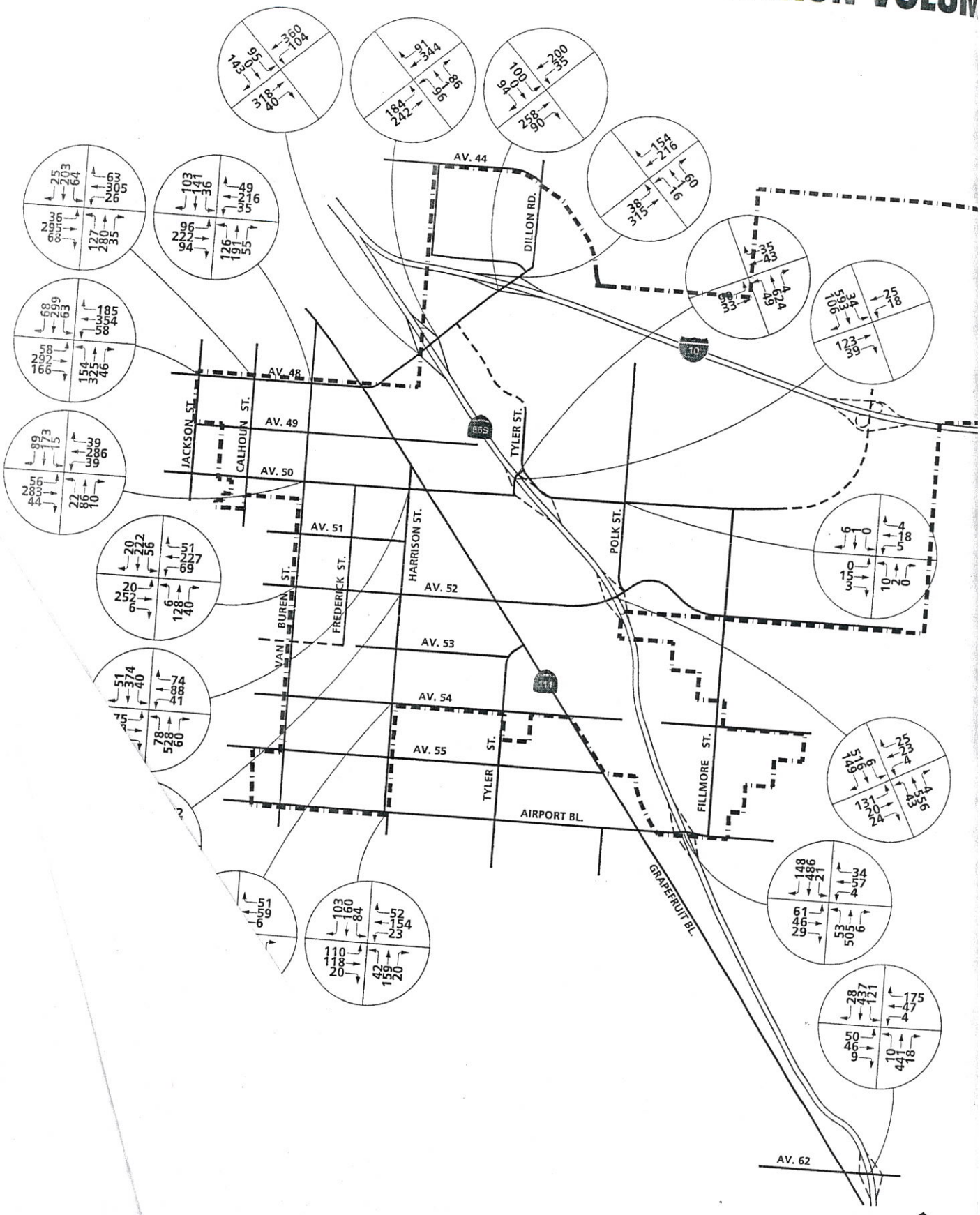
- Avenue 50 (EW)

SR-86S Southbound Ramps (NS) at:

- Avenue 50 (EW)

EXISTING AM PEAK HOUR INTERSECTION VOLUM

EXHIBIT



SR-86S Northbound Ramps (NS) at:

- Avenue 50 (EW)

Polk Street (NS) at:

- Avenue 50 (EW)

SR-86S (NS) at:

- Avenue 52 (EW)

Existing peak hour traffic operations have been evaluated for the 19 existing study area intersections. Avenue 50, Avenue 52, Airport Boulevard and Avenue 62 currently intersect SR-86S at grade. They are proposed to be reconstructed as grade separated interchanges under General Plan conditions. The results of this analysis are summarized in Table 3-1, along with the existing intersection geometrics and traffic control devices at the analysis locations. Existing HCM calculation worksheets are provided in Appendix "D". As indicated on Table 3-1, for existing traffic conditions, all study area intersections are currently operating at Level of Service "D" or better during AM and PM peak hours except for the following intersections:

Van Buren Street (NS) at:

- Avenue 48 (EW)
- Avenue 50 (EW)

3.5 Existing Intersection Traffic Signal Warrant Analysis

Peak hour traffic signal warrant analysis has been completed and indicates that the following intersections appear to currently warrant a traffic signal (see Appendix "E"):

Van Buren Street (NS) at:

- Avenue 48 (EW)
- Avenue 50 (EW)
- Avenue 52 (EW)

TABLE 3-1

INTERSECTION ANALYSIS FOR EXISTING CONDITIONS

INTERSECTION	TRAFFIC CONTROL[3]	INTERSECTION APPROACH LANES[1]												DELAY[2] (SECS.)		LEVEL OF SERVICE	
		NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
		L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
Jackson St. (NS) at:																	
• Ave. 48. (EW)	TS	1	2	1	0.5	1.5	0	1	2	0	1	1	1	35.0	35.6	C	D
Calhoun St. (NS) at:																	
• Ave. 48. (EW)	TS	1	2	0	1	2	0	1	3	0	1	3	0	22.2	23.2	C	C
Van Buren St. (NS) at:																	
• Ave. 48. (EW)																	
-without improvements	AWS	0.5	0.5	1	1	1	1	0.5	0.5	1	1	1	1	21.7	40.3	C	E
-with improvements	**TS**	**2**	**1**	1	1	1	1	**1**	**3**	1	**2**	**3**	1	29.7	29.7	C	C
• Ave. 50. (EW)																	
-without improvements	AWS	0	1	0	1	1	1	1	1	0	0	1	0	20.9	--[4]	C	F
-with improvements	**TS**	**1**	1	0	1	1	1	1	1	0	**1**	1	**1**	28.9	29.8	C	C
• Ave. 52. (EW)																	
-without improvements	AWS	0	1	0	0.5	0.5	1	0	1	0	0	1	0	24.2	18.2	C	C
-with improvements	**TS**	**2**	1	0	**1**	**1**	0	**1**	**3**	0	**1**	**3**	0	30.4	30.4	C	C
SR-86S SB Ramps (NS) at:																	
• Dillon Rd. (EW)	TS	0	0	0	0.5	0.5	1	0	1	0	1	1	0	18.8	21.6	B	C
SR-86S NB Ramps (NS) at:																	
• Dillon Rd. (EW)	TS	0	1	0	0	0	0	1	1	0	0	1	1	23.1	21.7	C	C
Dillon Rd. (NS) at:																	
• I-10 EB Ramps. (EW)	CSS	0	2	1	1	2	0	0.5	0.5	1	0	0	0	14.2	13.6	B	B
• I-10 WB Ramps. (EW)	CSS	1	2	0	0	2	0	0	0	0	0.5	0.5	1	13.6	13.6	B	B
Harrison St. (NS) at:																	
• Ave. 50. (EW)	TS	1	2	0	2	2	0	1	1	0	2	1	1	30.2	43.4	C	D
• Ave. 52. (EW)	TS	1	2	0	1	1	1	0	1	0	0	1	0	32.7	44.3	C	D
• Ave. 54. (EW)	TS	1	2	0	1	2	1	1	1	0	1	1	0	22.3	25.1	C	C
• Airport Bl. (EW)	TS	1	1	1	1	1	1	0.5	0.5	1	0.5	0.5	1	24.9	24.2	C	C
SR-86S SB Ramps (NS) at:																	
• Ave. 50 (EW)	TS	0	0	0	1	2	1	0	1	1	0.5	0.5	0	17.9	16.5	B	B
SR-86S NB Ramps (NS) at:																	
• Ave. 50 (EW)	TS	1	2	1	0	0	0	0.5	0.5	0	0	1	1	18.4	18.5	B	B
Polk St. (NS) at:																	
• Ave. 50. (EW)	CSS	0.5	0.5	0	0	1	0	0	1	0	0	1	0	9.0	10.0	A	B
SR-86S (NS) at:																	
• Ave.52. (EW)	TS	1	2	1	1	2	1	0	1	0	0.5	0.5	1	40.5	38.2	D	D
• Airport Bl. (EW)	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	25.7	29.5	C	C
• Ave.62. (EW)	TS	1	2	1	1	2	1	0.5	0.5	1	0.5	0.5	1	31.7	30.1	C	C

---

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; >> = Free Right Turn; > = Right Turn Overlap; 1 = Improvements.

[2] Delay and level of service calculated using the following analysis software: Traffix, Version 7.6.0.38 (2003). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal
CSS = Cross Street Stop

[4] -- = Delay High, Intersection Unstable, Level of Service "F".

[5] Intersections are analyzed with minimum green time calculated based on the latest MUTCD pedestrian crossing time.

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APPENDIX B: GENERAL PLAN LOS RESULTS

Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan AM

Intersection #1: Jackson Street (NS) / 48th Avenue (EW)

Signal=Split/Rights=Include
Initial Vol: 154 678*** 143
Lanes: 1 0 3 0 2

Initial Vol:	Lanes:	Signal=Protect Rights=Include			Signal=Protect Rights=Include	Lanes:	Initial Vol:
			Vol Cnt Date:	n/a			
			Cycle Time (sec):	110			
131	1					1	419
			Loss Time (sec):	16			
	0					0	
662***	1		Critical V/C:	0.719		3	802
	1		Avg Crit Del (sec/veh):	38.8		0	
376	0		Avg Delay (sec/veh):	36.8		2	131***
			LOS:	D			

Lanes: 2 0 3 0 1
Initial Vol: 349 737*** 104
Signal=Split/Rights=Include

```
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     349  737   104   143  678   154   131  662   376   131  802   419
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  349  737   104   143  678   154   131  662   376   131  802   419
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  349  737   104   143  678   154   131  662   376   131  802   419
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   349  737   104   143  678   154   131  662   376   131  802   419
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  349  737   104   143  678   154   131  662   376   131  802   419
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  349  737   104   143  678   154   131  662   376   131  802   419
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.91  0.85  0.92 0.91  0.85  0.95 0.90  0.90  0.92 0.91  0.85
Lanes:       2.00 3.00  1.00  2.00 3.00  1.00  1.00 1.28  0.72  2.00 3.00  1.00
Final Sat.:  3502 5187  1615  3502 5187  1615  1805 2178  1237  3502 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.10 0.14  0.06  0.04 0.13  0.10  0.07 0.30  0.30  0.04 0.15  0.26
Crit Moves:       ****             ****             ****        ****
Green/Cycle: 0.20 0.20  0.20  0.18 0.18  0.18  0.10 0.42  0.42  0.05 0.37  0.37
Volume/Cap:  0.50 0.72  0.33  0.22 0.72  0.52  0.70 0.72  0.72  0.72 0.42  0.70
Delay/Veh:   39.9 43.8  38.4  38.6 45.1  42.4  58.7 28.1  28.1  64.3 25.9  33.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  39.9 43.8  38.4  38.6 45.1  42.4  58.7 28.1  28.1  64.3 25.9  33.0
LOS by Move:    D    D     D     D    D     D     E    C     C     E    C     C
HCM2kAvgQ:      6   10     3     2    9     5     6   16    16     2    7    12
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:         2  0  3  0  1    2  0  3  0  1    1  0  1  1  0    2  0  3  0  1
Lane Group:     L    T     R     L    T     R     L   RT    RT     L    T     R
#LnsInGrps:     2    3     1     2    3     1     1    2     2     2    3     1
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:         8                8                8                8
% Hev Veh:           0                0                0                0
Grade:              0%               0%               0%               0%
Parking/Hr:         No               No               No               No
Bus Stp/Hr:          0                0                0                0
Area Type:     < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > >
Cnft Ped/Hr:         0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:          0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:     1 xxxx  xxxx     1 xxxx  xxxx     1 xxxx  xxxx     1 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Hev Veh Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Grade Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Parking Adj: xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx 1.00  1.00  xxxx xxxx  1.00
Bus Stp Adj: xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx 1.00  1.00  xxxx xxxx  1.00
Area Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
RT Adj:      xxxx xxxx  0.85  xxxx xxxx  0.85  xxxx 0.95  0.95  xxxx xxxx  0.85
LT Adj:      0.95 xxxx xxxxx  0.95 xxxx xxxxx  0.95 xxxx xxxxx  0.95 xxxx xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.95 1.00  0.85  0.95 1.00  0.85  0.95 0.95  0.95  0.95 1.00  0.85
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 0.97 0.91  1.00  0.97 0.91  1.00  1.00 0.95  0.95  0.97 0.91  1.00
Fnl Sat Adj: 0.92 0.91  0.85  0.92 0.91  0.85  0.95 0.90  0.90  0.92 0.91  0.85
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:   < < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > > >
Signal Type:   < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
      Level Of Service Detailed Computation Report (HCM2000 Queue Method)
```

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2000 HCM Operations Method
Future Volume Alternative

****

Intersection #1 Jackson Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.20	0.20	0.20	0.18	0.18	0.18	0.10	0.42	0.42	0.05	0.37	0.37
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	4.9	7.7	2.7	1.9	7.1	4.3	3.9	13.8	13.8	2.0	6.7	10.9
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	0.76	0.76
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.57	0.57
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.11	0.36	0.33
Q2:	1.0	2.2	0.5	0.3	2.2	1.0	1.8	2.3	2.3	0.3	0.3	0.7
HCM2KQueue:	5.9	9.9	3.2	2.2	9.3	5.3	5.7	16.2	16.2	2.3	6.9	11.6
70th%Factor:	1.19	1.18	1.19	1.19	1.18	1.19	1.19	1.17	1.17	1.19	1.18	1.17
HCM2k70thQ:	7.0	11.7	3.8	2.6	11.0	6.3	6.8	18.9	18.9	2.7	8.2	13.6
85th%Factor:	1.55	1.52	1.57	1.58	1.52	1.55	1.55	1.47	1.47	1.58	1.54	1.50
HCM2k85thQ:	9.1	15.0	5.0	3.5	14.2	8.2	8.8	23.9	23.9	3.6	10.7	17.4
90th%Factor:	1.70	1.64	1.74	1.76	1.65	1.71	1.70	1.58	1.58	1.76	1.68	1.62
HCM2k90thQ:	10.0	16.3	5.6	3.9	15.4	9.0	9.7	25.5	25.5	4.0	11.7	18.8
95th%Factor:	1.93	1.85	2.00	2.03	1.86	1.95	1.94	1.74	1.74	2.03	1.91	1.81
HCM2k95thQ:	11.4	18.3	6.4	4.5	17.3	10.3	11.1	28.2	28.2	4.6	13.2	21.1
98th%Factor:	2.34	2.17	2.48	2.54	2.19	2.37	2.34	1.99	1.99	2.54	2.29	2.11
HCM2k98thQ:	13.7	21.5	7.9	5.6	20.4	12.5	13.4	32.2	32.2	5.8	15.9	24.5

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #1 Jackson Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	77.7	172	22.3	30.5	160	34.8	31.6	137	77.9	32.3	149	88.9

Name: year 1995 composite fleet
Fuel Consumption: 179.006 pounds
28.999 gallons
Carbon Dioxide: 558.497 pounds
Carbon Monoxide: 45.338 pounds
Hydrocarbons: 8.753 pounds
Nitrogen Oxides: 1.476 pounds

Name: year 2000 composite fleet
Fuel Consumption: 179.006 pounds
28.999 gallons
Carbon Dioxide: 558.497 pounds
Carbon Monoxide: 45.338 pounds
Hydrocarbons: 8.753 pounds
Nitrogen Oxides: 1.476 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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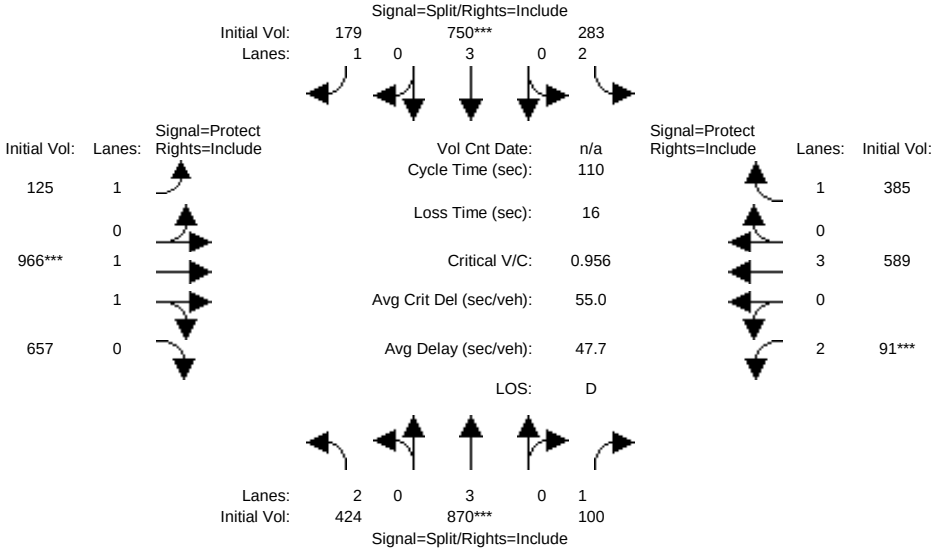
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan PM

Intersection #1: Jackson Street (NS) / 48th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	424	870	100	283	750	179	125	966	657	91	589	385
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	424	870	100	283	750	179	125	966	657	91	589	385
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	424	870	100	283	750	179	125	966	657	91	589	385
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	424	870	100	283	750	179	125	966	657	91	589	385
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	424	870	100	283	750	179	125	966	657	91	589	385
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	424	870	100	283	750	179	125	966	657	91	589	385
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.85	0.92	0.91	0.85	0.95	0.89	0.89	0.92	0.91	0.85
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	1.00	1.19	0.81	2.00	3.00	1.00
Final Sat.:	3502	5187	1615	3502	5187	1615	1805	2018	1372	3502	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.12	0.17	0.06	0.08	0.14	0.11	0.07	0.48	0.48	0.03	0.11	0.24
Crit Moves:		****			****			****			****	
Green/Cycle:	0.18	0.18	0.18	0.15	0.15	0.15	0.12	0.50	0.50	0.03	0.41	0.41
Volume/Cap:	0.69	0.96	0.35	0.53	0.96	0.73	0.58	0.96	0.96	0.96	0.28	0.58
Delay/Veh:	45.9	64.9	40.6	44.2	68.3	55.4	49.9	39.3	39.3	131.1	21.7	26.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.9	64.9	40.6	44.2	68.3	55.4	49.9	39.3	39.3	131.1	21.7	26.5
LOS by Move:	D	E	D	D	E	E	D	D	D	F	C	C
HCM2kAvgQ:	8	15	3	5	13	7	5	33	33	2	4	9

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	2 0 3	0 1		2 0 3	0 1		1 0 1	1 0		2 0 3	0 1	
Lane Group:	L	T	R	L	T	R	L	RT	RT	L	T	R
#LnsInGrps:	2	3	1	2	3	1	1	2	2	2	3	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:		8			8			8			8	
% Hev Veh:		0			0			0			0	
Grade:		0%			0%			0%			0%	
Parking/Hr:		No			No			No			No	
Bus Stp/Hr:		0			0			0			0	
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:		0			0			0			0	
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:		0			0			0			0	
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	1.00	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	1.00	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	0.94	0.94	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.94	0.94	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	0.97	0.91	1.00	0.97	0.91	1.00	1.00	0.95	0.95	0.97	0.91	1.00
Fnl Sat Adj:	0.92	0.91	0.85	0.92	0.91	0.85	0.95	0.89	0.89	0.92	0.91	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #1 Jackson Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.18	0.18	0.18	0.15	0.15	0.15	0.12	0.50	0.50	0.03	0.41	0.41
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	6.3	9.6	2.7	4.1	8.3	5.2	3.6	25.0	25.0	1.4	4.4	9.1
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.95	0.95
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.22	0.22	0.22
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.03	0.15	0.13
Q2:	1.9	5.5	0.5	1.1	5.1	2.2	1.3	8.2	8.2	0.3	0.1	0.2
HCM2KQueue:	8.2	15.1	3.2	5.2	13.5	7.4	4.9	33.2	33.2	1.7	4.5	9.3
70th%Factor:	1.18	1.17	1.19	1.19	1.17	1.18	1.19	1.14	1.14	1.20	1.19	1.18
HCM2k70thQ:	9.7	17.7	3.8	6.2	15.8	8.7	5.8	37.9	37.9	2.1	5.3	11.0
85th%Factor:	1.53	1.48	1.57	1.55	1.49	1.53	1.56	1.40	1.40	1.58	1.56	1.52
HCM2k85thQ:	12.5	22.4	5.1	8.1	20.1	11.3	7.6	46.4	46.4	2.7	6.9	14.2
90th%Factor:	1.67	1.59	1.74	1.71	1.60	1.68	1.71	1.48	1.48	1.77	1.72	1.65
HCM2k90thQ:	13.6	24.0	5.6	8.9	21.6	12.4	8.3	49.0	49.0	3.0	7.7	15.4
95th%Factor:	1.88	1.76	2.00	1.95	1.78	1.90	1.96	1.60	1.60	2.05	1.97	1.86
HCM2k95thQ:	15.4	26.6	6.4	10.1	24.0	14.0	9.5	52.9	52.9	3.5	8.8	17.3
98th%Factor:	2.23	2.01	2.48	2.37	2.06	2.27	2.39	1.78	1.78	2.58	2.41	2.19
HCM2k98thQ:	18.3	30.4	8.0	12.3	27.7	16.7	11.6	59.0	59.0	4.4	10.7	20.4

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #1 Jackson Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	99.4	215	22.0	65.3	186	42.7	29.6	231	157.3	22.7	98.2	74.7

Name: year 1995 composite fleet
Fuel Consumption: 248.479 pounds
40.254 gallons
Carbon Dioxide: 775.254 pounds
Carbon Monoxide: 64.189 pounds
Hydrocarbons: 12.800 pounds
Nitrogen Oxides: 1.935 pounds

Name: year 2000 composite fleet
Fuel Consumption: 248.479 pounds
40.254 gallons
Carbon Dioxide: 775.254 pounds
Carbon Monoxide: 64.189 pounds
Hydrocarbons: 12.800 pounds
Nitrogen Oxides: 1.935 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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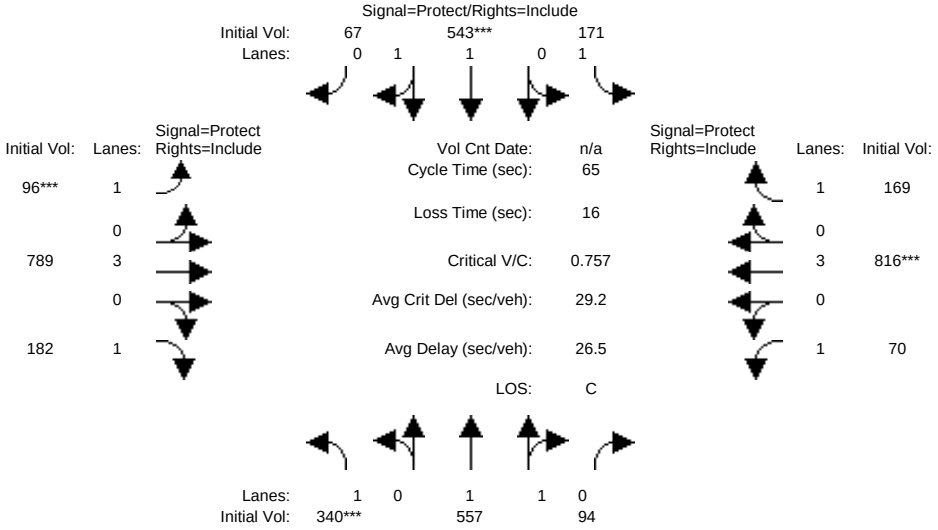
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan AM

Intersection #2: Calhoun Street (NS) / 48th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	340	557	94	171	543	67	96	789	182	70	816	169
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	340	557	94	171	543	67	96	789	182	70	816	169
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	340	557	94	171	543	67	96	789	182	70	816	169
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	340	557	94	171	543	67	96	789	182	70	816	169
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	340	557	94	171	543	67	96	789	182	70	816	169
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	340	557	94	171	543	67	96	789	182	70	816	169
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.93	0.93	0.95	0.91	0.85	0.95	0.91	0.85
Lanes:	1.00	1.71	0.29	1.00	1.78	0.22	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1805	3021	510	1805	3162	390	1805	5187	1615	1805	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.19	0.18	0.18	0.09	0.17	0.17	0.05	0.15	0.11	0.04	0.16	0.10
Crit Moves:	****				****			****			****	
Green/Cycle:	0.25	0.31	0.31	0.16	0.23	0.23	0.07	0.22	0.22	0.06	0.21	0.21
Volume/Cap:	0.76	0.59	0.59	0.59	0.76	0.76	0.76	0.69	0.51	0.69	0.76	0.50
Delay/Veh:	29.8	19.6	19.6	28.3	27.6	27.6	52.4	25.0	23.4	47.9	27.3	24.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.8	19.6	19.6	28.3	27.6	27.6	52.4	25.0	23.4	47.9	27.3	24.0
LOS by Move:	C	B	B	C	C	C	D	C	C	D	C	C
HCM2kAvgQ:	8	7	7	4	8	8	2	5	3	1	6	3
Note: Queue reported is the number of cars per lane.												
HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1	0	1	1	0	1	0	1	1	0	3	0	1	1	0	3	0	1
Lane Group:	L	RT		RT	L	RT		RT	L	T		R	L	T		R		
#LnsInGrps:	1	2		2	1	2		2	1	3		1	1	3		1		
HCM Ops Input Saturation Adj Module:																		
Lane Width:	12	12		12	12	12		12	12	12		12	12	12		12		
CrsswalkWid:	8			8				8				8				8		
% Hev Veh:	0			0				0				0				0		
Grade:	0%			0%				0%				0%				0%		
Parking/Hr:	No			No				No				No				No		
Bus Stp/Hr:	0			0				0				0				0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >																	
Cnft Ped/Hr:	0			0				0				0				0		
ExclusiveRT:	Include			Include				Include				Include				Include		
% RT Prtct:	0			0				0				0				0		
HCM Ops f(lt) Adj Case Module:																		
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx						
HCM Ops Saturation Adj Module:																		
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
Parking Adj:	xxxx	1.00	1.00	xxxx	1.00	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00						
Bus Stp Adj:	xxxx	1.00	1.00	xxxx	1.00	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00						
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
RT Adj:	xxxx	0.98	0.98	xxxx	0.98	0.98	xxxx	xxxx	0.85	xxxx	xxxx	0.85						
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx						
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
HCM Sat Adj:	0.95	0.98	0.98	0.95	0.98	0.98	0.95	1.00	0.85	0.95	1.00	0.85						
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						
MLF Sat Adj:	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.91	1.00	1.00	0.91	1.00						
Fnl Sat Adj:	0.95	0.93	0.93	0.95	0.93	0.93	0.95	0.91	0.85	0.95	0.91	0.85						
Delay Adjustment Factor Module:																		
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >																	
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > >																	
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00						

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #2 Calhoun Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.25	0.31	0.31	0.16	0.23	0.23	0.07	0.22	0.22	0.06	0.21	0.21
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	5.7	5.2	5.2	2.9	5.4	5.4	1.7	4.8	2.9	1.2	5.1	2.7
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.72	0.72	0.64	0.64	0.64
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.62	0.62	0.72	0.72	0.72
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	1.00	0.10	0.21	0.19	0.10	0.23	0.21
Q2:	2.6	1.4	1.4	1.3	2.6	2.6	0.3	0.4	0.2	0.2	0.7	0.2
HCM2KQueue:	8.3	6.6	6.6	4.2	8.0	8.0	2.0	5.2	3.1	1.5	5.8	2.9
70th%Factor:	1.18	1.18	1.18	1.19	1.18	1.18	1.20	1.19	1.19	1.20	1.19	1.19
HCM2k70thQ:	9.8	7.8	7.8	5.0	9.5	9.5	2.4	6.2	3.7	1.7	6.8	3.5
85th%Factor:	1.53	1.54	1.54	1.56	1.53	1.53	1.58	1.55	1.57	1.59	1.55	1.57
HCM2k85thQ:	12.7	10.1	10.1	6.5	12.2	12.2	3.2	8.1	4.8	2.3	8.9	4.6
90th%Factor:	1.66	1.69	1.69	1.72	1.67	1.67	1.76	1.71	1.74	1.77	1.70	1.75
HCM2k90thQ:	13.8	11.1	11.1	7.2	13.3	13.3	3.5	8.9	5.4	2.6	9.8	5.1
95th%Factor:	1.88	1.92	1.92	1.98	1.88	1.88	2.04	1.95	2.01	2.05	1.94	2.01
HCM2k95thQ:	15.6	12.6	12.6	8.2	15.1	15.1	4.1	10.2	6.2	3.0	11.2	5.9
98th%Factor:	2.23	2.30	2.30	2.43	2.24	2.24	2.56	2.37	2.49	2.59	2.34	2.50
HCM2k98thQ:	18.5	15.1	15.1	10.1	17.9	17.9	5.1	12.4	7.7	3.8	13.5	7.3

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #2 Calhoun Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	78.7	117	19.8	39.6	127	15.6	23.6	181	39.9	17.2	192	37.4

Name: year 1995 composite fleet
Fuel Consumption: 121.692 pounds
19.714 gallons
Carbon Dioxide: 379.678 pounds
Carbon Monoxide: 29.945 pounds
Hydrocarbons: 5.466 pounds
Nitrogen Oxides: 1.114 pounds

Name: year 2000 composite fleet
Fuel Consumption: 121.692 pounds
19.714 gallons
Carbon Dioxide: 379.678 pounds
Carbon Monoxide: 29.945 pounds
Hydrocarbons: 5.466 pounds
Nitrogen Oxides: 1.114 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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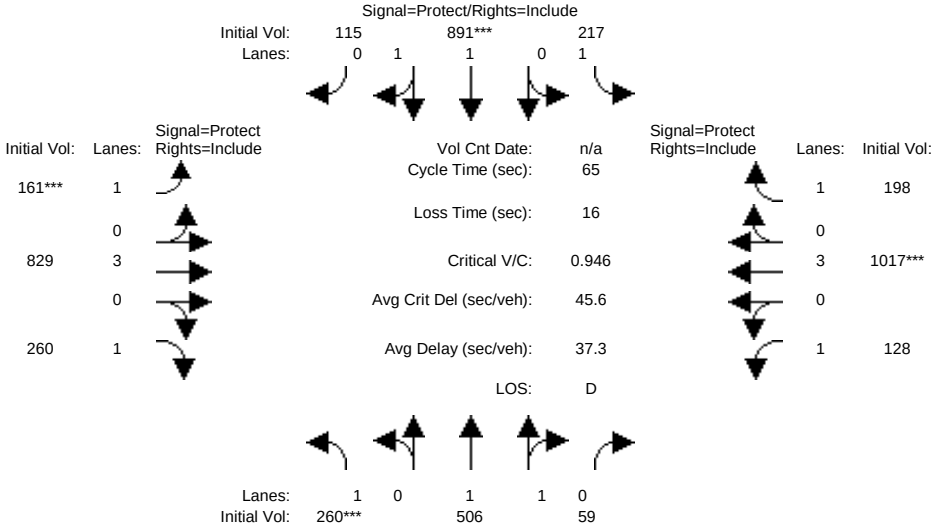
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #2: Calhoun Street (NS) / 48th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	260	506	59	217	891	115	161	829	260	128	1017	198
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	260	506	59	217	891	115	161	829	260	128	1017	198
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	260	506	59	217	891	115	161	829	260	128	1017	198
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	260	506	59	217	891	115	161	829	260	128	1017	198
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	260	506	59	217	891	115	161	829	260	128	1017	198
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	260	506	59	217	891	115	161	829	260	128	1017	198
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.93	0.93	0.95	0.91	0.85	0.95	0.91	0.85
Lanes:	1.00	1.79	0.21	1.00	1.77	0.23	1.00	3.00	1.00	1.00	3.00	1.00
Final Sat.:	1805	3181	371	1805	3143	406	1805	5187	1615	1805	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.14	0.16	0.16	0.12	0.28	0.28	0.09	0.16	0.16	0.07	0.20	0.12
Crit Moves:	****				****		****				****	
Green/Cycle:	0.15	0.26	0.26	0.19	0.30	0.30	0.09	0.21	0.21	0.09	0.21	0.21
Volume/Cap:	0.95	0.62	0.62	0.62	0.95	0.95	0.95	0.76	0.77	0.77	0.95	0.59
Delay/Veh:	66.9	22.6	22.6	27.3	38.4	38.4	82.3	27.4	34.5	48.1	41.4	26.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.9	22.6	22.6	27.3	38.4	38.4	82.3	27.4	34.5	48.1	41.4	26.1
LOS by Move:	E	C	C	C	D	D	F	C	C	D	D	C
HCM2kAvgQ:	9	6	6	5	16	16	3	5	5	3	9	4

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1	0	1	1	0	1	0	1	1	0	1	0	3	0	1	1	0	3	0	1
Lane Group:	L	RT		RT		L	RT		RT		L	T		R		L	T		R	
#LnsInGrps:	1	2		2		1	2		2		1	3		1		1	3		1	

HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		

HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx

HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	1.00	1.00	xxxx	1.00	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	1.00	1.00	xxxx	1.00	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	0.98	0.98	xxxx	0.98	0.98	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	0.98	0.98	0.95	0.98	0.98	0.95	1.00	0.85	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.91	1.00	1.00	0.91	1.00
Fnl Sat Adj:	0.95	0.93	0.93	0.95	0.93	0.93	0.95	0.91	0.85	0.95	0.91	0.85

Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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      Level Of Service Detailed Computation Report (HCM2000 Queue Method)
                           2000 HCM Operations Method
                            Future Volume Alternative
********************************************************************************
Intersection #2 Calhoun Street (NS) / 48th Avenue (EW)
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Green/Cycle: 0.15 0.26  0.26  0.19 0.30  0.30  0.09 0.21  0.21  0.09 0.21  0.21
ArrivalType:         3               3               3               3
ProgFactor:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Q1:           4.6  4.7   4.7   3.6  9.3   9.3   2.9  5.2   4.4   2.3  6.6   3.2
UpstreamVC:  0.00 0.00  0.00  0.00 0.00  0.00  0.96 0.96  0.96  0.50 0.50  0.50
UpstreamAdj: 0.00 0.00  0.00  0.00 0.00  0.00  0.19 0.19  0.19  0.86 0.86  0.86
EarlyArrAdj: 1.00 1.00  1.00  1.00 1.00  1.00  0.04 0.06  0.06  0.17 0.28  0.25
Q2:           4.8  1.5   1.5   1.5  6.4   6.4   0.5  0.2   0.2   0.5  2.5   0.4
HCM2KQueue:   9.5  6.3   6.3   5.1 15.8  15.8   3.4  5.4   4.6   2.8  9.1   3.6
------------|---------------||---------------||---------------||---------------|
70th%Factor: 1.18 1.19  1.19  1.19 1.17  1.17  1.19 1.19  1.19  1.19 1.18  1.19
HCM2k70thQ:  11.2  7.4   7.4   6.0 18.4  18.4   4.0  6.4   5.5   3.3 10.8   4.3
------------|---------------||---------------||---------------||---------------|
85th%Factor: 1.52 1.54  1.54  1.55 1.48  1.48  1.57 1.55  1.56  1.57 1.52  1.57
HCM2k85thQ:  14.4  9.7   9.7   7.9 23.3  23.3   5.3  8.3   7.2   4.3 13.9   5.6
------------|---------------||---------------||---------------||---------------|
90th%Factor: 1.65 1.69  1.69  1.71 1.58  1.58  1.74 1.71  1.72  1.75 1.65  1.73
HCM2k90thQ:  15.6 10.6  10.6   8.7 25.0  25.0   5.8  9.1   7.9   4.8 15.1   6.2
------------|---------------||---------------||---------------||---------------|
95th%Factor: 1.85 1.92  1.92  1.95 1.75  1.75  2.00 1.95  1.96  2.01 1.86  1.99
HCM2k95thQ:  17.6 12.0  12.0   9.9 27.6  27.6   6.7 10.4   9.1   5.6 17.0   7.1
------------|---------------||---------------||---------------||---------------|
98th%Factor: 2.18 2.32  2.32  2.38 2.00  2.00  2.47 2.36  2.40  2.51 2.20  2.46
HCM2k98thQ:  20.7 14.5  14.5  12.1 31.5  31.5   8.3 12.7  11.1   6.9 20.1   8.8
                         Fuel Consumption and Emissions
                           2000 HCM Operations Method
                            Future Volume Alternative
********************************************************************************
Intersection #2 Calhoun Street (NS) / 48th Avenue (EW)
********************************************************************************
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Run Speed:          30 MPH           30 MPH           30 MPH           30 MPH
NumOfStops:  64.4  112  13.0  49.7  218  28.1  40.0  195  61.2  31.3  251  44.7
--------------------------------------------------------------------------------
Name: year 1995 composite fleet
Fuel Consumption:    180.077 pounds
                      29.173 gallons
Carbon Dioxide:      561.841 pounds
Carbon Monoxide:      45.633 pounds
Hydrocarbons:          8.785 pounds
Nitrogen Oxides:       1.516 pounds
--------------------------------------------------------------------------------
Name: year 2000 composite fleet
Fuel Consumption:    180.077 pounds
                      29.173 gallons
Carbon Dioxide:      561.841 pounds
Carbon Monoxide:      45.633 pounds
Hydrocarbons:          8.785 pounds
Nitrogen Oxides:       1.516 pounds
--------------------------------------------------------------------------------
DISCLAIMER
The fuel consumption and emissions measures should be used with
caution and only for comparisons of different signal timings, geometric
design alternatives or for general planning applications, as these
calculations are applied to the analysis of a single intersection within the
CCG and TRAFFIX.  Network models are more appropriate since they can
account for the influence of the adjacent control measures and other system
elements.
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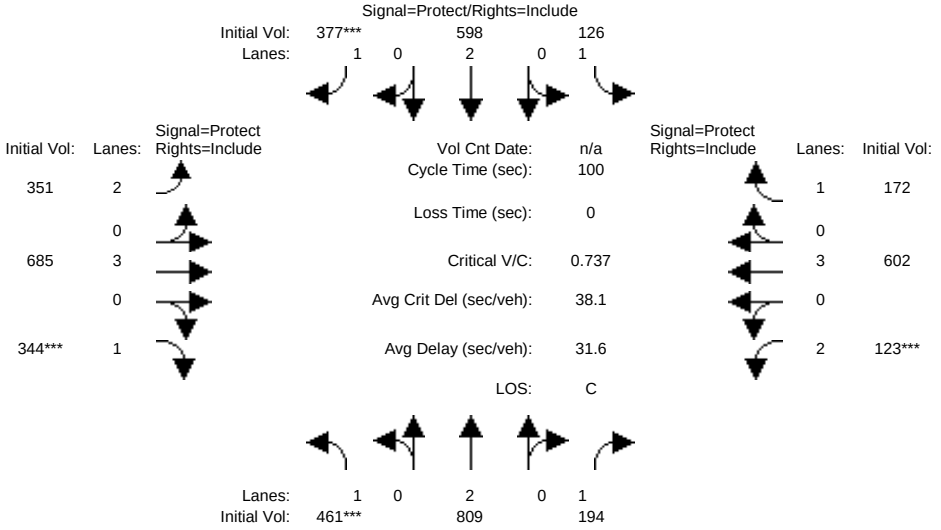
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #3: Van Buren Street (NS) / 48th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	461	809	194	126	598	377	351	685	344	123	602	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	461	809	194	126	598	377	351	685	344	123	602	172
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	461	809	194	126	598	377	351	685	344	123	602	172
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	461	809	194	126	598	377	351	685	344	123	602	172
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	461	809	194	126	598	377	351	685	344	123	602	172
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	461	809	194	126	598	377	351	685	344	123	602	172
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	3502	5187	1615	3502	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.26	0.22	0.12	0.07	0.17	0.23	0.10	0.13	0.21	0.04	0.12	0.11
Crit Moves:	****					****			****	****		
Green/Cycle:	0.35	0.51	0.51	0.16	0.32	0.32	0.16	0.29	0.29	0.05	0.18	0.18
Volume/Cap:	0.74	0.44	0.24	0.44	0.52	0.74	0.64	0.46	0.74	0.74	0.64	0.59
Delay/Veh:	33.3	15.9	14.0	39.3	28.4	36.0	42.2	29.3	38.2	62.8	39.5	40.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.3	15.9	14.0	39.3	28.4	36.0	42.2	29.3	38.2	62.8	39.5	40.7
LOS by Move:	C	B	B	D	C	D	D	C	D	E	D	D
HCM2kAvgQ:	13	8	3	4	8	12	5	6	9	2	6	5

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1 0 2	0 1	1 0 2	0 1	2 0 3	0 1	2 0 3	0 1				
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	1	2	1	1	2	1	2	3	1	2	3	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1 xxxx	xxxx		1 xxxx	xxxx		1 xxxx	xxxx		1 xxxx	xxxx	
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Fnl Sat Adj:	0.95	0.95	0.85	0.95	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #3 Van Buren Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.35	0.51	0.51	0.16	0.32	0.32	0.16	0.29	0.29	0.05	0.18	0.18
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	11.2	7.5	3.0	3.2	7.2	9.3	4.7	5.7	8.6	1.7	5.7	4.4
UpstreamVC:	0.22	0.22	0.22	0.00	0.00	0.00	0.69	0.69	0.69	0.64	0.64	0.64
UpstreamAdj:	0.98	0.98	0.98	0.00	0.00	0.00	0.67	0.67	0.67	0.73	0.73	0.73
EarlyArrAdj:	0.55	0.71	0.64	1.00	1.00	1.00	0.23	0.34	0.31	0.12	0.28	0.25
Q2:	1.4	0.6	0.2	0.8	1.1	2.4	0.4	0.3	0.8	0.3	0.5	0.4
HCM2KQueue:	12.7	8.1	3.2	3.9	8.2	11.8	5.1	6.0	9.5	2.0	6.2	4.7
70th%Factor:	1.17	1.18	1.19	1.19	1.18	1.17	1.19	1.19	1.18	1.20	1.19	1.19
HCM2k70thQ:	14.9	9.6	3.8	4.7	9.7	13.8	6.1	7.1	11.2	2.4	7.3	5.6
85th%Factor:	1.50	1.53	1.57	1.56	1.53	1.50	1.55	1.55	1.52	1.58	1.54	1.56
HCM2k85thQ:	19.0	12.4	5.1	6.2	12.6	17.7	7.9	9.3	14.4	3.2	9.5	7.4
90th%Factor:	1.61	1.67	1.74	1.73	1.67	1.62	1.71	1.70	1.65	1.76	1.69	1.72
HCM2k90thQ:	20.4	13.5	5.6	6.8	13.7	19.1	8.7	10.2	15.6	3.6	10.4	8.1
95th%Factor:	1.80	1.88	2.00	1.98	1.88	1.81	1.95	1.93	1.85	2.04	1.93	1.96
HCM2k95thQ:	22.8	15.2	6.5	7.8	15.5	21.3	10.0	11.6	17.5	4.2	11.9	9.3
98th%Factor:	2.08	2.24	2.48	2.44	2.23	2.10	2.37	2.33	2.18	2.55	2.32	2.39
HCM2k98thQ:	26.3	18.1	8.0	9.6	18.3	24.8	12.1	14.0	20.6	5.2	14.3	11.3

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #3 Van Buren Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	101.1	129	27.2	28.5	122	84.0	82.3	140	77.7	30.4	140	39.4

Name: year 1995 composite fleet
Fuel Consumption: 166.913 pounds
27.040 gallons
Carbon Dioxide: 520.767 pounds
Carbon Monoxide: 41.739 pounds
Hydrocarbons: 7.889 pounds
Nitrogen Oxides: 1.421 pounds

Name: year 2000 composite fleet
Fuel Consumption: 166.913 pounds
27.040 gallons
Carbon Dioxide: 520.767 pounds
Carbon Monoxide: 41.739 pounds
Hydrocarbons: 7.889 pounds
Nitrogen Oxides: 1.421 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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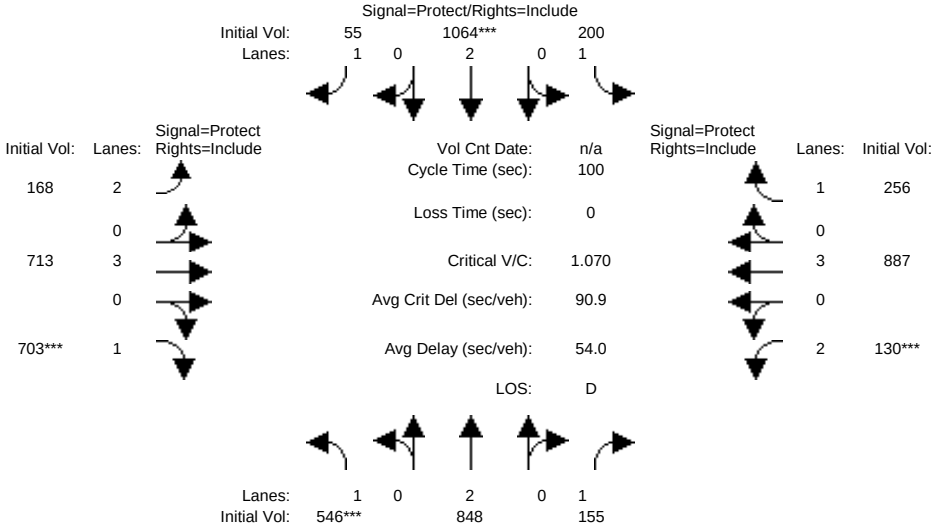
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #3: Van Buren Street (NS) / 48th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	546	848	155	200	1064	55	168	713	703	130	887	256
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	546	848	155	200	1064	55	168	713	703	130	887	256
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	546	848	155	200	1064	55	168	713	703	130	887	256
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	546	848	155	200	1064	55	168	713	703	130	887	256
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	546	848	155	200	1064	55	168	713	703	130	887	256
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	546	848	155	200	1064	55	168	713	703	130	887	256
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	3502	5187	1615	3502	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.30	0.23	0.10	0.11	0.29	0.03	0.05	0.14	0.44	0.04	0.17	0.16
Crit Moves:	****				****				****	****		
Green/Cycle:	0.28	0.38	0.38	0.18	0.28	0.28	0.10	0.41	0.41	0.03	0.34	0.34
Volume/Cap:	1.07	0.62	0.25	0.62	1.07	0.12	0.50	0.34	1.07	1.07	0.50	0.46
Delay/Veh:	95.6	26.0	21.5	41.5	85.3	27.3	44.0	20.5	84.9	149.8	26.1	26.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	95.6	26.0	21.5	41.5	85.3	27.3	44.0	20.5	84.9	149.8	26.1	26.1
LOS by Move:	F	C	C	D	F	C	D	C	F	F	C	C
HCM2kAvgQ:	23	11	3	7	27	1	2	5	28	3	8	6

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1 0 2	0 1	1 0 2	0 1	2 0 3	0 1	2 0 3	0 1				
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	1	2	1	1	2	1	2	3	1	2	3	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Fnl Sat Adj:	0.95	0.95	0.85	0.95	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #3 Van Buren Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.28	0.38	0.38	0.18	0.28	0.28	0.10	0.41	0.41	0.03	0.34	0.34
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	15.2	10.1	3.0	5.1	15.6	1.1	2.3	5.0	19.5	1.9	7.1	5.5
UpstreamVC:	0.40	0.40	0.40	0.00	0.00	0.00	0.76	0.76	0.76	0.50	0.50	0.50
UpstreamAdj:	0.92	0.92	0.92	0.00	0.00	0.00	0.56	0.56	0.56	0.86	0.86	0.86
EarlyArrAdj:	0.45	0.56	0.51	1.00	1.00	1.00	0.14	0.35	0.32	0.12	0.49	0.44
Q2:	8.2	0.9	0.2	1.5	11.0	0.1	0.1	0.2	8.9	1.3	0.5	0.4
HCM2KQueue:	23.4	10.9	3.1	6.6	26.5	1.3	2.4	5.2	28.4	3.2	7.6	5.9
70th%Factor:	1.16	1.18	1.19	1.18	1.15	1.20	1.19	1.19	1.15	1.19	1.18	1.19
HCM2k70thQ:	27.0	12.9	3.7	7.8	30.5	1.5	2.9	6.1	32.6	3.8	9.0	7.0
85th%Factor:	1.44	1.51	1.57	1.54	1.42	1.59	1.58	1.55	1.42	1.57	1.53	1.55
HCM2k85thQ:	33.6	16.5	4.9	10.2	37.7	2.0	3.8	8.0	40.2	5.0	11.7	9.1
90th%Factor:	1.52	1.63	1.74	1.69	1.51	1.78	1.75	1.71	1.50	1.74	1.67	1.70
HCM2k90thQ:	35.6	17.8	5.4	11.2	39.9	2.3	4.2	8.8	42.5	5.5	12.7	10.0
95th%Factor:	1.66	1.83	2.00	1.92	1.64	2.06	2.02	1.95	1.62	2.00	1.89	1.93
HCM2k95thQ:	38.9	20.0	6.3	12.7	43.4	2.6	4.9	10.1	46.1	6.4	14.4	11.4
98th%Factor:	1.87	2.13	2.49	2.30	1.83	2.61	2.53	2.37	1.81	2.48	2.26	2.33
HCM2k98thQ:	43.6	23.3	7.8	15.2	48.5	3.4	6.1	12.3	51.5	7.9	17.2	13.8

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #3 Van Buren Street (NS) / 48th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	140.4	172	26.6	46.2	273	10.3	39.8	123	184.6	32.6	175	49.8

Name: year 1995 composite fleet
Fuel Consumption: 286.719 pounds
46.449 gallons
Carbon Dioxide: 894.564 pounds
Carbon Monoxide: 74.730 pounds
Hydrocarbons: 15.141 pounds
Nitrogen Oxides: 2.144 pounds

Name: year 2000 composite fleet
Fuel Consumption: 286.719 pounds
46.449 gallons
Carbon Dioxide: 894.564 pounds
Carbon Monoxide: 74.730 pounds
Hydrocarbons: 15.141 pounds
Nitrogen Oxides: 2.144 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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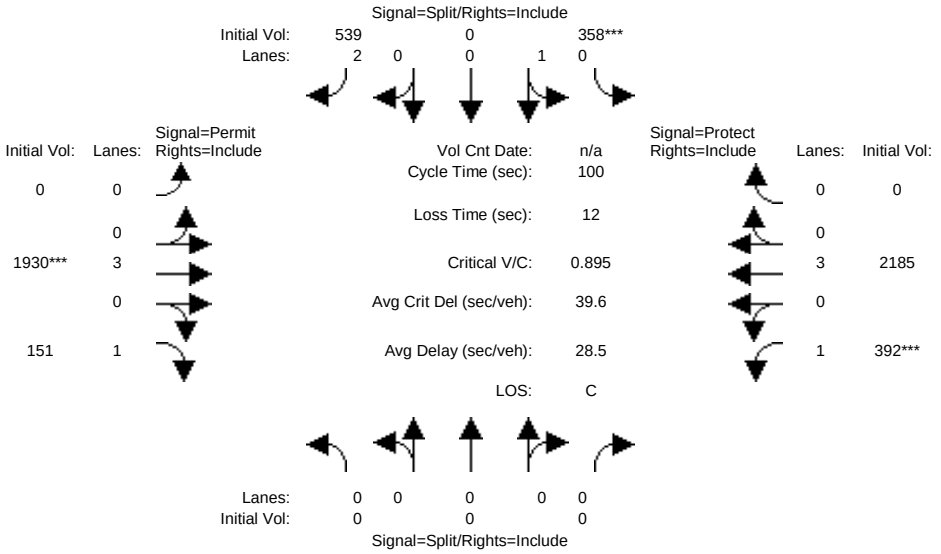
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan AM

Intersection #4: SR-86S SB Off-Ramp (NS) / Dillon Road (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	358	0	539	0	1930	151	392	2185	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	358	0	539	0	1930	151	392	2185	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	358	0	539	0	1930	151	392	2185	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	358	0	539	0	1930	151	392	2185	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	358	0	539	0	1930	151	392	2185	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	358	0	539	0	1930	151	392	2185	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.75	1.00	0.91	0.85	0.95	0.91	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	2.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	1809	0	2842	0	5187	1615	1805	5187	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.20	0.00	0.19	0.00	0.37	0.09	0.22	0.42	0.00
Crit Moves:				****				****		****		
Green/Cycle:	0.00	0.00	0.00	0.22	0.00	0.22	0.00	0.42	0.42	0.24	0.66	0.00
Volume/Cap:	0.00	0.00	0.00	0.89	0.00	0.86	0.00	0.89	0.22	0.89	0.64	0.00
Delay/Veh:	0.0	0.0	0.0	59.5	0.0	48.7	0.0	32.4	19.0	56.9	10.5	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	59.5	0.0	48.7	0.0	32.4	19.0	56.9	10.5	0.0
LOS by Move:	A	A	A	E	A	D	A	C	B	E	B	A
HCM2kAvgQ:	0	0	0	14	0	12	0	22	3	15	15	0

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:																		
Lanes:	0	0	0	0	0	0	1	0	0	2	0	0	3	0	1	1	0	3	0	0
Lane Group:	xxxx	xxxx	xxxx		LT	LT		R	xxxx	T		R		L		T	xxxx	
#LnsInGrps:	0	0	0		1	1		2	0	3		1		1		3	0	

HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:		8			8			8			8	
% Hev Veh:		0			0			0			0	
Grade:		0%			0%			0%			0%	
Parking/Hr:		No			No			No			No	
Bus Stp/Hr:		0			0			0			0	
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:		0			0			0			0	
ExclusiveRT:		Include			Include			Include			Include	
% RT Prtct:		0			0			0			0	

HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	xxxx	xxxx	xxxx	4	xxxx	xxxx	xxxx	xxxx	xxxx	1	xxxx	xxxx

HCM Ops Saturation Adj Module:												
Ln Wid Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
Hev Veh Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
Grade Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
Parking Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	1.00	xxxxx
Bus Stp Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	1.00	xxxxx
Area Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
RT Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	xxxxx
LT Adj:	xxxx	xxxx	xxxxx	0.95	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	1.00	1.00	1.00	0.95	1.00	0.85	1.00	1.00	0.85	0.95	1.00	1.00
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	1.00	1.00	1.00	1.00	0.88	1.00	0.91	1.00	1.00	0.91	1.00
Fnl Sat Adj:	1.00	1.00	1.00	0.95	1.00	0.75	1.00	0.91	0.85	0.95	0.91	1.00

Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >											
DelAdjFctr:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #4 SR-86S SB Off-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.00	0.00	0.00	0.22	0.00	0.22	0.00	0.42	0.42	0.24	0.66	0.00
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.0	0.0	0.0	9.7	0.0	8.2	0.0	18.3	2.7	10.5	13.1	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.46	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.00	0.00	0.00
EarlyArrAdj:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.57	0.51	1.00	1.00	0.00
Q2:	0.0	0.0	0.0	4.5	0.0	3.8	0.0	3.6	0.1	4.7	1.7	0.0
HCM2KQueue:	0.0	0.0	0.0	14.2	0.0	11.9	0.0	21.8	2.9	15.2	14.8	0.0
70th%Factor:	1.20	1.20	1.20	1.17	1.20	1.17	1.20	1.16	1.19	1.17	1.17	1.20
HCM2k70thQ:	0.0	0.0	0.0	16.6	0.0	14.0	0.0	25.3	3.4	17.8	17.3	0.0
85th%Factor:	1.60	1.60	1.60	1.49	1.60	1.50	1.60	1.44	1.57	1.48	1.48	1.60
HCM2k85thQ:	0.0	0.0	0.0	21.1	0.0	17.9	0.0	31.6	4.5	22.5	22.0	0.0
90th%Factor:	1.80	1.80	1.80	1.60	1.80	1.62	1.80	1.53	1.75	1.59	1.59	1.80
HCM2k90thQ:	0.0	0.0	0.0	22.7	0.0	19.3	0.0	33.5	5.0	24.1	23.6	0.0
95th%Factor:	2.10	2.10	2.10	1.77	2.10	1.81	2.10	1.68	2.01	1.76	1.76	2.10
HCM2k95thQ:	0.0	0.0	0.0	25.2	0.0	21.6	0.0	36.7	5.7	26.7	26.2	0.0
98th%Factor:	2.70	2.70	2.70	2.04	2.70	2.10	2.70	1.89	2.50	2.01	2.02	2.70
HCM2k98thQ:	0.0	0.0	0.0	28.9	0.0	25.1	0.0	41.2	7.1	30.6	30.0	0.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #4 SR-86S SB Off-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:		30 MPH			30 MPH			30 MPH			30 MPH	
NumOfStops:	0.0	0.0	0.0	86.9	0.0	129.5	0.0	449	24.3	94.8	322	0.0

Name: year 1995 composite fleet
Fuel Consumption: 179.022 pounds
29.001 gallons
Carbon Dioxide: 558.547 pounds
Carbon Monoxide: 44.363 pounds
Hydrocarbons: 8.259 pounds
Nitrogen Oxides: 1.553 pounds

Name: year 2000 composite fleet
Fuel Consumption: 179.022 pounds
29.001 gallons
Carbon Dioxide: 558.547 pounds
Carbon Monoxide: 44.363 pounds
Hydrocarbons: 8.259 pounds
Nitrogen Oxides: 1.553 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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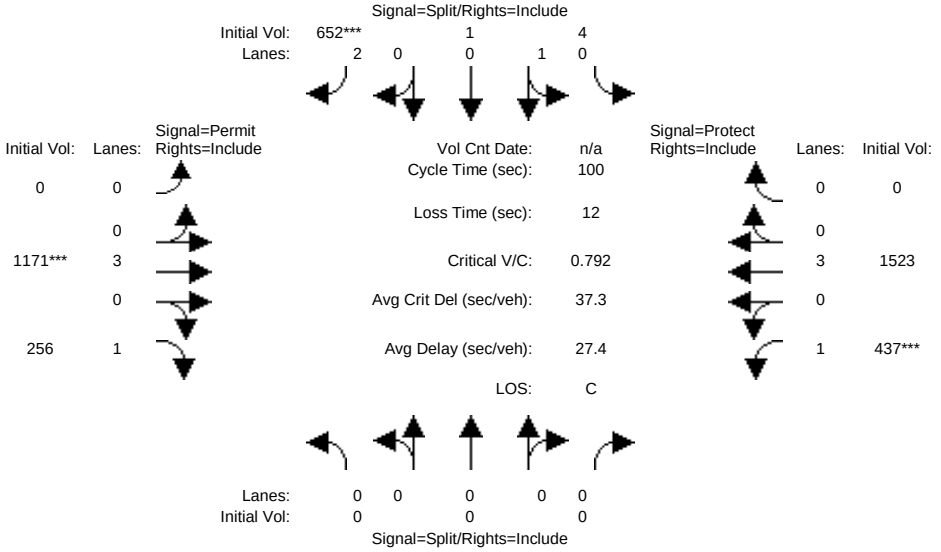
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan PM

Intersection #4: SR-86S SB Off-Ramp (NS) / Dillon Road (EW)




```
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0    0     0     4    1   652     0 1171   256   437 1523     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0    0     0     4    1   652     0 1171   256   437 1523     0
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    0    0     0     4    1   652     0 1171   256   437 1523     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     0    0     0     4    1   652     0 1171   256   437 1523     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0    0     0     4    1   652     0 1171   256   437 1523     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0    0     0     4    1   652     0 1171   256   437 1523     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  1.00 1.00  0.75  1.00 0.91  0.85  0.95 0.91  1.00
Lanes:       0.00 0.00  0.00  0.80 0.20  2.00  0.00 3.00  1.00  1.00 3.00  0.00
Final Sat.:     0    0     0  1518  380  2842     0 5187  1615  1805 5187     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.00 0.00  0.23  0.00 0.23  0.16  0.24 0.29  0.00
Crit Moves:                                ****       ****        ****
Green/Cycle: 0.00 0.00  0.00  0.29 0.29  0.29  0.00 0.28  0.28  0.31 0.59  0.00
Volume/Cap:  0.00 0.00  0.00  0.01 0.01  0.79  0.00 0.79  0.56  0.79 0.50  0.00
Delay/Veh:    0.0  0.0   0.0  25.3 25.3  38.0   0.0 36.0  31.9  39.5 12.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  25.3 25.3  38.0   0.0 36.0  31.9  39.5 12.0   0.0
LOS by Move:    A    A     A     C    C     D     A    D     C     D    B     A
HCM2kAvgQ:      0    0     0     0    0    13     0   13     7    14   10     0
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        0  0  0  0  0    0  1  0  0  2    0  0  3  0  1    1  0  3  0  0
Lane Group:  xxxx xxxx  xxxx   LT   LT     R   xxxx   T     R     L    T   xxxx
#LnsInGrps:     0    0     0     1    1     2     0    3     1     1    3     0
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:          8                8                8                8
% Hev Veh:            0                0                0                0
Grade:               0%               0%               0%               0%
Parking/Hr:          No               No               No               No
Bus Stp/Hr:           0                0                0                0
Area Type:    < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > >
Cnft Ped/Hr:          0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:           0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:  xxxx xxxx  xxxx    5r   5r  xxxx  xxxx xxxx  xxxx     1 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  xxxx xxxx xxxxx  1.00 1.00  1.00  xxxx 1.00  1.00  1.00 1.00 xxxxx
Hev Veh Adj: xxxx xxxx xxxxx  1.00 1.00  1.00  xxxx 1.00  1.00  1.00 1.00 xxxxx
Grade Adj:   xxxx xxxx xxxxx  1.00 1.00  1.00  xxxx 1.00  1.00  1.00 1.00 xxxxx
Parking Adj: xxxx xxxx xxxxx  xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx 1.00 xxxxx
Bus Stp Adj: xxxx xxxx xxxxx  xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx 1.00 xxxxx
Area Adj:    xxxx xxxx xxxxx  1.00 1.00  1.00  xxxx 1.00  1.00  1.00 1.00 xxxxx
RT Adj:      xxxx xxxx xxxxx  xxxx xxxx  0.85  xxxx xxxx  0.85  xxxx xxxx xxxxx
LT Adj:      xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx xxxx xxxxx  0.95 xxxx xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 1.00 1.00  1.00  1.00 1.00  0.85  1.00 1.00  0.85  0.95 1.00  1.00
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 1.00 1.00  1.00  1.00 1.00  0.88  1.00 0.91  1.00  1.00 0.91  1.00
Fnl Sat Adj: 1.00 1.00  1.00  1.00 1.00  0.75  1.00 0.91  0.85  0.95 0.91  1.00
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  0.00 0.00  0.00  1.00 1.00  1.00  0.00 1.00  1.00  1.00 1.00  0.00
```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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #4 SR-86S SB Off-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.00	0.00	0.00	0.29	0.29	0.29	0.00	0.28	0.28	0.31	0.59	0.00
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.0	0.0	0.0	0.1	0.1	9.5	0.0	11.0	6.0	11.1	9.0	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34	0.34	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95	0.95	0.00	0.00	0.00
EarlyArrAdj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.48	0.44	1.00	1.00	0.00
Q2:	0.0	0.0	0.0	0.0	0.0	3.0	0.0	1.7	0.5	3.1	1.0	0.0
HCM2KQueue:	0.0	0.0	0.0	0.1	0.1	12.5	0.0	12.7	6.6	14.3	10.0	0.0
70th%Factor:	1.20	1.20	1.20	1.20	1.20	1.17	1.20	1.17	1.18	1.17	1.18	1.20
HCM2k70thQ:	0.0	0.0	0.0	0.1	0.1	14.7	0.0	14.8	7.8	16.7	11.7	0.0
85th%Factor:	1.60	1.60	1.60	1.60	1.60	1.50	1.60	1.50	1.54	1.49	1.52	1.60
HCM2k85thQ:	0.0	0.0	0.0	0.2	0.2	18.8	0.0	18.9	10.1	21.2	15.1	0.0
90th%Factor:	1.80	1.80	1.80	1.80	1.80	1.61	1.80	1.61	1.69	1.60	1.64	1.80
HCM2k90thQ:	0.0	0.0	0.0	0.2	0.2	20.2	0.0	20.4	11.1	22.7	16.4	0.0
95th%Factor:	2.10	2.10	2.10	2.10	2.10	1.80	2.10	1.80	1.92	1.77	1.85	2.10
HCM2k95thQ:	0.0	0.0	0.0	0.2	0.2	22.6	0.0	22.7	12.6	25.3	18.4	0.0
98th%Factor:	2.70	2.70	2.70	2.69	2.69	2.08	2.70	2.08	2.30	2.03	2.16	2.70
HCM2k98thQ:	0.0	0.0	0.0	0.3	0.3	26.1	0.0	26.3	15.2	29.0	21.6	0.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #4 SR-86S SB Off-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	0.0	0.0	0.0	0.7	0.2	150.3	0.0	270	54.4	100.1	221	0.0

Name: year 1995 composite fleet
Fuel Consumption: 127.226 pounds
20.611 gallons
Carbon Dioxide: 396.945 pounds
Carbon Monoxide: 31.419 pounds
Hydrocarbons: 5.815 pounds
Nitrogen Oxides: 1.112 pounds

Name: year 2000 composite fleet
Fuel Consumption: 127.226 pounds
20.611 gallons
Carbon Dioxide: 396.945 pounds
Carbon Monoxide: 31.419 pounds
Hydrocarbons: 5.815 pounds
Nitrogen Oxides: 1.112 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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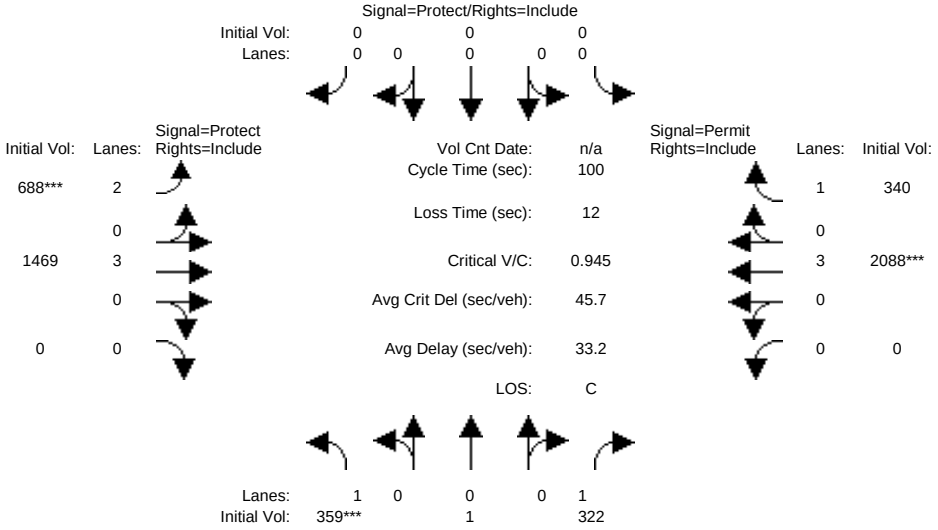
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan AM

Intersection #5: SR-86S NB On-Ramp (NS) / Dillon Road (EW)




```
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     359    1   322     0    0     0   688 1469     0     0 2088   340
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  359    1   322     0    0     0   688 1469     0     0 2088   340
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  359    1   322     0    0     0   688 1469     0     0 2088   340
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   359    1   322     0    0     0   688 1469     0     0 2088   340
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  359    1   322     0    0     0   688 1469     0     0 2088   340
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  359    1   322     0    0     0   688 1469     0     0 2088   340
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.81 0.81  0.81  1.00 1.00  1.00  0.92 0.91  1.00  1.00 0.91  0.85
Lanes:       1.00 0.01  0.99  0.00 0.00  0.00  2.00 3.00  0.00  0.00 3.00  1.00
Final Sat.:  1544    5  1540     0    0     0  3502 5187     0     0 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.23 0.21  0.21  0.00 0.00  0.00  0.20 0.28  0.00  0.00 0.40  0.21
Crit Moves:  ****                             ****                    ****
Green/Cycle: 0.25 0.25  0.25  0.00 0.00  0.00  0.21 0.63  0.00  0.00 0.43  0.43
Volume/Cap:  0.94 0.85  0.85  0.00 0.00  0.00  0.95 0.45  0.00  0.00 0.94  0.49
Delay/Veh:   58.1 44.5  44.5   0.0  0.0   0.0  60.0  9.4   0.0   0.0 36.8  21.4
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  58.1 44.5  44.5   0.0  0.0   0.0  60.0  9.4   0.0   0.0 36.8  21.4
LOS by Move:    E    D     D     A    A     A     E    A     A     A    D     C
HCM2kAvgQ:     16   13    13     0    0     0    15    8     0     0   26     7
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        0  1  0  1  0    0  0  0  0  0    2  0  3  0  0    0  0  3  0  1
Lane Group:   LTR  LTR   LTR  xxxx xxxx  xxxx    L    T   xxxx  xxxx   T     R
#LnsInGrps:     2    2     2     0    0     0     2    3     0     0    3     1
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:          8                8                8                8
% Hev Veh:            0                0                0                0
Grade:               0%               0%               0%               0%
Parking/Hr:          No               No               No               No
Bus Stp/Hr:           0                0                0                0
Area Type:    < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > >
Cnft Ped/Hr:          0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:           0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:    5r   5r    5r  xxxx xxxx  xxxx     1 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
Hev Veh Adj: 1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
Grade Adj:   1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
Parking Adj: 1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  xxxx xxxx  1.00
Bus Stp Adj: 1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  xxxx xxxx  1.00
Area Adj:    1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
RT Adj:      0.93 0.93  0.93  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx  0.85
LT Adj:      0.92 0.92  0.92  xxxx xxxx xxxxx  0.95 xxxx xxxxx  xxxx xxxx xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.86 0.86  0.86  1.00 1.00  1.00  0.95 1.00  1.00  1.00 1.00  0.85
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 0.95 0.95  0.95  1.00 1.00  1.00  0.97 0.91  1.00  1.00 0.91  1.00
Fnl Sat Adj: 0.81 0.81  0.81  1.00 1.00  1.00  0.92 0.91  1.00  1.00 0.91  0.85
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 1.00  1.00  0.00 0.00  0.00  1.00 1.00  0.00  0.00 1.00  1.00
```

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #5 SR-86S NB On-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.25	0.25	0.25	0.00	0.00	0.00	0.21	0.63	0.00	0.00	0.43	0.43
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	10.3	9.0	9.0	0.0	0.0	0.0	9.7	7.6	0.0	0.0	20.4	6.9
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.37
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.94
EarlyArrAdj:	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.61	0.55
Q2:	5.6	3.8	3.8	0.0	0.0	0.0	5.5	0.8	0.0	0.0	5.3	0.5
HCM2KQueue:	15.9	12.8	12.8	0.0	0.0	0.0	15.2	8.4	0.0	0.0	25.7	7.4
70th%Factor:	1.17	1.17	1.17	1.20	1.20	1.20	1.17	1.18	1.20	1.20	1.15	1.18
HCM2k70thQ:	18.6	15.0	15.0	0.0	0.0	0.0	17.8	10.0	0.0	0.0	29.7	8.8
85th%Factor:	1.48	1.50	1.50	1.60	1.60	1.60	1.48	1.53	1.60	1.60	1.43	1.53
HCM2k85thQ:	23.5	19.1	19.1	0.0	0.0	0.0	22.5	12.9	0.0	0.0	36.7	11.4
90th%Factor:	1.58	1.61	1.61	1.80	1.80	1.80	1.59	1.66	1.80	1.80	1.51	1.68
HCM2k90thQ:	25.2	20.6	20.6	0.0	0.0	0.0	24.1	14.0	0.0	0.0	38.9	12.4
95th%Factor:	1.75	1.80	1.80	2.10	2.10	2.10	1.76	1.88	2.10	2.10	1.64	1.90
HCM2k95thQ:	27.9	22.9	22.9	0.0	0.0	0.0	26.7	15.8	0.0	0.0	42.3	14.0
98th%Factor:	1.99	2.07	2.07	2.70	2.70	2.70	2.01	2.22	2.70	2.70	1.84	2.27
HCM2k98thQ:	31.8	26.5	26.5	0.0	0.0	0.0	30.6	18.7	0.0	0.0	47.3	16.8

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #5 SR-86S NB On-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	88.2	0.2	76.7	0.0	0.0	0.0	169.6	188	0.0	0.0	502	61.8

Name: year 1995 composite fleet
Fuel Consumption: 187.154 pounds
30.319 gallons
Carbon Dioxide: 583.920 pounds
Carbon Monoxide: 46.996 pounds
Hydrocarbons: 8.951 pounds
Nitrogen Oxides: 1.571 pounds

Name: year 2000 composite fleet
Fuel Consumption: 187.154 pounds
30.319 gallons
Carbon Dioxide: 583.920 pounds
Carbon Monoxide: 46.996 pounds
Hydrocarbons: 8.951 pounds
Nitrogen Oxides: 1.571 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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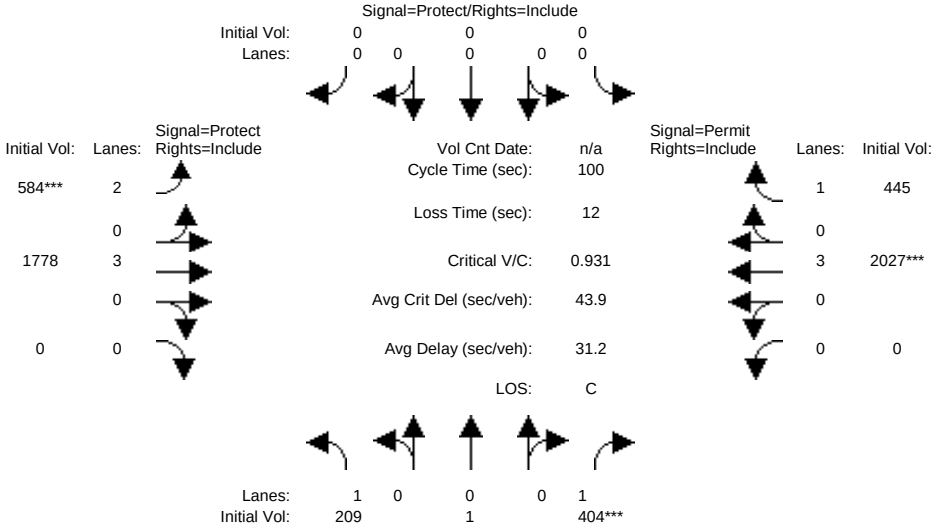
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #5: SR-86S NB On-Ramp (NS) / Dillon Road (EW)




```
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     209    1   404     0    0     0   584 1778     0     0 2027   445
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  209    1   404     0    0     0   584 1778     0     0 2027   445
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  209    1   404     0    0     0   584 1778     0     0 2027   445
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   209    1   404     0    0     0   584 1778     0     0 2027   445
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  209    1   404     0    0     0   584 1778     0     0 2027   445
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  209    1   404     0    0     0   584 1778     0     0 2027   445
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.81 0.81  0.81  1.00 1.00  1.00  0.92 0.91  1.00  1.00 0.91  0.85
Lanes:       0.99 0.01  1.00  0.00 0.00  0.00  2.00 3.00  0.00  0.00 3.00  1.00
Final Sat.:  1536    7  1543     0    0     0  3502 5187     0     0 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.14 0.14  0.26  0.00 0.00  0.00  0.17 0.34  0.00  0.00 0.39  0.28
Crit Moves:             ****                    ****                    ****
Green/Cycle: 0.28 0.28  0.28  0.00 0.00  0.00  0.18 0.60  0.00  0.00 0.42  0.42
Volume/Cap:  0.48 0.48  0.93  0.00 0.00  0.00  0.93 0.57  0.00  0.00 0.93  0.66
Delay/Veh:   30.2 30.2  54.9   0.0  0.0   0.0  61.1 12.5   0.0   0.0 35.6  25.6
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  30.2 30.2  54.9   0.0  0.0   0.0  61.1 12.5   0.0   0.0 35.6  25.6
LOS by Move:    C    C     D     A    A     A     E    B     A     A    D     C
HCM2kAvgQ:      6    6    17     0    0     0    13   12     0     0   24    11
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        0  1  0  1  0    0  0  0  0  0    2  0  3  0  0    0  0  3  0  1
Lane Group:   LTR  LTR   LTR  xxxx xxxx  xxxx    L    T   xxxx  xxxx   T     R
#LnsInGrps:     2    2     2     0    0     0     2    3     0     0    3     1
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:          8                8                8                8
% Hev Veh:            0                0                0                0
Grade:               0%               0%               0%               0%
Parking/Hr:          No               No               No               No
Bus Stp/Hr:           0                0                0                0
Area Type:    < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > >
Cnft Ped/Hr:          0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:           0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:    5r   5r    5r  xxxx xxxx  xxxx     1 xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
Hev Veh Adj: 1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
Grade Adj:   1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
Parking Adj: 1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  xxxx xxxx  1.00
Bus Stp Adj: 1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  xxxx xxxx  1.00
Area Adj:    1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
RT Adj:      0.90 0.90  0.90  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx  0.85
LT Adj:      0.95 0.95  0.95  xxxx xxxx xxxxx  0.95 xxxx xxxxx  xxxx xxxx xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.86 0.86  0.86  1.00 1.00  1.00  0.95 1.00  1.00  1.00 1.00  0.85
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 0.95 0.95  0.95  1.00 1.00  1.00  0.97 0.91  1.00  1.00 0.91  1.00
Fnl Sat Adj: 0.81 0.81  0.81  1.00 1.00  1.00  0.92 0.91  1.00  1.00 0.91  0.85
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 1.00  1.00  0.00 0.00  0.00  1.00 1.00  0.00  0.00 1.00  1.00
```

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #5 SR-86S NB On-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.28	0.28	0.28	0.00	0.00	0.00	0.18	0.60	0.00	0.00	0.42	0.42
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	5.1	5.1	11.5	0.0	0.0	0.0	8.2	11.0	0.0	0.0	19.6	9.9
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.47
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88
EarlyArrAdj:	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.57	0.51
Q2:	0.9	0.9	5.6	0.0	0.0	0.0	4.9	1.3	0.0	0.0	4.6	1.0
HCM2KQueue:	6.0	6.0	17.1	0.0	0.0	0.0	13.1	12.4	0.0	0.0	24.2	10.9
70th%Factor:	1.19	1.19	1.17	1.20	1.20	1.20	1.17	1.17	1.20	1.20	1.15	1.18
HCM2k70thQ:	7.1	7.1	19.9	0.0	0.0	0.0	15.4	14.5	0.0	0.0	28.0	12.8
85th%Factor:	1.55	1.55	1.47	1.60	1.60	1.60	1.49	1.50	1.60	1.60	1.43	1.51
HCM2k85thQ:	9.3	9.3	25.1	0.0	0.0	0.0	19.6	18.5	0.0	0.0	34.7	16.4
90th%Factor:	1.70	1.70	1.57	1.80	1.80	1.80	1.61	1.62	1.80	1.80	1.52	1.63
HCM2k90thQ:	10.2	10.2	26.8	0.0	0.0	0.0	21.1	20.0	0.0	0.0	36.8	17.7
95th%Factor:	1.93	1.93	1.73	2.10	2.10	2.10	1.79	1.80	2.10	2.10	1.66	1.83
HCM2k95thQ:	11.6	11.6	29.6	0.0	0.0	0.0	23.5	22.3	0.0	0.0	40.1	19.8
98th%Factor:	2.33	2.33	1.97	2.70	2.70	2.70	2.06	2.09	2.70	2.70	1.86	2.13
HCM2k98thQ:	14.0	14.0	33.6	0.0	0.0	0.0	27.1	25.8	0.0	0.0	45.0	23.2

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #5 SR-86S NB On-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	43.5	0.2	98.3	0.0	0.0	0.0	143.8	271	0.0	0.0	483	89.1

Name: year 1995 composite fleet
Fuel Consumption: 186.302 pounds
30.181 gallons
Carbon Dioxide: 581.263 pounds
Carbon Monoxide: 46.534 pounds
Hydrocarbons: 8.776 pounds
Nitrogen Oxides: 1.592 pounds

Name: year 2000 composite fleet
Fuel Consumption: 186.302 pounds
30.181 gallons
Carbon Dioxide: 581.263 pounds
Carbon Monoxide: 46.534 pounds
Hydrocarbons: 8.776 pounds
Nitrogen Oxides: 1.592 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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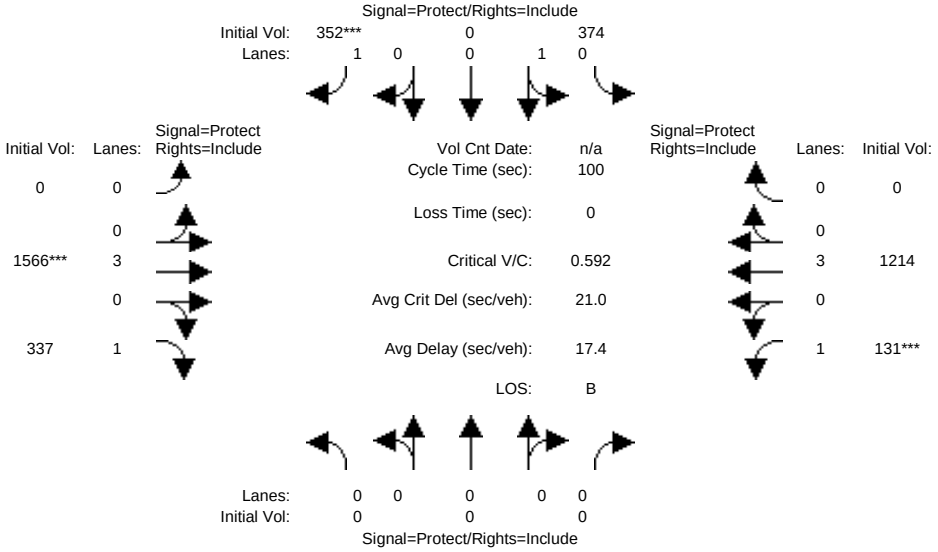
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #6: I-10 Off-Ramp (NS) / Dillon Road (EW)



Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:																
Base Vol:	0	0	0	374	0	352	0	1566	337	131	1214	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	0	0	0	374	0	352	0	1566	337	131	1214	0				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	374	0	352	0	1566	337	131	1214	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	0	0	0	374	0	352	0	1566	337	131	1214	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	374	0	352	0	1566	337	131	1214	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	0	0	0	374	0	352	0	1566	337	131	1214	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	1.00	0.91	0.85	0.95	0.91	1.00				
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	1.00	1.00	3.00	0.00				
Final Sat.:	0	0	0	1809	0	1615	0	5187	1615	1805	5187	0				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.21	0.00	0.22	0.00	0.30	0.21	0.07	0.23	0.00				
Crit Moves:						****		****		****						
Green/Cycle:	0.00	0.00	0.00	0.37	0.00	0.37	0.00	0.51	0.51	0.12	0.63	0.00				
Volume/Cap:	0.00	0.00	0.00	0.56	0.00	0.59	0.00	0.59	0.41	0.59	0.37	0.00				
Delay/Veh:	0.0	0.0	0.0	26.3	0.0	27.2	0.0	17.6	15.5	45.8	8.9	0.0				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	0.0	0.0	0.0	26.3	0.0	27.2	0.0	17.6	15.5	45.8	8.9	0.0				
LOS by Move:	A	A	A	C	A	C	A	B	B	D	A	A				
HCM2kAvgQ:	0	0	0	10	0	9	0	12	6	4	6	0				
Note: Queue reported is the number of cars per lane.																
HCM Ops Adjusted Lane Utilization Module:																
Lanes:	0	0	0	0	0	1	0	0	1	0	0	3	0	1	1	0
Lane Group:	xxxx	xxxx	xxxx	LT	LT	R	xxxx	T	R	L	T	xxxx				
#LnsInGrps:	0	0	0	1	1	1	0	3	1	1	3	0				
HCM Ops Input Saturation Adj Module:																
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12				
CrsswalkWid:	8			8			8			8						
% Hev Veh:	0			0			0			0						
Grade:	0%			0%			0%			0%						
Parking/Hr:	No			No			No			No						
Bus Stp/Hr:	0			0			0			0						
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >															
Cnft Ped/Hr:	0			0			0			0						
ExclusiveRT:	Include			Include			Include			Include						
% RT Prtct:	0			0			0			0						
HCM Ops f(lt) Adj Case Module:																
f(lt) Case:	xxxx	xxxx	xxxx	4	xxxx	xxxx	xxxx	xxxx	xxxx	1	xxxx	xxxx				
HCM Ops Saturation Adj Module:																
Ln Wid Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx				
Hev Veh Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx				
Grade Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx				
Parking Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	1.00	xxxxx				
Bus Stp Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	1.00	xxxxx				
Area Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx				
RT Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	xxxxx				
LT Adj:	xxxx	xxxx	xxxxx	0.95	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.95	xxxx	xxxxx				
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
HCM Sat Adj:	1.00	1.00	1.00	0.95	1.00	0.85	1.00	1.00	0.85	0.95	1.00	1.00				
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00				
Fnl Sat Adj:	1.00	1.00	1.00	0.95	1.00	0.85	1.00	0.91	0.85	0.95	0.91	1.00				
Delay Adjustment Factor Module:																
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >															
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > > > >															
DelAdjFctr:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00				

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #6 I-10 Off-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.00	0.00	0.00	0.37	0.00	0.37	0.00	0.51	0.51	0.12	0.63	0.00
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.0	0.0	0.0	8.3	0.0	7.9	0.0	11.2	5.8	3.4	5.9	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.45	0.45	0.45	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.89	0.89	0.00
EarlyArrAdj:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.65	0.59	0.27	0.73	0.00
Q2:	0.0	0.0	0.0	1.2	0.0	1.4	0.0	0.9	0.4	0.4	0.4	0.0
HCM2KQueue:	0.0	0.0	0.0	9.5	0.0	9.3	0.0	12.1	6.2	3.8	6.4	0.0
70th%Factor:	1.20	1.20	1.20	1.18	1.20	1.18	1.20	1.17	1.19	1.19	1.19	1.20
HCM2k70thQ:	0.0	0.0	0.0	11.2	0.0	11.0	0.0	14.2	7.4	4.5	7.5	0.0
85th%Factor:	1.60	1.60	1.60	1.52	1.60	1.52	1.60	1.50	1.54	1.56	1.54	1.60
HCM2k85thQ:	0.0	0.0	0.0	14.5	0.0	14.1	0.0	18.2	9.6	6.0	9.8	0.0
90th%Factor:	1.80	1.80	1.80	1.65	1.80	1.65	1.80	1.62	1.69	1.73	1.69	1.80
HCM2k90thQ:	0.0	0.0	0.0	15.7	0.0	15.3	0.0	19.6	10.5	6.6	10.8	0.0
95th%Factor:	2.10	2.10	2.10	1.85	2.10	1.86	2.10	1.81	1.93	1.99	1.92	2.10
HCM2k95thQ:	0.0	0.0	0.0	17.6	0.0	17.3	0.0	21.9	11.9	7.6	12.2	0.0
98th%Factor:	2.70	2.70	2.70	2.18	2.70	2.19	2.70	2.09	2.32	2.45	2.31	2.70
HCM2k98thQ:	0.0	0.0	0.0	20.8	0.0	20.3	0.0	25.4	14.4	9.3	14.7	0.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #6 I-10 Off-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	0.0	0.0	0.0	74.5	0.0	71.1	0.0	275	52.2	31.0	146	0.0

Name: year 1995 composite fleet
Fuel Consumption: 95.836 pounds
15.525 gallons
Carbon Dioxide: 299.008 pounds
Carbon Monoxide: 22.651 pounds
Hydrocarbons: 3.884 pounds
Nitrogen Oxides: 0.901 pounds

Name: year 2000 composite fleet
Fuel Consumption: 95.836 pounds
15.525 gallons
Carbon Dioxide: 299.008 pounds
Carbon Monoxide: 22.651 pounds
Hydrocarbons: 3.884 pounds
Nitrogen Oxides: 0.901 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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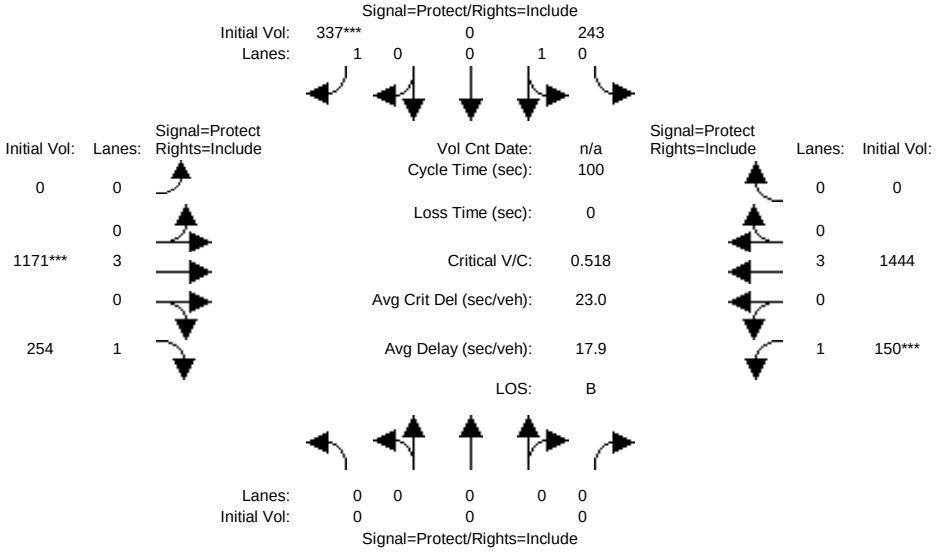
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #6: I-10 Off-Ramp (NS) / Dillon Road (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	243	0	337	0	1171	254	150	1444	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	243	0	337	0	1171	254	150	1444	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	243	0	337	0	1171	254	150	1444	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	243	0	337	0	1171	254	150	1444	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	243	0	337	0	1171	254	150	1444	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	243	0	337	0	1171	254	150	1444	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	1.00	0.91	0.85	0.95	0.91	1.00
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	3.00	1.00	1.00	3.00	0.00
Final Sat.:	0	0	0	1809	0	1615	0	5187	1615	1805	5187	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.13	0.00	0.21	0.00	0.23	0.16	0.08	0.28	0.00
Crit Moves:						****		****		****		
Green/Cycle:	0.00	0.00	0.00	0.40	0.00	0.40	0.00	0.44	0.44	0.16	0.60	0.00
Volume/Cap:	0.00	0.00	0.00	0.33	0.00	0.52	0.00	0.52	0.36	0.52	0.47	0.00
Delay/Veh:	0.0	0.0	0.0	20.8	0.0	23.2	0.0	20.7	19.2	40.1	11.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	20.8	0.0	23.2	0.0	20.7	19.2	40.1	11.4	0.0
LOS by Move:	A	A	A	C	A	C	A	C	B	D	B	A
HCM2kAvgQ:	0	0	0	5	0	8	0	9	5	4	9	0

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	0	0	0	0	0	1	0	0	3	0	1	1	0	3	0	0
Lane Group:	xxxx	xxxx	xxxx	LT	LT	R	xxxx	T	R	L	T	xxxx
#LnsInGrps:	0	0	0	1	1	1	0	3	1	1	3	0
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	xxxx	xxxx	xxxx	4	xxxx	xxxx	xxxx	xxxx	xxxx	1	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
Hev Veh Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
Grade Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
Parking Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	1.00	xxxxx
Bus Stp Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	1.00	xxxxx
Area Adj:	xxxx	xxxx	xxxxx	1.00	xxxx	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
RT Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	xxxxx
LT Adj:	xxxx	xxxx	xxxxx	0.95	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	1.00	1.00	1.00	0.95	1.00	0.85	1.00	1.00	0.85	0.95	1.00	1.00
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Fnl Sat Adj:	1.00	1.00	1.00	0.95	1.00	0.85	1.00	0.91	0.85	0.95	0.91	1.00
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > >											
DelAdjFctr:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

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Intersection #6 I-10 Off-Ramp (NS) / Dillon Road (EW)

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.00	0.00	0.00	0.40	0.00	0.40	0.00	0.44	0.44	0.16	0.60	0.00
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.0	0.0	0.0	4.7	0.0	7.1	0.0	8.7	4.7	3.8	8.2	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.57	0.44	0.44	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.80	0.90	0.90	0.00
EarlyArrAdj:	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.52	0.47	0.31	0.71	0.00
Q2:	0.0	0.0	0.0	0.5	0.0	1.0	0.0	0.6	0.3	0.3	0.6	0.0
HCM2KQueue:	0.0	0.0	0.0	5.1	0.0	8.1	0.0	9.2	5.0	4.1	8.8	0.0
70th%Factor:	1.20	1.20	1.20	1.19	1.20	1.18	1.20	1.18	1.19	1.19	1.18	1.20
HCM2k70thQ:	0.0	0.0	0.0	6.1	0.0	9.6	0.0	10.9	5.9	4.9	10.4	0.0
85th%Factor:	1.60	1.60	1.60	1.55	1.60	1.53	1.60	1.52	1.55	1.56	1.52	1.60
HCM2k85thQ:	0.0	0.0	0.0	8.0	0.0	12.4	0.0	14.0	7.7	6.5	13.4	0.0
90th%Factor:	1.80	1.80	1.80	1.71	1.80	1.67	1.80	1.65	1.71	1.73	1.66	1.80
HCM2k90thQ:	0.0	0.0	0.0	8.8	0.0	13.5	0.0	15.2	8.5	7.2	14.6	0.0
95th%Factor:	2.10	2.10	2.10	1.95	2.10	1.88	2.10	1.86	1.95	1.98	1.87	2.10
HCM2k95thQ:	0.0	0.0	0.0	10.0	0.0	15.3	0.0	17.2	9.7	8.2	16.5	0.0
98th%Factor:	2.70	2.70	2.70	2.37	2.70	2.24	2.70	2.19	2.38	2.43	2.21	2.70
HCM2k98thQ:	0.0	0.0	0.0	12.2	0.0	18.1	0.0	20.2	11.9	10.1	19.5	0.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

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Intersection #6 I-10 Off-Ramp (NS) / Dillon Road (EW)

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	0.0	0.0	0.0	41.9	0.0	63.5	0.0	213	42.5	34.3	202	0.0

Name: year 1995 composite fleet
Fuel Consumption: 88.297 pounds
14.304 gallons
Carbon Dioxide: 275.486 pounds
Carbon Monoxide: 20.936 pounds
Hydrocarbons: 3.611 pounds
Nitrogen Oxides: 0.827 pounds

Name: year 2000 composite fleet
Fuel Consumption: 88.297 pounds
14.304 gallons
Carbon Dioxide: 275.486 pounds
Carbon Monoxide: 20.936 pounds
Hydrocarbons: 3.611 pounds
Nitrogen Oxides: 0.827 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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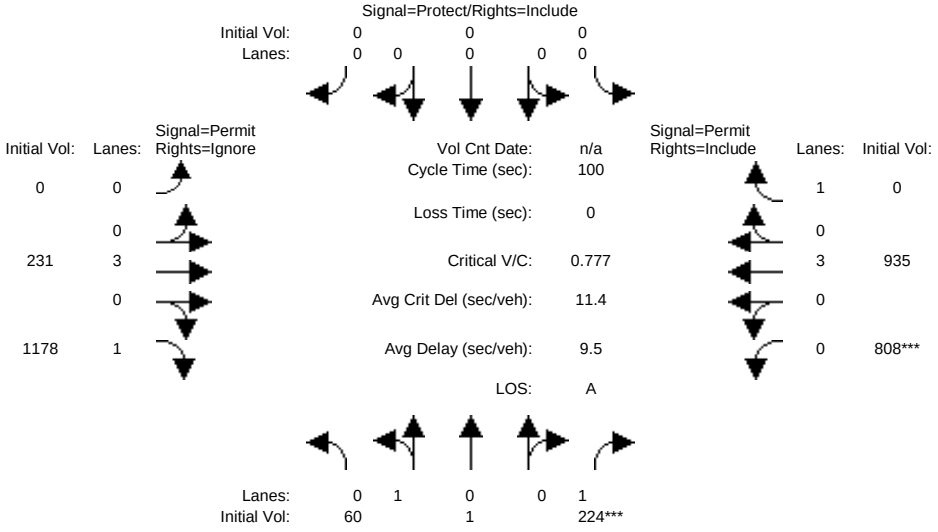
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan AM

Intersection #7: I-10 On-Ramp (NS) / Dillon Road (EW)




```
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       60    1   224     0    0     0     0  231  1178   808  935     0
Growth Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    60    1   224     0    0     0     0  231  1178   808  935     0
Added Vol:       0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:     0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    60    1   224     0    0     0     0  231  1178   808  935     0
User Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:     60    1   224     0    0     0     0  231     0   808  935     0
Reduct Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    60    1   224     0    0     0     0  231     0   808  935     0
PCE Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume:    60    1   224     0    0     0     0  231     0   808  935     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:     1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:   0.97 0.97  0.85  1.00 1.00  1.00  1.00 0.91  1.00  0.67 0.67  1.00
Lanes:        0.98 0.02  1.00  0.00 0.00  0.00  0.00 3.00  1.00  1.00 2.00  1.00
Final Sat.:   1809   30  1615     0    0     0     0 5187  1900  1266 2531  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.03 0.03  0.14  0.00 0.00  0.00  0.00 0.04  0.00  0.64 0.37  0.00
Crit Moves:              ****                                     ****
Green/Cycle:  0.18 0.18  0.18  0.00 0.00  0.00  0.00 0.82  0.00  0.82 0.82  0.00
Volume/Cap:   0.19 0.19  0.78  0.00 0.00  0.00  0.00 0.05  0.00  0.78 0.45  0.00
Delay/Veh:    35.2 35.2  51.7   0.0  0.0   0.0   0.0  1.7   0.0   6.2  2.6   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   35.2 35.2  51.7   0.0  0.0   0.0   0.0  1.7   0.0   6.2  2.6   0.0
LOS by Move:     D    D     D     A    A     A     A    A     A     A    A     A
HCM2kAvgQ:       2    2     9     0    0     0     0    3     1     3    5     0
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        0  1  0  0  1    0  0  0  0  0    0  0  3  0  1    0  1  2  0  1
Lane Group:   LT   LT     R   xxxx xxxx  xxxx  xxxx   T     R    LT   LT     R
#LnsInGrps:    1    1     1     0    0     0     0    3     1     3    3     1
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:          8                8                8                8
% Hev Veh:            0                0                0                0
Grade:               0%               0%               0%               0%
Parking/Hr:          No               No               No               No
Bus Stp/Hr:           0                0                0                0
Area Type:    < < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > > >
Cnft Ped/Hr:          0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:           0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:    5r   5r  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx     5    5  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:   1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  1.00 1.00 xxxxx
Hev Veh Adj: 1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  1.00 1.00 xxxxx
Grade Adj:    1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  1.00 1.00 xxxxx
Parking Adj: xxxx xxxx  1.00  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Bus Stp Adj: xxxx xxxx  1.00  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
Area Adj:     1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  1.00 1.00 xxxxx
RT Adj:       xxxx xxxx  0.85  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
LT Adj:       0.97 0.97 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  0.73 0.73 xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.97 0.97  0.85  1.00 1.00  1.00  1.00 1.00  1.00  0.73 0.73  1.00
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 0.91  1.00  0.91 0.91  1.00
Fnl Sat Adj: 0.97 0.97  0.85  1.00 1.00  1.00  1.00 0.91  1.00  0.67 0.67  1.00
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 1.00  1.00  0.00 0.00  0.00  0.00 1.00  0.00  1.00 1.00  0.00
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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

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Intersection #7 I-10 On-Ramp (NS) / Dillon Road (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	xxxxxx	100
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	xxxxxx	78.14
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	xxxxxx	82.14
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	xxxxxx	82.14
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	xxxxxx	3
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	xxxxxx	3
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	xxxxxx	808
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	xxxxxx	0.46
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	xxxxxx	22.44
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	xxxxxx	231
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	xxxxxx	2.35
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	xxxxxx	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	xxxxxx	0.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	xxxxxx	0.02
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	xxxxxx	0.18
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	xxxxxx	0.88
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	xxxxxx	81.26
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	xxxxxx	0.73
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	xxxxxx	2.01
Through-car Equivalents, el1:	xxxxxx	xxxxxx	xxxxxx	1.81
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	xxxxxx	0.07
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	xxxxxx	0.38
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	xxxxxx	0.73

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #7 I-10 On-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.18	0.18	0.18	0.00	0.00	0.00	0.00	0.82	0.00	0.82	0.82	0.00
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	1.4	1.4	5.9	0.0	0.0	0.0	0.0	0.4	0.0	12.2	4.0	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.75	0.00	1.00	1.00	0.00
Q2:	0.2	0.2	2.6	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.8	0.0
HCM2KQueue:	1.7	1.7	8.6	0.0	0.0	0.0	0.0	0.5	0.0	15.3	4.8	0.0
70th%Factor:	1.20	1.20	1.18	1.20	1.20	1.20	1.20	1.20	1.20	1.17	1.19	1.20
HCM2k70thQ:	2.0	2.0	10.1	0.0	0.0	0.0	0.0	0.6	0.0	17.9	5.8	0.0
85th%Factor:	1.58	1.58	1.53	1.60	1.60	1.60	1.60	1.60	1.60	1.48	1.56	1.60
HCM2k85thQ:	2.6	2.6	13.1	0.0	0.0	0.0	0.0	0.8	0.0	22.7	7.5	0.0
90th%Factor:	1.77	1.77	1.66	1.80	1.80	1.80	1.80	1.79	1.80	1.59	1.71	1.80
HCM2k90thQ:	2.9	2.9	14.2	0.0	0.0	0.0	0.0	0.9	0.0	24.3	8.3	0.0
95th%Factor:	2.05	2.05	1.87	2.10	2.10	2.10	2.10	2.08	2.10	1.76	1.96	2.10
HCM2k95thQ:	3.4	3.4	16.0	0.0	0.0	0.0	0.0	1.0	0.0	26.9	9.5	0.0
98th%Factor:	2.58	2.58	2.22	2.70	2.70	2.70	2.70	2.66	2.70	2.01	2.39	2.70
HCM2k98thQ:	4.3	4.3	19.0	0.0	0.0	0.0	0.0	1.3	0.0	30.8	11.6	0.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #7 I-10 On-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	12.7	0.2	53.4	0.0	0.0	0.0	0.0	10.8	0.0	99.7	66.2	0.0

Name: year 1995 composite fleet
Fuel Consumption: 40.711 pounds
6.595 gallons
Carbon Dioxide: 127.018 pounds
Carbon Monoxide: 9.037 pounds
Hydrocarbons: 1.386 pounds
Nitrogen Oxides: 0.397 pounds

Name: year 2000 composite fleet
Fuel Consumption: 40.711 pounds
6.595 gallons
Carbon Dioxide: 127.018 pounds
Carbon Monoxide: 9.037 pounds
Hydrocarbons: 1.386 pounds
Nitrogen Oxides: 0.397 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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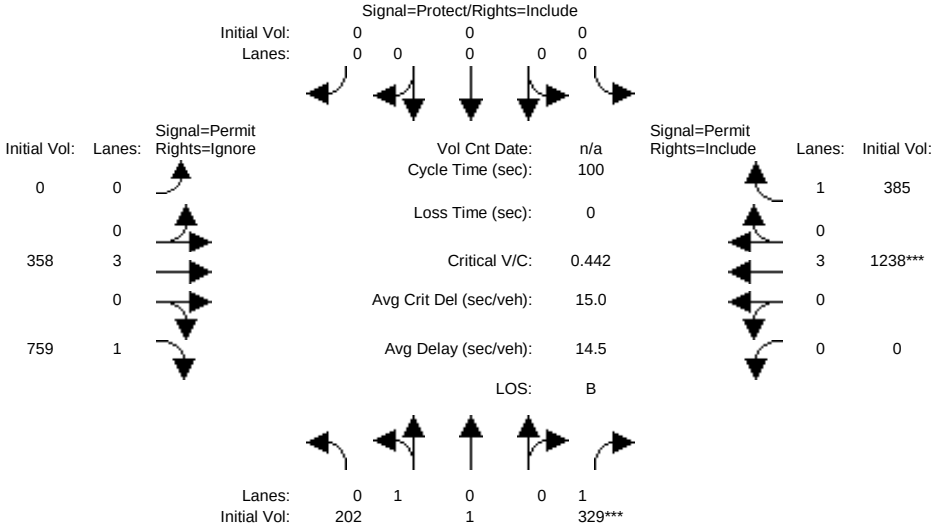
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan PM

Intersection #7: I-10 On-Ramp (NS) / Dillon Road (EW)




```
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     202    1   329     0    0     0     0  358   759     0 1238   385
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  202    1   329     0    0     0     0  358   759     0 1238   385
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  202    1   329     0    0     0     0  358   759     0 1238   385
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
PHF Volume:   202    1   329     0    0     0     0  358     0     0 1238   385
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  202    1   329     0    0     0     0  358     0     0 1238   385
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00
FinalVolume:  202    1   329     0    0     0     0  358     0     0 1238   385
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.94 0.94  0.85  1.00 1.00  1.00  1.00 0.91  1.00  1.00 0.91  0.85
Lanes:       0.99 0.01  1.00  0.00 0.00  0.00  0.00 3.00  1.00  0.00 3.00  1.00
Final Sat.:  1783    9  1615     0    0     0     0 5187  1900     0 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.11 0.11  0.20  0.00 0.00  0.00  0.00 0.07  0.00  0.00 0.24  0.24
Crit Moves:             ****                                       ****
Green/Cycle: 0.46 0.46  0.46  0.00 0.00  0.00  0.00 0.54  0.00  0.00 0.54  0.54
Volume/Cap:  0.25 0.25  0.44  0.00 0.00  0.00  0.00 0.13  0.00  0.00 0.44  0.44
Delay/Veh:   16.6 16.6  18.7   0.0  0.0   0.0   0.0 11.4   0.0   0.0 14.0  14.3
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  16.6 16.6  18.7   0.0  0.0   0.0   0.0 11.4   0.0   0.0 14.0  14.3
LOS by Move:    B    B     B     A    A     A     A    B     A     A    B     B
HCM2kAvgQ:      4    4     7     0    0     0     0    2     0     0    8     7
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        0  1  0  0  1    0  0  0  0  0    0  0  3  0  1    0  0  3  0  1
Lane Group:   LT   LT     R   xxxx xxxx  xxxx  xxxx   T     R   xxxx   T     R
#LnsInGrps:    1    1     1     0    0     0     0    3     1     0    3     1
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:          8                8                8                8
% Hev Veh:            0                0                0                0
Grade:               0%               0%               0%               0%
Parking/Hr:          No               No               No               No
Bus Stp/Hr:           0                0                0                0
Area Type:    < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > >
Cnft Ped/Hr:          0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:           0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:    5r   5r  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  xxxx 1.00  1.00
Hev Veh Adj: 1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  xxxx 1.00  1.00
Grade Adj:   1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  xxxx 1.00  1.00
Parking Adj: xxxx xxxx  1.00  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx  1.00
Bus Stp Adj: xxxx xxxx  1.00  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx  1.00
Area Adj:    1.00 1.00  1.00  xxxx xxxx xxxxx  xxxx 1.00 xxxxx  xxxx 1.00  1.00
RT Adj:      xxxx xxxx  0.85  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx  0.85
LT Adj:      0.94 0.94 xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.94 0.94  0.85  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.85
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 0.91  1.00  1.00 0.91  1.00
Fnl Sat Adj: 0.94 0.94  0.85  1.00 1.00  1.00  1.00 0.91  1.00  1.00 0.91  0.85
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 1.00  1.00  0.00 0.00  0.00  0.00 1.00  0.00  0.00 1.00  1.00
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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #7 I-10 On-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.46	0.46	0.46	0.00	0.00	0.00	0.00	0.54	0.00	0.00	0.54	0.54
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:		3.4	3.4	6.2	0.0	0.0	0.0	0.0	1.8	0.0	0.0	7.6	6.5
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.63	0.00	0.00	1.00	1.00
Q2:		0.3	0.3	0.8	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.8	0.8
HCM2KQueue:		3.8	3.8	7.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	8.4	7.2
70th%Factor:	1.19	1.19	1.18	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.18	1.18
HCM2k70thQ:		4.5	4.5	8.3	0.0	0.0	0.0	0.0	2.3	0.0	0.0	9.9	8.6
85th%Factor:	1.56	1.56	1.54	1.60	1.60	1.60	1.60	1.58	1.60	1.60	1.53	1.54
HCM2k85thQ:		5.9	5.9	10.7	0.0	0.0	0.0	0.0	3.0	0.0	0.0	12.8	11.1
90th%Factor:	1.73	1.73	1.68	1.80	1.80	1.80	1.80	1.76	1.80	1.80	1.66	1.68
HCM2k90thQ:		6.5	6.5	11.7	0.0	0.0	0.0	0.0	3.3	0.0	0.0	14.0	12.2
95th%Factor:	1.99	1.99	1.91	2.10	2.10	2.10	2.10	2.04	2.10	2.10	1.88	1.90
HCM2k95thQ:		7.5	7.5	13.3	0.0	0.0	0.0	0.0	3.9	0.0	0.0	15.8	13.8
98th%Factor:	2.45	2.45	2.28	2.70	2.70	2.70	2.70	2.56	2.70	2.70	2.22	2.27
HCM2k98thQ:		9.2	9.2	15.9	0.0	0.0	0.0	0.0	4.9	0.0	0.0	18.7	16.5

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #7 I-10 On-Ramp (NS) / Dillon Road (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:		30 MPH			30 MPH			30 MPH			30 MPH	
NumOfStops:	30.7	0.2	55.7	0.0	0.0	0.0	0.0	44.3	0.0	0.0	187	58.2

Name: year 1995 composite fleet
Fuel Consumption: 55.249 pounds
8.950 gallons
Carbon Dioxide: 172.376 pounds
Carbon Monoxide: 12.821 pounds
Hydrocarbons: 2.127 pounds
Nitrogen Oxides: 0.531 pounds

Name: year 2000 composite fleet
Fuel Consumption: 55.249 pounds
8.950 gallons
Carbon Dioxide: 172.376 pounds
Carbon Monoxide: 12.821 pounds
Hydrocarbons: 2.127 pounds
Nitrogen Oxides: 0.531 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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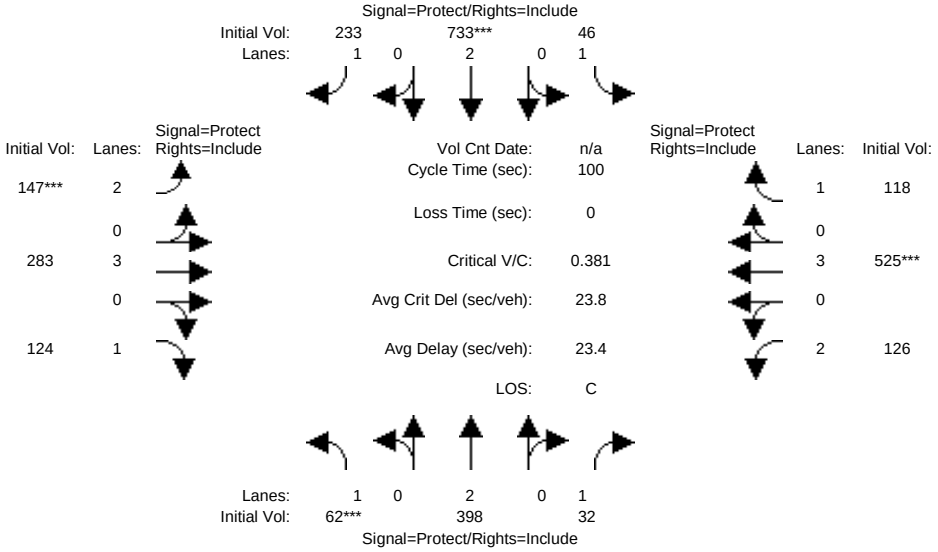
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan AM

Intersection #8: Van Buren Street (NS) / 50th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	62	398	32	46	733	233	147	283	124	126	525	118
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	62	398	32	46	733	233	147	283	124	126	525	118
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	62	398	32	46	733	233	147	283	124	126	525	118
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	62	398	32	46	733	233	147	283	124	126	525	118
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	398	32	46	733	233	147	283	124	126	525	118
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	62	398	32	46	733	233	147	283	124	126	525	118
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	3502	5187	1615	3502	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.03	0.11	0.02	0.03	0.20	0.14	0.04	0.05	0.08	0.04	0.10	0.07
Crit Moves:	****				****		****				****	
Green/Cycle:	0.09	0.51	0.51	0.12	0.53	0.53	0.11	0.26	0.26	0.12	0.27	0.27
Volume/Cap:	0.38	0.22	0.04	0.22	0.38	0.27	0.38	0.21	0.30	0.30	0.38	0.27
Delay/Veh:	44.3	13.7	12.4	40.5	13.8	12.9	41.9	29.3	30.4	40.6	30.2	29.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.3	13.7	12.4	40.5	13.8	12.9	41.9	29.3	30.4	40.6	30.2	29.4
LOS by Move:	D	B	B	D	B	B	D	C	C	D	C	C
HCM2kAvgQ:	2	3	0	1	7	4	3	3	3	2	5	3

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1 0 2	0 1		1 0 2	0 1		2 0 3	0 1		2 0 3	0 1	
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	1	2	1	1	2	1	2	3	1	2	3	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Fnl Sat Adj:	0.95	0.95	0.85	0.95	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #8 Van Buren Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.09	0.51	0.51	0.12	0.53	0.53	0.11	0.26	0.26	0.12	0.27	0.27
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:		1.6	3.2	0.4	1.2	6.3	3.5	2.0	2.3	2.8	1.6	4.4	2.6
UpstreamVC:	0.68	0.68	0.68	0.52	0.52	0.52	0.00	0.00	0.00	0.25	0.25	0.25
UpstreamAdj:	0.67	0.67	0.67	0.84	0.84	0.84	0.00	0.00	0.00	0.98	0.98	0.98
EarlyArrAdj:	0.17	0.48	0.44	0.24	0.62	0.56	1.00	1.00	1.00	0.29	0.48	0.43
Q2:		0.1	0.1	0.0	0.1	0.4	0.2	0.6	0.3	0.4	0.1	0.3	0.2
HCM2KQueue:		1.7	3.4	0.5	1.2	6.7	3.7	2.5	2.5	3.2	1.8	4.7	2.8
70th%Factor:	1.20	1.19	1.20	1.20	1.18	1.19	1.19	1.19	1.19	1.20	1.19	1.19
HCM2k70thQ:		2.1	4.0	0.6	1.5	7.9	4.5	3.0	3.0	3.8	2.1	5.5	3.3
85th%Factor:	1.58	1.57	1.60	1.59	1.54	1.56	1.58	1.58	1.57	1.58	1.56	1.57
HCM2k85thQ:		2.7	5.3	0.7	1.9	10.2	5.8	4.0	4.0	5.0	2.8	7.2	4.3
90th%Factor:	1.77	1.74	1.79	1.78	1.69	1.73	1.75	1.75	1.74	1.77	1.72	1.75
HCM2k90thQ:		3.0	5.8	0.8	2.2	11.2	6.5	4.5	4.4	5.6	3.1	8.0	4.8
95th%Factor:	2.05	2.00	2.08	2.06	1.91	1.99	2.02	2.02	2.00	2.04	1.96	2.01
HCM2k95thQ:		3.5	6.7	1.0	2.5	12.7	7.4	5.1	5.1	6.4	3.6	9.1	5.6
98th%Factor:	2.58	2.47	2.66	2.61	2.30	2.45	2.52	2.52	2.48	2.57	2.40	2.51
HCM2k98thQ:		4.4	8.3	1.2	3.2	15.3	9.2	6.4	6.4	7.9	4.6	11.2	6.9

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

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Intersection #8 Van Buren Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	14.6	55.2	4.0	10.4	107	31.8	34.1	55.7	25.0	28.8	107	23.4

Name: year 1995 composite fleet
Fuel Consumption: 80.433 pounds
13.030 gallons
Carbon Dioxide: 250.950 pounds
Carbon Monoxide: 19.580 pounds
Hydrocarbons: 3.545 pounds
Nitrogen Oxides: 0.714 pounds

Name: year 2000 composite fleet
Fuel Consumption: 80.433 pounds
13.030 gallons
Carbon Dioxide: 250.950 pounds
Carbon Monoxide: 19.580 pounds
Hydrocarbons: 3.545 pounds
Nitrogen Oxides: 0.714 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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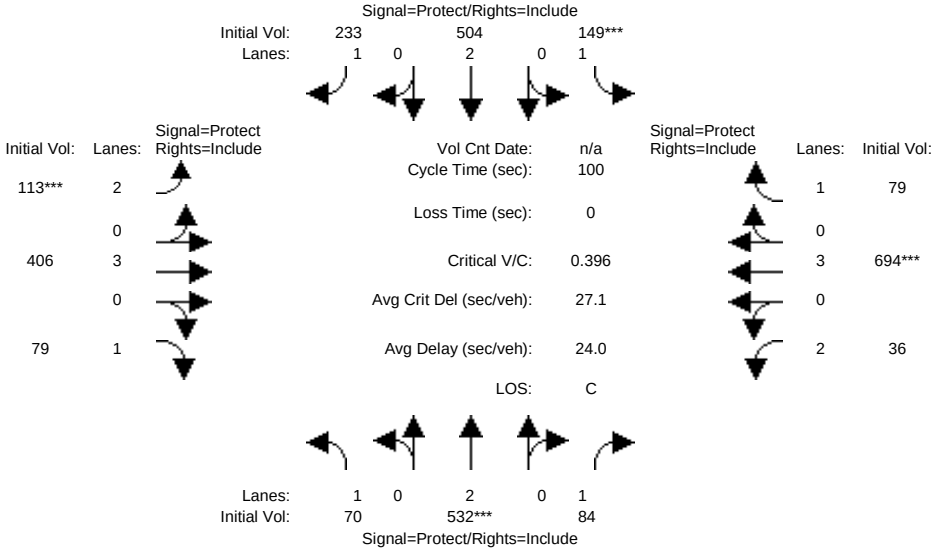
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #8: Van Buren Street (NS) / 50th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	70	532	84	149	504	233	113	406	79	36	694	79
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	70	532	84	149	504	233	113	406	79	36	694	79
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	70	532	84	149	504	233	113	406	79	36	694	79
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	70	532	84	149	504	233	113	406	79	36	694	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	70	532	84	149	504	233	113	406	79	36	694	79
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	70	532	84	149	504	233	113	406	79	36	694	79
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	3502	5187	1615	3502	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.04	0.15	0.05	0.08	0.14	0.14	0.03	0.08	0.05	0.01	0.13	0.05
Crit Moves:		****		****			****				****	
Green/Cycle:	0.12	0.37	0.37	0.21	0.46	0.46	0.08	0.37	0.37	0.05	0.34	0.34
Volume/Cap:	0.32	0.40	0.14	0.40	0.31	0.32	0.40	0.21	0.13	0.21	0.40	0.14
Delay/Veh:	40.8	23.3	20.9	34.8	17.2	17.4	44.5	21.5	20.9	46.3	25.5	23.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.8	23.3	20.9	34.8	17.2	17.4	44.5	21.5	20.9	46.3	25.5	23.2
LOS by Move:	D	C	C	C	B	B	D	C	C	D	C	C
HCM2kAvgQ:	2	6	2	4	5	4	2	3	2	1	6	2

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1 0 2	0 1		1 0 2	0 1		2 0 3	0 1		2 0 3	0 1	
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	1	2	1	1	2	1	2	3	1	2	3	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1 xxxx	xxxx		1 xxxx	xxxx		1 xxxx	xxxx		1 xxxx	xxxx	
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Fnl Sat Adj:	0.95	0.95	0.85	0.95	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

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Intersection #8 Van Buren Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.12	0.37	0.37	0.21	0.46	0.46	0.08	0.37	0.37	0.05	0.34	0.34
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	1.8	5.7	1.5	3.6	4.6	4.1	1.5	2.8	1.5	0.5	5.4	1.5
UpstreamVC:	0.79	0.79	0.79	1.07	1.07	1.07	0.00	0.00	0.00	0.89	0.89	0.89
UpstreamAdj:	0.52	0.52	0.52	0.09	0.09	0.09	0.00	0.00	0.00	0.33	0.33	0.33
EarlyArrAdj:	0.16	0.31	0.28	0.04	0.06	0.06	1.00	1.00	1.00	0.06	0.18	0.17
Q2:	0.1	0.2	0.0	0.0	0.0	0.0	0.6	0.3	0.2	0.0	0.1	0.0
HCM2KQueue:	1.8	5.9	1.6	3.6	4.7	4.1	2.2	3.1	1.6	0.5	5.5	1.6
70th%Factor:	1.20	1.19	1.20	1.19	1.19	1.19	1.19	1.19	1.20	1.20	1.19	1.20
HCM2k70thQ:	2.2	7.0	1.9	4.3	5.6	4.9	2.6	3.7	1.9	0.6	6.6	1.9
85th%Factor:	1.58	1.55	1.58	1.57	1.56	1.56	1.58	1.57	1.58	1.59	1.55	1.58
HCM2k85thQ:	2.9	9.2	2.5	5.6	7.3	6.4	3.4	4.8	2.5	0.8	8.6	2.5
90th%Factor:	1.76	1.70	1.77	1.73	1.72	1.73	1.76	1.74	1.77	1.79	1.70	1.77
HCM2k90thQ:	3.3	10.1	2.8	6.2	8.0	7.1	3.8	5.4	2.8	0.9	9.4	2.8
95th%Factor:	2.04	1.93	2.05	1.99	1.96	1.98	2.03	2.01	2.05	2.08	1.94	2.05
HCM2k95thQ:	3.8	11.5	3.3	7.2	9.2	8.2	4.4	6.2	3.3	1.1	10.7	3.2
98th%Factor:	2.57	2.33	2.58	2.46	2.40	2.43	2.55	2.49	2.58	2.66	2.35	2.59
HCM2k98thQ:	4.7	13.8	4.1	8.8	11.2	10.0	5.5	7.7	4.1	1.4	13.0	4.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #8 Van Buren Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	16.0	97.9	13.9	32.1	79.4	36.9	26.8	69.3	13.1	8.7	133	13.7

Name: year 1995 composite fleet
Fuel Consumption: 86.163 pounds
13.958 gallons
Carbon Dioxide: 268.828 pounds
Carbon Monoxide: 21.022 pounds
Hydrocarbons: 3.817 pounds
Nitrogen Oxides: 0.765 pounds

Name: year 2000 composite fleet
Fuel Consumption: 86.163 pounds
13.958 gallons
Carbon Dioxide: 268.828 pounds
Carbon Monoxide: 21.022 pounds
Hydrocarbons: 3.817 pounds
Nitrogen Oxides: 0.765 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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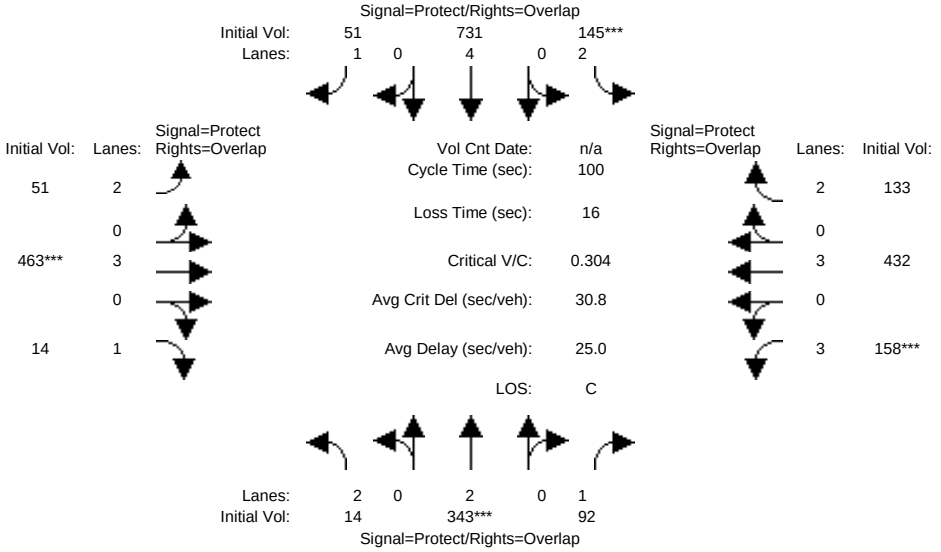
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #9: Harrison Street (NS) / 50th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	14	343	92	145	731	51	51	463	14	158	432	133
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	343	92	145	731	51	51	463	14	158	432	133
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	343	92	145	731	51	51	463	14	158	432	133
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	343	92	145	731	51	51	463	14	158	432	133
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	343	92	145	731	51	51	463	14	158	432	133
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	343	92	145	731	51	51	463	14	158	432	133
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85	0.92	0.91	0.75
Lanes:	2.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00	3.00	3.00	2.00
Final Sat.:	3502	3610	1615	3502	6916	1615	3502	5187	1615	5253	5187	2842
Capacity Analysis Module:												
Vol/Sat:	0.00	0.10	0.06	0.04	0.11	0.03	0.01	0.09	0.01	0.03	0.08	0.05
Crit Moves:		****		****				****		****		
Green/Cycle:	0.02	0.31	0.41	0.14	0.43	0.49	0.06	0.29	0.31	0.10	0.33	0.47
Volume/Cap:	0.24	0.30	0.14	0.30	0.24	0.06	0.25	0.30	0.03	0.30	0.25	0.10
Delay/Veh:	50.8	26.3	18.5	39.3	18.1	13.5	45.6	27.5	24.1	42.2	24.3	14.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.8	26.3	18.5	39.3	18.1	13.5	45.6	27.5	24.1	42.2	24.3	14.8
LOS by Move:	D	C	B	D	B	B	D	C	C	D	C	B
HCM2kAvgQ:	0	4	2	2	4	1	1	4	0	2	3	1

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	2 0 2	0 1	2	0 4	0 1	2	0 3	0 1	3	0 3	0 2	
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	2	2	1	2	4	1	2	3	1	3	3	2
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	0.88
Fnl Sat Adj:	0.92	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85	0.92	0.91	0.75
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #9 Harrison Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.02	0.31	0.41	0.14	0.43	0.49	0.06	0.29	0.31	0.10	0.33	0.47
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:		0.2	3.8	1.6	1.9	3.5	0.7	0.7	3.7	0.3	1.4	3.2	1.2
UpstreamVC:	0.71	0.71	0.71	0.00	0.00	0.00	0.21	0.21	0.21	0.06	0.06	0.06
UpstreamAdj:	0.64	0.64	0.64	0.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
EarlyArrAdj:	0.06	0.35	0.37	1.00	1.00	1.00	0.19	0.51	0.48	0.26	0.56	0.62
Q2:		0.0	0.2	0.1	0.4	0.3	0.1	0.1	0.2	0.0	0.1	0.2	0.1
HCM2KQueue:		0.2	4.0	1.7	2.3	3.9	0.8	0.8	3.9	0.3	1.5	3.4	1.2
70th%Factor:	1.20	1.19	1.20	1.19	1.19	1.20	1.20	1.19	1.20	1.20	1.19	1.20
HCM2k70thQ:		0.3	4.7	2.0	2.7	4.6	1.0	0.9	4.6	0.3	1.8	4.0	1.5
85th%Factor:	1.60	1.56	1.58	1.58	1.56	1.59	1.59	1.56	1.60	1.59	1.57	1.59
HCM2k85thQ:		0.3	6.2	2.6	3.6	6.0	1.3	1.2	6.1	0.5	2.4	5.3	2.0
90th%Factor:	1.80	1.73	1.77	1.76	1.73	1.78	1.79	1.73	1.79	1.77	1.74	1.78
HCM2k90thQ:		0.4	6.8	2.9	4.0	6.7	1.5	1.4	6.7	0.5	2.7	5.9	2.2
95th%Factor:	2.09	1.98	2.05	2.03	1.98	2.07	2.08	1.98	2.09	2.05	2.00	2.06
HCM2k95thQ:		0.5	7.9	3.4	4.7	7.7	1.7	1.6	7.7	0.6	3.1	6.8	2.5
98th%Factor:	2.68	2.44	2.58	2.54	2.44	2.64	2.64	2.44	2.68	2.59	2.47	2.61
HCM2k98thQ:		0.6	9.7	4.3	5.8	9.4	2.2	2.0	9.5	0.8	3.9	8.4	3.2

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #9 Harrison Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:		30 MPH			30 MPH			30 MPH			30 MPH	
NumOfStops:	3.5	65.2	14.4	32.7	116	6.7	12.2	89.8	2.4	36.7	78.5	18.5

Name: year 1995 composite fleet
Fuel Consumption: 77.720 pounds
12.591 gallons
Carbon Dioxide: 242.485 pounds
Carbon Monoxide: 19.033 pounds
Hydrocarbons: 3.480 pounds
Nitrogen Oxides: 0.683 pounds

Name: year 2000 composite fleet
Fuel Consumption: 77.720 pounds
12.591 gallons
Carbon Dioxide: 242.485 pounds
Carbon Monoxide: 19.033 pounds
Hydrocarbons: 3.480 pounds
Nitrogen Oxides: 0.683 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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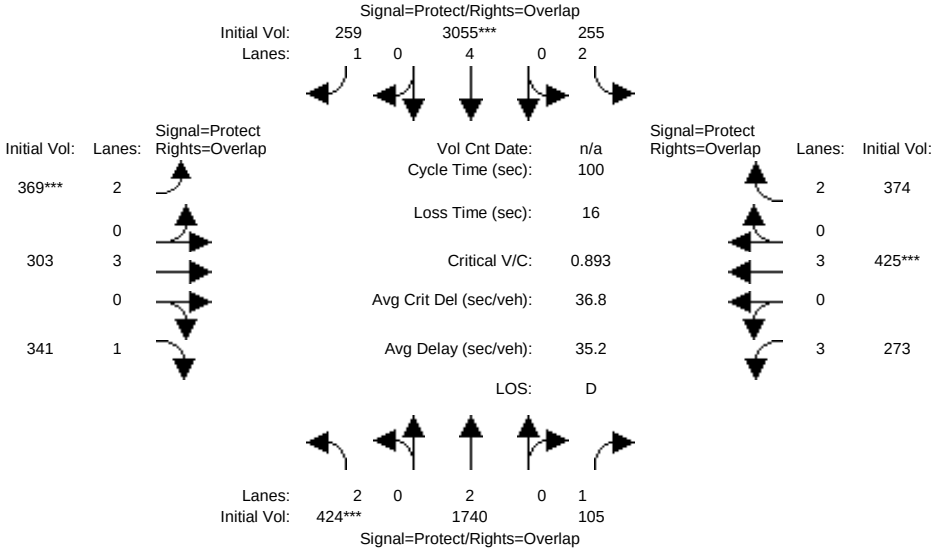
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #9: Harrison Street (NS) / 50th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	424	1740	105	255	3055	259	369	303	341	273	425	374
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	424	1740	105	255	3055	259	369	303	341	273	425	374
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	424	1740	105	255	3055	259	369	303	341	273	425	374
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	424	1740	105	255	3055	259	369	303	341	273	425	374
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	424	1740	105	255	3055	259	369	303	341	273	425	374
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	424	1740	105	255	3055	259	369	303	341	273	425	374
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85	0.92	0.91	0.75
Lanes:	2.00	2.00	1.00	2.00	4.00	1.00	2.00	3.00	1.00	3.00	3.00	2.00
Final Sat.:	3502	3610	1615	3502	6916	1615	3502	5187	1615	5253	5187	2842
Capacity Analysis Module:												
Vol/Sat:	0.12	0.48	0.07	0.07	0.44	0.16	0.11	0.06	0.21	0.05	0.08	0.13
Crit Moves:	****				****		****				****	
Green/Cycle:	0.14	0.55	0.62	0.08	0.49	0.61	0.12	0.13	0.27	0.08	0.09	0.17
Volume/Cap:	0.89	0.88	0.10	0.88	0.89	0.26	0.89	0.44	0.79	0.68	0.89	0.75
Delay/Veh:	61.4	24.7	7.6	70.6	26.3	9.1	64.5	40.4	43.1	49.5	63.7	45.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.4	24.7	7.6	70.6	26.3	9.1	64.5	40.4	43.1	49.5	63.7	45.7
LOS by Move:	E	C	A	E	C	A	E	D	D	D	E	D
HCM2kAvgQ:	6	23	1	7	27	4	7	3	10	3	6	7

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	2 0 2	0 1	2 0 4	0 1	2 0 3	0 1	3 0 3	0 2				
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	2	2	1	2	4	1	2	3	1	3	3	2
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	0.88
Fnl Sat Adj:	0.92	0.95	0.85	0.92	0.91	0.85	0.92	0.91	0.85	0.92	0.91	0.75
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #9 Harrison Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.14	0.55	0.62	0.08	0.49	0.61	0.12	0.13	0.27	0.08	0.09	0.17
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:		6.0	22.2	1.2	3.6	21.1	3.3	5.2	2.8	8.8	2.5	4.3	5.6
UpstreamVC:	0.94	0.94	0.94	0.00	0.00	0.00	0.21	0.21	0.21	0.03	0.03	0.03
UpstreamAdj:	0.23	0.23	0.23	0.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
EarlyArrAdj:	0.07	0.17	0.17	1.00	1.00	1.00	0.29	0.32	0.44	0.22	0.26	0.34
Q2:		0.5	1.2	0.0	3.1	5.7	0.4	1.5	0.2	1.4	0.4	1.4	0.9
HCM2KQueue:		6.5	23.4	1.2	6.7	26.8	3.7	6.8	3.1	10.2	3.0	5.6	6.6
70th%Factor:	1.19	1.16	1.20	1.18	1.15	1.19	1.18	1.19	1.18	1.19	1.19	1.18
HCM2k70thQ:		7.7	27.0	1.4	7.9	30.9	4.4	8.0	3.7	12.0	3.5	6.7	7.8
85th%Factor:	1.54	1.44	1.59	1.54	1.42	1.57	1.54	1.57	1.51	1.57	1.55	1.54
HCM2k85thQ:		10.0	33.6	1.9	10.3	38.2	5.7	10.4	4.8	15.5	4.7	8.7	10.1
90th%Factor:	1.69	1.52	1.78	1.69	1.50	1.73	1.69	1.74	1.64	1.74	1.70	1.69
HCM2k90thQ:		11.0	35.7	2.1	11.3	40.4	6.4	11.4	5.4	16.8	5.2	9.6	11.1
95th%Factor:	1.92	1.66	2.06	1.91	1.64	1.99	1.91	2.01	1.84	2.01	1.94	1.92
HCM2k95thQ:		12.4	38.9	2.5	12.8	43.9	7.3	12.9	6.2	18.8	6.0	10.9	12.6
98th%Factor:	2.31	1.87	2.61	2.30	1.83	2.45	2.29	2.49	2.16	2.50	2.35	2.30
HCM2k98thQ:		15.0	43.6	3.1	15.4	49.0	9.0	15.5	7.7	22.0	7.4	13.2	15.1

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #9 Harrison Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:		30 MPH			30 MPH			30 MPH			30 MPH	
NumOfStops:	104.3	380	10.5	63.1	691	29.9	90.9	69.7	79.0	66.5	105	88.9

Name: year 1995 composite fleet
Fuel Consumption: 294.517 pounds
47.712 gallons
Carbon Dioxide: 918.894 pounds
Carbon Monoxide: 74.299 pounds
Hydrocarbons: 14.222 pounds
Nitrogen Oxides: 2.482 pounds

Name: year 2000 composite fleet
Fuel Consumption: 294.517 pounds
47.712 gallons
Carbon Dioxide: 918.894 pounds
Carbon Monoxide: 74.299 pounds
Hydrocarbons: 14.222 pounds
Nitrogen Oxides: 2.482 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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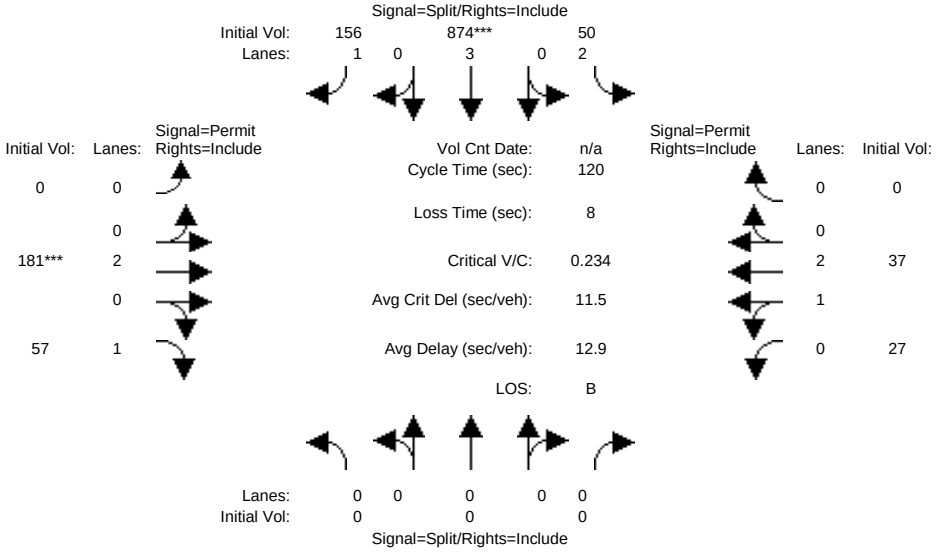
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan AM

Intersection #10: SR-86S SB Ramps (NS) / Tyler Street (EW)



Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:																
Base Vol:	0	0	0	50	874	156	0	181	57	27	37	0				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	0	0	0	50	874	156	0	181	57	27	37	0				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	0	0	0	50	874	156	0	181	57	27	37	0				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	0	0	0	50	874	156	0	181	57	27	37	0				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	0	0	0	50	874	156	0	181	57	27	37	0				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	0	0	0	50	874	156	0	181	57	27	37	0				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	1.00	1.00	1.00	0.82	0.91	0.85	1.00	0.95	0.85	0.75	0.75	1.00				
Lanes:	0.00	0.00	0.00	2.00	3.00	1.00	0.00	2.00	1.00	1.00	2.00	0.00				
Final Sat.:	0	0	0	3133	5187	1615	0	3610	1615	1423	2846	0				
Capacity Analysis Module:																
Vol/Sat:	0.00	0.00	0.00	0.02	0.17	0.10	0.00	0.05	0.04	0.02	0.01	0.00				
Crit Moves:					****			****								
Green/Cycle:	0.00	0.00	0.00	0.72	0.72	0.72	0.00	0.21	0.21	0.21	0.21	0.00				
Volume/Cap:	0.00	0.00	0.00	0.02	0.23	0.13	0.00	0.23	0.16	0.09	0.06	0.00				
Delay/Veh:	0.0	0.0	0.0	4.8	5.7	5.3	0.0	39.2	38.6	37.8	37.6	0.0				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	0.0	0.0	0.0	4.8	5.7	5.3	0.0	39.2	38.6	37.8	37.6	0.0				
LOS by Move:	A	A	A	A	A	A	A	D	D	D	D	A				
HCM2kAvgQ:	0	0	0	0	4	2	0	3	2	1	1	0				
Note: Queue reported is the number of cars per lane.																
HCM Ops Adjusted Lane Utilization Module:																
Lanes:	0	0	0	0	0	2	0	3	0	1	0	0	2	0	1	0	1	2	0	0
Lane Group:	xxxx	xxxx	xxxx		L	T		R	xxxx	T		R	LT	LT	xxxx	
#LnsInGrps:	0	0	0		2	3		1	0	2		1	3	3	0	
HCM Ops Input Saturation Adj Module:																
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12				
CrsswalkWid:	8			8			8			8						
% Hev Veh:	0			0			0			0						
Grade:	0%			0%			0%			0%						
Parking/Hr:	No			No			No			No						
Bus Stp/Hr:	0			0			0			0						
Area Type:	< < < < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >															
Cnft Ped/Hr:	0			0			0			0						
ExclusiveRT:	Include			Include			Include			Include						
% RT Prtct:	0			0			0			0						
HCM Ops f(lt) Adj Case Module:																
f(lt) Case:	xxxx	xxxx	xxxx		2r	xxxx	xxxx	xxxx	xxxx	xxxx		5	5	xxxx		
HCM Ops Saturation Adj Module:																
Ln Wid Adj:	xxxx	xxxx	xxxxx	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx				
Hev Veh Adj:	xxxx	xxxx	xxxxx	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx				
Grade Adj:	xxxx	xxxx	xxxxx	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx				
Parking Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	1.00	1.00	xxxxx				
Bus Stp Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	1.00	1.00	xxxxx				
Area Adj:	xxxx	xxxx	xxxxx	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx				
RT Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	xxxxx				
LT Adj:	xxxx	xxxx	xxxxx	0.85	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.82	0.82	xxxxx				
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
HCM Sat Adj:	1.00	1.00	1.00	0.85	1.00	0.85	1.00	1.00	0.85	0.82	0.82	1.00				
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Sat Adj:	1.00	1.00	1.00	0.97	0.91	1.00	1.00	0.95	1.00	0.91	0.91	1.00				
Fnl Sat Adj:	1.00	1.00	1.00	0.82	0.91	0.85	1.00	0.95	0.85	0.75	0.75	1.00				
Delay Adjustment Factor Module:																
Coordinated:	< < < < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >															
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > > > >															
DelAdjFctr:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00				

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

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Intersection #10 SR-86S SB Ramps (NS) / Tyler Street (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	xxxxxx	120
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	xxxxxx	25.68
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	xxxxxx	25.68
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	xxxxxx	25.68
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	xxxxxx	2
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	xxxxxx	3
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	xxxxxx	27
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	xxxxxx	0.42
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	xxxxxx	0.90
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	xxxxxx	181
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	xxxxxx	3.32
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	xxxxxx	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	xxxxxx	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	xxxxxx	7.34
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	xxxxxx	0.79
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	xxxxxx	1.52
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	xxxxxx	18.34
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	xxxxxx	0.76
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	xxxxxx	1.39
Through-car Equivalents, el1:	xxxxxx	xxxxxx	xxxxxx	1.70
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	xxxxxx	0.19
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	xxxxxx	0.65
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	xxxxxx	0.82

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #10 SR-86S SB Ramps (NS) / Tyler Street (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.00	0.00	0.00	0.72	0.72	0.72	0.00	0.21	0.21	0.21	0.21	0.00
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.0	0.0	0.0	0.2	3.6	1.6	0.0	2.6	1.5	0.8	0.5	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.30	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.96	0.00	0.00	0.00
EarlyArrAdj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.46	0.42	1.00	1.00	0.00
Q2:	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.1	0.1	0.1	0.1	0.0
HCM2KQueue:	0.0	0.0	0.0	0.3	3.9	1.8	0.0	2.8	1.6	0.9	0.6	0.0
70th%Factor:	1.20	1.20	1.20	1.20	1.19	1.20	1.20	1.19	1.20	1.20	1.20	1.20
HCM2k70thQ:	0.0	0.0	0.0	0.3	4.7	2.1	0.0	3.3	1.9	1.1	0.7	0.0
85th%Factor:	1.60	1.60	1.60	1.60	1.56	1.58	1.60	1.57	1.58	1.59	1.59	1.60
HCM2k85thQ:	0.0	0.0	0.0	0.4	6.1	2.8	0.0	4.4	2.6	1.4	1.0	0.0
90th%Factor:	1.80	1.80	1.80	1.79	1.73	1.77	1.80	1.75	1.77	1.78	1.79	1.80
HCM2k90thQ:	0.0	0.0	0.0	0.5	6.8	3.1	0.0	4.8	2.9	1.6	1.1	0.0
95th%Factor:	2.10	2.10	2.10	2.09	1.98	2.04	2.10	2.01	2.05	2.07	2.08	2.10
HCM2k95thQ:	0.0	0.0	0.0	0.6	7.7	3.6	0.0	5.6	3.3	1.8	1.3	0.0
98th%Factor:	2.70	2.70	2.70	2.68	2.44	2.57	2.70	2.51	2.58	2.63	2.65	2.70
HCM2k98thQ:	0.0	0.0	0.0	0.7	9.5	4.6	0.0	6.9	4.2	2.3	1.6	0.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #10 SR-86S SB Ramps (NS) / Tyler Street (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	0.0	0.0	0.0	3.6	73.8	12.1	0.0	37.4	11.6	5.4	7.4	0.0

Name: year 1995 composite fleet
Fuel Consumption: 28.091 pounds
4.551 gallons
Carbon Dioxide: 87.643 pounds
Carbon Monoxide: 6.433 pounds
Hydrocarbons: 1.056 pounds
Nitrogen Oxides: 0.259 pounds

Name: year 2000 composite fleet
Fuel Consumption: 28.091 pounds
4.551 gallons
Carbon Dioxide: 87.643 pounds
Carbon Monoxide: 6.433 pounds
Hydrocarbons: 1.056 pounds
Nitrogen Oxides: 0.259 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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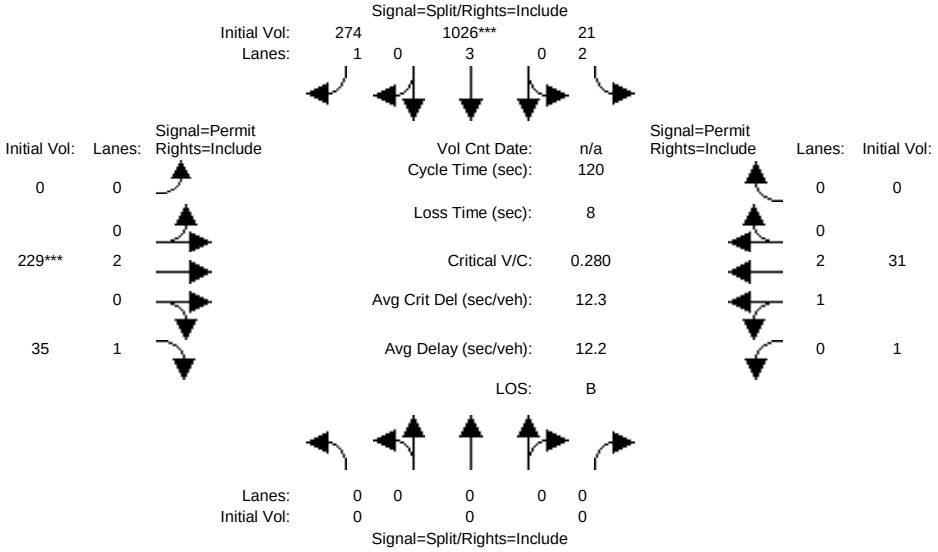
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan PM

Intersection #10: SR-86S SB Ramps (NS) / Tyler Street (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	0	0	0	21	1026	274	0	229	35	1	31	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	21	1026	274	0	229	35	1	31	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	21	1026	274	0	229	35	1	31	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	21	1026	274	0	229	35	1	31	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	21	1026	274	0	229	35	1	31	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	21	1026	274	0	229	35	1	31	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.82	0.91	0.85	1.00	0.95	0.85	0.85	0.85	1.00
Lanes:	0.00	0.00	0.00	2.00	3.00	1.00	0.00	2.00	1.00	0.09	2.91	0.00
Final Sat.:	0	0	0	3133	5187	1615	0	3610	1615	152	4698	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.01	0.20	0.17	0.00	0.06	0.02	0.01	0.01	0.00
Crit Moves:					****			****				
Green/Cycle:	0.00	0.00	0.00	0.71	0.71	0.71	0.00	0.23	0.23	0.23	0.23	0.00
Volume/Cap:	0.00	0.00	0.00	0.01	0.28	0.24	0.00	0.28	0.10	0.03	0.03	0.00
Delay/Veh:	0.0	0.0	0.0	5.2	6.5	6.3	0.0	38.5	36.8	36.1	36.1	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	5.2	6.5	6.3	0.0	38.5	36.8	36.1	36.1	0.0
LOS by Move:	A	A	A	A	A	A	A	D	D	D	D	A
HCM2kAvgQ:	0	0	0	0	5	4	0	3	1	0	0	0

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	0	0	0	0	0	2	0	3	0	1	0	0
Lane Group:	xxxx	xxxx	xxxx		L	T		R	xxxx	T		R
#LnsInGrps:	0	0	0		2	3		1	0	2		1

HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:		8			8			8			8	
% Hev Veh:		0			0			0			0	
Grade:		0%			0%			0%			0%	
Parking/Hr:		No			No			No			No	
Bus Stp/Hr:		0			0			0			0	
Area Type:	< < < < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:		0			0			0			0	
ExclusiveRT:		Include			Include			Include			Include	
% RT Prtct:		0			0			0			0	

HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	xxxx	xxxx	xxxx		2r	xxxx	xxxx	xxxx	xxxx	xxxx	5	5	xxxx

HCM Ops Saturation Adj Module:													
Ln Wid Adj:	xxxx	xxxx	xxxxx	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
Hev Veh Adj:	xxxx	xxxx	xxxxx	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
Grade Adj:	xxxx	xxxx	xxxxx	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
Parking Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	1.00	1.00	xxxxx
Bus Stp Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	1.00	1.00	xxxxx
Area Adj:	xxxx	xxxx	xxxxx	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	xxxxx
RT Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	xxxxx
LT Adj:	xxxx	xxxx	xxxxx	0.85	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.94	0.94	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	1.00	1.00	1.00	0.85	1.00	0.85	1.00	1.00	0.85	0.94	0.94	1.00
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	1.00	1.00	0.97	0.91	1.00	1.00	0.95	1.00	0.91	0.91	1.00
Fnl Sat Adj:	1.00	1.00	1.00	0.82	0.91	0.85	1.00	0.95	0.85	0.85	0.85	1.00

Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > > > >											
DelAdjFctr:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

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Intersection #10 SR-86S SB Ramps (NS) / Tyler Street (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	xxxxxx	120
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	xxxxxx	27.20
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	xxxxxx	27.20
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	xxxxxx	27.20
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	xxxxxx	2
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	xxxxxx	3
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	xxxxxx	1
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	xxxxxx	0.03
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	xxxxxx	0.03
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	xxxxxx	229
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	xxxxxx	4.19
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	xxxxxx	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	xxxxxx	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	xxxxxx	21.18
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	xxxxxx	0.77
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	xxxxxx	2.97
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	xxxxxx	6.02
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	xxxxxx	0.73
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	xxxxxx	0.09
Through-car Equivalents, el1:	xxxxxx	xxxxxx	xxxxxx	1.80
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	xxxxxx	0.08
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	xxxxxx	0.99
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	xxxxxx	0.94

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #10 SR-86S SB Ramps (NS) / Tyler Street (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.00	0.00	0.00	0.71	0.71	0.71	0.00	0.23	0.23	0.23	0.23	0.00
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.0	0.0	0.0	0.1	4.6	3.2	0.0	3.3	0.9	0.3	0.3	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.44	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.00	0.00	0.00
EarlyArrAdj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.44	0.40	1.00	1.00	0.00
Q2:	0.0	0.0	0.0	0.0	0.4	0.3	0.0	0.2	0.0	0.0	0.0	0.0
HCM2KQueue:	0.0	0.0	0.0	0.1	5.0	3.5	0.0	3.5	1.0	0.3	0.3	0.0
70th%Factor:	1.20	1.20	1.20	1.20	1.19	1.19	1.20	1.19	1.20	1.20	1.20	1.20
HCM2k70thQ:	0.0	0.0	0.0	0.1	5.9	4.2	0.0	4.2	1.2	0.4	0.4	0.0
85th%Factor:	1.60	1.60	1.60	1.60	1.55	1.57	1.60	1.57	1.59	1.60	1.60	1.60
HCM2k85thQ:	0.0	0.0	0.0	0.2	7.7	5.5	0.0	5.5	1.5	0.5	0.5	0.0
90th%Factor:	1.80	1.80	1.80	1.80	1.71	1.74	1.80	1.74	1.78	1.79	1.79	1.80
HCM2k90thQ:	0.0	0.0	0.0	0.2	8.5	6.1	0.0	6.1	1.7	0.6	0.6	0.0
95th%Factor:	2.10	2.10	2.10	2.10	1.96	1.99	2.10	1.99	2.07	2.09	2.09	2.10
HCM2k95thQ:	0.0	0.0	0.0	0.2	9.7	7.1	0.0	7.0	2.0	0.7	0.7	0.0
98th%Factor:	2.70	2.70	2.70	2.69	2.38	2.46	2.70	2.46	2.63	2.67	2.67	2.70
HCM2k98thQ:	0.0	0.0	0.0	0.3	11.8	8.7	0.0	8.6	2.5	0.9	0.9	0.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #10 SR-86S SB Ramps (NS) / Tyler Street (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	0.0	0.0	0.0	1.6	93.8	24.2	0.0	47.3	6.9	0.2	6.0	0.0

Name: year 1995 composite fleet
Fuel Consumption: 32.189 pounds
5.215 gallons
Carbon Dioxide: 100.430 pounds
Carbon Monoxide: 7.332 pounds
Hydrocarbons: 1.189 pounds
Nitrogen Oxides: 0.301 pounds

Name: year 2000 composite fleet
Fuel Consumption: 32.189 pounds
5.215 gallons
Carbon Dioxide: 100.430 pounds
Carbon Monoxide: 7.332 pounds
Hydrocarbons: 1.189 pounds
Nitrogen Oxides: 0.301 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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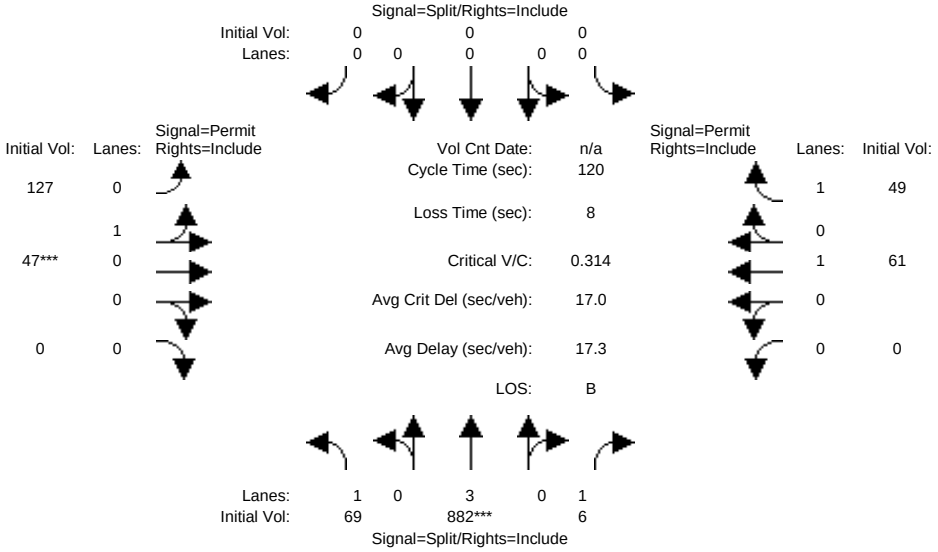
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #11: SR-86S NB Ramps (NS) / Tyler Street (EW)




```
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       69  882     6     0    0     0   127   47     0     0   61    49
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    69  882     6     0    0     0   127   47     0     0   61    49
Added Vol:       0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:     0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    69  882     6     0    0     0   127   47     0     0   61    49
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     69  882     6     0    0     0   127   47     0     0   61    49
Reduct Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    69  882     6     0    0     0   127   47     0     0   61    49
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    69  882     6     0    0     0   127   47     0     0   61    49
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.85 0.91  0.85  1.00 1.00  1.00  0.75 0.75  1.00  1.00 1.00  0.85
Lanes:       1.00 3.00  1.00  0.00 0.00  0.00  0.73 0.27  0.00  0.00 1.00  1.00
Final Sat.:  1615 5187  1615     0    0     0  1033  382     0     0 1900  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.17  0.00  0.00 0.00  0.00  0.12 0.12  0.00  0.00 0.03  0.03
Crit Moves:       ****                          ****
Green/Cycle: 0.54 0.54  0.54  0.00 0.00  0.00  0.39 0.39  0.00  0.00 0.39  0.39
Volume/Cap:  0.08 0.31  0.01  0.00 0.00  0.00  0.31 0.31  0.00  0.00 0.08  0.08
Delay/Veh:   13.2 15.2  12.7   0.0  0.0   0.0  25.6 25.6   0.0   0.0 23.0  23.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  13.2 15.2  12.7   0.0  0.0   0.0  25.6 25.6   0.0   0.0 23.0  23.0
LOS by Move:    B    B     B     A    A     A     C    C     A     A    C     C
HCM2kAvgQ:      1    6     0     0    0     0     4    4     0     0    1     1
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        1  0  3  0  1    0  0  0  0  0    0  1  0  0  0    0  0  1  0  1
Lane Group:    L    T     R   xxxx xxxx  xxxx   LT   LT   xxxx  xxxx   T     R
#LnsInGrps:     1    3     1     0    0     0     1    1     0     0    1     1
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:          8                8                8                8
% Hev Veh:            0                0                0                0
Grade:               0%               0%               0%               0%
Parking/Hr:          No               No               No               No
Bus Stp/Hr:           0                0                0                0
Area Type:    < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > >
Cnft Ped/Hr:          0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:           0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:    2r xxxx  xxxx  xxxx xxxx  xxxx     5    5  xxxx  xxxx xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
Hev Veh Adj: 1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
Grade Adj:   1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
Parking Adj: xxxx xxxx  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx xxxx  1.00
Bus Stp Adj: xxxx xxxx  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx xxxx  1.00
Area Adj:    1.00 1.00  1.00  xxxx xxxx xxxxx  1.00 1.00 xxxxx  xxxx 1.00  1.00
RT Adj:      xxxx xxxx  0.85  xxxx xxxx xxxxx  xxxx xxxx xxxxx  xxxx xxxx  0.85
LT Adj:      0.85 xxxx xxxxx  xxxx xxxx xxxxx  0.75 0.75 xxxxx  xxxx xxxx xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.85 1.00  0.85  1.00 1.00  1.00  0.75 0.75  1.00  1.00 1.00  0.85
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 1.00 0.91  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Fnl Sat Adj: 0.85 0.91  0.85  1.00 1.00  1.00  0.75 0.75  1.00  1.00 1.00  0.85
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 1.00  1.00  0.00 0.00  0.00  1.00 1.00  0.00  0.00 1.00  1.00
```

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #11 SR-86S NB Ramps (NS) / Tyler Street (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	120	xxxxxx
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	47.00	xxxxxx
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	47.00	xxxxxx
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	47.00	xxxxxx
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	1	xxxxxx
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	1	xxxxxx
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	127	xxxxxx
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	0.73	xxxxxx
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	4.23	xxxxxx
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	61	xxxxxx
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	2.03	xxxxxx
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	1.00	xxxxxx
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	4.00	xxxxxx
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	1.58	xxxxxx
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	0.61	xxxxxx
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	0.00	xxxxxx
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	45.42	xxxxxx
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	0.84	xxxxxx
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	0.73	xxxxxx
Through-car Equivalents, el1:	xxxxxx	xxxxxx	1.49	xxxxxx
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	0.07	xxxxxx
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	0.74	xxxxxx
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	0.74	xxxxxx

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #11 SR-86S NB Ramps (NS) / Tyler Street (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.54	0.54	0.54	0.00	0.00	0.00	0.39	0.39	0.00	0.00	0.39	0.39
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	1.1	5.9	0.1	0.0	0.0	0.0	4.0	4.0	0.0	0.0	1.3	1.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Q2:	0.1	0.5	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.1	0.1
HCM2KQueue:	1.2	6.4	0.1	0.0	0.0	0.0	4.5	4.5	0.0	0.0	1.4	1.1
70th%Factor:	1.20	1.19	1.20	1.20	1.20	1.20	1.19	1.19	1.20	1.20	1.20	1.20
HCM2k70thQ:	1.4	7.6	0.1	0.0	0.0	0.0	5.3	5.3	0.0	0.0	1.6	1.3
85th%Factor:	1.59	1.54	1.60	1.60	1.60	1.60	1.56	1.56	1.60	1.60	1.59	1.59
HCM2k85thQ:	1.9	9.9	0.2	0.0	0.0	0.0	7.0	7.0	0.0	0.0	2.2	1.8
90th%Factor:	1.78	1.69	1.80	1.80	1.80	1.80	1.72	1.72	1.80	1.80	1.77	1.78
HCM2k90thQ:	2.1	10.8	0.2	0.0	0.0	0.0	7.7	7.7	0.0	0.0	2.4	2.0
95th%Factor:	2.06	1.92	2.10	2.10	2.10	2.10	1.97	1.97	2.10	2.10	2.06	2.06
HCM2k95thQ:	2.4	12.3	0.2	0.0	0.0	0.0	8.8	8.8	0.0	0.0	2.8	2.3
98th%Factor:	2.61	2.31	2.69	2.70	2.70	2.70	2.41	2.41	2.70	2.70	2.60	2.62
HCM2k98thQ:	3.1	14.8	0.3	0.0	0.0	0.0	10.8	10.8	0.0	0.0	3.6	2.9

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #11 SR-86S NB Ramps (NS) / Tyler Street (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	8.3	122	0.7	0.0	0.0	0.0	22.0	8.2	0.0	0.0	9.6	7.7

Name: year 1995 composite fleet
Fuel Consumption: 29.531 pounds
4.784 gallons
Carbon Dioxide: 92.138 pounds
Carbon Monoxide: 6.976 pounds
Hydrocarbons: 1.203 pounds
Nitrogen Oxides: 0.270 pounds

Name: year 2000 composite fleet
Fuel Consumption: 29.531 pounds
4.784 gallons
Carbon Dioxide: 92.138 pounds
Carbon Monoxide: 6.976 pounds
Hydrocarbons: 1.203 pounds
Nitrogen Oxides: 0.270 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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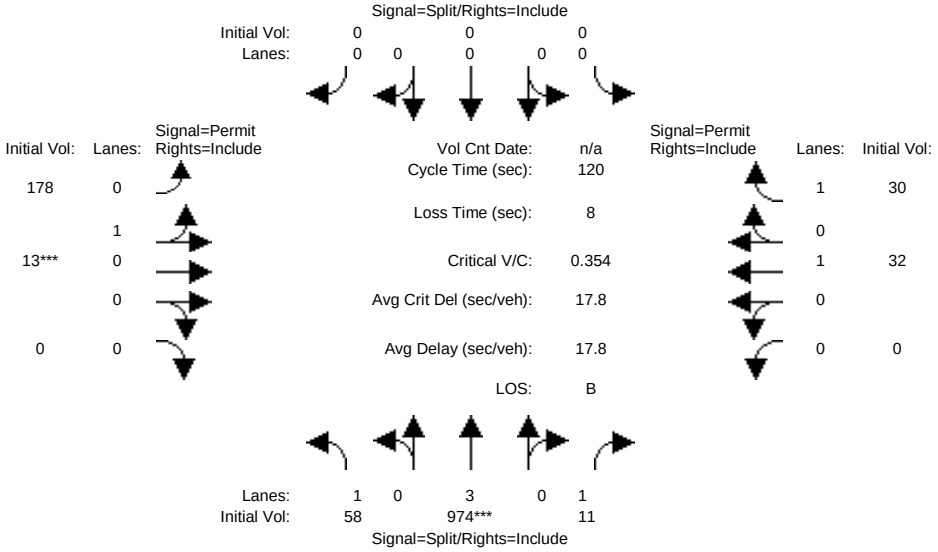
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #11: SR-86S NB Ramps (NS) / Tyler Street (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	58	974	11	0	0	0	178	13	0	0	32	30
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	58	974	11	0	0	0	178	13	0	0	32	30
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	58	974	11	0	0	0	178	13	0	0	32	30
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	58	974	11	0	0	0	178	13	0	0	32	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	58	974	11	0	0	0	178	13	0	0	32	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	58	974	11	0	0	0	178	13	0	0	32	30
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.85	0.91	0.85	1.00	1.00	1.00	0.71	0.71	1.00	1.00	1.00	0.85
Lanes:	1.00	3.00	1.00	0.00	0.00	0.00	0.93	0.07	0.00	0.00	1.00	1.00
Final Sat.:	1615	5187	1615	0	0	0	1250	91	0	0	1900	1615
Capacity Analysis Module:												
Vol/Sat:	0.04	0.19	0.01	0.00	0.00	0.00	0.14	0.14	0.00	0.00	0.02	0.02
Crit Moves:		****						****				
Green/Cycle:	0.53	0.53	0.53	0.00	0.00	0.00	0.40	0.40	0.00	0.00	0.40	0.40
Volume/Cap:	0.07	0.35	0.01	0.00	0.00	0.00	0.35	0.35	0.00	0.00	0.04	0.05
Delay/Veh:	13.7	16.3	13.3	0.0	0.0	0.0	25.4	25.4	0.0	0.0	21.8	21.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.7	16.3	13.3	0.0	0.0	0.0	25.4	25.4	0.0	0.0	21.8	21.9
LOS by Move:	B	B	B	A	A	A	C	C	A	A	C	C
HCM2kAvgQ:	1	7	0	0	0	0	5	5	0	0	1	1
Note: Queue reported is the number of cars per lane.												
HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1	0	3	0	1	0	0	0	0	0	1	0	0	0	0	0	1	0	1
Lane Group:	L	T	R	xxxx	xxxx	xxxx	LT	LT	xxxx	xxxx	T	R
#LnsInGrps:	1	3	1	0	0	0	1	1	0	0	1	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:		8			8			8			8	
% Hev Veh:		0			0			0			0	
Grade:		0%			0%			0%			0%	
Parking/Hr:		No			No			No			No	
Bus Stp/Hr:		0			0			0			0	
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:		0			0			0			0	
ExclusiveRT:		Include			Include			Include			Include	
% RT Prtct:		0			0			0			0	
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	2r	xxxx	xxxx	xxxx	xxxx	xxxx	5	5	xxxx	xxxx	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	xxxx	xxxx	xxxxx	1.00	1.00	xxxxx	xxxx	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	xxxx	xxxx	xxxxx	1.00	1.00	xxxxx	xxxx	1.00	1.00
Grade Adj:	1.00	1.00	1.00	xxxx	xxxx	xxxxx	1.00	1.00	xxxxx	xxxx	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	xxxxx	1.00	1.00	xxxxx	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	xxxxx	1.00	1.00	xxxxx	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	xxxx	xxxx	xxxxx	1.00	1.00	xxxxx	xxxx	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	0.85
LT Adj:	0.85	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.71	0.71	xxxxx	xxxx	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.85	1.00	0.85	1.00	1.00	1.00	0.71	0.71	1.00	1.00	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fnl Sat Adj:	0.85	0.91	0.85	1.00	1.00	1.00	0.71	0.71	1.00	1.00	1.00	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #11 SR-86S NB Ramps (NS) / Tyler Street (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	120	xxxxxx
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	48.31	xxxxxx
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	48.31	xxxxxx
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	48.31	xxxxxx
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	1	xxxxxx
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	1	xxxxxx
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	178	xxxxxx
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	0.93	xxxxxx
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	5.93	xxxxxx
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	32	xxxxxx
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	1.07	xxxxxx
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	1.00	xxxxxx
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	4.00	xxxxxx
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	0.00	xxxxxx
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	0.60	xxxxxx
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	0.00	xxxxxx
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	48.31	xxxxxx
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	0.86	xxxxxx
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	0.93	xxxxxx
Through-car Equivalents, el1:	xxxxxx	xxxxxx	1.45	xxxxxx
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	0.08	xxxxxx
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	0.71	xxxxxx
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	0.71	xxxxxx

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #11 SR-86S NB Ramps (NS) / Tyler Street (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.53	0.53	0.53	0.00	0.00	0.00	0.40	0.40	0.00	0.00	0.40	0.40
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.9	6.9	0.2	0.0	0.0	0.0	4.4	4.4	0.0	0.0	0.6	0.6
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00
Q2:	0.1	0.5	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
HCM2KQueue:	1.0	7.4	0.2	0.0	0.0	0.0	5.0	5.0	0.0	0.0	0.7	0.7
70th%Factor:	1.20	1.18	1.20	1.20	1.20	1.20	1.19	1.19	1.20	1.20	1.20	1.20
HCM2k70thQ:	1.2	8.8	0.2	0.0	0.0	0.0	5.9	5.9	0.0	0.0	0.8	0.8
85th%Factor:	1.59	1.53	1.60	1.60	1.60	1.60	1.55	1.55	1.60	1.60	1.59	1.59
HCM2k85thQ:	1.6	11.4	0.3	0.0	0.0	0.0	7.7	7.7	0.0	0.0	1.1	1.0
90th%Factor:	1.78	1.68	1.80	1.80	1.80	1.80	1.71	1.71	1.80	1.80	1.79	1.79
HCM2k90thQ:	1.8	12.4	0.3	0.0	0.0	0.0	8.5	8.5	0.0	0.0	1.2	1.2
95th%Factor:	2.07	1.90	2.09	2.10	2.10	2.10	1.96	1.96	2.10	2.10	2.08	2.08
HCM2k95thQ:	2.1	14.1	0.4	0.0	0.0	0.0	9.7	9.7	0.0	0.0	1.4	1.4
98th%Factor:	2.63	2.27	2.69	2.70	2.70	2.70	2.38	2.38	2.70	2.70	2.65	2.65
HCM2k98thQ:	2.7	16.8	0.5	0.0	0.0	0.0	11.9	11.9	0.0	0.0	1.8	1.7

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #11 SR-86S NB Ramps (NS) / Tyler Street (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	7.1	141	1.3	0.0	0.0	0.0	31.0	2.3	0.0	0.0	4.9	4.6

Name: year 1995 composite fleet
Fuel Consumption: 31.383 pounds
5.084 gallons
Carbon Dioxide: 97.916 pounds
Carbon Monoxide: 7.436 pounds
Hydrocarbons: 1.288 pounds
Nitrogen Oxides: 0.287 pounds

Name: year 2000 composite fleet
Fuel Consumption: 31.383 pounds
5.084 gallons
Carbon Dioxide: 97.916 pounds
Carbon Monoxide: 7.436 pounds
Hydrocarbons: 1.288 pounds
Nitrogen Oxides: 0.287 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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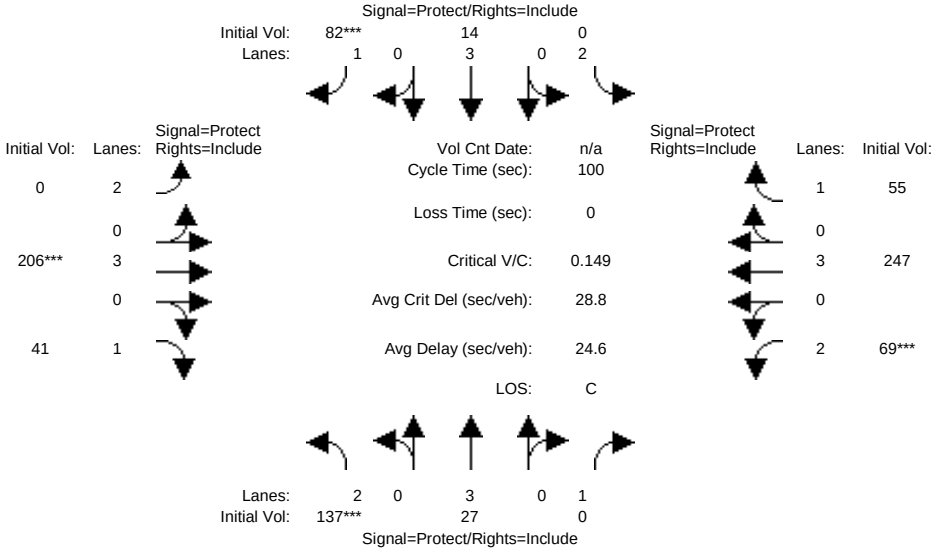
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #12: Polk Street (NS) / 50th Avenue (EW)



Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:																
Base Vol:	137	27	0	0	14	82	0	206	41	69	247	55				
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Initial Bse:	137	27	0	0	14	82	0	206	41	69	247	55				
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0				
Initial Fut:	137	27	0	0	14	82	0	206	41	69	247	55				
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
PHF Volume:	137	27	0	0	14	82	0	206	41	69	247	55				
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0				
Reduced Vol:	137	27	0	0	14	82	0	206	41	69	247	55				
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
FinalVolume:	137	27	0	0	14	82	0	206	41	69	247	55				
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900				
Adjustment:	0.92	0.91	1.00	0.97	0.91	0.85	0.97	0.91	0.85	0.92	0.91	0.85				
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00				
Final Sat.:	3502	5187	1900	3686	5187	1615	3686	5187	1615	3502	5187	1615				
Capacity Analysis Module:																
Vol/Sat:	0.04	0.01	0.00	0.00	0.00	0.05	0.00	0.04	0.03	0.02	0.05	0.03				
Crit Moves:	****					****		****		****						
Green/Cycle:	0.26	0.60	0.00	0.00	0.34	0.34	0.00	0.27	0.27	0.13	0.40	0.40				
Volume/Cap:	0.15	0.01	0.00	0.00	0.01	0.15	0.00	0.15	0.10	0.15	0.12	0.09				
Delay/Veh:	28.4	8.0	0.0	0.0	21.8	23.1	0.0	28.1	27.7	38.6	19.1	18.8				
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
AdjDel/Veh:	28.4	8.0	0.0	0.0	21.8	23.1	0.0	28.1	27.7	38.6	19.1	18.8				
LOS by Move:	C	A	A	A	C	C	A	C	C	D	B	B				
HCM2kAvgQ:	2	0	0	0	0	2	0	2	1	1	2	1				
Note: Queue reported is the number of cars per lane.																
HCM Ops Adjusted Lane Utilization Module:																
Lanes:	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1
Lane Group:	L		T		R	L		T		R	L		T		R	L		T		R
#LnsInGrps:	2		3		1	2		3		1	2		3		1	2		3		1
HCM Ops Input Saturation Adj Module:																
Lane Width:	12		12		12	12		12		12	12		12		12	12		12		12
CrsswalkWid:	8					8					8					8				
% Hev Veh:	0					0					0					0				
Grade:	0%					0%					0%					0%				
Parking/Hr:	No					No					No					No				
Bus Stp/Hr:	0					0					0					0				
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >															
Cnft Ped/Hr:	0					0					0					0				
ExclusiveRT:	Include					Include					Include					Include				
% RT Prtct:	0					0					0					0				
HCM Ops f(lt) Adj Case Module:																
f(lt) Case:	1	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		1	xxxx	xxxx			
HCM Ops Saturation Adj Module:																
Ln Wid Adj:	1.00	1.00	xxxxx	xxxx	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	1.00				
Hev Veh Adj:	1.00	1.00	xxxxx	xxxx	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	1.00				
Grade Adj:	1.00	1.00	xxxxx	xxxx	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	1.00				
Parking Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00				
Bus Stp Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00				
Area Adj:	1.00	1.00	xxxxx	xxxx	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	1.00				
RT Adj:	xxxx	xxxx	xxxxx	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85				
LT Adj:	0.95	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.95	xxxx	xxxxx				
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
HCM Sat Adj:	0.95	1.00	1.00	1.00	1.00	0.85	1.00	1.00	0.85	0.95	1.00	0.85				
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
MLF Sat Adj:	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00				
Fnl Sat Adj:	0.92	0.91	1.00	0.97	0.91	0.85	0.97	0.91	0.85	0.92	0.91	0.85				
Delay Adjustment Factor Module:																
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >															
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >															
DelAdjFctr:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00				

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

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Intersection #12 Polk Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.26	0.60	0.00	0.00	0.34	0.34	0.00	0.27	0.27	0.13	0.40	0.40
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:		1.5	0.1	0.0	0.0	0.1	1.6	0.0	1.6	0.9	0.9	1.6	1.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Q2:		0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.1	0.2	0.1	0.1
HCM2KQueue:		1.7	0.1	0.0	0.0	0.1	1.8	0.0	1.8	1.0	1.0	1.7	1.0
70th%Factor:	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
HCM2k70thQ:		2.0	0.1	0.0	0.0	0.1	2.1	0.0	2.1	1.2	1.3	2.1	1.3
85th%Factor:	1.58	1.60	1.60	1.60	1.60	1.58	1.60	1.58	1.59	1.59	1.58	1.59	
HCM2k85thQ:		2.7	0.2	0.0	0.0	0.2	2.8	0.0	2.8	1.5	1.7	2.7	1.7
90th%Factor:	1.77	1.80	1.80	1.80	1.80	1.77	1.80	1.77	1.78	1.78	1.77	1.78	
HCM2k90thQ:		3.0	0.2	0.0	0.0	0.2	3.1	0.0	3.1	1.7	1.9	3.0	1.9
95th%Factor:	2.05	2.10	2.10	2.10	2.10	2.04	2.10	2.04	2.07	2.07	2.05	2.07	
HCM2k95thQ:		3.4	0.2	0.0	0.0	0.2	3.6	0.0	3.6	2.0	2.2	3.5	2.2
98th%Factor:	2.58	2.69	2.70	2.70	2.69	2.57	2.70	2.57	2.63	2.62	2.58	2.62	
HCM2k98thQ:		4.3	0.3	0.0	0.0	0.3	4.5	0.0	4.6	2.5	2.8	4.4	2.7

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #12 Polk Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:		30 MPH			30 MPH			30 MPH			30 MPH	
NumOfStops:	26.3	2.7	0.0	0.0	2.3	14.3	0.0	39.4	7.7	15.3	39.0	8.6

Name: year 1995 composite fleet
Fuel Consumption: 25.729 pounds
4.168 gallons
Carbon Dioxide: 80.273 pounds
Carbon Monoxide: 6.293 pounds
Hydrocarbons: 1.150 pounds
Nitrogen Oxides: 0.226 pounds

Name: year 2000 composite fleet
Fuel Consumption: 25.729 pounds
4.168 gallons
Carbon Dioxide: 80.273 pounds
Carbon Monoxide: 6.293 pounds
Hydrocarbons: 1.150 pounds
Nitrogen Oxides: 0.226 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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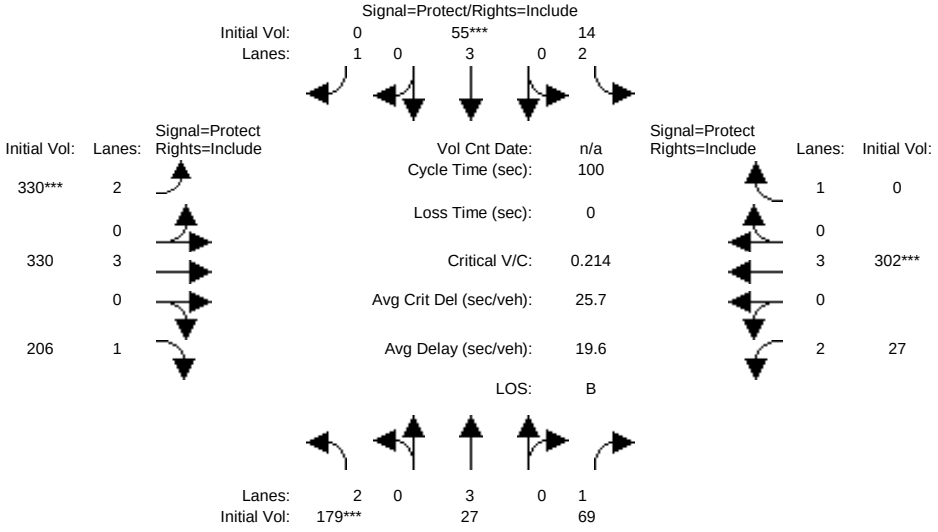
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan PM

Intersection #12: Polk Street (NS) / 50th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	179	27	69	14	55	0	330	330	206	27	302	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	179	27	69	14	55	0	330	330	206	27	302	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	179	27	69	14	55	0	330	330	206	27	302	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	179	27	69	14	55	0	330	330	206	27	302	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	179	27	69	14	55	0	330	330	206	27	302	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	179	27	69	14	55	0	330	330	206	27	302	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.85	0.92	0.91	1.00	0.92	0.91	0.85	0.92	0.91	1.00
Lanes:	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	3502	5187	1615	3502	5187	1900	3502	5187	1615	3502	5187	1900
Capacity Analysis Module:												
Vol/Sat:	0.05	0.01	0.04	0.00	0.01	0.00	0.09	0.06	0.13	0.01	0.06	0.00
Crit Moves:	****				****		****				****	
Green/Cycle:	0.24	0.26	0.26	0.02	0.05	0.00	0.44	0.67	0.67	0.04	0.27	0.00
Volume/Cap:	0.21	0.02	0.16	0.16	0.21	0.00	0.21	0.09	0.19	0.19	0.21	0.00
Delay/Veh:	30.7	27.3	28.5	48.6	46.1	0.0	17.4	5.8	6.3	47.0	28.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.7	27.3	28.5	48.6	46.1	0.0	17.4	5.8	6.3	47.0	28.2	0.0
LOS by Move:	C	C	C	D	D	A	B	A	A	D	C	A
HCM2kAvgQ:	2	0	2	0	1	0	3	1	2	1	3	0

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	2	0	3	0	1	2	0	3	0	1	2	0	3	0	1
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	2	3	1	2	3	1	2	3	1	2	3	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	xxxxx	1.00	1.00	1.00	1.00	1.00	xxxxx
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	xxxxx	1.00	1.00	1.00	1.00	1.00	xxxxx
Grade Adj:	1.00	1.00	1.00	1.00	1.00	xxxxx	1.00	1.00	1.00	1.00	1.00	xxxxx
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	xxxxx
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	xxxxx	xxxx	xxxx	1.00	xxxx	xxxx	xxxxx
Area Adj:	1.00	1.00	1.00	1.00	1.00	xxxxx	1.00	1.00	1.00	1.00	1.00	xxxxx
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	xxxxx	xxxx	xxxx	0.85	xxxx	xxxx	xxxxx
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	1.00	0.95	1.00	0.85	0.95	1.00	1.00
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Fnl Sat Adj:	0.92	0.91	0.85	0.92	0.91	1.00	0.92	0.91	0.85	0.92	0.91	1.00
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #12 Polk Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.24	0.26	0.26	0.02	0.05	0.00	0.44	0.67	0.67	0.04	0.27	0.00
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	2.1	0.2	1.5	0.2	0.5	0.0	2.9	1.2	2.2	0.4	2.4	0.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00
Q2:	0.3	0.0	0.2	0.2	0.3	0.0	0.3	0.1	0.2	0.2	0.3	0.0
HCM2KQueue:	2.3	0.2	1.7	0.4	0.8	0.0	3.2	1.3	2.4	0.6	2.6	0.0
70th%Factor:	1.19	1.20	1.20	1.20	1.20	1.20	1.19	1.20	1.19	1.20	1.19	1.20
HCM2k70thQ:	2.8	0.3	2.0	0.5	1.0	0.0	3.8	1.5	2.9	0.7	3.2	0.0
85th%Factor:	1.58	1.60	1.58	1.60	1.59	1.60	1.57	1.59	1.58	1.59	1.57	1.60
HCM2k85thQ:	3.7	0.4	2.6	0.6	1.3	0.0	5.0	2.0	3.8	1.0	4.2	0.0
90th%Factor:	1.76	1.80	1.77	1.79	1.78	1.80	1.74	1.78	1.75	1.79	1.75	1.80
HCM2k90thQ:	4.1	0.4	2.9	0.7	1.4	0.0	5.6	2.3	4.2	1.1	4.6	0.0
95th%Factor:	2.03	2.09	2.05	2.09	2.07	2.10	2.00	2.06	2.03	2.08	2.02	2.10
HCM2k95thQ:	4.7	0.5	3.4	0.8	1.7	0.0	6.4	2.6	4.8	1.3	5.3	0.0
98th%Factor:	2.54	2.68	2.58	2.67	2.64	2.70	2.48	2.61	2.53	2.65	2.52	2.70
HCM2k98thQ:	5.9	0.6	4.3	1.0	2.1	0.0	7.9	3.3	6.1	1.6	6.7	0.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #12 Polk Street (NS) / 50th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	35.9	5.0	13.3	3.4	13.2	0.0	51.0	29.0	19.4	6.5	58.4	0.0

Name: year 1995 composite fleet
Fuel Consumption: 39.261 pounds
6.360 gallons
Carbon Dioxide: 122.495 pounds
Carbon Monoxide: 9.393 pounds
Hydrocarbons: 1.656 pounds
Nitrogen Oxides: 0.353 pounds

Name: year 2000 composite fleet
Fuel Consumption: 39.261 pounds
6.360 gallons
Carbon Dioxide: 122.495 pounds
Carbon Monoxide: 9.393 pounds
Hydrocarbons: 1.656 pounds
Nitrogen Oxides: 0.353 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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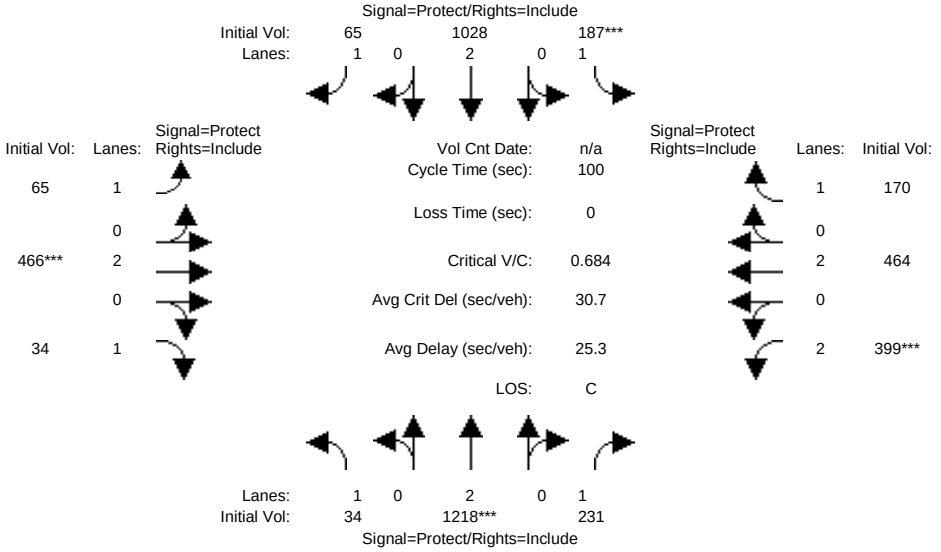
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan AM

Intersection #13: Van Buren Street (NS) / 52nd Avenue (EW)



Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Volume Module:																
Base Vol:	34	1218	231		187	1028	65		65	466	34		399	464	170	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	34	1218	231		187	1028	65		65	466	34		399	464	170	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	34	1218	231		187	1028	65		65	466	34		399	464	170	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	34	1218	231		187	1028	65		65	466	34		399	464	170	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	34	1218	231		187	1028	65		65	466	34		399	464	170	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	34	1218	231		187	1028	65		65	466	34		399	464	170	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.85		0.95	0.95	0.85		0.95	0.95	0.85		0.92	0.95	0.85	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		2.00	2.00	1.00	
Final Sat.:	1805	3610	1615		1805	3610	1615		1805	3610	1615		3502	3610	1615	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.34	0.14		0.10	0.28	0.04		0.04	0.13	0.02		0.11	0.13	0.11	
Crit Moves:		****				****					****			****		
Green/Cycle:	0.04	0.49	0.49		0.15	0.60	0.60		0.08	0.19	0.19		0.17	0.28	0.28	
Volume/Cap:	0.47	0.68	0.29		0.68	0.47	0.07		0.46	0.68	0.11		0.68	0.46	0.38	
Delay/Veh:	51.8	20.5	15.2		47.2	11.1	8.2		46.5	40.7	33.8		42.6	30.3	29.7	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	51.8	20.5	15.2		47.2	11.1	8.2		46.5	40.7	33.8		42.6	30.3	29.7	
LOS by Move:	D	C	B		D	B	A		D	D	C		D	C	C	
HCM2kAvgQ:	2	16	4		6	9	1		3	8	1		6	6	4	

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:																
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1	
Lane Group:	L		T		R	L		T		R	L		T		R	
#LnsInGrps:	1		2		1	1		2		1	1		2		1	
HCM Ops Input Saturation Adj Module:																
Lane Width:	12		12		12	12		12		12	12		12		12	
CrsswalkWid:	8					8					8					
% Hev Veh:	0					0					0					
Grade:	0%					0%					0%					
Parking/Hr:	No					No					No					
Bus Stp/Hr:	0					0					0					
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >															
Cnft Ped/Hr:	0					0					0					
ExclusiveRT:	Include					Include					Include					
% RT Prtct:	0					0					0					
HCM Ops f(lt) Adj Case Module:																
f(lt) Case:	1	xxxx	xxxx			1	xxxx	xxxx			1	xxxx	xxxx		1	xxxx xxxx
HCM Ops Saturation Adj Module:																
Ln Wid Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Hev Veh Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Grade Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Parking Adj:	xxxx	xxxx	1.00		xxxx	xxxx	1.00		xxxx	xxxx	1.00		xxxx	xxxx	1.00	
Bus Stp Adj:	xxxx	xxxx	1.00		xxxx	xxxx	1.00		xxxx	xxxx	1.00		xxxx	xxxx	1.00	
Area Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
RT Adj:	xxxx	xxxx	0.85		xxxx	xxxx	0.85		xxxx	xxxx	0.85		xxxx	xxxx	0.85	
LT Adj:	0.95	xxxx	xxxxx		0.95	xxxx	xxxxx		0.95	xxxx	xxxxx		0.95	xxxx	xxxxx	
PedBike Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
HCM Sat Adj:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	1.00	0.85		0.95	1.00	0.85	
Usr Sat Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Sat Adj:	1.00	0.95	1.00		1.00	0.95	1.00		1.00	0.95	1.00		0.97	0.95	1.00	
Fnl Sat Adj:	0.95	0.95	0.85		0.95	0.95	0.85		0.95	0.95	0.85		0.92	0.95	0.85	
Delay Adjustment Factor Module:																
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >															
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >															
DelAdjFctr:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #13 Van Buren Street (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.04	0.49	0.49	0.15	0.60	0.60	0.08	0.19	0.19	0.17	0.28	0.28
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.9	13.6	3.8	4.9	8.3	0.7	1.7	6.3	0.8	5.4	5.6	3.8
UpstreamVC:	0.00	0.00	0.00	0.38	0.38	0.38	0.00	0.00	0.00	0.50	0.50	0.50
UpstreamAdj:	0.00	0.00	0.00	0.93	0.93	0.93	0.00	0.00	0.00	0.86	0.86	0.86
EarlyArrAdj:	1.00	1.00	1.00	0.31	0.74	0.68	1.00	1.00	1.00	0.31	0.43	0.39
Q2:	0.8	2.1	0.4	0.6	0.7	0.0	0.8	1.9	0.1	0.6	0.4	0.2
HCM2KQueue:	1.7	15.7	4.2	5.6	9.0	0.8	2.5	8.3	0.9	6.0	6.0	4.1
70th%Factor:	1.20	1.17	1.19	1.19	1.18	1.20	1.19	1.18	1.20	1.19	1.19	1.19
HCM2k70thQ:	2.0	18.3	5.0	6.6	10.6	0.9	3.0	9.8	1.1	7.1	7.1	4.8
85th%Factor:	1.58	1.48	1.56	1.55	1.52	1.59	1.58	1.53	1.59	1.55	1.55	1.56
HCM2k85thQ:	2.7	23.2	6.6	8.6	13.6	1.3	4.0	12.6	1.4	9.3	9.3	6.3
90th%Factor:	1.77	1.58	1.72	1.70	1.66	1.78	1.75	1.66	1.78	1.70	1.70	1.73
HCM2k90thQ:	3.0	24.8	7.2	9.5	14.8	1.4	4.4	13.7	1.6	10.2	10.2	7.0
95th%Factor:	2.05	1.75	1.98	1.94	1.86	2.07	2.02	1.88	2.07	1.93	1.93	1.98
HCM2k95thQ:	3.5	27.4	8.3	10.8	16.7	1.6	5.1	15.5	1.9	11.6	11.6	8.0
98th%Factor:	2.58	2.00	2.42	2.35	2.20	2.64	2.52	2.23	2.63	2.33	2.33	2.43
HCM2k98thQ:	4.4	31.3	10.2	13.1	19.7	2.1	6.4	18.4	2.4	14.0	14.0	9.9

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #13 Van Buren Street (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	8.3	233	34.1	44.3	142	6.7	15.5	109	7.0	93.8	96.2	34.3

Name: year 1995 composite fleet
Fuel Consumption: 130.320 pounds
21.112 gallons
Carbon Dioxide: 406.597 pounds
Carbon Monoxide: 31.946 pounds
Hydrocarbons: 5.842 pounds
Nitrogen Oxides: 1.153 pounds

Name: year 2000 composite fleet
Fuel Consumption: 130.320 pounds
21.112 gallons
Carbon Dioxide: 406.597 pounds
Carbon Monoxide: 31.946 pounds
Hydrocarbons: 5.842 pounds
Nitrogen Oxides: 1.153 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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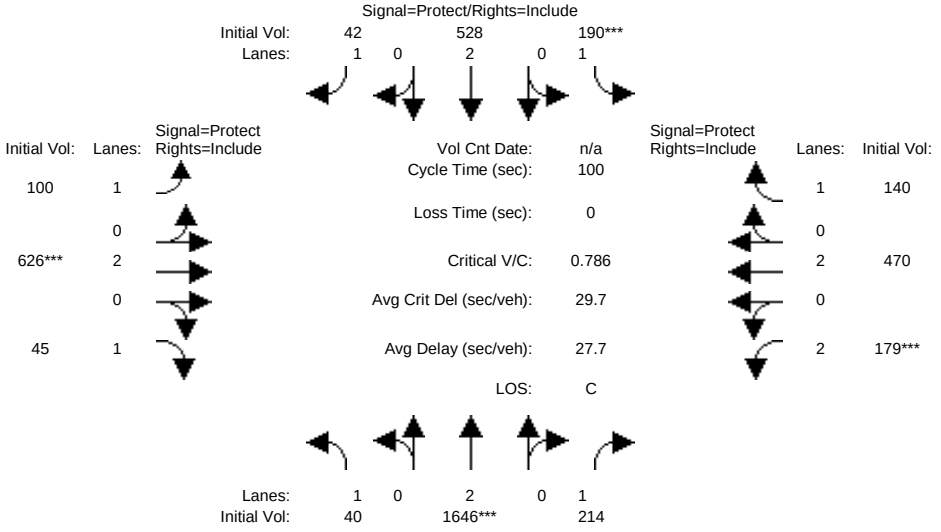
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan PM

Intersection #13: Van Buren Street (NS) / 52nd Avenue (EW)



Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Volume Module:																
Base Vol:	40	1646	214		190	528	42		100	626	45		179	470	140	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	40	1646	214		190	528	42		100	626	45		179	470	140	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	40	1646	214		190	528	42		100	626	45		179	470	140	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	40	1646	214		190	528	42		100	626	45		179	470	140	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	40	1646	214		190	528	42		100	626	45		179	470	140	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	40	1646	214		190	528	42		100	626	45		179	470	140	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.95	0.95	0.85		0.95	0.95	0.85		0.95	0.95	0.85		0.92	0.95	0.85	
Lanes:	1.00	2.00	1.00		1.00	2.00	1.00		1.00	2.00	1.00		2.00	2.00	1.00	
Final Sat.:	1805	3610	1615		1805	3610	1615		1805	3610	1615		3502	3610	1615	
Capacity Analysis Module:																
Vol/Sat:	0.02	0.46	0.13		0.11	0.15	0.03		0.06	0.17	0.03		0.05	0.13	0.09	
Crit Moves:		****			****					****			****			
Green/Cycle:	0.09	0.58	0.58		0.13	0.62	0.62		0.09	0.22	0.22		0.07	0.20	0.20	
Volume/Cap:	0.24	0.79	0.23		0.79	0.24	0.04		0.65	0.79	0.13		0.79	0.65	0.43	
Delay/Veh:	42.7	18.2	10.3		57.4	8.5	7.4		53.7	41.9	31.4		62.4	38.8	35.9	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	42.7	18.2	10.3		57.4	8.5	7.4		53.7	41.9	31.4		62.4	38.8	35.9	
LOS by Move:	D	B	B		E	A	A		D	D	C		E	D	D	
HCM2kAvgQ:	1	22	3		6	4	0		4	12	1		3	6	3	

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:																
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1	2	0	2	0	1
Lane Group:	L		T		R	L		T		R	L		T		R	L		T		R
#LnsInGrps:	1		2		1	1		2		1	1		2		1	2		2		1
HCM Ops Input Saturation Adj Module:																
Lane Width:	12		12		12	12		12		12	12		12		12	12		12		12
CrsswalkWid:	8					8					8					8				
% Hev Veh:	0					0					0					0				
Grade:	0%					0%					0%					0%				
Parking/Hr:	No					No					No					No				
Bus Stp/Hr:	0					0					0					0				
Area Type:	< < < < < < < < < < < < < < < < Other >															
Cnft Ped/Hr:	0					0					0					0				
ExclusiveRT:	Include					Include					Include					Include				
% RT Prtct:	0					0					0					0				
HCM Ops f(lt) Adj Case Module:																
f(lt) Case:	1	xxxx	xxxx			1	xxxx	xxxx			1	xxxx	xxxx			1	xxxx	xxxx		
HCM Ops Saturation Adj Module:																
Ln Wid Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Hev Veh Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Grade Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
Parking Adj:	xxxx	xxxx	1.00			xxxx	xxxx	1.00			xxxx	xxxx	1.00			xxxx	xxxx	1.00		
Bus Stp Adj:	xxxx	xxxx	1.00			xxxx	xxxx	1.00			xxxx	xxxx	1.00			xxxx	xxxx	1.00		
Area Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
RT Adj:	xxxx	xxxx	0.85			xxxx	xxxx	0.85			xxxx	xxxx	0.85			xxxx	xxxx	0.85		
LT Adj:	0.95	xxxx	xxxxx			0.95	xxxx	xxxxx			0.95	xxxx	xxxxx			0.95	xxxx	xxxxx		
PedBike Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
HCM Sat Adj:	0.95	1.00	0.85			0.95	1.00	0.85			0.95	1.00	0.85			0.95	1.00	0.85		
Usr Sat Adj:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		
MLF Sat Adj:	1.00	0.95	1.00			1.00	0.95	1.00			1.00	0.95	1.00			0.97	0.95	1.00		
Fnl Sat Adj:	0.95	0.95	0.85			0.95	0.95	0.85			0.95	0.95	0.85			0.92	0.95	0.85		
Delay Adjustment Factor Module:																
Coordinated:	< < < < < < < < < < < < < < < < No >															
Signal Type:	< < < < < < < < < < < < < Actuated >															
DelAdjFctr:	1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00			1.00	1.00	1.00		

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #13 Van Buren Street (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.09	0.58	0.58	0.13	0.62	0.62	0.09	0.22	0.22	0.07	0.20	0.20
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	1.0	18.6	2.9	5.1	3.4	0.5	2.7	8.6	1.0	2.5	6.3	3.4
UpstreamVC:	0.00	0.00	0.00	0.31	0.31	0.31	0.00	0.00	0.00	0.94	0.94	0.94
UpstreamAdj:	0.00	0.00	0.00	0.96	0.96	0.96	0.00	0.00	0.00	0.23	0.23	0.23
EarlyArrAdj:	1.00	1.00	1.00	0.30	0.78	0.71	1.00	1.00	1.00	0.05	0.09	0.09
Q2:	0.3	3.3	0.3	1.0	0.2	0.0	1.5	2.9	0.1	0.2	0.2	0.1
HCM2KQueue:	1.3	21.9	3.2	6.1	3.7	0.5	4.2	11.5	1.1	2.7	6.5	3.5
70th%Factor:	1.20	1.16	1.19	1.19	1.19	1.20	1.19	1.17	1.20	1.19	1.19	1.19
HCM2k70thQ:	1.6	25.3	3.8	7.2	4.4	0.6	5.0	13.6	1.4	3.2	7.7	4.1
85th%Factor:	1.59	1.44	1.57	1.55	1.57	1.60	1.56	1.50	1.59	1.57	1.54	1.57
HCM2k85thQ:	2.1	31.6	5.0	9.4	5.8	0.8	6.6	17.4	1.8	4.2	10.0	5.4
90th%Factor:	1.77	1.53	1.74	1.70	1.73	1.79	1.72	1.62	1.78	1.75	1.69	1.74
HCM2k90thQ:	2.4	33.5	5.5	10.3	6.4	0.9	7.2	18.7	2.0	4.7	11.0	6.0
95th%Factor:	2.06	1.68	2.00	1.93	1.99	2.08	1.98	1.82	2.06	2.02	1.92	1.99
HCM2k95thQ:	2.7	36.7	6.4	11.7	7.3	1.0	8.3	21.0	2.4	5.4	12.4	6.9
98th%Factor:	2.60	1.89	2.48	2.33	2.45	2.66	2.42	2.11	2.62	2.51	2.31	2.47
HCM2k98thQ:	3.5	41.2	7.9	14.1	9.0	1.3	10.2	24.4	3.0	6.8	15.0	8.6

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #13 Van Buren Street (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:		30 MPH			30 MPH			30 MPH			30 MPH	
NumOfStops:	9.3	317	25.9	46.0	58.7	4.1	24.2	148	9.0	44.1	108	30.6

Name: year 1995 composite fleet
Fuel Consumption: 133.674 pounds
21.655 gallons
Carbon Dioxide: 417.064 pounds
Carbon Monoxide: 33.049 pounds
Hydrocarbons: 6.132 pounds
Nitrogen Oxides: 1.163 pounds

Name: year 2000 composite fleet
Fuel Consumption: 133.674 pounds
21.655 gallons
Carbon Dioxide: 417.064 pounds
Carbon Monoxide: 33.049 pounds
Hydrocarbons: 6.132 pounds
Nitrogen Oxides: 1.163 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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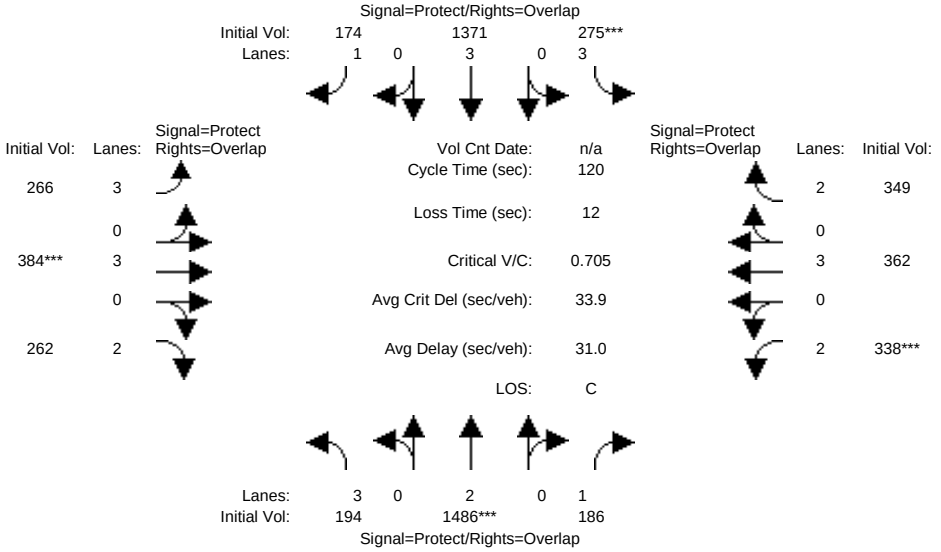
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #14: Harrison Street (NS) / 52nd Avenue (EW)




```
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     194 1486   186   275 1371   174   266  384   262   338  362   349
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  194 1486   186   275 1371   174   266  384   262   338  362   349
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  194 1486   186   275 1371   174   266  384   262   338  362   349
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   194 1486   186   275 1371   174   266  384   262   338  362   349
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  194 1486   186   275 1371   174   266  384   262   338  362   349
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  194 1486   186   275 1371   174   266  384   262   338  362   349
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.95  0.85  0.92 0.91  0.85  0.92 0.91  0.75  0.92 0.91  0.75
Lanes:       3.00 2.00  1.00  3.00 3.00  1.00  3.00 3.00  2.00  2.00 3.00  2.00
Final Sat.:  5253 3610  1615  5253 5187  1615  5253 5187  2842  3502 5187  2842
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.41  0.12  0.05 0.26  0.11  0.05 0.07  0.09  0.10 0.07  0.12
Crit Moves:       ****        ****                ****        ****
Green/Cycle: 0.08 0.58  0.72  0.07 0.58  0.68  0.10 0.11  0.19  0.14 0.14  0.21
Volume/Cap:  0.46 0.71  0.16  0.71 0.46  0.16  0.50 0.71  0.50  0.71 0.50  0.57
Delay/Veh:   53.4 18.8   5.4  60.0 14.7   7.0  51.8 56.1  44.6  54.2 48.2  43.5
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  53.4 18.8   5.4  60.0 14.7   7.0  51.8 56.1  44.6  54.2 48.2  43.5
LOS by Move:    D    B     A     E    B     A     D    E     D     D    D     D
HCM2kAvgQ:      2   20     2     4   10     2     3    5     5     8    5     7
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        3  0  2  0  1    3  0  3  0  1    3  0  3  0  2    2  0  3  0  2
Lane Group:    L    T     R     L    T     R     L    T     R     L    T     R
#LnsInGrps:    3    2     1     3    3     1     3    3     2     2    3     2
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:          8                8                8                8
% Hev Veh:            0                0                0                0
Grade:               0%               0%               0%               0%
Parking/Hr:          No               No               No               No
Bus Stp/Hr:           0                0                0                0
Area Type:    < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > >
Cnft Ped/Hr:          0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:           0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:     1 xxxx  xxxx     1 xxxx  xxxx     1 xxxx  xxxx     1 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Hev Veh Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Grade Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Parking Adj: xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00
Bus Stp Adj: xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00
Area Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
RT Adj:      xxxx xxxx  0.85  xxxx xxxx  0.85  xxxx xxxx  0.85  xxxx xxxx  0.85
LT Adj:      0.95 xxxx xxxxx  0.95 xxxx xxxxx  0.95 xxxx xxxxx  0.95 xxxx xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.95 1.00  0.85  0.95 1.00  0.85  0.95 1.00  0.85  0.95 1.00  0.85
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 0.97 0.95  1.00  0.97 0.91  1.00  0.97 0.91  0.88  0.97 0.91  0.88
Fnl Sat Adj: 0.92 0.95  0.85  0.92 0.91  0.85  0.92 0.91  0.75  0.92 0.91  0.75
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
```

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #14 Harrison Street (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.08	0.58	0.72	0.07	0.58	0.68	0.10	0.11	0.19	0.14	0.14	0.21
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	2.1	18.4	2.0	3.1	9.6	2.1	2.9	4.5	4.5	5.5	4.1	5.9
UpstreamVC:	0.29	0.29	0.29	0.24	0.24	0.24	0.68	0.68	0.68	0.00	0.00	0.00
UpstreamAdj:	0.97	0.97	0.97	0.98	0.98	0.98	0.67	0.67	0.67	0.00	0.00	0.00
EarlyArrAdj:	0.25	0.84	0.87	0.24	0.85	0.85	0.20	0.21	0.27	1.00	1.00	1.00
Q2:	0.2	1.9	0.2	0.5	0.7	0.2	0.2	0.5	0.3	2.0	0.9	1.2
HCM2KQueue:	2.3	20.4	2.1	3.6	10.3	2.2	3.1	5.0	4.7	7.5	5.0	7.2
70th%Factor:	1.19	1.16	1.19	1.19	1.18	1.19	1.19	1.19	1.19	1.18	1.19	1.18
HCM2k70thQ:	2.8	23.6	2.5	4.3	12.2	2.7	3.7	5.9	5.6	8.9	6.0	8.5
85th%Factor:	1.58	1.45	1.58	1.57	1.51	1.58	1.57	1.55	1.56	1.53	1.55	1.54
HCM2k85thQ:	3.7	29.6	3.4	5.6	15.6	3.5	4.8	7.8	7.3	11.5	7.8	11.0
90th%Factor:	1.76	1.54	1.76	1.73	1.64	1.76	1.74	1.71	1.72	1.67	1.71	1.68
HCM2k90thQ:	4.1	31.5	3.7	6.2	16.9	4.0	5.4	8.6	8.1	12.6	8.6	12.0
95th%Factor:	2.03	1.69	2.03	1.99	1.84	2.03	2.01	1.95	1.96	1.90	1.95	1.90
HCM2k95thQ:	4.7	34.5	4.3	7.2	19.0	4.6	6.2	9.8	9.2	14.2	9.8	13.6
98th%Factor:	2.54	1.91	2.55	2.46	2.15	2.54	2.49	2.38	2.40	2.26	2.38	2.28
HCM2k98thQ:	5.9	38.9	5.4	8.8	22.2	5.7	7.7	11.9	11.3	17.0	11.9	16.3

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #14 Harrison Street (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	46.3	263	14.7	67.2	197	15.7	63.0	92.8	58.8	80.7	83.6	78.1

Name: year 1995 composite fleet
Fuel Consumption: 190.922 pounds
30.929 gallons
Carbon Dioxide: 595.675 pounds
Carbon Monoxide: 47.681 pounds
Hydrocarbons: 9.026 pounds
Nitrogen Oxides: 1.597 pounds

Name: year 2000 composite fleet
Fuel Consumption: 190.922 pounds
30.929 gallons
Carbon Dioxide: 595.675 pounds
Carbon Monoxide: 47.681 pounds
Hydrocarbons: 9.026 pounds
Nitrogen Oxides: 1.597 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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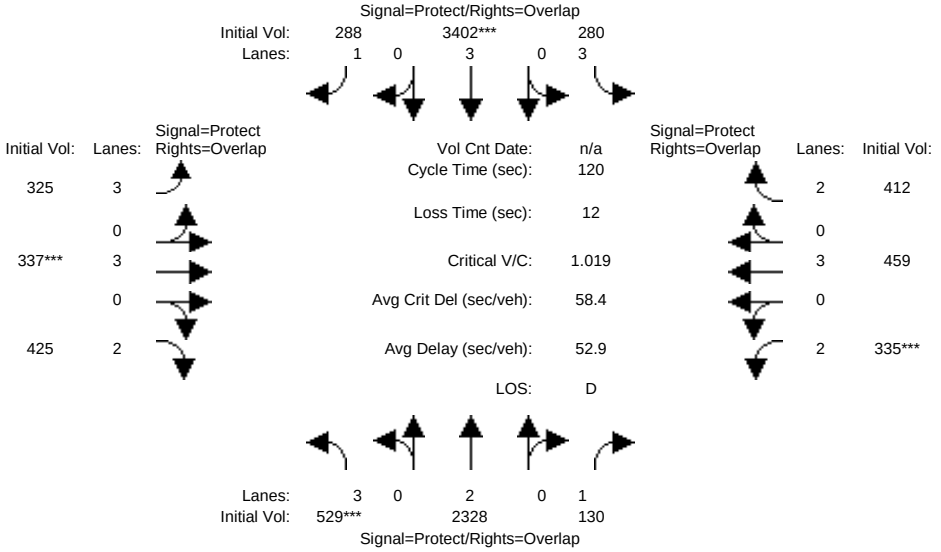
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #14: Harrison Street (NS) / 52nd Avenue (EW)



Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R
Min. Green:	0	0	0		0	0	0		0	0	0		0	0	0	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0		4.0	4.0	4.0	
Volume Module:																
Base Vol:	529	2328	130		280	3402	288		325	337	425		335	459	412	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	529	2328	130		280	3402	288		325	337	425		335	459	412	
Added Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0	
Initial Fut:	529	2328	130		280	3402	288		325	337	425		335	459	412	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Volume:	529	2328	130		280	3402	288		325	337	425		335	459	412	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
Reduced Vol:	529	2328	130		280	3402	288		325	337	425		335	459	412	
PCE Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
FinalVolume:	529	2328	130		280	3402	288		325	337	425		335	459	412	
Saturation Flow Module:																
Sat/Lane:	1900	1900	1900		1900	1900	1900		1900	1900	1900		1900	1900	1900	
Adjustment:	0.92	0.95	0.85		0.92	0.91	0.85		0.92	0.91	0.75		0.92	0.91	0.75	
Lanes:	3.00	2.00	1.00		3.00	3.00	1.00		3.00	3.00	2.00		2.00	3.00	2.00	
Final Sat.:	5253	3610	1615		5253	5187	1615		5253	5187	2842		3502	5187	2842	
Capacity Analysis Module:																
Vol/Sat:	0.10	0.64	0.08		0.05	0.66	0.18		0.06	0.06	0.15		0.10	0.09	0.14	
Crit Moves:	****					****				****				****		
Green/Cycle:	0.10	0.69	0.78		0.06	0.64	0.71		0.06	0.06	0.16		0.09	0.09	0.15	
Volume/Cap:	1.02	0.94	0.10		0.94	1.02	0.25		0.97	1.02	0.92		1.02	0.94	0.96	
Delay/Veh:	98.5	24.7	3.2		92.9	42.0	6.4		98.2	111	73.0		109.0	80.5	84.1	
User DelAdj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
AdjDel/Veh:	98.5	24.7	3.2		92.9	42.0	6.4		98.2	111	73.0		109.0	80.5	84.1	
LOS by Move:	F	C	A		F	D	A		F	F	E		F	F	F	
HCM2kAvgQ:	9	43	1		4	50	4		5	6	9		11	10	13	
Note: Queue reported is the number of cars per lane.																
HCM Ops Adjusted Lane Utilization Module:																
Lanes:	3	0	2	0 1	3	0	3	0 1	3	0	3	0 2	2	0	3	0 2
Lane Group:	L		T	R	L		T	R	L		T	R	L		T	R
#LnsInGrps:	3		2	1	3		3	1	3		3	2	2		3	2
HCM Ops Input Saturation Adj Module:																
Lane Width:	12		12	12	12		12	12	12		12	12	12		12	12
CrsswalkWid:	8				8				8				8			
% Hev Veh:	0				0				0				0			
Grade:	0%				0%				0%				0%			
Parking/Hr:	No				No				No				No			
Bus Stp/Hr:	0				0				0				0			
Area Type:	< < < < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >															
Cnft Ped/Hr:	0				0				0				0			
ExclusiveRT:	Include				Include				Include				Include			
% RT Prtct:	0				0				0				0			
HCM Ops f(lt) Adj Case Module:																
f(lt) Case:	1	xxxx	xxxx		1	xxxx	xxxx		1	xxxx	xxxx		1	xxxx	xxxx	
HCM Ops Saturation Adj Module:																
Ln Wid Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Hev Veh Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Grade Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Parking Adj:	xxxx	xxxx	1.00		xxxx	xxxx	1.00		xxxx	xxxx	1.00		xxxx	xxxx	1.00	
Bus Stp Adj:	xxxx	xxxx	1.00		xxxx	xxxx	1.00		xxxx	xxxx	1.00		xxxx	xxxx	1.00	
Area Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
RT Adj:	xxxx	xxxx	0.85		xxxx	xxxx	0.85		xxxx	xxxx	0.85		xxxx	xxxx	0.85	
LT Adj:	0.95	xxxx	xxxxx		0.95	xxxx	xxxxx		0.95	xxxx	xxxxx		0.95	xxxx	xxxxx	
PedBike Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
HCM Sat Adj:	0.95	1.00	0.85		0.95	1.00	0.85		0.95	1.00	0.85		0.95	1.00	0.85	
Usr Sat Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
MLF Sat Adj:	0.97	0.95	1.00		0.97	0.91	1.00		0.97	0.91	0.88		0.97	0.91	0.88	
Fnl Sat Adj:	0.92	0.95	0.85		0.92	0.91	0.85		0.92	0.91	0.75		0.92	0.91	0.75	
Delay Adjustment Factor Module:																
Coordinated:	< < < < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >															
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > > > >															
DelAdjFctr:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

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Intersection #14 Harrison Street (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.10	0.69	0.78	0.06	0.64	0.71	0.06	0.06	0.16	0.09	0.09	0.15
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	6.1	36.1	1.0	3.2	41.5	3.4	3.7	4.1	7.9	5.8	5.6	7.7
UpstreamVC:	0.59	0.59	0.59	0.89	0.89	0.89	0.79	0.79	0.79	0.00	0.00	0.00
UpstreamAdj:	0.78	0.78	0.78	0.33	0.33	0.33	0.52	0.52	0.52	0.00	0.00	0.00
EarlyArrAdj:	0.23	0.75	0.73	0.07	0.30	0.29	0.12	0.12	0.19	1.00	1.00	1.00
Q2:	2.5	6.9	0.1	0.6	8.5	0.1	1.1	1.5	1.4	4.9	4.0	4.9
HCM2KQueue:	8.6	43.0	1.1	3.8	50.0	3.5	4.8	5.6	9.4	10.6	9.5	12.6
70th%Factor:	1.18	1.13	1.20	1.19	1.13	1.19	1.19	1.19	1.18	1.18	1.18	1.17
HCM2k70thQ:	10.1	48.8	1.3	4.5	56.5	4.2	5.7	6.7	11.0	12.5	11.2	14.8
85th%Factor:	1.53	1.37	1.59	1.56	1.36	1.57	1.56	1.55	1.52	1.51	1.52	1.50
HCM2k85thQ:	13.0	59.0	1.8	5.9	67.9	5.5	7.5	8.7	14.2	16.0	14.5	18.9
90th%Factor:	1.66	1.45	1.78	1.73	1.43	1.74	1.71	1.70	1.65	1.64	1.65	1.61
HCM2k90thQ:	14.2	62.3	2.0	6.6	71.7	6.1	8.3	9.6	15.4	17.3	15.7	20.3
95th%Factor:	1.87	1.55	2.06	1.99	1.54	1.99	1.96	1.94	1.86	1.83	1.85	1.80
HCM2k95thQ:	16.0	66.9	2.3	7.5	76.9	7.0	9.4	10.9	17.4	19.4	17.7	22.7
98th%Factor:	2.22	1.74	2.62	2.45	1.72	2.46	2.39	2.35	2.19	2.14	2.18	2.08
HCM2k98thQ:	19.0	74.7	2.9	9.3	86.1	8.7	11.5	13.2	20.5	22.7	20.8	26.2

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

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Intersection #14 Harrison Street (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	132.5	515	7.8	69.8	881	25.7	81.1	84.4	104.6	83.9	114	102.3

Name: year 1995 composite fleet
Fuel Consumption: 457.929 pounds
74.185 gallons
Carbon Dioxide: 1428.740 pounds
Carbon Monoxide: 119.135 pounds
Hydrocarbons: 24.018 pounds
Nitrogen Oxides: 3.495 pounds

Name: year 2000 composite fleet
Fuel Consumption: 457.929 pounds
74.185 gallons
Carbon Dioxide: 1428.740 pounds
Carbon Monoxide: 119.135 pounds
Hydrocarbons: 24.018 pounds
Nitrogen Oxides: 3.495 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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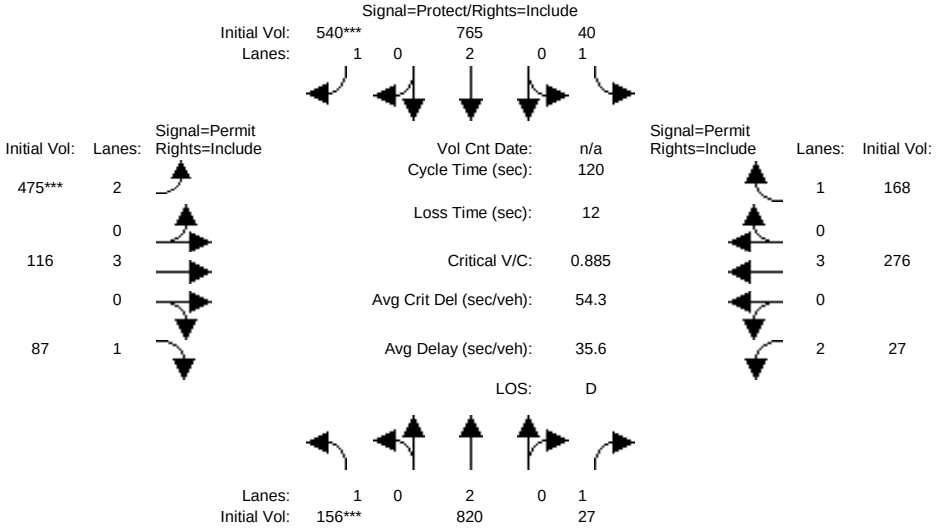
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #15: SR-86S (NS) / 52nd Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	156	820	27	40	765	540	475	116	87	27	276	168
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	156	820	27	40	765	540	475	116	87	27	276	168
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	156	820	27	40	765	540	475	116	87	27	276	168
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	156	820	27	40	765	540	475	116	87	27	276	168
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	156	820	27	40	765	540	475	116	87	27	276	168
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	156	820	27	40	765	540	475	116	87	27	276	168
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.33	0.91	0.85	0.45	0.91	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	1264	5187	1615	1721	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.09	0.23	0.02	0.02	0.21	0.33	0.38	0.02	0.05	0.02	0.05	0.10
Crit Moves:	****					****	****					
Green/Cycle:	0.10	0.43	0.43	0.04	0.38	0.38	0.42	0.42	0.42	0.42	0.42	0.42
Volume/Cap:	0.88	0.52	0.04	0.52	0.56	0.88	0.88	0.05	0.13	0.04	0.13	0.25
Delay/Veh:	90.7	25.3	19.6	62.8	30.0	49.4	47.9	20.3	21.1	20.2	21.0	22.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	90.7	25.3	19.6	62.8	30.0	49.4	47.9	20.3	21.1	20.2	21.0	22.4
LOS by Move:	F	C	B	E	C	D	D	C	C	C	C	C
HCM2kAvgQ:	8	12	1	2	12	22	11	1	2	0	2	4

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1 0 2	0 1		1 0 2	0 1		2 0 3	0 1		2 0 3	0 1	
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	1	2	1	1	2	1	2	3	1	2	3	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1 xxxx	xxxx		1 xxxx	xxxx		2 xxxx	xxxx		2 xxxx	xxxx	
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.34	xxxx	xxxxx	0.47	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.34	1.00	0.85	0.47	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Fnl Sat Adj:	0.95	0.95	0.85	0.95	0.95	0.85	0.33	0.91	0.85	0.45	0.91	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #15 SR-86S (NS) / 52nd Avenue (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	120	120
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	50.94	50.94
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	50.94	50.94
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	50.94	50.94
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	3	3
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	2	2
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	475	27
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	15.83	0.90
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	276	116
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	3.37	1.42
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	1.00	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	4.00	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	0.00	0.00
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	0.58	0.58
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	0.11	0.00
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	50.83	50.94
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	0.70	0.80
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	2.53	2.33
Through-car Equivalents, el1:	xxxxxx	xxxxxx	1.75	1.49
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	0.14	0.13
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	0.34	0.47
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	0.34	0.47

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #15 SR-86S (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.10	0.43	0.43	0.04	0.38	0.38	0.42	0.42	0.42	0.42	0.42	0.42
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	5.1	10.6	0.5	1.3	10.6	16.8	7.5	0.8	1.8	0.3	2.0	3.6
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q2:	3.3	1.1	0.0	0.9	1.2	4.9	3.9	0.1	0.1	0.0	0.1	0.3
HCM2KQueue:	8.5	11.6	0.6	2.2	11.8	21.8	11.4	0.9	1.9	0.3	2.2	3.9
70th%Factor:	1.18	1.17	1.20	1.19	1.17	1.16	1.18	1.20	1.20	1.20	1.19	1.19
HCM2k70thQ:	10.0	13.7	0.7	2.7	13.9	25.2	13.4	1.1	2.3	0.4	2.6	4.7
85th%Factor:	1.53	1.50	1.59	1.58	1.50	1.45	1.51	1.59	1.58	1.60	1.58	1.56
HCM2k85thQ:	12.9	17.5	0.9	3.5	17.8	31.4	17.2	1.4	3.0	0.5	3.5	6.1
90th%Factor:	1.66	1.62	1.79	1.76	1.62	1.53	1.63	1.78	1.76	1.79	1.76	1.73
HCM2k90thQ:	14.1	18.9	1.0	3.9	19.2	33.4	18.6	1.6	3.4	0.6	3.9	6.8
95th%Factor:	1.87	1.81	2.08	2.03	1.81	1.68	1.82	2.07	2.04	2.09	2.03	1.98
HCM2k95thQ:	15.9	21.1	1.2	4.5	21.4	36.5	20.8	1.8	3.9	0.6	4.5	7.8
98th%Factor:	2.22	2.11	2.66	2.54	2.10	1.89	2.12	2.63	2.56	2.68	2.54	2.44
HCM2k98thQ:	18.8	24.5	1.5	5.7	24.9	41.1	24.1	2.3	4.9	0.8	5.6	9.6

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #15 SR-86S (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	38.5	150	3.9	9.8	151	126.2	109.5	17.1	13.2	3.9	41.9	27.0

Name: year 1995 composite fleet
Fuel Consumption: 129.829 pounds
21.032 gallons
Carbon Dioxide: 405.066 pounds
Carbon Monoxide: 32.805 pounds
Hydrocarbons: 6.328 pounds
Nitrogen Oxides: 1.059 pounds

Name: year 2000 composite fleet
Fuel Consumption: 129.829 pounds
21.032 gallons
Carbon Dioxide: 405.066 pounds
Carbon Monoxide: 32.805 pounds
Hydrocarbons: 6.328 pounds
Nitrogen Oxides: 1.059 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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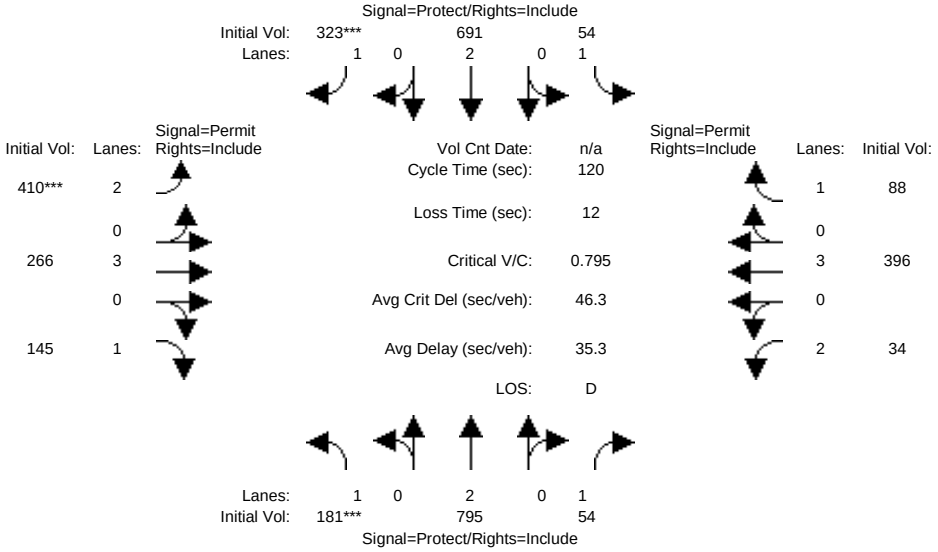
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan PM

Intersection #15: SR-86S (NS) / 52nd Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	181	795	54	54	691	323	410	266	145	34	396	88
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	181	795	54	54	691	323	410	266	145	34	396	88
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	181	795	54	54	691	323	410	266	145	34	396	88
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	181	795	54	54	691	323	410	266	145	34	396	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	795	54	54	691	323	410	266	145	34	396	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	181	795	54	54	691	323	410	266	145	34	396	88
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.26	0.91	0.85	0.34	0.91	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	988	5187	1615	1275	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.10	0.22	0.03	0.03	0.19	0.20	0.42	0.05	0.09	0.03	0.08	0.05
Crit Moves:	****					****	****					
Green/Cycle:	0.13	0.33	0.33	0.05	0.25	0.25	0.52	0.52	0.52	0.52	0.52	0.52
Volume/Cap:	0.79	0.66	0.10	0.66	0.76	0.79	0.79	0.10	0.17	0.05	0.15	0.10
Delay/Veh:	68.3	35.7	27.7	74.9	45.4	52.4	31.8	14.5	15.1	14.1	14.9	14.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	68.3	35.7	27.7	74.9	45.4	52.4	31.8	14.5	15.1	14.1	14.9	14.5
LOS by Move:	E	D	C	E	D	D	C	B	B	B	B	B
HCM2kAvgQ:	9	14	1	3	14	13	9	2	3	0	3	2
Note: Queue reported is the number of cars per lane.												
HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1	0	2	0	1	1	0	2	0	1	2	0	3	0	1	2	0	3	0	1
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	1	2	1	1	2	1	2	3	1	2	3	1	1	2	3	1	2	3	1	2	3	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	2	xxxx	xxxx	2	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.27	xxxx	xxxxx	0.35	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.27	1.00	0.85	0.35	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Fnl Sat Adj:	0.95	0.95	0.85	0.95	0.95	0.85	0.26	0.91	0.85	0.34	0.91	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #15 SR-86S (NS) / 52nd Avenue (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	120	120
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	62.71	62.71
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	62.71	62.71
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	62.71	62.71
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	3	3
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	2	2
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	410	34
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	13.67	1.13
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	396	266
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	4.84	3.25
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	1.00	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	4.00	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	0.00	0.00
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	0.48	0.48
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	1.02	0.00
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	61.69	62.71
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	0.63	0.71
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	2.76	2.56
Through-car Equivalents, el1:	xxxxxx	xxxxxx	1.97	1.74
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	0.12	0.11
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	0.27	0.35
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	0.27	0.35

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #15 SR-86S (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.13	0.33	0.33	0.05	0.25	0.25	0.52	0.52	0.52	0.52	0.52	0.52
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	5.9	11.9	1.2	1.8	11.2	10.1	5.8	1.6	2.5	0.3	2.5	1.5
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q2:	2.7	1.8	0.1	1.4	2.7	3.0	2.8	0.1	0.2	0.1	0.2	0.1
HCM2KQueue:	8.5	13.8	1.4	3.2	13.9	13.1	8.5	1.7	2.7	0.3	2.7	1.6
70th%Factor:	1.18	1.17	1.20	1.19	1.17	1.17	1.18	1.20	1.19	1.20	1.19	1.20
HCM2k70thQ:	10.1	16.1	1.6	3.8	16.3	15.3	10.1	2.1	3.3	0.4	3.2	1.9
85th%Factor:	1.53	1.49	1.59	1.57	1.49	1.49	1.53	1.58	1.57	1.60	1.57	1.58
HCM2k85thQ:	13.0	20.5	2.1	5.0	20.7	19.5	13.0	2.8	4.3	0.5	4.2	2.5
90th%Factor:	1.66	1.60	1.77	1.74	1.60	1.61	1.66	1.77	1.75	1.79	1.75	1.77
HCM2k90thQ:	14.2	22.0	2.4	5.5	22.2	21.0	14.1	3.1	4.8	0.6	4.7	2.8
95th%Factor:	1.87	1.78	2.06	2.00	1.78	1.79	1.87	2.04	2.02	2.09	2.02	2.05
HCM2k95thQ:	16.0	24.5	2.8	6.3	24.7	23.4	16.0	3.6	5.5	0.7	5.4	3.3
98th%Factor:	2.22	2.05	2.60	2.48	2.04	2.07	2.22	2.57	2.51	2.67	2.51	2.58
HCM2k98thQ:	18.9	28.2	3.5	7.9	28.4	27.0	18.9	4.5	6.9	0.9	6.7	4.1

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #15 SR-86S (NS) / 52nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	43.9	170	9.3	13.3	160	75.5	83.7	33.5	19.0	4.2	51.2	11.1

Name: year 1995 composite fleet
Fuel Consumption: 126.684 pounds
20.523 gallons
Carbon Dioxide: 395.255 pounds
Carbon Monoxide: 31.985 pounds
Hydrocarbons: 6.163 pounds
Nitrogen Oxides: 1.034 pounds

Name: year 2000 composite fleet
Fuel Consumption: 126.684 pounds
20.523 gallons
Carbon Dioxide: 395.255 pounds
Carbon Monoxide: 31.985 pounds
Hydrocarbons: 6.163 pounds
Nitrogen Oxides: 1.034 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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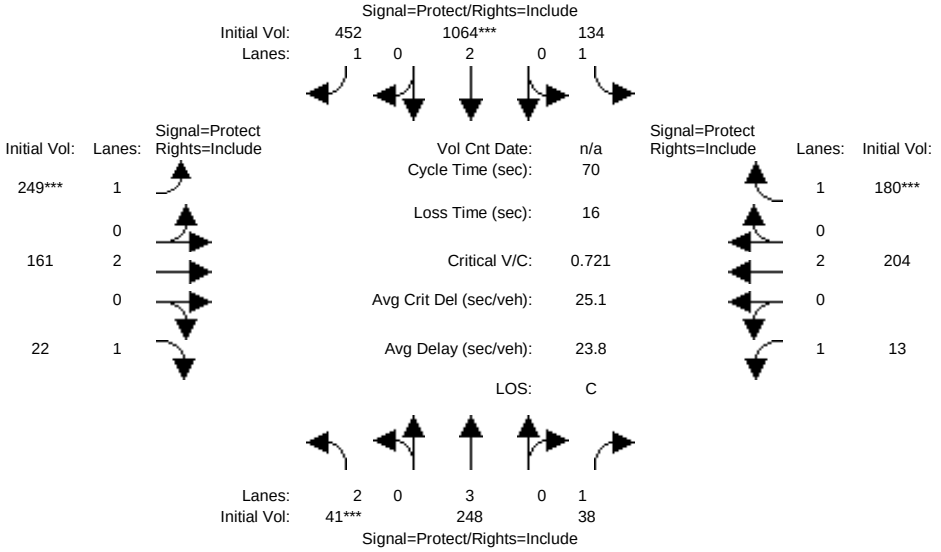
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan AM

Intersection #16: Harrison Street (NS) / 54th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	41	248	38	134	1064	452	249	161	22	13	204	180
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	41	248	38	134	1064	452	249	161	22	13	204	180
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	41	248	38	134	1064	452	249	161	22	13	204	180
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	41	248	38	134	1064	452	249	161	22	13	204	180
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	41	248	38	134	1064	452	249	161	22	13	204	180
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	41	248	38	134	1064	452	249	161	22	13	204	180
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.85	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.95	0.85
Lanes:	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3502	5187	1615	1805	3610	1615	1805	3610	1615	1805	3610	1615
Capacity Analysis Module:												
Vol/Sat:	0.01	0.05	0.02	0.07	0.29	0.28	0.14	0.04	0.01	0.01	0.06	0.11
Crit Moves:	****				****		****					****
Green/Cycle:	0.02	0.17	0.17	0.26	0.41	0.41	0.19	0.30	0.30	0.05	0.15	0.15
Volume/Cap:	0.72	0.29	0.14	0.29	0.72	0.68	0.72	0.15	0.05	0.15	0.37	0.72
Delay/Veh:	70.3	25.7	25.1	21.1	19.1	20.0	33.8	18.1	17.5	32.7	26.9	37.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.3	25.7	25.1	21.1	19.1	20.0	33.8	18.1	17.5	32.7	26.9	37.9
LOS by Move:	E	C	C	C	B	B	C	B	B	C	C	D
HCM2kAvgQ:	0	2	1	2	10	8	7	1	0	0	2	5

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	2 0 3	0 1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	2	3	1	1	2	1	1	2	1	1	2	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	0.97	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fnl Sat Adj:	0.92	0.91	0.85	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.95	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #16 Harrison Street (NS) / 54th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.02	0.17	0.17	0.26	0.41	0.41	0.19	0.30	0.30	0.05	0.15	0.15
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.4	1.5	0.6	2.1	9.1	7.2	4.5	1.2	0.3	0.2	1.9	3.3
UpstreamVC:	0.90	0.90	0.90	0.46	0.46	0.46	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.31	0.31	0.31	0.89	0.89	0.89	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	0.02	0.09	0.08	0.33	0.45	0.41	1.00	1.00	1.00	1.00	1.00	1.00
Q2:	0.1	0.0	0.0	0.1	1.1	0.9	2.2	0.2	0.0	0.2	0.6	2.1
HCM2KQueue:	0.5	1.6	0.6	2.2	10.2	8.1	6.7	1.4	0.4	0.4	2.4	5.4
70th%Factor:	1.20	1.20	1.20	1.19	1.18	1.18	1.18	1.20	1.20	1.20	1.19	1.19
HCM2k70thQ:	0.6	1.9	0.8	2.7	12.1	9.5	8.0	1.7	0.4	0.5	2.9	6.4
85th%Factor:	1.60	1.58	1.59	1.58	1.51	1.53	1.54	1.59	1.60	1.60	1.58	1.55
HCM2k85thQ:	0.7	2.5	1.0	3.5	15.5	12.3	10.4	2.2	0.6	0.7	3.8	8.4
90th%Factor:	1.79	1.77	1.79	1.76	1.64	1.67	1.69	1.77	1.79	1.79	1.75	1.71
HCM2k90thQ:	0.8	2.8	1.2	3.9	16.8	13.5	11.3	2.5	0.6	0.7	4.3	9.2
95th%Factor:	2.08	2.05	2.08	2.03	1.84	1.88	1.91	2.06	2.09	2.09	2.02	1.94
HCM2k95thQ:	1.0	3.2	1.3	4.5	18.8	15.2	12.9	2.8	0.7	0.9	4.9	10.5
98th%Factor:	2.66	2.59	2.65	2.54	2.15	2.24	2.30	2.60	2.67	2.67	2.53	2.36
HCM2k98thQ:	1.2	4.1	1.7	5.6	22.1	18.1	15.4	3.6	0.9	1.1	6.2	12.8

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #16 Harrison Street (NS) / 54th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	10.2	54.3	8.1	26.8	223	92.7	58.4	29.6	3.9	3.1	45.7	42.8

Name: year 1995 composite fleet
Fuel Consumption: 81.942 pounds
13.275 gallons
Carbon Dioxide: 255.659 pounds
Carbon Monoxide: 19.968 pounds
Hydrocarbons: 3.588 pounds
Nitrogen Oxides: 0.759 pounds

Name: year 2000 composite fleet
Fuel Consumption: 81.942 pounds
13.275 gallons
Carbon Dioxide: 255.659 pounds
Carbon Monoxide: 19.968 pounds
Hydrocarbons: 3.588 pounds
Nitrogen Oxides: 0.759 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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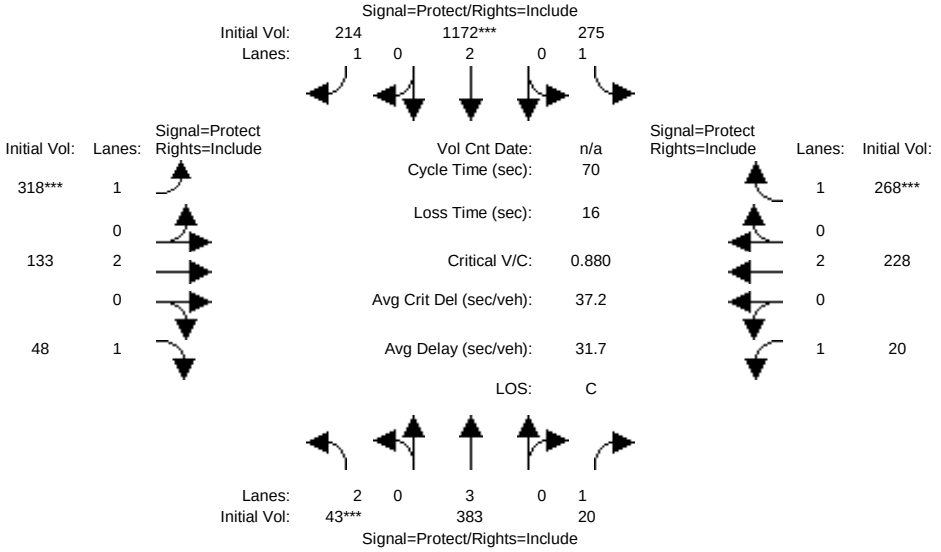
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan PM

Intersection #16: Harrison Street (NS) / 54th Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	43	383	20	275	1172	214	318	133	48	20	228	268
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	43	383	20	275	1172	214	318	133	48	20	228	268
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	383	20	275	1172	214	318	133	48	20	228	268
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	43	383	20	275	1172	214	318	133	48	20	228	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	383	20	275	1172	214	318	133	48	20	228	268
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	43	383	20	275	1172	214	318	133	48	20	228	268
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.85	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.95	0.85
Lanes:	2.00	3.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	3502	5187	1615	1805	3610	1615	1805	3610	1615	1805	3610	1615
Capacity Analysis Module:												
Vol/Sat:	0.01	0.07	0.01	0.15	0.32	0.13	0.18	0.04	0.03	0.01	0.06	0.17
Crit Moves:	****				****		****					****
Green/Cycle:	0.01	0.12	0.12	0.26	0.37	0.37	0.20	0.30	0.30	0.09	0.19	0.19
Volume/Cap:	0.88	0.59	0.10	0.59	0.88	0.36	0.88	0.12	0.10	0.12	0.34	0.88
Delay/Veh:	119.4	30.4	27.4	24.8	27.7	16.4	48.4	17.9	17.8	29.7	24.9	51.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	119.4	30.4	27.4	24.8	27.7	16.4	48.4	17.9	17.8	29.7	24.9	51.9
LOS by Move:	F	C	C	C	C	B	D	B	B	C	C	D
HCM2kAvgQ:	1	3	0	5	12	3	10	1	1	0	3	9

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	2 0 3	0 1	1 0	2 0	1	1 0	2 0	1	1 0	2 0	1	
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	2	3	1	1	2	1	1	2	1	1	2	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:		8			8			8			8	
% Hev Veh:		0			0			0			0	
Grade:		0%			0%			0%			0%	
Parking/Hr:		No			No			No			No	
Bus Stp/Hr:		0			0			0			0	
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:		0			0			0			0	
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:		0			0			0			0	
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx	1	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85	0.95	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	0.97	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fnl Sat Adj:	0.92	0.91	0.85	0.95	0.95	0.85	0.95	0.95	0.85	0.95	0.95	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #16 Harrison Street (NS) / 54th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.01	0.12	0.12	0.26	0.37	0.37	0.20	0.30	0.30	0.09	0.19	0.19
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.4	2.6	0.3	4.7	11.2	3.0	6.0	1.0	0.7	0.4	2.0	5.1
UpstreamVC:	0.72	0.72	0.72	1.02	1.02	1.02	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.63	0.63	0.63	0.09	0.09	0.09	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	0.04	0.16	0.14	0.03	0.04	0.04	1.00	1.00	1.00	1.00	1.00	1.00
Q2:	0.2	0.2	0.0	0.0	0.3	0.0	4.2	0.1	0.1	0.1	0.5	3.9
HCM2KQueue:	0.6	2.8	0.4	4.7	11.5	3.0	10.2	1.1	0.8	0.5	2.5	9.0
70th%Factor:	1.20	1.19	1.20	1.19	1.17	1.19	1.18	1.20	1.20	1.20	1.19	1.18
HCM2k70thQ:	0.8	3.3	0.4	5.6	13.5	3.6	12.0	1.4	0.9	0.6	3.0	10.6
85th%Factor:	1.59	1.57	1.60	1.56	1.50	1.57	1.51	1.59	1.59	1.60	1.58	1.52
HCM2k85thQ:	1.0	4.4	0.6	7.4	17.3	4.8	15.4	1.8	1.2	0.8	4.0	13.7
90th%Factor:	1.79	1.75	1.79	1.72	1.62	1.74	1.64	1.78	1.78	1.79	1.75	1.65
HCM2k90thQ:	1.1	4.9	0.6	8.1	18.7	5.3	16.7	2.0	1.4	0.9	4.4	14.9
95th%Factor:	2.08	2.01	2.09	1.96	1.82	2.01	1.84	2.06	2.07	2.08	2.02	1.86
HCM2k95thQ:	1.3	5.6	0.8	9.3	20.9	6.1	18.7	2.3	1.6	1.0	5.1	16.8
98th%Factor:	2.65	2.51	2.67	2.39	2.11	2.49	2.16	2.62	2.64	2.66	2.52	2.20
HCM2k98thQ:	1.7	7.0	1.0	11.3	24.3	7.6	21.9	3.0	2.1	1.3	6.4	19.8

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #16 Harrison Street (NS) / 54th Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	10.7	90.5	4.4	60.2	274	38.9	77.2	24.2	8.7	4.6	49.4	65.2

Name: year 1995 composite fleet
Fuel Consumption: 108.639 pounds
17.599 gallons
Carbon Dioxide: 338.953 pounds
Carbon Monoxide: 27.163 pounds
Hydrocarbons: 5.113 pounds
Nitrogen Oxides: 0.945 pounds

Name: year 2000 composite fleet
Fuel Consumption: 108.639 pounds
17.599 gallons
Carbon Dioxide: 338.953 pounds
Carbon Monoxide: 27.163 pounds
Hydrocarbons: 5.113 pounds
Nitrogen Oxides: 0.945 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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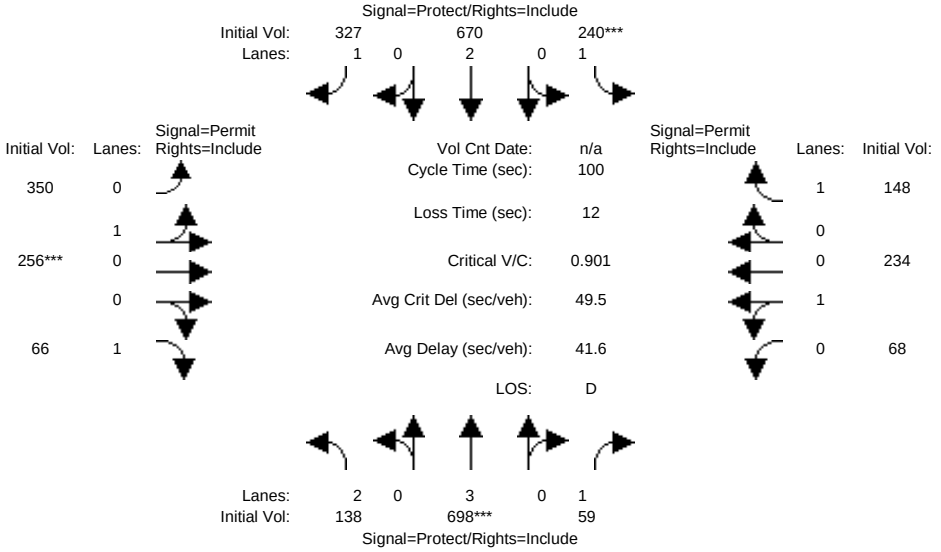
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #17: Harrison Street (NS) / Airport Boulevard (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	138	698	59	240	670	327	350	256	66	68	234	148
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	138	698	59	240	670	327	350	256	66	68	234	148
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	138	698	59	240	670	327	350	256	66	68	234	148
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	138	698	59	240	670	327	350	256	66	68	234	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	138	698	59	240	670	327	350	256	66	68	234	148
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	138	698	59	240	670	327	350	256	66	68	234	148
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.91	0.85	0.95	0.95	0.85	0.61	0.61	0.85	0.70	0.70	0.85
Lanes:	2.00	3.00	1.00	1.00	2.00	1.00	0.58	0.42	1.00	0.23	0.77	1.00
Final Sat.:	3502	5187	1615	1805	3610	1615	666	487	1615	301	1035	1615
Capacity Analysis Module:												
Vol/Sat:	0.04	0.13	0.04	0.13	0.19	0.20	0.53	0.53	0.04	0.23	0.23	0.09
Crit Moves:		****		****				****				
Green/Cycle:	0.05	0.15	0.15	0.15	0.25	0.25	0.58	0.58	0.58	0.58	0.58	0.58
Volume/Cap:	0.81	0.90	0.24	0.90	0.75	0.81	0.90	0.90	0.07	0.39	0.39	0.16
Delay/Veh:	72.4	55.5	38.1	72.6	38.1	47.5	33.6	33.6	9.1	11.6	11.6	9.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	72.4	55.5	38.1	72.6	38.1	47.5	33.6	33.6	9.1	11.6	11.6	9.6
LOS by Move:	E	E	D	E	D	D	C	C	A	B	B	A
HCM2kAvgQ:	4	11	2	8	10	10	20	20	1	5	5	2

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	2	0	3	0	1	1	0	2	0	1	0	1	0	0	1	0	1	0	0	1
Lane Group:	L	T	R	L	T	R	LT	LT	R	LT	LT	R
#LnsInGrps:	2	3	1	1	2	1	1	1	1	1	1	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx		1	xxxx	xxxx		5	5	xxxx		5	5	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.61	0.61	xxxxx	0.70	0.70	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.61	0.61	0.85	0.70	0.70	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	0.97	0.91	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fnl Sat Adj:	0.92	0.91	0.85	0.95	0.95	0.85	0.61	0.61	0.85	0.70	0.70	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #17 Harrison Street (NS) / Airport Boulevard (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	100	100
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	58.33	58.33
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	58.33	58.33
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	58.33	58.33
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	1	1
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	1	1
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	350	68
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	0.58	0.23
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	9.72	1.89
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	302	606
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	8.39	16.83
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	1.00	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	4.00	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	0.00	10.50
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	0.42	0.42
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	4.40	17.15
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	53.93	41.18
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	0.69	0.50
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	0.58	0.23
Through-car Equivalents, el1:	xxxxxx	xxxxxx	1.90	2.52
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	0.05	0.04
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	0.61	0.70
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	0.61	0.70

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #17 Harrison Street (NS) / Airport Boulevard (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.05	0.15	0.15	0.15	0.25	0.25	0.58	0.58	0.58	0.58	0.58	0.58
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	2.0	7.0	1.4	6.6	9.0	8.6	14.8	14.8	0.8	4.5	4.5	1.9
UpstreamVC:	0.00	0.00	0.00	0.72	0.72	0.72	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.62	0.62	0.62	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	0.21	0.29	0.26	1.00	1.00	1.00	1.00	1.00	1.00
Q2:	2.1	4.2	0.3	1.3	0.8	1.0	5.5	5.5	0.1	0.6	0.6	0.2
HCM2KQueue:	4.1	11.1	1.8	7.9	9.9	9.6	20.3	20.3	0.9	5.1	5.1	2.1
70th%Factor:	1.19	1.18	1.20	1.18	1.18	1.18	1.16	1.16	1.20	1.19	1.19	1.19
HCM2k70thQ:	4.9	13.1	2.1	9.3	11.6	11.3	23.5	23.5	1.0	6.1	6.1	2.5
85th%Factor:	1.56	1.51	1.58	1.53	1.52	1.52	1.45	1.45	1.59	1.55	1.55	1.58
HCM2k85thQ:	6.4	16.8	2.8	12.1	14.9	14.6	29.5	29.5	1.4	8.0	8.0	3.3
90th%Factor:	1.73	1.63	1.77	1.67	1.64	1.65	1.55	1.55	1.78	1.71	1.71	1.76
HCM2k90thQ:	7.1	18.2	3.1	13.2	16.2	15.8	31.3	31.3	1.6	8.8	8.8	3.6
95th%Factor:	1.98	1.82	2.04	1.89	1.85	1.85	1.69	1.69	2.07	1.95	1.95	2.03
HCM2k95thQ:	8.1	20.3	3.6	14.9	18.2	17.8	34.4	34.4	1.8	10.0	10.0	4.2
98th%Factor:	2.43	2.12	2.57	2.24	2.17	2.18	1.91	1.91	2.64	2.37	2.37	2.55
HCM2k98thQ:	10.0	23.7	4.5	17.7	21.4	20.9	38.7	38.7	2.3	12.2	12.2	5.3

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #17 Harrison Street (NS) / Airport Boulevard (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	34.2	172	13.0	59.0	155	77.0	76.9	56.2	7.2	9.2	31.5	17.0

Name: year 1995 composite fleet
Fuel Consumption: 134.969 pounds
21.865 gallons
Carbon Dioxide: 421.103 pounds
Carbon Monoxide: 34.517 pounds
Hydrocarbons: 6.777 pounds
Nitrogen Oxides: 1.078 pounds

Name: year 2000 composite fleet
Fuel Consumption: 134.969 pounds
21.865 gallons
Carbon Dioxide: 421.103 pounds
Carbon Monoxide: 34.517 pounds
Hydrocarbons: 6.777 pounds
Nitrogen Oxides: 1.078 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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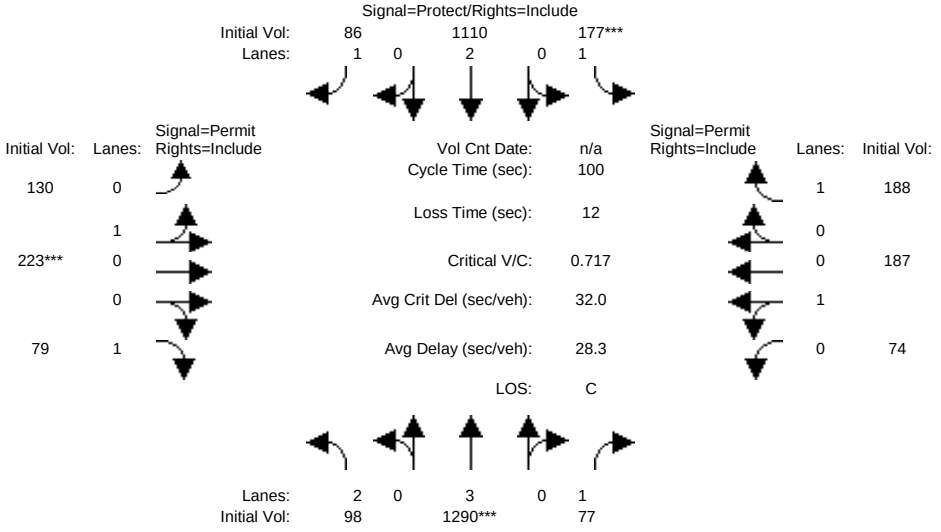
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #17: Harrison Street (NS) / Airport Boulevard (EW)




```
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       98 1290    77   177 1110    86   130  223    79    74  187   188
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    98 1290    77   177 1110    86   130  223    79    74  187   188
Added Vol:       0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:     0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:    98 1290    77   177 1110    86   130  223    79    74  187   188
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     98 1290    77   177 1110    86   130  223    79    74  187   188
Reduct Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    98 1290    77   177 1110    86   130  223    79    74  187   188
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    98 1290    77   177 1110    86   130  223    79    74  187   188
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.92 0.91  0.85  0.95 0.95  0.85  0.65 0.65  0.85  0.70 0.70  0.85
Lanes:       2.00 3.00  1.00  1.00 2.00  1.00  0.37 0.63  1.00  0.28 0.72  1.00
Final Sat.:  3502 5187  1615  1805 3610  1615   458  785  1615   375  947  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.25  0.05  0.10 0.31  0.05  0.28 0.28  0.05  0.20 0.20  0.12
Crit Moves:       ****        ****              ****
Green/Cycle: 0.04 0.35  0.35  0.14 0.44  0.44  0.40 0.40  0.40  0.40 0.40  0.40
Volume/Cap:  0.69 0.72  0.14  0.72 0.69  0.12  0.72 0.72  0.12  0.50 0.50  0.29
Delay/Veh:   61.2 29.8  22.5  51.0 23.7  16.4  30.5 30.5  19.2  23.5 23.5  20.9
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  61.2 29.8  22.5  51.0 23.7  16.4  30.5 30.5  19.2  23.5 23.5  20.9
LOS by Move:    E    C     C     D    C     B     C    C     B     C    C     C
HCM2kAvgQ:      3   14     2     5   14     1    11   11     2     6    6     4
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        2  0  3  0  1    1  0  2  0  1    0  1  0  0  1    0  1  0  0  1
Lane Group:    L    T     R     L    T     R    LT   LT     R    LT   LT     R
#LnsInGrps:    2    3     1     1    2     1    1    1     1    1    1     1
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:   12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:           8                8                8                8
% Hev Veh:             0                0                0                0
Grade:                0%               0%               0%               0%
Parking/Hr:           No               No               No               No
Bus Stp/Hr:            0                0                0                0
Area Type:    < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > >
Cnft Ped/Hr:           0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:            0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:     1 xxxx  xxxx     1 xxxx  xxxx     5    5  xxxx     5    5  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Hev Veh Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Grade Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Parking Adj: xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00
Bus Stp Adj: xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00
Area Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
RT Adj:      xxxx xxxx  0.85  xxxx xxxx  0.85  xxxx xxxx  0.85  xxxx xxxx  0.85
LT Adj:      0.95 xxxx xxxxx  0.95 xxxx xxxxx  0.65 0.65 xxxxx  0.70 0.70 xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.95 1.00  0.85  0.95 1.00  0.85  0.65 0.65  0.85  0.70 0.70  0.85
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 0.97 0.91  1.00  1.00 0.95  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Fnl Sat Adj: 0.92 0.91  0.85  0.95 0.95  0.85  0.65 0.65  0.85  0.70 0.70  0.85
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
```

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #17 Harrison Street (NS) / Airport Boulevard (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	100	100
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	39.62	39.62
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	39.62	39.62
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	39.62	39.62
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	1	1
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	1	1
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	130	74
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	0.37	0.28
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	3.61	2.06
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	261	353
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	7.25	9.81
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	1.00	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	4.00	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	0.33	5.03
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	0.60	0.60
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	6.24	10.73
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	33.38	28.89
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	0.71	0.65
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	0.37	0.28
Through-car Equivalents, el1:	xxxxxx	xxxxxx	1.82	2.01
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	0.07	0.06
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	0.65	0.70
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	0.65	0.70

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #17 Harrison Street (NS) / Airport Boulevard (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.04	0.35	0.35	0.14	0.44	0.44	0.40	0.40	0.40	0.40	0.40	0.40
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	1.4	11.4	1.5	4.7	13.0	1.4	8.3	8.3	1.4	5.5	5.5	3.6
UpstreamVC:	0.00	0.00	0.00	0.88	0.88	0.88	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.35	0.35	0.35	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	0.11	0.23	0.21	1.00	1.00	1.00	1.00	1.00	1.00
Q2:	1.5	2.3	0.2	0.3	0.5	0.0	2.2	2.2	0.1	1.0	1.0	0.4
HCM2KQueue:	2.9	13.7	1.6	5.0	13.6	1.4	10.5	10.5	1.5	6.4	6.4	4.0
70th%Factor:	1.19	1.17	1.20	1.19	1.17	1.20	1.18	1.18	1.20	1.19	1.19	1.19
HCM2k70thQ:	3.4	16.1	1.9	5.9	15.9	1.7	12.4	12.4	1.8	7.6	7.6	4.7
85th%Factor:	1.57	1.49	1.58	1.55	1.49	1.59	1.51	1.51	1.59	1.54	1.54	1.56
HCM2k85thQ:	4.5	20.4	2.6	7.7	20.2	2.3	15.9	15.9	2.4	9.9	9.9	6.2
90th%Factor:	1.75	1.60	1.77	1.71	1.60	1.77	1.64	1.64	1.77	1.69	1.69	1.73
HCM2k90thQ:	5.0	22.0	2.9	8.5	21.7	2.5	17.2	17.2	2.7	10.8	10.8	6.9
95th%Factor:	2.01	1.78	2.05	1.95	1.78	2.05	1.83	1.83	2.05	1.92	1.92	1.98
HCM2k95thQ:	5.8	24.4	3.3	9.7	24.2	2.9	19.3	19.3	3.1	12.3	12.3	7.9
98th%Factor:	2.50	2.05	2.58	2.38	2.05	2.60	2.15	2.15	2.59	2.31	2.31	2.44
HCM2k98thQ:	7.2	28.1	4.2	11.9	27.8	3.7	22.6	22.6	4.0	14.8	14.8	9.7

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #17 Harrison Street (NS) / Airport Boulevard (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	24.2	280	13.2	42.3	223	12.6	27.4	47.0	12.5	13.9	35.2	32.1

Name: year 1995 composite fleet
Fuel Consumption: 119.688 pounds
19.389 gallons
Carbon Dioxide: 373.426 pounds
Carbon Monoxide: 29.639 pounds
Hydrocarbons: 5.504 pounds
Nitrogen Oxides: 1.048 pounds

Name: year 2000 composite fleet
Fuel Consumption: 119.688 pounds
19.389 gallons
Carbon Dioxide: 373.426 pounds
Carbon Monoxide: 29.639 pounds
Hydrocarbons: 5.504 pounds
Nitrogen Oxides: 1.048 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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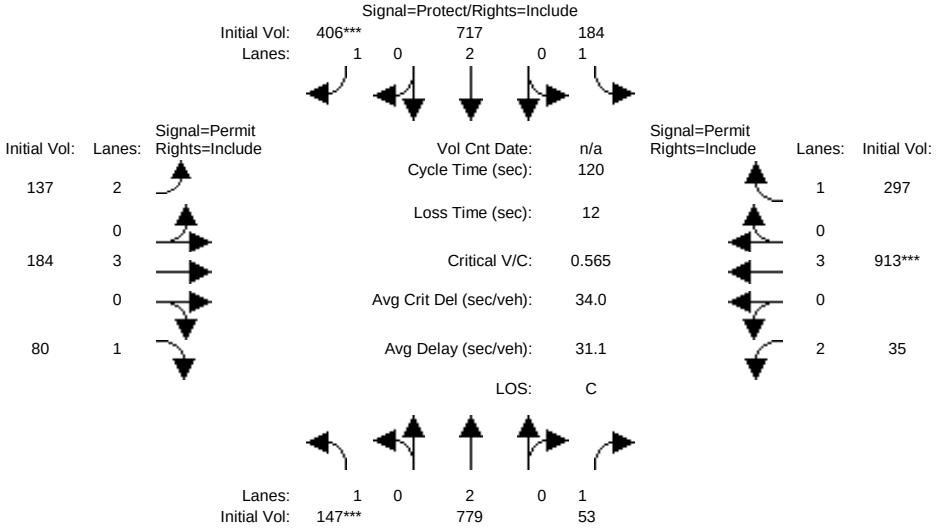
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #18: SR-86S (NS) / Airport Boulevard (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	147	779	53	184	717	406	137	184	80	35	913	297
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	147	779	53	184	717	406	137	184	80	35	913	297
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	147	779	53	184	717	406	137	184	80	35	913	297
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	147	779	53	184	717	406	137	184	80	35	913	297
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	779	53	184	717	406	137	184	80	35	913	297
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	147	779	53	184	717	406	137	184	80	35	913	297
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.28	0.91	0.85	0.40	0.91	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	2.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	1065	5187	1615	1522	5187	1615
Capacity Analysis Module:												
Vol/Sat:	0.08	0.22	0.03	0.10	0.20	0.25	0.13	0.04	0.05	0.02	0.18	0.18
Crit Moves:	****					****					****	
Green/Cycle:	0.14	0.40	0.40	0.19	0.44	0.44	0.31	0.31	0.31	0.31	0.31	0.31
Volume/Cap:	0.57	0.54	0.08	0.54	0.45	0.57	0.41	0.11	0.16	0.07	0.57	0.59
Delay/Veh:	50.7	28.0	22.4	45.7	23.3	25.8	33.5	29.5	30.1	29.2	35.0	36.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.7	28.0	22.4	45.7	23.3	25.8	33.5	29.5	30.1	29.2	35.0	36.7
LOS by Move:	D	C	C	D	C	C	C	C	C	C	D	D
HCM2kAvgQ:	6	12	1	7	10	11	3	2	2	1	11	10

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1 0	2 0	1	1 0	2 0	1	2 0	3 0	1	2 0	3 0	1
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	1	2	1	1	2	1	2	3	1	2	3	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < Other						> > > > > > > > > > > > > > > > > >					
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1 xxxx	xxxx		1 xxxx	xxxx		2 xxxx	xxxx		2 xxxx	xxxx	
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.29	xxxx	xxxxx	0.41	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.29	1.00	0.85	0.41	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Fnl Sat Adj:	0.95	0.95	0.85	0.95	0.95	0.85	0.28	0.91	0.85	0.40	0.91	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < No						> > > > > > > > > > > > > > > > > >					
Signal Type:	< < < < < < < < < < < < < Actuated						> > > > > > > > > > > > > > > > > >					
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #18 SR-86S (NS) / Airport Boulevard (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	120	120
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	37.36	37.36
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	37.36	37.36
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	37.36	37.36
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	3	3
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	2	2
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	137	35
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	4.57	1.17
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	913	184
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	11.15	2.25
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	1.00	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	4.00	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	0.00	0.00
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	0.69	0.69
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	14.86	0.00
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	22.50	37.36
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	0.30	0.76
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	4.39	2.36
Through-car Equivalents, el1:	xxxxxx	xxxxxx	3.31	1.60
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	0.29	0.18
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	0.29	0.41
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	0.29	0.41

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #18 SR-86S (NS) / Airport Boulevard (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.14	0.40	0.40	0.19	0.44	0.44	0.31	0.31	0.31	0.31	0.31	0.31
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	4.6	10.5	1.1	5.5	8.7	10.0	1.9	1.6	1.9	0.4	9.3	8.4
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q2:	1.2	1.1	0.1	1.1	0.8	1.3	0.7	0.1	0.2	0.1	1.3	1.4
HCM2KQueue:	5.8	11.6	1.2	6.6	9.5	11.3	2.5	1.7	2.1	0.5	10.6	9.7
70th%Factor:	1.19	1.17	1.20	1.18	1.18	1.18	1.19	1.20	1.19	1.20	1.18	1.18
HCM2k70thQ:	6.8	13.6	1.4	7.9	11.2	13.3	3.0	2.1	2.5	0.6	12.4	11.5
85th%Factor:	1.55	1.50	1.59	1.54	1.52	1.51	1.58	1.58	1.58	1.60	1.51	1.52
HCM2k85thQ:	8.9	17.4	1.9	10.2	14.4	17.0	4.0	2.7	3.3	0.8	16.0	14.8
90th%Factor:	1.70	1.62	1.78	1.69	1.65	1.63	1.75	1.77	1.76	1.79	1.64	1.65
HCM2k90thQ:	9.8	18.8	2.1	11.2	15.7	18.4	4.4	3.1	3.7	0.9	17.3	16.0
95th%Factor:	1.94	1.81	2.06	1.91	1.85	1.82	2.02	2.04	2.03	2.08	1.83	1.85
HCM2k95thQ:	11.2	21.1	2.4	12.7	17.6	20.6	5.1	3.5	4.3	1.0	19.4	18.0
98th%Factor:	2.34	2.11	2.61	2.30	2.18	2.12	2.52	2.58	2.55	2.66	2.14	2.17
HCM2k98thQ:	13.5	24.5	3.1	15.3	20.7	23.9	6.4	4.5	5.4	1.3	22.7	21.1

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #18 SR-86S (NS) / Airport Boulevard (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	34.2	149	8.2	41.5	124	75.3	27.1	32.8	14.5	6.2	191	62.7

Name: year 1995 composite fleet
Fuel Consumption: 133.621 pounds
21.647 gallons
Carbon Dioxide: 416.897 pounds
Carbon Monoxide: 33.377 pounds
Hydrocarbons: 6.311 pounds
Nitrogen Oxides: 1.126 pounds

Name: year 2000 composite fleet
Fuel Consumption: 133.621 pounds
21.647 gallons
Carbon Dioxide: 416.897 pounds
Carbon Monoxide: 33.377 pounds
Hydrocarbons: 6.311 pounds
Nitrogen Oxides: 1.126 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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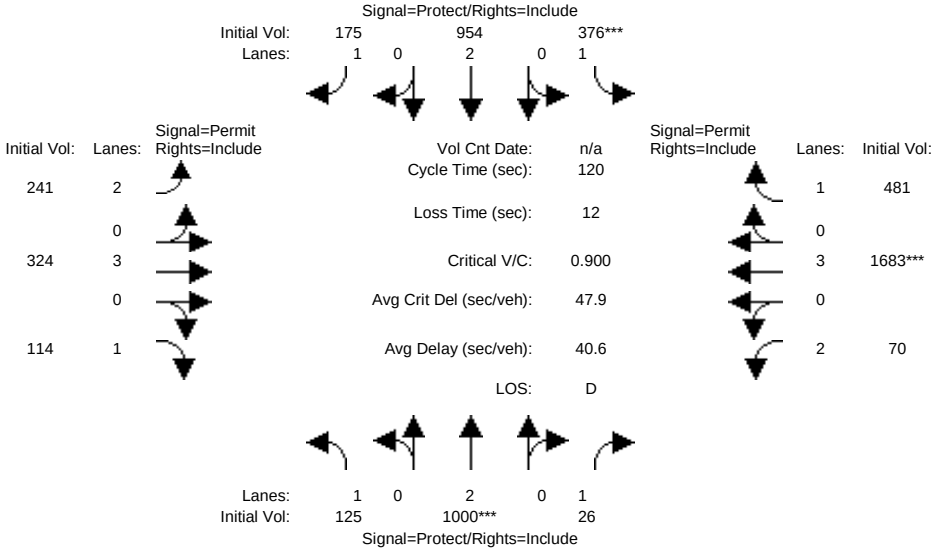
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (Future Volume Alternative)
General Plan PM

Intersection #18: SR-86S (NS) / Airport Boulevard (EW)




```
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     125 1000    26   376  954   175   241  324   114    70 1683   481
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  125 1000    26   376  954   175   241  324   114    70 1683   481
Added Vol:      0    0     0     0    0     0     0    0     0     0    0     0
PasserByVol:    0    0     0     0    0     0     0    0     0     0    0     0
Initial Fut:  125 1000    26   376  954   175   241  324   114    70 1683   481
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:   125 1000    26   376  954   175   241  324   114    70 1683   481
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  125 1000    26   376  954   175   241  324   114    70 1683   481
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  125 1000    26   376  954   175   241  324   114    70 1683   481
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.95  0.85  0.95 0.95  0.85  0.46 0.91  0.85  0.30 0.91  0.85
Lanes:       1.00 2.00  1.00  1.00 2.00  1.00  2.00 3.00  1.00  2.00 3.00  1.00
Final Sat.:  1805 3610  1615  1805 3610  1615  1755 5187  1615  1124 5187  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.07 0.28  0.02  0.21 0.26  0.11  0.14 0.06  0.07  0.06 0.32  0.30
Crit Moves:       ****        ****                             ****
Green/Cycle: 0.11 0.31  0.31  0.23 0.43  0.43  0.36 0.36  0.36  0.36 0.36  0.36
Volume/Cap:  0.62 0.90  0.05  0.90 0.62  0.25  0.38 0.17  0.20  0.17 0.90  0.83
Delay/Veh:   56.5 49.7  29.3  66.6 27.5  22.3  28.8 26.2  26.6  26.4 42.7  44.4
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  56.5 49.7  29.3  66.6 27.5  22.3  28.8 26.2  26.6  26.4 42.7  44.4
LOS by Move:    E    D     C     E    C     C     C    C     C     C    D     D
HCM2kAvgQ:      5   22     1    17   15     4     4    3     3     1   25    18
Note: Queue reported is the number of cars per lane.
------------|---------------||---------------||---------------||---------------|
HCM Ops Adjusted Lane Utilization Module:
Lanes:        1  0  2  0  1    1  0  2  0  1    2  0  3  0  1    2  0  3  0  1
Lane Group:    L    T     R     L    T     R     L    T     R     L    T     R
#LnsInGrps:     1    2     1     1    2     1     2    3     1     2    3     1
------------|---------------||---------------||---------------||---------------|
HCM Ops Input Saturation Adj Module:
Lane Width:    12   12    12    12   12    12    12   12    12    12   12    12
CrsswalkWid:          8                8                8                8
% Hev Veh:            0                0                0                0
Grade:               0%               0%               0%               0%
Parking/Hr:          No               No               No               No
Bus Stp/Hr:           0                0                0                0
Area Type:    < < < < < < < < < < < < < < < Other  > > > > > > > > > > > > > > > >
Cnft Ped/Hr:          0                0                0                0
ExclusiveRT:     Include          Include          Include          Include
% RT Prtct:           0                0                0                0
------------|---------------||---------------||---------------||---------------|
HCM Ops f(lt) Adj Case Module:
f(lt) Case:     1 xxxx  xxxx     1 xxxx  xxxx     2 xxxx  xxxx     2 xxxx  xxxx
------------|---------------||---------------||---------------||---------------|
HCM Ops Saturation Adj Module:
Ln Wid Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Hev Veh Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Grade Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Parking Adj: xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00
Bus Stp Adj: xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00  xxxx xxxx  1.00
Area Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
RT Adj:      xxxx xxxx  0.85  xxxx xxxx  0.85  xxxx xxxx  0.85  xxxx xxxx  0.85
LT Adj:      0.95 xxxx xxxxx  0.95 xxxx xxxxx  0.48 xxxx xxxxx  0.31 xxxx xxxxx
PedBike Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
HCM Sat Adj: 0.95 1.00  0.85  0.95 1.00  0.85  0.48 1.00  0.85  0.31 1.00  0.85
Usr Sat Adj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Sat Adj: 1.00 0.95  1.00  1.00 0.95  1.00  0.97 0.91  1.00  0.97 0.91  1.00
Fnl Sat Adj: 0.95 0.95  0.85  0.95 0.95  0.85  0.46 0.91  0.85  0.30 0.91  0.85
------------|---------------||---------------||---------------||---------------|
Delay Adjustment Factor Module:
Coordinated:  < < < < < < < < < < < < <  No  > > > > > > > > > > > > > > > > > >
Signal Type:  < < < < < < < < < < < <     Actuated     > > > > > > > > > > > > >
DelAdjFctr:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #18 SR-86S (NS) / Airport Boulevard (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	120	120
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	43.27	43.27
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	43.27	43.27
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	43.27	43.27
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	3	3
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	2	2
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	241	70
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	8.03	2.33
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	1683	324
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	20.55	3.96
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	1.00	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	4.00	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	0.00	0.00
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	0.64	0.64
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	35.97	1.42
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	7.30	41.85
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	0.00	0.67
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	9.30	2.60
Through-car Equivalents, el1:	xxxxxx	xxxxxx	7.49	1.83
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	0.48	0.17
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	0.48	0.31
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	0.48	0.31

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

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Intersection #18 SR-86S (NS) / Airport Boulevard (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.11	0.31	0.31	0.23	0.43	0.43	0.36	0.36	0.36	0.36	0.36	0.36
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	4.0	16.8	0.6	12.2	13.0	3.7	3.1	2.7	2.6	0.8	19.4	14.6
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q2:	1.4	5.2	0.1	4.7	1.6	0.3	0.6	0.2	0.2	0.2	5.5	3.7
HCM2KQueue:	5.4	22.0	0.7	16.9	14.6	4.1	3.7	2.9	2.9	1.0	24.9	18.3
70th%Factor:	1.19	1.16	1.20	1.17	1.17	1.19	1.19	1.19	1.19	1.20	1.15	1.16
HCM2k70thQ:	6.4	25.5	0.8	19.7	17.1	4.9	4.4	3.5	3.4	1.2	28.8	21.3
85th%Factor:	1.55	1.44	1.59	1.47	1.48	1.56	1.57	1.57	1.57	1.59	1.43	1.46
HCM2k85thQ:	8.4	31.8	1.1	24.8	21.6	6.4	5.7	4.6	4.5	1.6	35.7	26.7
90th%Factor:	1.71	1.53	1.79	1.57	1.59	1.73	1.73	1.75	1.75	1.78	1.52	1.56
HCM2k90thQ:	9.2	33.8	1.2	26.5	23.2	7.0	6.4	5.1	5.0	1.8	37.8	28.5
95th%Factor:	1.94	1.68	2.08	1.73	1.77	1.98	1.99	2.01	2.01	2.07	1.65	1.72
HCM2k95thQ:	10.5	36.9	1.4	29.3	25.8	8.1	7.3	5.8	5.7	2.1	41.1	31.4
98th%Factor:	2.36	1.88	2.65	1.97	2.03	2.43	2.45	2.50	2.50	2.62	1.85	1.95
HCM2k98thQ:	12.7	41.5	1.8	33.3	29.5	9.9	9.0	7.3	7.1	2.7	46.0	35.6

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

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Intersection #18 SR-86S (NS) / Airport Boulevard (EW)

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	29.8	239	4.6	91.2	186	28.1	44.7	55.2	19.6	11.9	398	109.5

Name: year 1995 composite fleet
Fuel Consumption: 227.382 pounds
36.836 gallons
Carbon Dioxide: 709.431 pounds
Carbon Monoxide: 58.042 pounds
Hydrocarbons: 11.357 pounds
Nitrogen Oxides: 1.830 pounds

Name: year 2000 composite fleet
Fuel Consumption: 227.382 pounds
36.836 gallons
Carbon Dioxide: 709.431 pounds
Carbon Monoxide: 58.042 pounds
Hydrocarbons: 11.357 pounds
Nitrogen Oxides: 1.830 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design Future Volume Alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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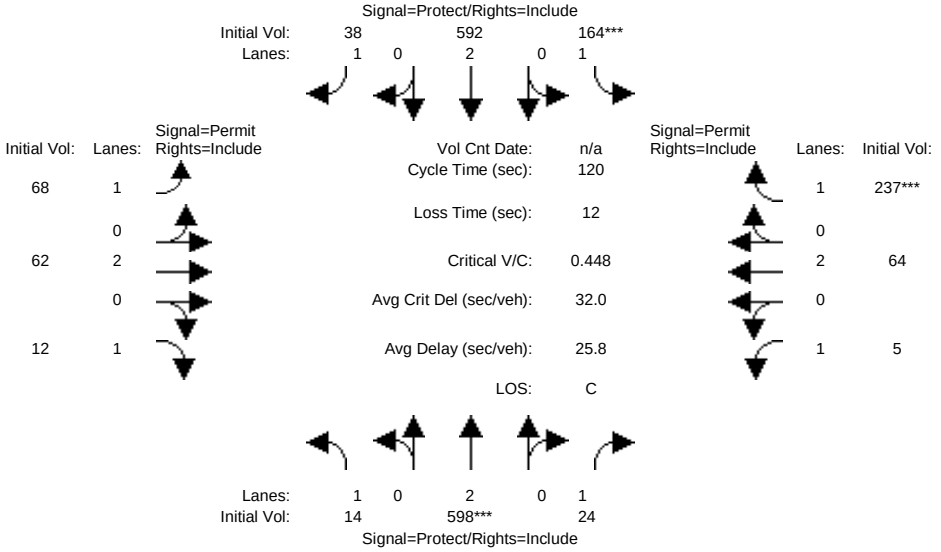
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan AM

Intersection #19: SR-86S (NS) / 62nd Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	14	598	24	164	592	38	68	62	12	5	64	237
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	14	598	24	164	592	38	68	62	12	5	64	237
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	14	598	24	164	592	38	68	62	12	5	64	237
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	14	598	24	164	592	38	68	62	12	5	64	237
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	598	24	164	592	38	68	62	12	5	64	237
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	14	598	24	164	592	38	68	62	12	5	64	237
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	0.71	0.95	0.85	0.72	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	1357	3610	1615	1360	3610	1615
Capacity Analysis Module:												
Vol/Sat:	0.01	0.17	0.01	0.09	0.16	0.02	0.05	0.02	0.01	0.00	0.02	0.15
Crit Moves:		****		****								****
Green/Cycle:	0.03	0.37	0.37	0.20	0.55	0.55	0.33	0.33	0.33	0.33	0.33	0.33
Volume/Cap:	0.30	0.45	0.04	0.45	0.30	0.04	0.15	0.05	0.02	0.01	0.05	0.45
Delay/Veh:	61.0	28.8	24.2	42.8	14.8	12.7	28.7	27.6	27.4	27.2	27.6	32.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	61.0	28.8	24.2	42.8	14.8	12.7	28.7	27.6	27.4	27.2	27.6	32.4
LOS by Move:	E	C	C	D	B	B	C	C	C	C	C	C
HCM2kAvgQ:	1	9	1	6	6	1	2	1	0	0	1	7

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	1	2	1	1	2	1	1	2	1	1	2	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:	8			8			8			8		
% Hev Veh:	0			0			0			0		
Grade:	0%			0%			0%			0%		
Parking/Hr:	No			No			No			No		
Bus Stp/Hr:	0			0			0			0		
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:	0			0			0			0		
ExclusiveRT:	Include			Include			Include			Include		
% RT Prtct:	0			0			0			0		
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	2	xxxx	xxxx	2	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	0.71	xxxx	xxxxx	0.72	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	0.71	1.00	0.85	0.72	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fnl Sat Adj:	0.95	0.95	0.85	0.95	0.95	0.85	0.71	0.95	0.85	0.72	0.95	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #19 SR-86S (NS) / 62nd Avenue (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	120	120
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	39.30	39.30
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	39.30	39.30
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	39.30	39.30
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	2	2
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	1	1
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	68	5
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	1.00	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	2.27	0.17
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	64	62
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	1.12	1.09
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	1.00	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	4.00	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	0.00	0.00
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	0.67	0.67
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	0.00	0.00
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	39.30	39.30
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	0.84	0.84
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	1.00	1.00
Through-car Equivalents, el1:	xxxxxx	xxxxxx	1.40	1.40
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	0.10	0.10
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	0.71	0.72
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	0.71	0.72

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #19 SR-86S (NS) / 62nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.03	0.37	0.37	0.20	0.55	0.55	0.33	0.33	0.33	0.33	0.33	0.33
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.5	7.9	0.5	4.8	5.6	0.6	1.6	0.7	0.3	0.1	0.8	6.2
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q2:	0.4	0.8	0.0	0.8	0.4	0.0	0.2	0.1	0.0	0.0	0.1	0.8
HCM2KQueue:	0.8	8.7	0.6	5.6	6.1	0.6	1.8	0.8	0.3	0.1	0.8	7.0
70th%Factor:	1.20	1.18	1.20	1.19	1.19	1.20	1.20	1.20	1.20	1.20	1.20	1.18
HCM2k70thQ:	1.0	10.3	0.7	6.6	7.2	0.8	2.1	1.0	0.4	0.1	1.0	8.3
85th%Factor:	1.59	1.52	1.59	1.55	1.55	1.59	1.58	1.59	1.60	1.60	1.59	1.54
HCM2k85thQ:	1.4	13.3	0.9	8.6	9.4	1.0	2.8	1.3	0.5	0.2	1.3	10.8
90th%Factor:	1.78	1.66	1.79	1.70	1.70	1.79	1.77	1.78	1.79	1.80	1.78	1.68
HCM2k90thQ:	1.5	14.5	1.0	9.5	10.3	1.1	3.2	1.4	0.5	0.2	1.5	11.8
95th%Factor:	2.07	1.87	2.08	1.94	1.93	2.08	2.04	2.07	2.09	2.10	2.07	1.91
HCM2k95thQ:	1.8	16.3	1.2	10.8	11.7	1.3	3.6	1.7	0.6	0.3	1.7	13.4
98th%Factor:	2.64	2.21	2.66	2.35	2.33	2.65	2.57	2.64	2.68	2.69	2.64	2.28
HCM2k98thQ:	2.2	19.3	1.5	13.1	14.1	1.7	4.6	2.1	0.8	0.3	2.2	16.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #19 SR-86S (NS) / 62nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	3.4	113	3.8	36.0	80.3	4.4	12.0	10.6	2.0	0.8	11.0	46.7

Name: year 1995 composite fleet
Fuel Consumption: 56.470 pounds
9.148 gallons
Carbon Dioxide: 176.185 pounds
Carbon Monoxide: 13.876 pounds
Hydrocarbons: 2.559 pounds
Nitrogen Oxides: 0.486 pounds

Name: year 2000 composite fleet
Fuel Consumption: 56.470 pounds
9.148 gallons
Carbon Dioxide: 176.185 pounds
Carbon Monoxide: 13.876 pounds
Hydrocarbons: 2.559 pounds
Nitrogen Oxides: 0.486 pounds

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The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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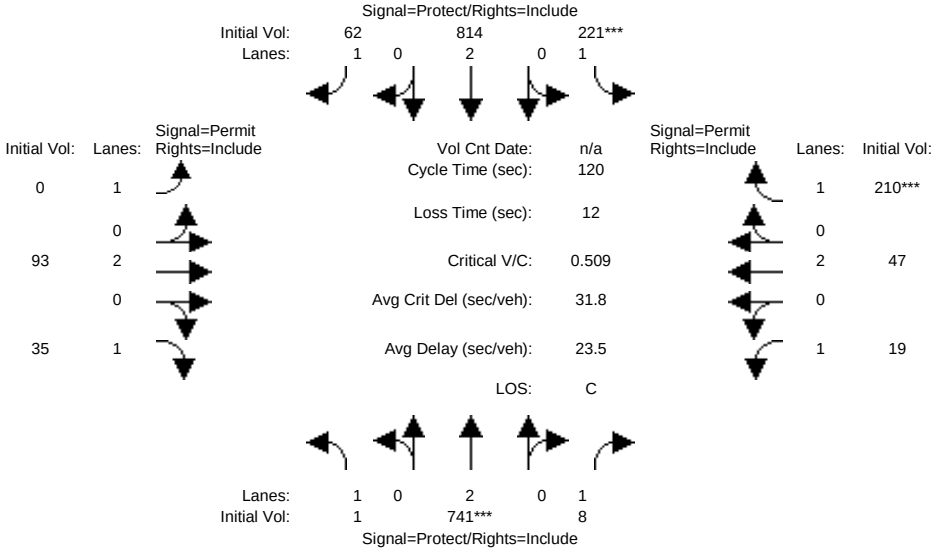
Coachella General Plan Traffic Study
General Plan Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Operations (alternative)
General Plan PM

Intersection #19: SR-86S (NS) / 62nd Avenue (EW)



Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module:												
Base Vol:	1	741	8	221	814	62	0	93	35	19	47	210
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	741	8	221	814	62	0	93	35	19	47	210
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	741	8	221	814	62	0	93	35	19	47	210
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	1	741	8	221	814	62	0	93	35	19	47	210
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	1	741	8	221	814	62	0	93	35	19	47	210
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	1	741	8	221	814	62	0	93	35	19	47	210
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.95	0.85	1.00	0.95	0.85	0.69	0.95	0.85
Lanes:	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1805	3610	1615	1805	3610	1615	1900	3610	1615	1313	3610	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.21	0.00	0.12	0.23	0.04	0.00	0.03	0.02	0.01	0.01	0.13
Crit Moves:		****		****								****
Green/Cycle:	0.00	0.40	0.40	0.24	0.64	0.64	0.00	0.26	0.26	0.26	0.26	0.26
Volume/Cap:	0.35	0.51	0.01	0.51	0.35	0.06	0.00	0.10	0.08	0.06	0.05	0.51
Delay/Veh:	121.8	27.2	21.5	40.4	10.0	8.0	0.0	34.2	34.1	33.8	33.7	39.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	121.8	27.2	21.5	40.4	10.0	8.0	0.0	34.2	34.1	33.8	33.7	39.3
LOS by Move:	F	C	C	D	A	A	A	C	C	C	C	D
HCM2kAvgQ:	0	11	0	7	7	1	0	1	1	1	1	7

Note: Queue reported is the number of cars per lane.

HCM Ops Adjusted Lane Utilization Module:												
Lanes:	1	0	2	0	1	1	0	2	0	1	1	0	2	0	1
Lane Group:	L	T	R	L	T	R	L	T	R	L	T	R
#LnsInGrps:	1	2	1	1	2	1	1	2	1	1	2	1
HCM Ops Input Saturation Adj Module:												
Lane Width:	12	12	12	12	12	12	12	12	12	12	12	12
CrsswalkWid:		8			8			8			8	
% Hev Veh:		0			0			0			0	
Grade:		0%			0%			0%			0%	
Parking/Hr:		No			No			No			No	
Bus Stp/Hr:		0			0			0			0	
Area Type:	< < < < < < < < < < < < < < < Other > > > > > > > > > > > > > > > > > > >											
Cnft Ped/Hr:		0			0			0			0	
ExclusiveRT:		Include			Include			Include			Include	
% RT Prtct:		0			0			0			0	
HCM Ops f(lt) Adj Case Module:												
f(lt) Case:	1	xxxx	xxxx	1	xxxx	xxxx	xxxx	xxxx	xxxx	2	xxxx	xxxx
HCM Ops Saturation Adj Module:												
Ln Wid Adj:	1.00	1.00	1.00	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	1.00
Hev Veh Adj:	1.00	1.00	1.00	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	1.00
Grade Adj:	1.00	1.00	1.00	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	1.00
Parking Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Bus Stp Adj:	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00	xxxx	xxxx	1.00
Area Adj:	1.00	1.00	1.00	1.00	1.00	1.00	xxxx	1.00	1.00	1.00	1.00	1.00
RT Adj:	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85	xxxx	xxxx	0.85
LT Adj:	0.95	xxxx	xxxxx	0.95	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.69	xxxx	xxxxx
PedBike Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
HCM Sat Adj:	0.95	1.00	0.85	0.95	1.00	0.85	1.00	1.00	0.85	0.69	1.00	0.85
Usr Sat Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Sat Adj:	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fnl Sat Adj:	0.95	0.95	0.85	0.95	0.95	0.85	1.00	0.95	0.85	0.69	0.95	0.85
Delay Adjustment Factor Module:												
Coordinated:	< < < < < < < < < < < < < < < No > > > > > > > > > > > > > > > > > > >											
Signal Type:	< < < < < < < < < < < < < Actuated > > > > > > > > > > > > > > >											
DelAdjFctr:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00

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Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

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Intersection #19 SR-86S (NS) / 62nd Avenue (EW)

****

Approach:	North	South	East	West
Cycle Length, C:	xxxxxx	xxxxxx	xxxxxx	120
Actual Green Time Per Lane Group, G:	xxxxxx	xxxxxx	xxxxxx	30.68
Effective Green Time Per Lane Group, g:	xxxxxx	xxxxxx	xxxxxx	30.68
Opposing Effective Green Time, go:	xxxxxx	xxxxxx	xxxxxx	30.68
Number Of Opposing Lanes, No:	xxxxxx	xxxxxx	xxxxxx	2
Number Of Lanes In Lane Group, N:	xxxxxx	xxxxxx	xxxxxx	1
Adjusted Left-Turn Flow Rate, Vlt:	xxxxxx	xxxxxx	xxxxxx	19
Proportion of Left Turns in Lane Group, Plt:	xxxxxx	xxxxxx	xxxxxx	1.00
Proportion of Left Turns in Opp Flow, Plto:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left Turns Per Cycle, LTC:	xxxxxx	xxxxxx	xxxxxx	0.63
Adjusted Opposing Flow Rate, Vo:	xxxxxx	xxxxxx	xxxxxx	93
Opposing Flow Per Lane Per Cycle, Volc:	xxxxxx	xxxxxx	xxxxxx	1.63
Opposing Platoon Ratio, Rpo:	xxxxxx	xxxxxx	xxxxxx	1.00
Lost Time Per Phase, tl:	xxxxxx	xxxxxx	xxxxxx	4.00
Eff grn until arrival of left-turn car, gf:	xxxxxx	xxxxxx	xxxxxx	0.00
Opposing Queue Ratio, qro:	xxxxxx	xxxxxx	xxxxxx	0.74
Eff grn blocked by opposing queue, gq:	xxxxxx	xxxxxx	xxxxxx	0.00
Eff grn while left turns filter thru, gu:	xxxxxx	xxxxxx	xxxxxx	30.68
Max opposing cars arriving during gq-gf, n:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Proportion of Opposing Thru & RT cars, ptho:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Left-turn Saturation Factor, fs:	xxxxxx	xxxxxx	xxxxxx	0.82
Proportion of Left Turns in Shared Lane, pl:	xxxxxx	xxxxxx	xxxxxx	1.00
Through-car Equivalents, el1:	xxxxxx	xxxxxx	xxxxxx	1.45
Single Lane Through-car Equivalents, el2:	xxxxxx	xxxxxx	xxxxxx	xxxxxx
Minimum Left Turn Adjustment Factor, fmin:	xxxxxx	xxxxxx	xxxxxx	0.13
Single Lane Left Turn Adjustment Factor, fm:	xxxxxx	xxxxxx	xxxxxx	0.69
Left Turn Adjustment Factor, flt:	xxxxxx	xxxxxx	xxxxxx	0.69

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

****

Intersection #19 SR-86S (NS) / 62nd Avenue (EW)

****

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Green/Cycle:	0.00	0.40	0.40	0.24	0.64	0.64	0.00	0.26	0.26	0.26	0.26	0.26
ArrivalType:		3			3			3			3	
ProgFactor:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Q1:	0.0	9.8	0.2	6.4	6.6	0.8	0.0	1.2	0.9	0.5	0.6	6.0
UpstreamVC:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UpstreamAdj:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EarlyArrAdj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00
Q2:	0.3	1.0	0.0	1.0	0.5	0.1	0.0	0.1	0.1	0.1	0.1	1.0
HCM2KQueue:	0.3	10.8	0.2	7.4	7.1	0.8	0.0	1.4	1.0	0.5	0.7	7.0
70th%Factor:	1.20	1.18	1.20	1.18	1.18	1.20	1.20	1.20	1.20	1.20	1.20	1.18
HCM2k70thQ:	0.3	12.7	0.2	8.7	8.4	1.0	0.0	1.6	1.2	0.6	0.8	8.3
85th%Factor:	1.60	1.51	1.60	1.53	1.54	1.59	1.60	1.59	1.59	1.59	1.59	1.54
HCM2k85thQ:	0.5	16.3	0.3	11.3	10.9	1.3	0.0	2.2	1.6	0.9	1.1	10.7
90th%Factor:	1.79	1.63	1.80	1.68	1.68	1.78	1.80	1.77	1.78	1.79	1.79	1.68
HCM2k90thQ:	0.5	17.6	0.3	12.4	12.0	1.5	0.0	2.4	1.7	1.0	1.2	11.7
95th%Factor:	2.09	1.83	2.09	1.90	1.90	2.07	2.10	2.06	2.07	2.08	2.08	1.91
HCM2k95thQ:	0.6	19.7	0.4	14.0	13.6	1.7	0.0	2.8	2.0	1.1	1.4	13.3
98th%Factor:	2.68	2.14	2.69	2.27	2.28	2.64	2.70	2.60	2.63	2.66	2.65	2.28
HCM2k98thQ:	0.8	23.0	0.5	16.7	16.2	2.2	0.0	3.5	2.6	1.4	1.8	16.0

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

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Intersection #19 SR-86S (NS) / 62nd Avenue (EW)

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Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Run Speed:	30 MPH			30 MPH			30 MPH			30 MPH		
NumOfStops:	0.2	139	1.2	47.8	93.9	5.8	0.0	17.8	6.7	3.6	8.9	44.9

Name: year 1995 composite fleet
Fuel Consumption: 63.754 pounds
10.328 gallons
Carbon Dioxide: 198.913 pounds
Carbon Monoxide: 15.524 pounds
Hydrocarbons: 2.821 pounds
Nitrogen Oxides: 0.557 pounds

Name: year 2000 composite fleet
Fuel Consumption: 63.754 pounds
10.328 gallons
Carbon Dioxide: 198.913 pounds
Carbon Monoxide: 15.524 pounds
Hydrocarbons: 2.821 pounds
Nitrogen Oxides: 0.557 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

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